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# VOLUME XIX.

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## THE

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# The Educational Review.

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The attention of our subscribers is directed to the business notice on another page.

An index to volume eighteen accompanies this number of the Review. We hope our subscribers bind the Review and keep it for future reference.

THERE will be no REVIEW for July, but the next number will be issued about the first of August, instead of the tenth. During the coming year the date of publication will be on the first of each month. Intending contributors and advertisers should make a note of this. DR. J. R. INCH, Superintendent of Education for New Brunswick, will be one of the speakers at the American Institute of Instruction which meets at Portland, Maine, July 10 to 13.

CONSIDERABLE space is given up in this number to the work done by the colleges during the past year. Such a record of progress in the higher education is gratifying.

The death of Mr. John McMillan, head of the firm of Messrs, J. & A. McMillan, of St. John, has caused a widespread feeling of regret. Of a noble presence, there was added rare kindliness and courtesy of manner. He had endeared himself to a large circle, not only by his genial and manly nature, but by the strict integrity in all business relations which characterized an old and bonorable firm.

Few teachers are permitted to celebrate the jubilee of their entrance upon work. Rev. Dr. Sawyer has seen graduates go out from Acadia College for the past fifty years. He has helped largely to shape the destinies of many lives, to mould character, and present, by his own example and teachings, high ideals of manliness and Christian life. The results of his quiet influence and broad culture are felt to-day by hundreds of men and women who regard him with respect and affection.

THE REVIEW extends its congratulations to Dr. John Brittain, director of the Macdonald rural schools in New Brunswick, and to Mrs. J. S. Armstrong, A. M., of the "Netherwood" school. These were the recipients of honorary degrees at the recent Encœnia of the University of New Brunswick. The honors were well deserved and will be warmly approved of in educational circles.

Not less hearty are the congratulations to F. II. Eaton, superintendent of schools for Victoria, B. C., who received the degree of D. C. L. at the closing exercises of Acadia University last week. Dr. Eaton is fittingly remembered for his former excellent work in the Nova Scotia Normal School, and he is regarded as one of the strongest and most capable men in educational circles in the West.

WITH this number the REVIEW enters upon its nineteenth volume. The aim will be to make it this year still more useful to its readers, who are now found in increasing numbers in every province of the Dominion.

The Summer School of Science will meet this year at Yarmouth, from Tucsday, July 11th, to Friday, July 28th. The location is an admirable one, easy of access, and combining many attractive features of scenery and climate which will make it a pleasant recreation spot for those who attend. Our advertising columns will give some information to those who are interested. The calendar, which gives the courses of study and other information, may be had by writing to the secretary, Mr. W. R. Campbell, Truro. Instruction and recreation are so well combined in the Summer School that teachers especially will find it of great advantage to take the course during their vacation.

Dr. A. H. MacKay, Superintendent of Education, Halifax, was one of the speakers at the teachers' convention in Ottawa on the 25th of May. Two days were given up to papers and discussions on nature-study, which just now is attracting great attention throughout Ontario. Dr. MacKay's address on the nature-study movement in Nova Scotia was an excellent one, and aroused the enthusiasm of his auditors. Other noted speakers were Professor J. W. Robertson, Dr. Jas. Fletcher, Dr. Sinclair and Professor Hodge, of Worcester, Mass.

Devoting the whole time of a teachers' convention for two days to such an important subject as nature-study seems worthy of imitation elsewhere.

#### The Treatment of the Insane.

How those unfortunate people, deprived of their reason, appeal to our sympathies! Years ago the writer visited an insame asylum and the remembrance of it haunts him still. Men and women, sitting with folded hands day after day without occupation; others more violent confined in straight jackets and filling the air with curses and lamentations. How different the treatment now—and the results.

A few days ago a brief visit was paid to the Lunatic Asylum at Verdun, near Montreal, at the head of which is Dr. T. J. W. Burgess, an old friend. Imagine a fine spacious building, every room of which is neat and faultlessly clean, pictures on the walls and books for the occupants, with some useful handiwork to employ their time. Outside was a farm and beautiful grounds, with fine trees and shaded walks, overlooking the noble

St. Lawrence. On entering the grounds a base-ball match was going on, while two score or more on the grand stand applauded hits or home-runs. It was a well-played game; all, players and spectators, were lunatics! As one stood on a broad verandah overlooking the ample recreation grounds, three young women walked by, just from the golf links, talking with enthusiasm but with perfect saneness apparently of their recent game.

"What is that building yonder?"

"That?" said Dr. Burgess, "that is our curling rink."

"What! do lunatics play the game of curling?"
"Do they?" was the reply; "we had a dozen curlers last winter that might try conclusions with any 'knights of the broom.' Three of them were discharged cured this spring, and I attribute their cure chiefly to the interest they took in curling."

There was ample provision for other sports and games, both in winter and summer; and a farm of nearly one hundred and thirty acres, which yielded produce enough—perhaps more than enough—for the inmates of the Asylum, nearly six hundred persons, including patients and the staff of attendants. There were also a fine conservatory, a hennery, horses, cows and other animals. Walking round the grounds with an air of consequence was the "boss," a lunatic who imagined that he owned and directed the whole. And no one undeceived him.

Tact, sympathy, courtesy marked the demeanor of nurses and attendants toward the patients: abundance of healthy exercise and the stimulus of athletic games diverted their thoughts from themselves. What ideal conditions for a class of unfortunates about whom the careless world scarcely knows or thinks!

The east bound transcontinental train on the Canadian Pacific Railway was slowly toiling up through the Fraser River canyon when the brakeman called out, as he approached a small town, "Yale! Yale!" Two passengers were sitting in the Pullman, and one said to the other in the confident tone of him who has mastered his geography, "Yale! Ah, yes, that's the seat of a great university, you know!"

Ask God to give thee skill

In comfort's art,
That thou mayest consecrated be
And set apart
Unto a life of sympathy,
For heavy is the weight of ill
In every heart,
And comforters are needed much
Of Christ-like touch,
—Anonymous.

#### Among Teachers in the West.

By G. U. HAY.

It will be of interest to the readers of the Review to give some account of educational people and conditions in British Columbia, as they were observed at Revelstoke during the Easter vacation teachers' institute, and in a somewhat hurried visit to the principal towns and cities of the province at a later period. Revelstoke is a prettily situated town of nearly 3,000 inhabitants on the Columbia river, which expands just below the town into the Arrow Lakes leading to the beautiful Kootenay country farther south. It is on a plateau shut in by snow-capped mountains, which, like nearly all the Selkirk range, are wooded well up to the summit.

I had travelled from the Atlantic seaboard nearly 3,000 miles with few signs of the awakening of spring, but in and around Revelstoke (April 25th) the birds were in full song, with the foliage and grass of a many tinted green, so grateful to the eve after a long winter, and the early flowers—violets. blue and yellow-spring-beauty and others known in our eastern flora, with some peculiar to the west -bursting into bloom. I had heard that the forests of British Columbia were silent, that the song of birds was scarcely ever heard, but I did not find it so. Along the bare defiles of the Rockies it was perhaps true, but everywhere else many songsters enlivened the woods, including the meadow lark, whose clear, joyous notes were heard on prairie and mountain.

The provincial institute is held alternately on the coast, or in the interior. This year there were very few from the coast, except the inspectors and the normal school faculty, and one had a good opportunity of seeing the teachers of the country and of the cities and towns in the interior. They were a bright and capable looking lot of men and women, having a keen interest in everything pertaining to their work, enthusiastic, and apparently eager to advance themselves and their schools. The papers and addresses were scholarly and marked by a practical view of all questions discussed. The debates were conducted in a courteous and moderate tone, some of the speakers showing considerable fluency and readiness.

A large number of the teachers of British Columbia, especially those occupying leading positions, are from Eastern Canada. One meets frequently the graduates of McGill, Toronto, Dalhousic, Acadia, University of New Brunswick and Mount Allison.

The farther west one goes, the more does he meet Maritime Province men and women, not only as teachers, but in every profession and occupation, as if the overmastering desire was to reach the sea and hear again the roar of breakers. Few who have gone to the middle west or far west have the desire to return to the east for a permanent abode. When they reach the limit of the West, where the East begins, they are content to settle down in those fair cities of Vancouver, Victoria, New Westminster, amid the Kootenay lakes, in the Okanagan Valley, or to choose a home in one of the thousand picturesque valleys of British Columbia, where almost perpetual summer reigns, and where no extremes of heat and cold are felt. The temperature very seldom rises above 80° on the sea coast of British Columbia, nor falls much below the freezing point in winter—if such a season can be said to exist there.

Mr. David Wilson, the president of the provincial institute this year, is senior inspector of schools for the province. He is a native of Richibucto, N. B., and a graduate of the University of New Brunswick. He has been in British Columbia for twenty years, and is regarded as a very successful administrator. He is familiar with every portion of the province, and has accumulated a fund of information and anecdote.

In his annual address to the institute, President Wilson, in answering some statements made by a clergyman who had denounced the schools as "pagan," made an able defence of the excellent moral influence of the schools of British Columbia, and paid a warm tribute to the high character of the teachers, and their efforts to train their pupils to become honest and truthful men and women.

The other inspectors of schools in British Columbia are Mr. C. A. Stewart, of Vancouver, and Mr. J. S. Gordon, of Vernon. Both are natives of Prince Edward Island, and both have grateful recollections of the "Gem of the Gulf," of the veteran and honored teacher, Dr. Anderson, and the old Prince of Wales College, whose well-equipped scholars are found occupying honorable positions in every part of the continent, especially the Far West of Canada. Mr. Stewart and Mr. Gordon have won their way steadily to the front, and have been prominent in the educational development of British Columbia.

Among those who took a leading part in the discussions at the institute was Principal William Burns, of the provincial normal school. He is

the Nestor of British Columbia teachers, but that does not imply in a young province like this that he is advanced in years. Indeed he is the embodiment of activity and intellectual vigor, of ripe experience, and thoroughly alive to the educational needs of the province, whose schools, even to the most remote districts, he appears to know intimately. His practical common-sense views, interspersed with characteristic touches of humor, won for him the close attention of his auditors. It was pleasant to see the bond of sympathy which prevailed between the veteran principal and many of the teachers whose training has been his life work.

Other members of the normal school staff whose addresses formed an interesting feature of the institute were Mr. Blair and Mr. J. D. Buchanan. The latter is a keen and ready debater, and his thoughtful address on elementary arithmetic and the discussion which ensued were followed very closely by the institute.

To an observer, the display of school work in penmanship, composition, nature-study, drawing, plant specimens, was a most creditable one, and was a practical illustration of the excellence of the work done in the schools. The results in color work and drawing were especially noticeable, and reflected the genius of Mr. Blair, the teacher of drawing in the provincial normal school.

The public address of Hon. F. J. Fulton, Minister of Education, was a very happy one. It dealt with a subject that most educational speakers in other provinces approach with reluctance, real or feigned, and deal with in tones of gloomy pessimism—the salaries of teachers. But the Minister of Education for British Columbia was optimistic, even jubilant, as he spoke of the generosity of the government and people in the good salaries paid to teachers, the minimum being about \$600. His happy looking, well dressed, well paid auditors beamed with satisfaction as he quoted fat Columbian figures and arrayed them against the lean, starvation salaries doled out to teachers in some other places.

I shall have occasion to refer in future articles to some matters where the East may learn somewhat from the West; but the first lesson to learn, it would seem, is the payment of just and equitable salaries to teachers.

There are two freedoms,—the false, where a man is free to do what he likes: the true, where a man is free to do what he ought.—Charles Kingsley.

#### June and July in Canadian History.

The months of June and July are notable ones in Canadian history. They tell of discovery and settlement when the foliage of wide-extended forests was in its brightest green and when the land was fairest of all the months of the year for those pioneers of the new world to look upon. These months record successful battles fought to free the country from grasping invaders who sought to sever Canada's connection with Great Britain. They tell of the welding of the scattered provinces into a confederation extending from the Atlantic to the Pacific; and each succeeding year these months, with their lengthened days of sunshine and promise of abundance, lend sweetness to toil and beget fresh confidence in the capabilities of this strong young Canada.

On the first of June, 1813, the naval battle between the British ship "Shannon" and the U.S. ship "Chesapeake" was fought off Halifax harbor.

June 2, 1866, Canadian volunteers encountered a band of Fenians at Ridgeway, Ont.

June 3, 1889. Canadian Pacific Railway cars entered Halifax.

June 4, 1763, took place the massacre of English at Fort Mackinaw by the Indians under Pontiac.

June 5, 1813, Sir John Harvey defeated a United States force at Stony Creek.

June 6, 1891, death of Sir John A. Macdonald.

June 8, 1776, a revolutionary force which had invaded Canada was defeated at Three Rivers by Canadians.

June 11, 1894, death of Sir Matthew Begbie, Chief Justice of British Columbia.

June 16, 1755, Fort Beausejour captured.

June 17, 1745, first capture of Louisburg.

June 18, 1812, United States declared war against Great Britain.

June 20, 1877, great fire in St. John, N. B.

June 21, 1749, Halifax founded.

June 23, 1813, Laura Secord undertook her perilous but successful journey to warn Lieut. Fitzgibbon of the approach of United States troops.

June 24 (a day memorable in Canadian annals of discovery) 1497, John Cabot discovered the castern shores of Canada (probably Cape Breton Island); in 1604 Champlain entered St. John harbor. On this day, in the year 1813, Lieut. Fitzgibbon with a small force of Canadians captured 500 United States troops at Beaver Dams.

June 26, 1604, began the settlement of St. Croix Island

July 1, 1867, Dominion of Canada proclaimed. July, 1, 1873. P. E. Island entered the Dominion. Alberta and Saskatchewan to enter in 1905.

July 3, 1608, Champlain founded Quebec.

July 5, 1814, battle of Chippewa.

July 15, 1870, Manitoba and North West Territories admitted to the Dominion.

July 17, 1793, capture of Fort Mackinaw by Canadians and Indians.

July 20, 1793, Alexander Mackenzie having made the first overland journey from Eastern Canada stood on the shores of the Pacific.

On July 20, 1893, a centennial commemoration of this exploration was held at Victoria, B. C.

July 20, 1871, British Columbia entered the Dominion. On that day a party of engineers left Victoria for the mountains to begin the survey of the Canadian Pacific Railway.

July 21, 1836, opening of railway between Laprairie to St. Johns, P. Q., 14½ miles long—first railway in Canada.

July 25, 1814, battle of Lundy's Lane, the bloodiest and most obstinately contested battle of the War of 1812.

July 26, 1858, the final capture of Louisburg by a British army under Generals Amberst and Wolfe, with a fleet under Admiral Boscawen.

July 28, 1866, second Atlantic cable la'd.

July, 1760, a British fleet attacked and destroyed a French fleet at Petit Roche, Restigouche river. This was the last battle between the French and British in the war for the possession of Canada.

July, 1786, Queen Charlotte Islands named by Capt. Dixon, of H. M. S. "Queen Charlotte."

The teachers of Chicago do not beg for a raise in salary now because they need more books, better clothes, or opportunity for recreation, they ask it because they know they earn it, and that they have an inherent right to what they earn. Not only that, but sooner or later the people will acknowledge that right and find a way to recognize it. I consider a clear understanding on the part of teachers of this inherent right to a fair share in the wealth they create to be the first pre-requisite for any effective movement to better the conditions of teachers and teaching. Armed with the conviction that they are seeking justice to the children and to the people no less than to themselves, no denial, no rebuff will deter, and they will persevere until the entire community recognizes the essential justice of their claims and sets itself the task of finding a way to grnat them.—Margaret A. Haley.

#### Hint to the Physiology Teacher.

An excellent text for a human body lesson is found in Longfellow's "Village Blacksmith." The smith is the children's friend. Those who have recited the poem have learned to love and respect him. They admire the "mighty man," the muscles of whose brawny arms are "strong as iron bands." The children know the reason. "Week in, week out, from morn till night," "You can hear him swing his heavy sledge." "His brow is wet with honest sweat." Here is the arm made strong by honest work. Suppose the smith worked now and then, instead of week in, week out. Suppose he used a light sledge, and put away the heavy one. Who can think of others workers who are strong? How can you make your muscles strong? work can you do? We are proud to be able to work. The smith's work enabled him to "look the whole world in the fact."—Missouri School Journal.

The following devices for arousing interest in reading are not new, but they may prove useful to some teachers: If interest flags in the reading class and the readers become careless and inaccurate, these faults may often be corrected by "reading for mistakes." If the reader makes a mistake in emphasis, pronunciation, or in pauses, allow whoever sees it to read in his place. This makes the reader more careful and keeps the whole class wide awake. Selected readings are also very helpful. Every Friday afternoon the children may be allowed to select their own reading from any books or papers they may have access to. This interests them in outside reading matter and makes them anxious to read well in class.—Popular Educator.

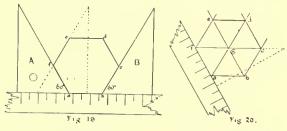
The principal objects of school gardens may be said to be, in the first place, that they dispose children favorably toward manual labor, that they give the much needed work supplementary to the confining book training that generally obtains in the schools; that they take the children off the streets in the vacation period, and give them something definite to do with their leisure moments; and, most important of all, that they give the youngsters a good ground work of agricultural knowledge, thus inclining them to seriously consider farming as a possible occupation, and it is thought that in time this may tend to promote an exodus to the outlying country districts, and help to relieve the continued concentration in the cities.—Southern Workman.

#### Drawing for the Lower Grades - No. VII.

BY PRINCIPAL F. G. MATTHEWS, TRURO, N. S.

The remaining rectilineal figures suitable for the lower grades are the hexagon and octagon. All the other regular polygons require the use of either compasses or protractor in construction, and may well be left to Grades VI, VII and VIII.

The hexagon is a very important and interesting figure, as so many pretty and useful exercises may be based on it. It also affords excellent practice with the set-square, and will do more to accustom the pupil to the ready manipulation of this useful instrument than any other exercise. As a first exercise, the hexagon may be drawn standing on its base, in the following manner: Draw ab (Fig. 19) two inches in length. Place the set-square in the position A and draw af, taking care that the ruler is held firmly and the set-square resting fairly Reverse the set-square to position B and draw be. Mark off af and be each two inches in length. Next slide the set-square from position B



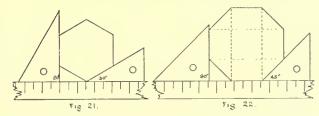
to that shown by the dotted lines and draw fc. Reverse the square and draw cd. Make each of these two inches. Join cd. A good variation of this exercise, and one that requires care, is to draw the hexagon without measuring anything but the base (Fig. 20). Draw ab the required length. Draw af and bc as before, but without measuring. After drawing af, slide the square to b and draw bc. Similarly from the position at bc slide the square to a and draw ad.

Now place the ruler along af, and slide the square, resting against it, up to g, through which draw a line fc. This line will be found parallel to the base, and will give the positions of f and c. Draw fc and cd as before, the points c and d being given by the intersections with the lines bc and ad respectively. Finally join cd as the former exercise.

Fig. 21 explains for itself the method of drawing the hexagon standing on one of its angles.

In connection with these lessons the talks on angles and degrees should be continued. A regular

hexagon, with diagonals drawn, having been placed in front of the class, easy questions will elicit the fact that the figure is made up of equilateral triangles. By producing the base, the number of degrees in the exterior angle may be obtained, and also the reason for using the set-square in construction. By fitting the set-square into each of the external angles, they may be shown to be all equal.



On counting up the degrees in each, the total will be found to be 360°. Compare this with the square and equilateral triangle. The teacher may then give as a fact the information that in all the regular polygons the exterior angles together amount to 360°, and from this deduce the method of finding the value of the exterior angle of any polygon, viz., by dividing 360 by the number of sides.

The octagon gives an exercise in the use of the 45° set-square. Questions similar to the above will elicit the fact that the exterior angle contains that number of degrees. Fig. 22 will explain the method of drawing. Other methods requiring the use of compasses, etc., may be left till later.

As with other plane figures in previous articles, these outlines may be used as foundations for design, either for pencil alone or for color work.

The freehand lessons at this stage may introduce the oval and objects based upon it. The difference between the ellipse and oval should be pointed out, and the various portions of the curves of the oval drawn on the board to demonstrate the variety of curves obtainable. Practically all the copies required now may be obtained from nature, as the bodies of most birds, and many bud, leaf, fruit and shell forms are of the same general outline as the egg.

Schools which have museums will here find them of advantage, as abundance of "copy" may be found in them. As mentioned before, the teachers must use discretion in selection, and not follow detail too slavishly at the early stage.

[It is hoped that these lessons in drawing, so carefully prepared and illustrated by Mr. Matthews, amid many other pressing duties, have been a help to teachers.—Editor.]

#### Clay Modelling in the Primary Grades.

MISS S. A. SIMS.

(Under direction of the M. T. T. Association of N. S.)

My experience with clay modelling has shown me that it is one of the things we learn to do by doing. The children's adaptability for the work need not cause the teacher any thought, for in the heart of every child there is the inborn desire to "make things." When left to themselves, children naturally turn to the best material available; hence the practice among small children of playing in the mud, in sand-heaps, etc.—these being the substances that most readily take any shape desired. There are many reasons why modelling in clay can be taught in the public schools with benefit.

- (1) Some form of manual training is a necessary part of an intelligent system of education.
- (2) Clay modelling is the particular form of manual training best suited to the early years of childhood, the material used being plastic and non-resistant.
- (3) It promotes the self-activity of the child; it throws him upon his own methods of making and doing, and gives him a chance of asserting his individuality.
- (4) Since the child, in modelling, has before his eyes, or in his mind, something which he wishes to copy, his powers of observation and perception, or his powers of memory and imagination are cultivated.
- (5) It helps to balance the excess of abstract information, with which the minds of little children are burdened, and makes a pleasant variety in the work of the schoolroom.
- (6) A child who is slow to grasp abstract ideas, by proving, as he sometimes does, an expert in manual work, acquires a certain amount of self-respect and ambition, and is inspired to make greater intellectual effort.
- J. Vaughan, in his paper prepared for the manual training section of the World's Fair, 1896, says: "Of all the forms of hand and eye training, as a means of education, clay modelling, perhaps, more nearly approaches the ideal. As a means of expression, it seems to me unsurpassable. If I were bound to take only one form of manual training apart from drawing, I should unhesitatingly take this, because it calls into play more faculties than any other one section."

The question how the work is to be done presents itself. The problem that confronted one primary

teacher not long ago was this: Given a class of children, untutored in the art of clay modelling (or any other art for that matter), a crock of clay with no other material whatever-it is required in the space of six weeks to produce a collection of models fit to send to the Provincial Exhibition. teacher in question had no knowledge whatever of the work in hand, but from one of her co-laborers she obtained a few essential principles regarding the work, and with these began operations. The children provided themselves with heavy brown paper, or thin smooth boards, on which to mould the clay. The teacher had a larger and heavier piece of wood, on which to knead and cut it. This she learned was best kept in a covered jar, so as to exclude the dust, and could be cut by means of a knife, wire or strong thread. If bought dry, it should be soaked for some time. When ready for use it should be plastic, but not soft enough to adhere to the fingers.

The clay was kneaded in the form of a large cube, and from this smaller cube-shaped pieces were cut off and apportioned to the children. After each child had received a piece of clay, the class received their first lesson in the moulding of common geometric solids as a basis for other forms. The sphere was modelled by rolling the clay between the palms, with the fingers turned back. The cube was fashioned from the sphere, by tapping gently on a plane surface, outlining the six sides by the first six taps. The cylinder was made by rolling the clay between the hand and a smooth surface, then flattening the ends by tapping. From the sphere was cut the hemisphere, and from this were made birds' nests, cups and saucers, bowls, etc. the sphere itself were moulded apples, cherries and different varieties of fruit. From the cylinder were evolved cunning little models of tea-pots, sugar bowls, butter crocks, bottles and vase forms of different kinds. Some of these, made of ordinary brown clay, were decorated with leaves and flowers made of red or pinkish clay. The cube became an object of much greater interest, after having dots arranged on the six sides to represent a die.

The children were found to display the greatest skill in modelling objects in which they were most interested. One small boy, whose brother was then serving in South Africa, made a remarkable good model of the large felt hat worn by the troops. The children had previously learned the story of Hiawatha; and the canoe and paddle made another interesting model. This was made to resemble

birch bark somewhat, by having lines drawn on the sides with a sharp-pointed stick while the clay was still soft, and afterwards having the crevices lined with brown dye. This scratching and dyeing process was also used to good advantage in decorating vases, etc. Leaves fashioned from those of the commonest trees were first marked out with a stick, then cut with a sharp knife and mounted on square or oval tablets also cut from the clay. One of the class, a boy of seven, astonished his teacher and a few others by moulding from an outline drawing of the flower a calla lily with leaves, without missing any of its natural beauty of form in doing so. He also copied the narcissus with as much success, even originating the idea of covering with soft mud, the straws from a broom, to form the stamens. Another boy made a vase form purely from his own imagination, which was afterwards declared by some one who knew to be "the very latest thing in Paris" along the line of vases.

As the work progressed, the teacher noticed an increase both in interest and skill. Many of the children considered it a very great privilege to continue their work after school hours, and a very serious punishment if they were sent home. There were no criticisms made on the work of any child, although some of the attempts were very crude indeed. After improvements were suggested, the first model was laid to one side, and a fresh piece of clay was given in its stead. At the end of six weeks every child could make something, and make it very well. Some could make almost anything they tried and make it nicely. But all, whether of ordinary or rare ability, loved the work, and profited by it.

From just such a simple experiment as this, made under the most ordinary circumstances, we are able to reach one or two conclusions: (1) Every child, besides having a natural taste for plastic art, has some natural ability for the same. (2) Some children have more than ordinary ability in that line. (3) We cannot know what a child can do until he has had a chance to try. (4) Assuming that what has been done can be done again, under the same circumstances, any teacher can get good results in clay-modelling if she is willing to take the trouble.

I have enjoyed the regular visits of the REVIEW for a year, and kindly continue it to my address. I find it a great aid, not only in respect to useful and valuable suggestions, but I also find it useful in keeping me in touch with the whole field of educational endeavor.—J. O. S.

#### The Case of Susie Adam.

Betty is seven years old, dearly loves her school and teacher, and when at home talks extensively of the matters of her class-room.

"Lots of the boys and girls hate 'quotations,' but I like it awf'ly," she volunteered once.

"And what do you mean by 'quotations?'" asked an inquisitive elder.

"Why, don't you know? It's something the teacher writes on the blackboard, and you learn it, and it helps you all the week, and then the teacher asks you for it, and on Friday you go to the platform and say it."

"Oh, well, make believe this is Friday, and do it for us now."

Quite charmed, Betty rose, mounted an imaginary platform, gripped her little dress, gave a serious curtsy, and said, with loud and elocut'onary distinct ness, "Susic Adam forgets Susic Adam."

"What if she does.? Let her. Give us the quotation."

"That's the quotation."

"Good gracious! Say it again."

"Su-sie Adam forgets Su-sie Adam," repeated Betty, worked up and threatening to become war-like.

Neither questioning nor expostulation availed against this statement concerning Susie, and not until the teacher herself was interviewed did the mystery resolve itself into "Enthusiasm begets enthusiasm."— February Woman's Home Companion.

John Keble, who wrote the hymn "Sun of My Soul," was remarkable for the beauty of his character as well as for his learning. In the May Delineator Allan Sutherland says: "It was in the second poem printed in The Christian Year that Keble's famous evening hymn, 'Sun of My Soul,' first appeared—a hymn which voices the sentiments and the prayers of countless Christian hearts as the twilight fades into night and we yield ourselves to sleep and to helplessness. A visitor once asked Alfred Tennyson what his thoughts were of Christ. They were walking in a garden, and, for a moment, the great poet was silent, then, bending over some beautiful flowers, he said: 'What the sun is to these flowers, Jesus Christ is to my soul. He is the sun of my soul.' Consciously or unconsciously, he was expressing the same thought in the same language used by the good John Keble years before when he gave to the world his great heart hymn, 'Sun of My Soul."

#### "Nineteenth Century Literature."

There has recently been published by the Copp Clark Co., Limited, of Toronto, a copy of selections, entitled, Nincteenth Century Literature, issued specially for use in McGill College. The book consists of two parts, the first of prose selections. the second of poems of the Romantic Revival; these may also be had in separate volumes. The principle on which the prose selections have been made seems an admirable one; it is, in the words of the preface, "to allow some of the great writers of the nineteenth century to tell their own story, or set forth their own point of view." To this end the selections are mainly autobiographical, and include six of Lamb's essays, besides extracts from De-Quincey, Macaulay, Carlyle, Kingsley, Stevenson. and that charming, and too little known writer, George Borrow. The selections are long enough to give a fair idea of the writer's style, and with the exception of the essay on Roast Pig, are unhackneyed. The poems are taken from the works of Coleridge, Wordsworth, Byron, Shelley, Keats, Browning and Tennyson. Lovers of these poets will always find selections more or less unsatisfying. but it would be hard to name a better collection for the purpose than that presented here. The notes are chiefly historical and biographical, and not too full. The introduction to the poems will be found very useful, and a particularly valuable part of the work is the prefatory note by Professor Moyse. We quote a few lines from this which deal with poems taught in New Brunswick schools:

There are certain things on a higher plane than the mere facts of history or biography that the teacher who reads thoughtfully can discern. If, for instance, a short piece of reflective poetry is taken, the leading idea, the idea perhaps that caused its creation, will generally be found expressed more or less pointedly in it. Thorough familiarity with the poem is, of course, necessary, before the keystone of the poetic arch can be pointed out. If Tennyson's poem, "Break, Break, Break," is chosen, the keystone is found in the words of grief,

"But O for the touch of a vanished hand And the sound of a voice that is still,"

from which the piece is evolved through contrasts in which we hear the unceasing voice of the sea (break, break), and the joyous voices of those whose lives are so much bound up with it. Three verses of contrast, one of them expanded, and the whole effort lies before us. Or again, to take the song in "The Princess":

"The splendour falls on castle walls," the dominant thought is brought out in the lines:

"Our echoes roll from soul to soul, And grow for ever and for ever," to which the previous portion of the poem again stands in contrast. Or once more, in "Sir Galahad" the line:

"A virgin heart in work and will,"

mirrors the essence of the piece.

It would be a good thing if this book could be used in the higher classes of our high schools and academies. In the hands of a good teacher, it ought surely to fulfil the purpose that its editors hope for it, namely, "to inspire young readers with a desire to know more of the authors studied."

The prose selections are edited by John W. Cunliffe, lecturer in English at McGill University, and associated with him in editing the poems is Miss Susan E. Cameron, of McGill, who is a graduate of the St. John Giris' High School.

E. R.

It is a very beneficial practice to take a period of time once in a while to work along with the pupils in arithmetic reviews. Dictate an example of a kind that has caused much trouble. Wait until everyone has finished, then have answers read. As this is a review test, presumably many will have the correct work. Let those who failed, or a convenient number of them, take places at he board, and while they are there request one of them to explain while the others do the work. Pupils in the seats may act as critics, pointing out any faults which may appear. If many have failed, try another of the same kind after this board work has been finished. Notice the gain when the answer is read: many more should have the correct work now.

Again, have board work. Next time try one of a different kind, and so proceed with a few in this thorough way. Finally collect the papers that are perfect, record names on board for honor, and let those who did not succeed keep papers and tell them to work on such examples until they seem easy. Encourage them to do home work and to ask for help where they feel weak, and assure them that if they do this all will come out right in the enl.—

Popular Educator.

A teacher in a Western public school was giving her class the first lesson in subtraction. "Now in order to subtract," she explained, "things have to be always of the same denomination. For instance, we couldn't take 3 apples from 4 pears, nor 6 horses from 9 dogs."

A hand went up in the back part of the room.

"Teacher," shouted a small boy," "can't you take 4 quarts of milk from 3 cows?"— Harper's Weekly.

#### College Convocations.

DALHOUSIE UNIVERSITY.

The annual convocation this year was held in the law library. In his opening address, President Forrest spoke of the success of the school of mining and engineering, which had forty-four students on the roll during the session, and this year sends forth its first graduate, T. T. Fulton, B. A., as Bachelor of Engineering in Mining. Mr. Fulton has been offered and accepted an important position in the management of a gold mine in the province at a good salary. The president spoke of the gifts to the mining laboratory, which is now in working order. The Truro Foundry and Machine Company presented a Wilfley table, costing over \$300, and the I. Matheson Co. of New Glasgow have constructed a fine stamp mill for the laboratory. Already Professor Sexton has done valuable work experimenting with new methods for the extraction of gold from certain ores.

The new department of civil engineering has made great advances under the direction of Professor Dixon.

In the faculty of arts the appointment of a tutor in classics has given some assistance to an overworked professor, and has done much to assist students who came to college badly prepared in Greek and Latin.

The crowded state of the laboratories in science is forcing upon the authorities the great necessity of providing new quarters.

The following degrees were conferred:

Bachelor of Arts.-Louise Frances Gerrard, Alice Pearson Gladwin, Euphemia McInnis, Ethel Margaret Munro, Ella Mabel Murray, Lulu Marion Murray, Sarah Isabelle Peppard, Minnie Grace Spencer, Christina Jane Turner, Charles Tuppe: Baillie, John Barnett, Charles Prescott Blanchard, James Henry Charman, Charles Gordon Cumming, Wilfred Alan Curry, Charles James Davis, Robert Bell Forsythe, William Ira Green, William Ernest Haverstock, George Leonard McCain, Roderick Augustus Macdonald, Robert John McInnis, Daniel Alexander McKay, B. Sc., George Moir Johnstone Mackay, James Alexander MacKean, Murdoch Campbell McLean, Hugh Miller, Charles Wiswell Neish, Arthur Silver Payzant, Daniel Keith Ross, Frank Frieze Smith, William Dunlop Tait, Harvey Thorne, Herbert Wesley Toombs, Andrew Daniel Watson.

Bachelor of Science.—Laurie Lorne Burgess, Milton De Lancy Davidson, William Clarke Stapleton, William Weatherspoon Woodbury.

Bachelor of Engineering.—In mining—Thomas Truman Fulton, B. A.

Bachelor of Laws.—Berton Stone Corey, Horace Arthur Dickey, Percival St. Clair Elliott, B. A.; Lloyd Hamilton Fenerty, William Gore Foster, Ira Allen MacKay, Ph.D.; Roderick Geddie Mackay, Donald McLennan, James Archibald McLeod, B. A.; Claude Lovitt Sanderson, B. A.; Vernon Hastings Shaw, John Wood.

Doctor of Medicine and Master of Surgery.—Mary Mackenzie, Edward Blackaddar, M. A. (Acad.); John Archibald Ferguson, B. Sc. (Dal.); Daniel Robert McDonald, George Arthur McIntosh, Victor Neil Mackay, Alexander W. Miller, B. A. (St. F. Xav.); James Alexander Murray, John Ignatius O'Connell, B. A. (St. F. Xav.); James Adam Proudfoot, Peter James Wallace.

Bachelor of Arts.-Ad eundem gradum.-R W. Allin, B.

A. (Toronto); Sidney Gunn, B. A. (Harvard).

Master of Arts.—R. W. Allin, B. A., by Thesis: "The Romantic Movement in English Literature;" George Archibald Christie, B. A., by examination in philosophy of morals and religion; Henry Arnold Kent, B. A., by examination in psychology and modern philosophy; Thomas George Mackenzie, B. A., by examination in history; Edwin Byron Ross, B. A., by Thesis: "Basis and Functions of the State;" Robert Hensley Stavert B. A., by examination in modern ethics and metaphysics.

Degrees Previously Conferred but not Announced.— Bachelor of Arts—Thurston Stanley Begin, Thomas Geo. Mackenzie, John McMillan Trueman. Bachelor of Laws— Richard Upham Schurman.

The following honours and prizes were announced: Diplomas of Honour.—Classics—Honours—Charles Wiswell Neish, Murdoch Campbell McLean. English and history—High honours—John Barnett; honours—John Henry Charman, Robert Bell Forsythe. Philosophy—High honours—William Dunlop Tait. Pure and Applied Mathematics—High honours—Robert John McInnis; honours—Andrew Daniel Watson. Chemistry and Chemical Physics—High honours—George Moir Johnstone Mackay.

Diploma of General Distinction.—Distinction — Charles Gordon Cumming.

Medol, Prizes and Scholarships.—Medical Faculty Medal (Final M. D. C. M.)—Victor Neil Mackay. Avery prize—Charles Gordon Cumming. Waverley prize (Mathematics)—Cecil L. Blois. Dr. Lindsay prize (Primary M. D. C. M.)—not awarded. Frank C. Simson prize (Chemistry and Materia Medica)—George A Dunn. MacKenzie bursary—Nora Neill Power. Professors' Scholarship—Jean Gordon Bayer, William Keir Read.

#### MT. ALLISON INSTITUTIONS, SACKVILLE.

The year 1904-5 has been the most successful in the history of Mt. Allison. The attendance has been larger than ever before. Some departments have been strengthened, and two new departments, those of domestic science and of engineering, have, for the first time, been in full operation in their new quarters. The various exercises of the end of the year passed off well. The weather was ideal, and visitors and students left in good spirits on May 31.

In the Academy the commercial department has grown, so that an assistant teacher was employed. Twelve students got diplomas in commercial work, and the same number in stenography and typewriting. Both groups contained several young ladies. One young man graduated in penmanship and eight were prepared for matriculation. The alumni scholarships for the matriculant making the highest average in mathematics and in Latin and

Greek, or in Latin and French, were for the first time both won by the same student, Edwin Graham, of Digby Co., N. S. Some members of Principal Palmer's staff are not returning; their successors

have not yet been announced.

In the history of the Ladies' College this has been a notable year, since in October last the fiftieth anniversary—" the Jubilee "—was celebrated. For this great preparations were made by preparing an elaborate card-catalogue of all former students, giving their present names and addresses. This, of course, remains a permanent record, which will be made continuous. Several hundreds gathered in response to the invitations sent out, and hundreds of others sent messages. The general result was a great revival of interest in Mt. Allison among former students of the Ladies' College. A special number of Allisonia—the paper of the Ladies' College—was devoted to a record of matters connected with the celebration.

Dr. Borden, in his report, announced that the attendance had almost outgrown even the new accommodation. Their, rolls included 306 students, of whom one-half were boarders. In the Massey-Treble school of domestic science, Mrs. Treble provided during the year for an extra teacher. In the normal classes twenty-four children from the public schools received instruction, and three young ladies graduated. One of these has been appointed teacher in the Consolidated School at Kingston, N. B. The elocution department has also employed an extra teacher, and gives evidence of great popularity and success. A graduate of this year and one of last year will pursue their studies in Emerson Coilege, Boston. By means of the existing affiliation these young ladies will complete their course at Emerson in one year. In music there were four graduates in piano and two in violin. teachers have been employed during the year, most of whom worked over-time, and forty-six practice pianos have been in constant use. The music at the exercises, both of the orchestra and of the combined orchestra and choral class, in the cantata "The Crusaders," was by visitors considered the best ever rendered here. There was a precision and finish not usually attained by large groups of amateurs.

The most notable events in the history of the university during the year were the appointment of the Rhodes scholar for New Brunswick, and the development of the work in the McClelan school of applied science. As Rhodes scholar, Mr. Frank Parker Day was chosen, who in physique, powers of leading and manly qualifications, comes near to an ideal such as Mr. Rhodes desired. In making an appointment for Bermuda, the trustees of the Rhodes scholarship chose Mr. Arthur Motyer, who took his B. A. at Mt. Allison this year. These two young men will go to Oxford in September. Mr. Day will probably taken English honors, and Mr. Motyer, mathematical. In engineering, facilities for work in the shops and at the forges have been

provided during the year, and a good beginning has been made. Twelve of the Freshman class were pursuing the first-year course in engineering; of the remaining thirty-one—the Freshmen in Arts—some will take engineering options during their course. Some members also were added to the Sophomore class as students in engineering. Before another year an instructor in civil engineering will be appointed, and probably an assistant in shopwork.

The male students in residence this year numbered over ninety. To afford increased accommodation for another year the fourth storey of the university residence will be finished during the summer. Several rooms in it are already allotted for the ensuing year. The grounds in front of the residence are also being laid out and terraced under the

supervision of Professor Hammond.

The University Convocation took place on May 30th. Twenty-seven degrees were conferred, three of which were on the completion of the course for Bachclor of Divinity (B. D.) Mr. S. A. Worrell, of St. Andrews, N. B., was the winner of the "alumni honors," the life-membership in the alumni society, which is awarded each year to that member of the senior class who makes the highest average during his course. Mr. Worrell is a former teacher, and is also a B. C.L. of King's College, and an admitted attorney of the N. B. bar. He expects soon to take up the practice of law. A. S. Tuttle. of Wallace, N. S., who had taken part in the last three inter-collegiate debates, delivered the valedictory. The interest of convocation was increased by an address from the Rev. Hugh Pedley, the distinguished Congregational clergyman of Montreal, who also preached the Baccalaureate sermon on Sunday evening. Chief Justice Fuck, an alumnus of Mt. Allison, also gave a stirring address to the graduates. Both of these gentlemen, with Judge Barker, of St. John, spoke at the annual supper of the Alunmi and Alumnæ Societies on Monday evening, May 29th. About 160 guests were present. H. A. Powell, M. A., K. C., and Mrs. Fred. Ryan, of Sackville, the presidents of the two societies, presided. Another interesting speaker was Mr. MacArthur, a mining expert from Glasgow, Scotland, whose niece was one of the university graduating class. He had just arrived from Scotland and stopped for a day or two on his way to the Pacific coast to inspect some mines.

The library of the Ladies' College has grown by about 1,000 volumes during the year. To the university library some valuable additions have been matle, including a set of the Annual Register. The two Fred. Tyler scholarships of \$60 each will next year be offered for competition in the senior class.

In general, then, Mt. Allison looks back to a prosperous year and forward with hope and expectation of further development and increased opportunity for promoting both practical securce and the studies that make for culture.

#### ACADIA UNIVERSITY.

The Acadia institutions have had a very prosperous year. The Seminary sends out a graduating class of twenty-two, fourteen from Nova Scotia, seven from New Brunswick and one from Vermont. The number of students enrolled has been two hundred and twenty-eight greatly exceeding the average of recent years. Principal DeWolfe has worked hard for the institution and for the mental, physical and spiritual welfare of the students. The large and effective staff of teachers associated with him have worked heartily toward the same end.

Horton Academy has also had a most successful year under Principal Sawyer. Diplomas were presented to fourteen graduates—ten in the academic and four in the business course. The enrolment of students for the year reached one hundred and three—eighty-six young men and seventeen young women. This was Principal Sawyer's first year, and he has made an excellent impression. The attendance has been the largest in the history of

the academy.

The closing exercises and conferring of degrees at Acadia College took place on Tuesday, June 6, and was, as usual, an occasion of the greatest interest, attracting visitors from all parts of the Maritime Provinces. The graduating class of this year gave signal evidence of their affection for their alma mater by presenting an endowment of \$1.000 for the establishment of a permanent scholarship of \$50, to be presented at the Christmas holidays to the Sophomore who has made the highest aggregate during his or her Freshman year in the subjects of the arts course.

The total number of students for the year was 157. The degree of B.A. was conferred on 32,

and the degree M.A. on 7.

The following honors were conferred on the graduating class: Classics—James R. Trimble, New Brunswick. Mathematics—Lorning C. Christie, Nova Scotia. Philosophy—Elmer W. Reid, Nova Scotia. English—Annie L. Peck, Victor Chittick, Nova Scotia; Milton Simpson, P. E. Island. Chemistry and Geology—Ralph K. Strong, Nova Scotia.

The prizes were distributed as follows: Northard Lowe gold medal for highest standard in last three years of college course, James R. Trimble, New Brunswick; Governor General's silver medal Ralph K Strong, Nova Scotia; Kerr Boyce Tupper gold medal for oratory, Frederick Porter, Fredericton; class of 1901 scholarship of sixty dollars for highest average in Freshman year, Thomas J. Kingley, Nova Scotia.

The honorary degrees conferred were: D. C. L., Frank H. Eaton, superintendent of schools. Victoria, B. C., Dr. Eaton was present to receive his honor. D. D. conferred upon Rev. Atwood Cohoon, Wolfville; Rev. Isaiah Wallace, Aylesford; Rev. Charles K. Harington, Yokohama, Japan; Rev. W. E. McIntyre, St. John. M. A. conferred upon Rev.

Wellington Camp, New Brunswick; Rev. M. P. King, New Brunswick; Rev. C. H. Haverstock, Nova Scotia.

Dr. Trotter, in speaking of the college, said this had been a year of great prosperity. The work was marked with efficiency. The new science course was most successful in its operation. He announced the sum of \$78,000 had been pledged to the second forward movement fund.

The feature of the proceedings of this, the sixtyseventh anniversary of Acadia, which was of the greatest interest to the large audience assembled. was the presentation of an address and purse to Dr. A. W. Sawyer on the completion of the fiftieth year of his work as a teacher in the college. The scene when Dr. Sawyer was led to the platform by Dr. Saunders was of the most cordial and enthusiastic character. The large audience rose and cheered, testifying to the respect and veneration with which the aged, but still active, teacher is regarded. Dr. Saunders read an address, and Dr. B. H. Eaton presented him with an album on which was laid a purse of \$1,303. The album contained testimonials from the many friends and pupils of Dr. Sawver, testifying their respect and esteem as a teacher, scholar, gentleman, and to his fine administrative ability.

After Dr. Sawyer had made a suitable and feeling reply, addresses were given by Dr. R. V. Jones, E. D. King, K. C., Hon. J. W. Longley and Senator King, all of whom warmly acknowledged the great services which Acadia's oldest teacher had rendered to the college and to the country.—Condensed from Press Reports.

#### THE UNIVERSITY OF NEW BRUNSWICK.

On Thursday, June 1st, the University of New Brunswick completed the most successful year of its history by an encænia of unusual interest.

The weather was delightful, and the fresh green and white of the new foliage and blossoms gave an added charm to the quiet streets and gardens of Fredericton. Early in the afternoon the crowds of gaily-dressed visitors and black-gowned student streamed towards the college grove, climbed the steep, grassy violet-strewn slopes of the terrace, and entered the Greek portico of the gray old building at its summit.

The spacious library on the upper floor was crowded. Promptly at 2.30 the "academic procession," resplendent in hoods of many-colored silk and ermine, entered the hall. The procession was composed of the graduating class, twenty-eight in number, in gowns and ermine hoods, the candidates for M. A. and higher degrees in red hoods, the alumni, the faculty, the senate, and Lt. Governor Snowball (in Windsor uniform), the visitor on behalf of His Majesty.

Professor Clawson gave the traditional address in praise of the founders. Enforcing his position by quotations from Newman and Arnold, he assert—

ed that the primary aim of a university should be not knowledge nor technical skill, but mental culture. He defended the traditional, literary and philosophical studies of a university course, and discussed at some length the formation of a course in literature. He spoke strongly in favor of the study of Latin and Greek as part of a literary education, and touched on the English works which should be studied, and the method in which they should be presented. He spoke of the urgent needs of the university grouping them under headings of Teachers and Books.

He urged the immediate appointment of a professor of chemistry, and suggested the creation of chairs of modern languages and modern history. He concluded his address by an appeal to graduates and friends for interest and support, and a few words of farewell to the graduating class.

Mr. Theodore Rand McNally then read a portion of his essay on "Science and War," and received the Douglas gold medal from Lieut, Governor Snowball. The alumni gold medal for the best Latin essay had been won by Miss Edna B. Bell, of Moneton; but owing to her absence the customary reading of a selection had to be omitted. The Governor General's gold medal for proficiency in English and French was presented to Miss Alberta M. Roach, of St. John, by Chief Supt. Dr. Inch; the Ketchum silver medal for engineering, to Mr. Allan R. Crookshank of Rothesay, by Dr. Brydone-Jack, of Vancouver; and the Montgomery-Campbell prize for classics to Miss, Matilda M. Winslow, of Woodstock, by Ven. Archdeacon Neales.

With stately Latin phrases and the ceremonious "capping" of each candidate by the Chancellor, the degree of B. A., B. Sc., or B. A. I., was conferred on twenty-eight persons. Five men received the degree of M. A., two the degree of Ph. D., and one that of D. C. L. The degree of M. A., honoris causa, was bestowed upon Mrs. J. S. Armstrong, formerly a distinguished teacher in the Fredericton collegiate school under Dr. George R. Parkin, and afterwards principal of the Netherwood School for Girls at Rothesay. Mr. John Brittain, whose tireless labors for the advancement of scientific study are known and honored throughout New Brunswick, and whose recent services to the university as lecturer in chemistry have been most highly appreciated both by professors and students, was, on the unanimous vote of the senate, made an honorary doctor of science,

Professor W. C. Murray, of Dalhousie University, gave the alumni oration. His subject was the Relation of the University to the State. It was presented with a clearness, a cogency and a moral earnestness which carried conviction.

The Encienia closed with the singing of the national anthem at about half-past five.

In the evening the alumni society entertained the members of the government, the supreme court and the graduating class at a most enjoyable dinner in the Queen Hotel. Speeches and toasts began at midnight and lasted until three o'clock. Meanwhile the boom of the students' cannon and the glare of their immense bonfire from the hill announced to the sleeping city that the college year of 1904-5 was ended.

#### Try This for a Change.

Little children love to have their efforts noticed and one word of praise is worth a dozen words of censure as an incentive to "try, try again." In this connection a very pretty idea came to our notice the other day. The teacher of whom we speak has a class of little children in one of the poorer districts of a large city. She was weary of giving stars for good work, placing rolls of honor on the board, and other like devices. It so happens that this teacher has a perfect genius for cultivating flowers. Every\_ thing for which she eares grows and blossoms abundantly. In the spring her windows and table are a perfect bower of hyacinths, tulips, and golden jonquils. The latter are a great favorite with the children, and it was perhaps this fact that suggested the happy idea. Every time one of her little ones has good lessons for a whole day, or has been especially quiet and diligent, she places one of the pots of blooming jouquils on his desk, and allows it to stand there every day until he forfeits it by some carelessness or inattention.

Strange to say, the children think more of the pot of jonquils than a dozen gold stars, and work hard to keep their desks adorned. Small as they are, they seem to appreciate the beauty of this happy thought, and the spots of bright color scattered over the room give it a wonderfully cheerful and homelike aspect.—Popular Educator.

#### Timetables in the Geography Class.

One public school teacher with a bump of ingenuity has put railroad timetables to a novel usc. She uses them in teaching geography. Evidently they make pretty good text-books, too, for her boys passed the mid-winter examination with a higher percentage than any other class in that particular school.

"That was because they got interested," said the teacher. "It is much easier to fix a boy's mind on a timetable than on a regular schoolbook with ent and dried lessons. A stack of timetables piled up on his desk with permission to plan as many trips around the world as he likes, stimulates a boy's imagination, and is one of the best incentives in the world to an intelligent study of countries and towns."—N. E. Evenng Post.

#### All Due to Algebra.

How often we hear men who really enjoyed good opportunities complain that they never had any chance. And what a rebuke to them it is when some poor boy starting with nothing works his way up by his own effort. A college education is a good thing to have, but it is by no means essential, and where a boy has any real desire to know something, he will find no difficulty in educating himself, in this country. The case told of in the following extract from the Washington *Post* well illustrates this truth.

There is a young man now receiving a salary of \$6,000 who a few years ago was a bootblack in New Haven. His rise is due to his own desire for knowledge and to the interest taken in him by a member of the Yale faculty. This gentleman, while waiting for a train, observed a bright-looking Italian boy with a shine box slung across his arm seated on the station steps, earnestly poring over a book.

He approached the youngster and asked him if he would like to shine his boots. The bootblack went to work vigorously, placing the book on the ground close by, where he gave it an occasional sharp look while shining with the vigorous and skilled hands. The professor noted his alertness, and asked what book it was that proved so interesting, expecting to hear that it was a thrilling story of "Old Sleuth," or something of the sort. He was surprised when the shiner replied with unconcern that it was an algebra.

"So you are studying algebra, are you?" said

the professor.

"Yes, sir, and I'm stuck. Do you know anything about algebra?" responded the youth, both sentences in the same breath.

Now this professor was one of the notable mathematicians of Yale, and it sounded queer in his ears to be asked if he knew anything about algebra.

"Well, I know a little about it. What's the

matter? Perhaps I can help you."

By this time the shoes were shined and the boy placed his book in the hands of the man to whom intricate mathematical calculations were not difficult at all. It was but the work of a moment to clear the mind of the aspiring young calculator, and he fairly danced with delight.

"Why, I've been working at that for two days," declared the young man. "I thank you very much.

sir."

"Now, I'll tell you what to do," said the gentleman, offering the boy his card. "When you get stuck again, you write to that address and I'll see that you get straightened out. Remember, now." And the professor rushed off to catch his train.

Not more than three days elapsed before the mail brought a letter stating that the bright-eyed bootblack had again "got stuck" with his mathematics. And the return mail brought the much-needed help. A few more days and another application came. This kept up for a time, and then the professor began to advise the young man how to improve his condition.

"Leave bootblacking and get a job in a blacksmith shop or some place where you can learn the use of tools," was the instruction. The boy went over to East Berlin and secured a place in a big shop there. The correspondence and the instruction continued. A letter brought the injunction: "Save your money." The reply came back: "I am saving every cent I can."

This went on for three years, and that blacksmith's apprentice had come to know a good deal about figures. He was a skilful manipulator of all the tools of his trade, and then came a proposition that gave the young blacksmith the happiest moment

of his life.

The professor invited him to come to New Haven to become his special pupil, without expense, except for board. The young man felt no hesitancy in accepting it, and the way that he went to work, now that he was relieved of the nine hours in the shop each day, gave the best evidence of how well he appreciated what the professor was doing for him. He was not a student of the university, but the influence of the professor obtained some privileges for him that were valuable. He became not only a skilful mathematician, but a remarkably skilful manipulator of apparatus.

At the end of two years there was an opening for the young blacksmith-mathematician. The General Electric Co. wanted a young man of just his talents and training, and when the professor recommended him a favorable offer secured his services. The young man went to work just as he went at the algebra five years before, with a vigorous determination to master all the difficulties in his path, and he did so. In two years he was receiving a

salary of \$6,000 a year.—The Pathfinder.

I heard a "specialist" discourse on "Reading for Children," a short time ago. She deplored the fact that teachers too often cater to the child's tase in the selection of stories, instead of rading to them such stories as the old Norse tales, Andersen's Fairy Tales, and others drawn from classics, such as The Siege of Troy, etc. Now some children will listen to and enjoy any story, but the test of popularity is when the masses yield attention, and there is no style of story that is received with such rapt attention as the simple stories containing incidents in the lives of children like themselves—things that might happen to them. These are what hold the attention of the masses.—Primary Education.

#### A Method of Teaching Truthfulness.

That there is in the mind of every pupil a greater or less resistance to evil tendencies, I thoroughly believe; yet before the teacher can render successful aid to this resistance she must understand the of intelligence upon the face of a little fellow, ten mental condition which makes temptation possible. . . . . I shall not soon forget the sudden gleam of intelligence upon the face of a little fellow ten years of age, whom I had occasion to reprimand for an attempt to copy from a neighbor's slate, when he saw his act in its true light. After some little talk, in which he acknowledged that he could not learn by copying, I asked, "What do you suppose I gave you that question for, Henry,—the answer?"

"I always thought that it was the answer you wanted," he replied.

"There you have made a great mistake. The answer is of no consequence to me at all if you do not comprehend it. The example was given that I might see whether you could reason it out or not. Instead of showing me that you understand it, you bring to me Johnny H.'s work, which only proves that Johnny understands the example, if you do not. Now who is going to tell me whether Henry understands or not, if he takes care of his neighbor and neglects himself?"

This talk produced the desired effect not only upon Henry, but upon others who showed a like tendency.

But schools differ as individuals, and in one or two cases I have given a pupil whom I saw making sly attempts to filch from his neighbor, permission to stand where he could more conveniently copy, saying pleasantly (and not sarcastically) that if he thought he could learn more quickly in that way I was perfectly willing that he should try the experiment, but that I wished him to be open and truthful about it, and do his copying honestly, not like a thief.

The very act convinces a boy that by his own efforts alone, and not by those of his neighbor, will understanding come to him; and, moreover, the lesson of honesty is not lost upon him.—M. R. O., in Am, Primary Teacher.

A young man being asked to explain why he gave up teaching, answered:

#### The Heavens in June.

The brightest objects in the evening sky are Arcturus and Mars. At 9 p. m. the middle of this month they are both close to the meridian. The planet is brighter and redder than the star. To the right of Mars and nearly at the same level is Spica. The other stars of Virgo are higher up and farther west. Below them is the little group of Corvus. Leo lies in the west at a moderate altitude. Below him is Hydra, whose long tail stretches to the meridian under Mars. Ursa Major is high up, extending northwestward from the zenith. Castor and Pollux are still visible in the northwest and Capella is just setting still farther to the north. meridian below Virgo can be seen a part of Centaurus. Its two brighter stars almost equal Aacturus. In the southeast is Scorpio. The three stars which lie near the creature's head and the red Antares at its heart are all visible, but its long tail extends below the horizon. The tangle of stars above and to the left of Scorpio form the constellations Serpens and Ophiuchus. Through them runs a branch of the Milky Way. Farther north is a line of fine constellations. Aquila is low in the Its principal star, Altair, is flanked by a smaller one on each side. Higher up and farther north is Lyra, which contains Vega, the brightest star in this part of the sky. Between Vega and Arcturus are Hercules, marked by a figure shaped like the keystone of an arch, and Corona, whose stars form a semi-circle. Below Vega, to the left, is Cygnus. Cassiopeia is beneath the Pole. pheus on the right.

Of the planets.—Mercury is morning star until the 24th, but not in a good position for observation. Venus is morning star in Aries, rising between two and three o'clock, and is very bright; Mars is the principal feature of the evening sky and nearing opposition: Jupiter is morning star in Taurus; and Saturn is in Aquarius, rising about midnight.—Condensed from Scientific American.

To bring up the ordinary writing in exercisebooks to the standard of the copy-book work, the following plan was adopted: The headlines were cut from a few copy-books; these formed handy slips about six inches by one inch, and each pupil received one. The slip was to be retained in the exercise book. Every line in writing in the exercise book was now written underneath this model copy, which was moved down the page as the writing progressed. By this means a constant standard for comparison was kept in close view. scope, shape, etc., of the pupil's writing were thus brought into immediate contrast with the printed slip. Constant supervision and comparison speedily wrought a change for the better, and the results bear witness to the efficacy of the plan.—Selected.

<sup>&</sup>quot;I left teaching because the pupils, the parents, the school officers and board, and the county treasurer treated me more like an old woman than like a man."

<sup>&</sup>quot;Well, whose fault was it?"

#### The Review's Question Box.

M. L. W.—Kindly name the enclosed plants for me and tell whether No. 3 is correctly called Crowfoot.

The three plants are Club Mosses, a genus very common in our northern evergreen or mixed woods. The botanical name of the genus is *Lycopodium*, which means wolf's foot, from a fancied resemblance of the branches or roots of some species to the claws of an animal. The club mosses, of which there are about half a dozen species in Nova Scotia and New Brunswick, are very pretty evergreen creeping plants, discharging in summer and autumn an abundance of sulphur-yellow spores from sporecases situated usually on greyish-yellow spikes terminating the branches. These spores are very inflammable from the oil they contain. On shaking a few spikes of matured spores over a lighted match they burst into flame.

No. 1 is Lycopodium complanatum, L. (Trailing Christmas-green). No. 2 is L. dendroideum, Michx. (Ground Pine), about a foot high, and resembling a small evergreen tree. No. 3 is L. annotinum, L. (Stiff Club-moss).

The name crow-foot is given not to any of these plants, but to the buttercups on account of the divided leaves.

- (1) M. D.—Find the area of a circular bicycle track which measures eight laps to the mile, measured on the smaller circumference, the track being 20 feet wide,
- (2) Sixty yards of carpet, 27 inches wide, are bought to cover a room 23 feet 6 inches by 18 feet. The carpet cost 4s. 6d. per yard, and the remnant sold at 3s. 4d. per yard. What was the cost of carpeting the room?
- 1. Since the inner circumference gives 8 laps to the mile, it measures ½ mile, or 660 ft.

Inner diam. = 
$$\frac{\text{circum.}}{3\frac{1}{7}} = 660 \times \frac{3}{2} = 210 \text{ ft.}$$

... Outer diam, = 210 + 40 = 250 ft. ... track is 20 ft. wide.

Area of track=sum of diams. x diff.

of diams. 
$$\times \frac{3\frac{1}{7}}{4}$$
.  
=  $(250 + 210) (40) \times \frac{22}{7} \times \frac{1}{4}$   
=  $\frac{1.0.1}{7} \cdot \frac{2.0.0}{7} = 14457 \cdot \frac{1}{7}$  sq. ft. -- Ans.

This may also be solved by subtracting the areas of outer and inner circles, but the above is the shorter method.

2. No. yds. carpet reqd = 
$$\frac{\text{area of room}}{\text{width of carpet}}$$
  
=  $23\frac{1}{2} \times 18 \div 9 \div \frac{2}{3}\frac{7}{6}$   
=  $\frac{4}{2}$ <sup>7</sup> ×  $18 \times \frac{1}{9} \times \frac{4}{3} = 62\frac{2}{3}$  yds.

The 60 yds. given in the question is evidently a misprint, since this amount would not cover the floor; it should be 80 yards.

Cost of carpet bought= $80 \times 4\frac{1}{2} = 360s. = £18$ . No. of yds. in remnant =  $80 - 62\frac{2}{3} = 17\frac{1}{3}$  yds.

No. of yds. in remnant =  $80 - 62\frac{2}{3} = 17\frac{1}{3}$  yds. Selling price of remnant

=  $17\frac{1}{3} \times 3\frac{1}{3} = \frac{520}{9}$  s. = £2, 17s.  $9\frac{1}{3}$ d. :.Cost of carpeting room = £18 - £2. 17s.  $9\frac{1}{3} = £15$ . 2s.  $2\frac{2}{3}$ d.

#### Keeping Our Souls Alive.

A writer in the *Cornhill Magazine* (reproduced in *Littell's Living Age*) indulged in a little playful criticism recently in "A Plea for the Useless." The article in this utilitarian age is well worth pondering over, as it hits off very well the too prevalent usage of considering those school studies that do not help the boy or girl to earn money as useless and "not practical."

Another protest against the utilitarian drift of present day education comes from a well known English educationist:

The other day an old schoolfellow of mine, whom I remember thirty years ago in India, wrote to me, giving a London address. I sought him out and found him Iiving in a garret and gaining his living by selling newspapers in the street. It was a bitter cold day when we met. My friend had neither gloves nor overcoat. I was full of pity at the sight of him. I asked him to dine, but he declined; he neither smoked nor took wine. What he wanted was a long talk with me on universal peace and brotherhood. He helieved that he had found the secret. When I left my man that afternoon I envied him. He is the happiest friend I know.

This is what always comes before my mind when I hear people talking about education. We are told in every paper, from the *Times* to the *Daily Mail*, that the great problem is to keep our trade. No; that is not the great problem, but how to keep our souls alive. The problem of education is not how to teach boys or girls to earn their living, but to show them how they may avoid spoiling themselves whilst they earn their living. Plato knew this when he distinguished between the artist and the artificer, the mere wage earner.

A little Cleveland tot of three years was put to bed, her first night in New Jersey, by her mother, with the words, "Now go to sleep, darling, and remember the angels are flying about your little crib and keeping you from harm." A few minutes later the patter of little feet was heard and a little, white-robed figure emerged from the bedroom. "Why, darling, what's the matter?" said the mother. "I don't like the angels," sobbed the little girl. "Why, dearie, why not?" "One o' th' angels bit me, ma."

#### Ten Reasons for Bird Study.

- 1. Because birds are sensitively organized creatures and respond so readily to the influences of their surroundings that in their distribution, structure, and habits they furnish naturalists with invaluable evidence of the workings of natural laws.
- 2. Because birds, in preventing the undue increase of insects, in devouring small rodents, in destroying the seeds of harmful plants, and in acting as scavengers, are man's best friends among animals. Without their services the earth would not long be habitable; therefore we should spare no effort to protect them.
- 3. Because there is an inborn instinct in animals, which, properly developed, will not only afford us much pleasure, but will broaden our sympathies, and morally elevate us.
- 4. Because birds, being the most abundant and conspicuous of the higher animals, may be most easily studied and observed.
- 5. Because birds are beautiful in form and color and exhibit an unequalled power of flight, their acquaintance thus stimulating our love of beauty and of grace.
- 6. Because birds are unrivaled as musicians; their songs are the most eloquent of nature's voices, and by association may become inexpressibly dear to us.
- 7. Because the migration of birds excite our wonder and admiration, and their periodic comings and goings not only connect them with the changing seasons, but so alter the character of the bird-life of the same locality during the year, that their study is ever attended by fresh interest.
- 8. Because in their migrations, mating, nest-building, and home-lives, birds not only display an intelligence that attracts us, but exhibit human traits of character that create within us a feeling of kinship with them, thereby increasing our interest in and love for them.
- 9. Because with birds the individual lives in the species; the robin's song we hear in our boyhood we may hear in our old age; therefore birds seem never to grow old, and acquaintance with them keeps alive the many pleasant memories of the past with which they are associated.
- 10. Because, in thus possessing so many and such varied claims to our attention, birds more than any other animals may serve as bonds between man and nature.—Frank M. Chapman.
- "A musician out of work, "are you?" said the housekeeper. "Well, you'll find a few cords in the woodshed. Suppose you favor me with an obligato,"
- "Pardon the pronunciation, madam," replied the bright tramp, "but Chopin is not popular with me." —Philadelphia Ledger.

#### A Mile With Me.

O who will walk a mile with me
Along life's merry way?
A comrade blithe and full of glee,
Who dares to laugh out loud and free,
And let his frolic fancy play,
Like a happy child, through the flowers gay
That fill the field and fringe the way
Where he walks a mile with me,

And who will walk a mile with me
Along life's weary way?
A friend whose heart has eyes to see
The stars shine out o'er the darkening lea,
And the quiet rest at the end of the day,—
A friend who knows and dares to say
The brave sweet words that cheer the way
Where he walks a mile with me,

With such a comrade, such a friend,
I fain would walk till journeys end,
Through summer sunshine, winter rain,
And then?—Farewell, we shall meet again!
—Dr. Henry Van Dyke.

#### Some of the Old Would Improve the New.

Is there not such a thing as dissipation in school work? Do not our present courses of study attempt too much? In the good old school days little attention was paid any subject except the common branches, and of these, particular stress was placed upon reading, writing and arithmetic. The reading, of course, included spelling. In those school days of thirty-five years or more ago, all classes thoroughly reviewed at the beginning of each term the work of the preceding, so long as the same text was in use. The result was that while boys and girls were not broadened, they were evidently deepened by knowing a few things well. Many of the critics of the public schools of the present day say that boys and girls sent out are smatterers-knowing a little of everything and not very much of anything. Isn't too much being attempted in rural schools, in village and town schools, and even in high schools? Does not the broadening of courses of study in the public schools at the same time cause corresponding shallows? Again, when you and I were in the old school, obedience was demanded in the school and in the home. The rod was rarely spared to spoil the child. Has a better way come? Is unquestioned obedience demanded by parents and by teachers? And do not those in civil anthority permit the law to be overridden and trampled under foot? This is not an "Old Fogy" appeal, but the hope that some of the good of the past in school work may be restored in present lines. If there cannot be fewer subjects in the present courses, let there be some elimination of obsolete and less important text matters, so that what is worth while can be thoroughly mastered and fixed.—T. C. C., in the School News.

#### CURRENT EVENTS.

A Marconi station is to be established on Sable Island.  $\cdot$ 

The disturbance in German West Africa still continues, and late accounts report a reverse for the government forces.

King Oscar will come to London next month to witness the marriage of his grandson to Princess Margaret of Connaught, King Edward's niece.

An arbitration tribunal is now in session in Paris to award indemnities to those whose interests have been injured by the abandonment of the French claims in Newfoundland.

The railway line now advancing through Northwestern Rhodesia will soon reach Kalomo, the seat of government of that section of the British South Africa Company's territory.

The new province of Alberta has an area of 253,-965 square miles, and a population of about 175,-000. Saskatchewan has an area of 250,119 square miles, and a population of about 250,000.

Fierce fighting still continues in the Philippines. The United States forces have recently defeated a Moro chief who had a following of five or six hundred natives in the island of Jolo. Another uprising is now reported in one of the larger islands.

There are movements of the armies in Manchuria that seem to portend another great battle between the land forces of Japan and Russia. In the meantime the disaffection which is rife among the peasants is said to be spreading to the army in the field, and some hundreds of Russian soldiers are reported to have been shot for insubordination.

Following the new policy of improving the condition of the Poles, the Czar has sanctioned a law permitting them to buy land within the limits of the old kingdom of Poland. They were deprived of this privilege after the insurrection of 1863, and the land tenure of Poles was then limited to land acquired by direct inheritance.

The construction of an enormous dam across the Tunga Burda, in British India, will form a reservoir forty miles in length, with an area about three times as great as that of the Assouan reservoir in Egypt. This great work is to be undertaken for purposes of irrigation, and, notwithstanding its enormous cost, it is expected to be a profitable undertaking.

The King of Spain has been in England, where he received the cordial welcome usually given to royal visitors from abroad, whose visits are an evidence of especially cordial relations between their respective governments and our own. The Emperor of Abyssinia and the King of the Belgians are soon to be received in the same way; and the latter, it is said, will extend his visit to Canada, though here, of course, his journey will be of a personal rather than of an official character.

The Czar has fixed a date for the assembly of the new council of the people, and it is expected that the question of continuing the war will be referred to this council, so as to relieve the rulers of the responsibility of deciding.

The government has approved of the application of the Grand Trunk Pacific for Kai Wan Island, near Port Simpson, as its western terminus. The railway commission will decide how much land the railway shall have assigned to it for terminal works at Kai Wan, and also at Fort William, on Lake Superior. The work of construction of the new railway will begin at once. The first sod is to be turned at Fort William on Dominion Day.

Illustrated lectures on the United Kingdom, prepared for use in the public schools of Ceylon, the Straits Settlements and Hong-Kong, have proved so successful that the plan is to be extended, and Canada has been asked to join in the movement. By this means it is proposed to give to Canadian school children, and those in the other colonies of the Empire, a more adequate idea of the United Kingdom, its trade, resources and interesting features; and to give the children of Great Britain and Ireland a better knowledge of Canada and other portions of the Empire.

Norway and Sweden have been united for nearly a century under a Swedish King, but each country has enjoyed its own constitution, cabinet, army, navy and other institutions. But for some years there has been trouble between the two countries that boded a dissolution of the union or the establishment of a more practical basis of government. The immediate cause of trouble was a demand by Norway for a separate consular service to secure better trade facilities. This was agreed to by the Swedish parliament, but King Oscar refused his On June 7th the Norwegian storthing (parliament) declared the union under one King dissolved. King Oscar has refused to recognize this action. The Norwegians are preparing for war, and the nations of Europe are interested spectators. It might be Russia's opportunity to reach out westward, were her hands not tied in the Far East. The situation, coming at a time when there are prospects of peace between Russia and Japan, adds another element of danger to the European situation.

The combined Russian fleets met the enemy at the Korean Straits on the 27th of May, and suffered a defeat that amounts to almost utter annihilation. Notwithstanding the loss of ships at Port Arthur, Russia, when the battle began, stood third among the naval powers of the world. At its close, she has fallen to seventh place. The encounter, which will be known as the battle of the Sea of Japan, must stand as one of the greatest in naval history; and the name of Togo, the Japanese commander, must be placed beside that of Nelson. Sea power is as needful to the island kingdom of Japan

as it was to our own in Nelson's day, and no victory since Nelson's has been so complete. A few of the smaller Russian ships reached the harbor of Vladivostok, where they are safe for the time; three escaped, badly shattered, to Manilla; the others were all destroyed or captured, leaving Japan in undisputed control of the sea, and free to attack any part of the maritime provinces of Siberia. Unless peace comes quickly, of which there is some hope, nothing will prevent Japan investing Vladivostok and taking possession of all the remaining portion of the Russian Pacific coast.

#### Music in the North Sydney Schools.

The Review has before had occasion to refer to the remarkable work done by Supervisor C. L. Chisholm in the North Sydney schools to lay the foundation of a thorough musical education. A few weeks ago an examination of the pupils was held, and so great was the popular interest that the Empire Hall and its approaches were crowded by an eager throng that represented not only North Sydney, but the adjacent towns. The results were very gratifying, and attested the skill of Mr. Chisholm as a teacher, and the excellent methods employed by him to give about the 2,000 school children of the town the foundation of a good musical education. The following is quoted from the Cape Breton Enterprise, which may show the thoroughness of the examination, the pleasure experienced by the throng of auditors, and the inestimable value that such a course of training must be to the children:

"The scholars of the town schools were present, and every grade took some part in the programme. Grades II and III showed what wonders can be wrought even with the little one's in scale drill and problems in melody in different keys and rhythms. Grades III and IV took similar work, but more advanced, while in Grades IV and V major and minor, augmented and diminished intervals were introduced into the scale drill,

"In the upper grades the students took splendidly the scale drill in two complete octaves from G below the staff to G above, and sang any three or four given lines of the scale in any combination asked for on hearing the number announced. The exercises in harmony were marvellous, single and double chromatics being introduced and the children singing in four part harmony, no instrumental support

being given.

"The greatest treat of all was, however, reserved for the end, when the children sang plantation songs harmonized for piano and strings with chorus by Mr. Chisholm himself, with Schuberts' Serenades and Bouheur's The Red Scarf. These showed the splendid results which can be attained by careful and intelligent training. One of the most noticeable facts was that the singing was not the work of a few picked pupils, but of the entire grades. At the conclusion Mayor Hackett, on behalf of those present, suitably conveyed the hearty thanks and congratulations of the citizens to Prof. Chisholm. Mr. Chisholm's work is, we believe, unique, but we are glad to learn that many of the teachers at North Sydney and Sydney Mines are learning his method, so that the system should extend till it embraces all the scholars in the provinces."

#### Teachers Deserve Better Salaries.

I myself belong to those who think teachers are not being paid enough. I believe there is no way in which we can accomplish so much for the cause of education as by raising as far as possible the salaries of our teachers. In this way we can get the best and ablest teachers in our schools. treat teachers like slaves and hirelings, if you think their present salaries are large—God forbid—the best men and women will not be eager to fit themselves for this work. If we had a perfect race of the best minds and best hearts, the best courage would be given to teachers, for education is the noblest work. The doctor does infinitely more by education than by the pills he gives.—Bishop John Lancaster Spalding.

#### SCHOOL AND COLLEGE.

The Nova Scotia normal school will close on Thursday, June 29.

Mr. W. J. Rose, of Wesley College, Winnipeg, is the Rhodes scholar from Manitoba for this year.

Mr. W. E. MacLellan, formerly inspector of schools for Pictou County, and for the last five years editor of the Halifax Chronicle, has been appointed post office inspector for the province of Nova Scotia.

Mr. L. A. DeWolfe, whose articles on mineralogy and physical geography in the Review have been so helpful to teachers, has resigned his position in the North Sydney Academy and has been appointed science master in the Truro Academy.

Miss Bessie Young, recently a student of Mt. Allison Ladies' College, has been appointed teacher of domestic science in the Macdonald Consolidated School, Kingston,

The Macdonald Consolidated School at Tryon, P. E. I., is working satisfactorily and has a school attendance which is steadily increasing. The one van in use cost \$160 and carries 28 children.

Sixteen students from the Maritime Provinces have graduated in Medicine at McGill University, Among these were H. C. Mersereau, son of Inspector G. W. Mersereau, Doaktown, N. B., who won the Holmes medal for the highest aggregate in all subjects of the medical curriculum. He has been appointed on the staff of the Montreal General Hospital. Other students who won honors were H. C. Burgess, Sheffield Mills, N. S., and H. A. Leslie, Souris, P. E. I.

Miss Madge J. Ricketson, of Hatfield's Point, N. B., now attending the Macdonald school at Guelph, Ont., has won a scholarship in nature-study.

New Brunswick teachers who wish to become acquainted with the latest phases of manual training should not forget the vacation course conducted by Supervisor T. B. Kidner, to be held in the Normal School, Fredericton, from July 5 to 29.

Miss A. Gertrude O'Brien, the efficient teacher of manual training in the Woodstock, N. B., schools, has resigned her position in order, says the *Sentinel*, to accept a similar position in Kentucky.

Mr. Ernest Robinson, principal of the Kings County, N. S.. academy, has resigned in order to take a science course at Acadia college. Principal W. A. Creelman, of the North Sydney high school, has been appointed to the vacant position.

Lalia E. Killam, teacher at Cape Fourchue, Yarmouth, N. S., with the help of her friends of that and neighbouring places, held a social and sale on the 1st of June, and raised the sum of \$23.50, which will be used for equipments for the school.

Mr. J. H. McCarthy, late principal of one of the schools in Winnipeg, has been appointed librarian of the new Carnegie library in that city.

Mr Wm. Brodie, A. M., mathematical master in the St. John, N. B., high school, has resigned his position, to take effect at the close of this term. Mr. Brodie will visit during the summer, Winnipeg and other western cities, and on his return will be associated with his brother, Mr. Neil Brodie, architect, of St. John.

As Laval University, Quebec, has not nominated a candidate for the Rhodes scholarship for 1905, the appointment has been vested in the hands of the McGill University corporation. This will make three representatives for McGill at Oxford.

The members of the New Brunswick Legislature and Board of Education have been invited to visit the Macdonald Consolidated School at Kingston, Kings County, on the 15th of June. The school offers a fine object lesson for the establishment of centralized schools in other sections of the province.

At the recent meeting of the British Columbia Teachers Institute at Revelstoke, April 25-27, it was decided to hold the next year's convention at Victoria. The following officers were then elected: President, F. H. Eaton Victoria, 1st Vice-president, J. D. Gillis, Victoria; 2nd Vice-president, Miss Laveon; 3rd Vice-president, A. Gilchrist; Treasurer, E. H. Murphy; Secretary, Miss Cann. Executive Committee: Miss Burns, Nanaimo; R. R. Watson, Tolmie; B. S. McDonald, Ladysmith; Miss Marchant, Victoria; Miss E. Rogers, New Westminster.

#### RECENT BOOKS.

Mediaeval and Modern History: Revised edition. By Philip Van Ness Myers, author of "Ancient History," "A General History," etc. Cloth. xvi+751 pages. Illustrated. Mailing price, \$1.65. Ginn & Company, Boston,

The revision of this important historical work, following closely upon the revised edition of the "Ancient History" (in 1904) by the same author, gives a connected and remarkably clear view of the history of the world up to the present year. Both books are designed to meet the use of students; but the general reader and busy man of affairs will find in them a concise and interesting narrative of the progress of the human race without those irrelevant details which appeal rather to the memory than to the intelligence. The author's clear style, his wonderful grasp of the great movements that have affected human society and his impartial treatment of national questions win for him the confidence of the reader. The last hundred pages of the book, where modern conditions are dealt with afford striking evidence of the author's power. The clear text and abundant illustration are noteworthy features of the book.

GIPSY STORIES AND STORIES OF ANTONIO AND BENEDICT MOL. From Geo. Borrow's "Bible in Spain." Linen. Pages 112 and 120. Price 8d. each. Blackie & Son, London.

These stories are selected from Borrow's delightful book, "The Bible in Spain," a book which has the merit, as the author believes, of being the only one in existence which treats of missionary labour in that country. The stories are quaint, the style vivid, and the reader's interest soon absorbed in the characters and descriptions of a book that is unique in many respects.

OBJECT LESSONS IN ELEMENTARY SCIENCE. Stage V. By Vincent T. Murché. Cloth. Pages 282. Price 2s. Macmillan & Company, Ltd., London.

The attention of our readers has been directed in the review of previous "Stages" to the improvement that has been effected in these revised editions of nature study lessons. The present volume deals with the various forms of matter; heat and its distribution; food—its composition and nutritive value; clothing; the economic products of plants; animal structure and adaptation. The value of the lessons depends upon experiment and illustration to which careful explanation is given in the text.

Student's American History: Revised edition. By David H. Montgomery. Cloth. 612+lvii pages. Illustrated. Ginn & Co., Boston.

This book, written in the same interesting style as that which characterizes the author's books for more elementary grades, is broader in scope and more philosophical in treatment. In this revised edition many parts have been rewritten, especially the political history of the country and the influence of the west on the development of the nation. New maps and illustrations have been added.

THE FOREIGN TRADERS' CORRESPONDENCE HANDBOOK. By Jas. Graham and Geo. A. S. Oliver. Cloth. Pages 363. Price 3s. 6d. Macmillan & Co., Ltd., London.

This useful handbook is published for the convenience of English speaking firms doing business with French, German and Spanish traders. It shows how to build up simple business letters in these different languages and how to carry on transactions connected with the exportation and importation of goods. It is an excellent book for any commercial student desiring of enlarging his sphere of influence.

Hawthorne's Tanglewood Tales. Edited by W. H. D. Rouse. Linen. Pages 120. Price 8d. Blackie & Son, London.

The book tells the Greek legends, "The Golden Fleece," "The Minotaur," and "The Dragon's Teeth," in a manner natural and familiar to the children of today.

Macmillan's New Globe Readers. Book II. Linen. Pages 155. Macmillan & Co., London.

These books, beginning with Primers and Infant Readers, which deal with the combination of vowel and consonant sounds into easy words, proceed to more difficult forms and gradually seek to awaken an interest in intelligent and expressive reading. They are attractive in matter and appearance.

Le Voyage de Chicot, par Alex. Dumas, pere. Edited by Geo. Heyer, M. A. Linen. Pages 36. Price 4s. Blackie & Son, London.

A short but exciting story. Chicot, a privileged favourite of Henri III, is entrusted with a letter to the King of Navarre. Knowing that it is a dangerous mission he destroys the letter after having committed its contents to memory. The journey justifies his anticipations of danger. How the United States Became a Nation. By John

Fiske. Cloth. 254 pages. Illustrated. Mailing price, 60 cents. Ginn & Co., Boston.

The formative period of United States history is briefly and clearly treated in this volume, which sets forth the principal events, beginning with the infancy of the nation. In something less than two hundred and fifty pages the story of a great world power is told, and the condensed yet vivid narrative will command the attention of scholars as well as of general readers.

LATIN COMPOSITION FOR SECONDARY SCHOOLS. By Benjamin L, Dooge, Ph. D. Volume I. Cloth. Pages 131.

Price 55c. Volume II. Cloth. Pages 190. Mailing price 65 cents. Ginn & Co., Boston.

These books combine the systematic presentation of syntax with exercises based in Part one on Casar's Gallic war and Parts two and three on the text of Cicero's Manilian Law, Catiline I-IV and the Archias. The exercises are intended to be used in connection with the standard Latin grammars, to which constant reference is made, and are accompanied by many practical hints and suggestions which will do much to lead to a clearer knowledge of the language and to a surer application of its principles in composition.

Selections from Standard French Authors. A reader for first-year and second-year students, with notes, biographical sketches, and vocabulary. By Othon Goepp Guerlae, assistant professor of French in Cornell University. Semi-flexible cloth. 214 pages. Mailing price, 55 cents. Ginn & Co., Boston.

Moliere, Pascal, La Fontaine, Victor Hugo, Bossuet, Voltaire, Rousseau and Renan,—these are a few of the authors represented in this handy volume of selections. The aim is to give the student an acquaintance with those writings which really constitute French literature. The value of the work is heightened by the short biographical sketches which precede the selections, and is designed primarily for students, in secondary schools and in colleges, who are able to devote but a year or two to the study of French.

Anedotes Faciles et Poésies: For class use. By O. B. Super. Semi-flexible cloth. Pages 78.

Hans Arnold's Aprilwetter. Edited with introduction and notes by Laurence Fossler. Semi-flexible cloth. Pages 144.

Friedrich Gerstacker's Irreannten. Edited with notes and vocabulary by F. B. Sturm. Semi-flexible cloth. Pages 203. Price 45 cents. D. C. Heath & Co., Boston,

Chateaubriand's Atala. Edited with introduction, notes and a vocabulary, by Oscar Kuhns. Semi-flexible. Cloth. Pages 120.

The above convenient little texts for French and German students have recently been published as additions to Heath's "Modern Language Series." The "Anecdotes Faciles" and "Aprilwetter," consist of stories which pave the way for the more difficult authors' selections which follow,

Lectures Francaises in Geography and History. By W. Mansfield Poole, M. A., and Michel Becker. Cloth. Pages 137. Price 2s. 6d. Blackie & Son, London.

The fine engravings, clear text, and good paper and binding of this book, attract the young reader, and the good literary style and fresh descriptions show how interesting a book on geography and history can be made for pupils of twelve or fourteen years of age.

Shakespeare's Henry VIII. Cloth. Illustrated. Pages 180. Price 1s. Blackie & Son, London.

This edition is called the "Picture Shakespeare," each volume containing a frontispiece in colours and numerous black and white illustrations. The volumes are also provided with brief introductions and explanatory notes.

How to Tell Stories to Children. By Sara Cone Bryant. Cloth. Pages 260. Houghton, Mifflin & Company, Boston.

This little book will prove a great boon to teachers, as well to those who have a natural gift as to those who are diligently striving to acquire the "knack" of telling stories to children. To the latter it is especially suggestive and helpful. It deals aptly with the purpose of story-telling in school; the selection and adaptation of stories and how to tell them; and then gives numerous examples for the kindergarten and earlier grades.

THE PRESIDENT'S REPORT of Chicago University (published by the Chicago University Press), is an interesting document of 269 pages (bound), containing full information of every department of work in that institution.

The following books received will be reviewed in the next number:

Specimens of Letters. By A. S. Cooke & A. R. Bentham.

AMERICAN PHONOGRAPHY. By Wm. L. Anderson. Ginn & Co., Boston, Mass.

THE WINGED HELMET. By Harold Steele Mackaye.
STINGAREE. By E. W. Hornung. Copp, Clark & Co.,
Toronto.

#### MAY MAGAZINES.

Littell's Living Age (Boston) reproduces in its issue of June 3 Professor Holland's article, Neutral Duties in a Marine War, as illustrated by Recent Events—an article that is of timely interest at present to the nations of the

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FOR CIRCULARS ADDRESS W. R. CAMPBELL, SECRETARY SUMMER SCHOOL, TRURO, N. S.

World. The Age also prints in its issue of June 10 Mr. Mallock's article on The Reconstruction of Religious Belief, one of his most notable contributions to current religious discussion.. The Chautauquan for June is a Tree number entirely devoted to special articles upon forest preservation, tree planting, the use of trees in the adornment of streets and home grounds, and kindred subjects. This number will be valuable alike to tree lovers, tree growers, tree users, civic improvement and other clubs... The June Delineator has a varied and interesting table of contents, supplemented by a complete summary of the season's styles. Dr. Murray discusses the care of the eyes and ears in a paper that will appeal particularly to young mothers and those who have the care of children. Newman's hymn, "Lead, Kindly Light," is the subject of a paper by Allan Sutherland in the series Famous Hymns of the World. In addition, there are house plans and housefurnishing ideas, and many pages devoted to the particular interests of the home, including, among other features, a paper on The Practical Side of the Wedding, and a variety of suggestions for kitchen economy... The Canadian Magazine for June is of more than usual interest, especially to Canadians. It contains an article on "The Nova Scotia-ness of Nova Scotia," by Professor Macinechan, an account of the interesting career of Dr. Robert Tait McKenzie, athlete, surgeon, writer, and sculptor; Theodore Roberts has a story of the Labrador Coast, and a short poem, and the Rev. W. C. Gaynor tells a tale of the Indians of Passamaquoddy. Articles on the growth of the city of Winnipeg. the distribution of Canadian Public Documents, and some notes on the Natural History of British Columbia contain useful information...The famous writer on nature subjects, John Burroughs, contributes to the June Atlantic a paper on the part played by the colours of animals, especially of birds, in maintenance of the balance o flife. Topics much discussed at present are treated of in an article on "Gencrosity and Corruption," by G. W. Alger; one entitled "The Cause of South American Revolutions," by G. A. Chamberlain, and "The Superannuated," a short story.

#### Business Notice.

It is not convenient this month to enclose our usual reminders to subscribers stating their indebtedness to the REVIEW. Those who are in arrears will kindly remit the amounts due without waiting for a written statement. The majority of our subscribers do this, and we wish all would make it a rule to do so. It would save us trouble, and they would avoid receiving a bill which some look upon as a reproach, although it is not so regarded by business people. The best way, however, is to pay for a journal when it is known that payment is due. The number on the address of each subscriber tells the date up to which the subscription is paid. Thus 217 is the number of this month's REVIEW, and subscribers can easily tell by looking at the numbers whether they are paid in advance or are in arrears.

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' N. S. SHALER, Dean

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EDUCATION DEPARTMENT.

PROVINCE NEW BRUNSWICK.

#### OFFICIAL NOTICES.

DEPARTMENTAL EXAMINATIONS, 1905.

(a) The High School Entrance Examinations will begin at the Grammar and Superior Schools on Monday, June 19th. Principals who wish to be supplied with question papers are requested to notify the Chief Superintendent not later than May 20th as to the probable number of candidates for this examination,

The Lieutenant-Governor's Medals are to be competed for at the High School Entrance Examinations in accordance with instructions given in Supplement to Regulation 46, a copy of which will be sent to any teacher who may apply for it to the Education Office.

- (b) The Normal School Closing Examination for the French Department begins on Tuesday, May 23rd, at 9 o'clock a. m.
- (c) The Normal School Closing Examinations for License and for Advance of Class will be held at the Normal School, Fredericton, and at the Grammar School buildings, Chatham and St. John, beginning on Tuesday. June 13th, at nine o'clock, a. m.
- (d) The Normal School Entrance Examinations and Preliminary Examinations for Advance of Class, the High School Leaving Examinations and the University Matriculation Examinations will all be held at the usual stations throughout the Province, beginning at nine o'clock a. m. on Tuesday, July 4th.

The English literature required of candidates for Class I in the Closing Examinations for License, and of candidates for the Matriculation and Leaving Examinations is Shakespeare's "Hamlet" and Tennyson's "Princess."

Candidates for all the examinations held in July must send in their applications to the Inspector of the District in which they wish to be examined not later than the 24th of May.

A fee of One Dollar for the Normal School Entrance and Superior Class Examinations, and of Two Dollars for the Marticulation and Leaving Examinations, must be forwarded to the Inspector with each application. Forms of application may be obtained from the Education Office or from the Inspectors.

Examinations for Superior School License will be held both at the June and July examinations.

For further details in regard to the Departmental Exanimations, see School Manual, Regulations 31, 32, 45 and 46.

J. R. INCH,

Chief Superintendent of Education.

Education Office, April 20, 1905.

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# The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

PUBLISHED MONTHLY.

ST. JOHN, N. B., JULY-AUGUST, 1905

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G. U. HAY, Editor for New Brunswick A McKAY, Editor for Nova Scotia.

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#### Always Read this Notice.

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This number of the Review is issued about the first of August, and makes *one* number for the months of July and August.

MANY teachers will take charge of schools during the approaching new term for the first time. The REVIEW wishes them that success which is the result of earnest, thoughtful and enthusiastic work.

FULL particulars of the meeting of the Nova Scotia Provincial Educational Convention will be found on another page. The programme is an attractive one; the time chosen is one that should produce good educational results—when teachers are fresh from a vacation of nearly two months and ready to put new ideas into practice.

OFTEN we hear of teachers who get up entertainments in their schools the proceeds of which go towards providing apparatus, repairing the school, or other like purpose. This should not be the way to appropriate these funds. The trustees should meet the teachers half way, and provide the necessary materials for proper school work. The money raised by entertainments should be expended for pictures and other means of decorating the school room, forming the nucleus of a library or making additions to it, or providing some article of school furniture not included in the outfit.

MESSRS, J. & A. MCMILLAN are again doing business at their old stand, Prince William street, St. John. After the destructive fire of last winter, which left little but the walls of the building standing, the firm, with characteristic enterprise, immediately began the renovation of the establishment. This will render the new premises more commodious than the old, with better appliances for carrying on their book, stationery and publishing business.

Mr. D. R. Jack, editor of Acadiensis, after his prolonged absence in Europe, has just issued a double number of this excellent quarterly. The table of contents is an inviting one, embracing sketches of travel, poems, historical articles and other matter, with photographic illustrations. Europe as Seen by an Acadian is a graphic sketch of Mr. Jack's travels, and his impressions and photographic views of Russia will be found especially interesting. Another article that will engage the attention of many readers is the late Mr. Edward Jack's account of an Expedition to the Headwaters of the Little South West Miramichi, edited by Prof. W. F. Ganong, a task which that industrious explorer and scientist has evidently found congenial.

The readers of the Review will be interested in the advertisements of new books found in this number. These embrace many desirable works that have been tested in the schools and found to meet the needs of teachers and pupils. Among these are the little History of Canada, published by the Copp, Clark Company in a separate form, with an appendix of the history of Prince Edward Island, by Miss H. M. Anderson. Miss Anderson has accomplished in a remarkably clear and concise manner the difficult task of writing a brief but connected account of the Island's history.

The History of New Brunswick, published by W. J. Gage & Company, has won its way in the schools of that province, and has become very popular with children on account of the clear and easy style in which it is written. It is not an array of facts and dates alone, but a readable account of the events of the province so arranged as to make history interesting and intelligible to children.

#### Perfect Attendance.

It is worth while for pupils to cultivate the habit of faithful, punctual attendance at school. The habit so formed will be a valuable possession to them in after life. It will be a great element of future success and will add to their own happiness and the happiness of others. If more people realized the importance of being punctual to engagements at all seasons and in all places; of answering letters promptly and courteously; of paying their debts and meeting other obligations on time, things in this life would work more smoothly. There would be fewer naughty words said, fewer ruffled tempers, and a much better feeling would prevail among friends and neighbors.

The home and school are the places where a foundation must be laid for these and other good habits that make life more useful, more enjoyable. The following instances show what good results were accomplished by these two agencies, the home and the school, to secure punctuality of attendance, and the immediate rewards that resulted:

"Lester Thomson of Montreal, a lad of sixteen, received from the school board of that city a gold watch. This was because for nine years he had never once missed a day at school and never once was late.

"A girl at Lee, England, was recently awarded a gold medal for seven years' perfect attendance at school.

"Miss Bonnie White, says the Pathfinder, Washington, who recently graduated from the high school of Paris, Texas, was awarded a gold medal by the school board for a perfect record covering her entire public school life of 11 years. She was neither absent nor tardy a single time from the day she entered the primary class until she graduated."

#### Visits to Schools.

A visit was made to the Macdonald Consolidated School at Kingston, N. B., on the 15th of June in company with members of the New Brunswick government and legislature, educationists and representatives of the press. The appearance of the building, class rooms and grounds were fitted to give a fine object lesson to the visitors. The excellent organization and management of the principal, D. W. Hamilton, and his capable staff of associate teachers were apparent both in and out of doors, especially in the school gardens which were admirably laid out and cared for. So attractive had each pupil's plot of ground become to him or to her, that recess and other available time were spent in the care of the growing plants. The pupils had taken great interest in the measurements, laving out of beds, and the various practical exercises connected with the care of the gardens. Not less interest did they take in the afternoon exercises in the school audience room where they listened to addresses by Lieutenant-Governor Snowball, ex-Governor Mc-Clelan, Premier Tweedie, Supt. Inch and other speakers. The distribution of the prizes given by Premier Tweedie for the best essays on the history of the province and county, supplemented by others from gentlemen present, was an interesting feature of the exercises.

I visited a schoolroom in Winnipeg, recently, where no less than seven nationalities were represented. The teacher was quiet, but alert and sympathetic. Every eye in the room was directed, not to the stranger present, but to her, and I soon changed my position where I could study both pupils and teacher. The cause of the pupils' interest was soon apparent. The teacher's face was a study as she directed every movement of the little foreigners. Genuine sympathy and tact were shown in her every feature and gesture. Success in pronouncing new words (it was a reading lesson) was rewarded with a flash of recognition which seemed to say "bravo! well done;" and it brought an answering look of gratitude

from the pupil who was trying with all his might to earn that recognition.

Here is a letter that a lad just twelve years of age had written in his exercise book. He was a Polish Jew and had been in Canada and at school less than ten weeks. I asked for a copy of the letter and it was produced in a plain vertical hand:

Strathcona School May 18th

Dear Mother.

I goan to school two montch I can spek little English. I can read a book and write. I come from Possia two montch an a haf. May teachern good learn me, dat tetchern is nice teachern. The teachern spek I learn quick English. I living an Winipeg. I like dat country very much. I writing learr esterday an Possia. Your living son

Moses.

Every young reader of the Review can make out the somewhat broken English of this letter. Is it not a pretty good attempt after two months of school? The factors at work in this class were,—each pupil was very much in earnest to get a working knowledge of English; each was interested, and each one regarded his teacher as a superior being. I asked the superintendent of schools on what principle the teachers were chosen for the children of the foreign classes. "Not from their experience as teachers," he said. "We rather prefer to have them without experience if they have the qualities that win the affection of their pupils." A very good principle in the choice of teachers everywhere.

"What I say is this—the democracy has to learn manners, and the school does not teach manners," is the opinion of a noted English educationist given, after a year's travel through the United States, to a representative of the Montreal Witness. It may be true of a great majority of schools in the United States. Unfortunately it may be true of many schools in Canada. But I have visited many schools recently in the Dominion and I was impressed with the good manners of the pupils. In nearly every instance the stranger, as is natural, was gazed at attentively on his entrance. But there was no rude staring him out of countenance, and the pupils soon became absorbed in their work if the teacher attended to it; and this is what a visitor wishes to see when he enters a schoolroom. Occasionally the pupils betrayed a look of too great consciousness, but this might have been a reflection of the teacher's mood. I should judge so, for this was what I saw in another school: In company with the superintendent I visited the principal's room of a large school in the leading city of the west. Forty pairs of eyes

of boys and girls glanced in our direction as we entered, but without the slightest consciousness, seemingly, of our presence, and were then bent on the teacher as he conducted the recitation. As we took our seats, two lads who had noiselessly glided to the platform relieved us of our hats and umbrellas and were back instantly in their seats, reciprocating with a smile our nod of recognition of the courtesy. There were many glances turned our way during the recitation, but the eyes showed, not consciousness of themselves or their visitors, but an earnest self-centering on their work. At recess the superintendent beckoned a girl to the front and engaged her in conversation. A boy quietly brought a chair for her. Teacher, visitors and scholars mingled together during the recess, as well bred people do in a drawing room; but when any advances were made the teacher or visitors initiated them. What an agreeable impression such a school makes, and how one wishes time were taken everywhere to get such results, even if we have to draft anew our courses of study.

## Suggestions for Seat Work.

- 1. Pupils write lists of names of objects in the schoolroom beginning with a certain letter. Take, for example, the letter c. The list will be chair, curtain, chalk, ceiling, etc.
- 2. Write all words possible derived from the same root words, as: hope, hopeless, hopeful, hoped, hopefully, etc.
- 3. Write a list of geographical names each beginning with the last letter of the preceding word, as British Columbia, Alberta, Andover, Regina, etc.
- 4. Take a short word, as *reader*, and make as many words as possible from the letters in it as: ear, red, rear, dear, are, etc.
- 5. Let the small children mark familiar words in newspapers and magazines.

"Busy work" or "seat work" should have a purpose beyond merely keeping the child busy.—Scl.

Until a good library is attached as a matter of course to every one of our elementary schools, a great opportunity of refining the taste and enlarging the knowledge of the young will continue to be wasted, and the full usefulness of those institutions will remain unattained. After all, it is the main business of a primary school, a chief part of the business of every school, to awaken a love of reading, and to give children pleasant associations with thoughts of books.—Sir Joshua Fitch.

#### The Summer School

The Summer School for the Atlantic provinces met at Yarmouth, N. S., from July 11th to July 28th. The cool, bracing weather that came with the breezes from the Atlantic was grateful and refreshing, especially to those who were from inland situations. The beautiful scenery in and about Yarmouth, the fine residences, well kept hedges and lawns and luxuriant foliage, were a constant source of delight. An occasional fog wrapped the town in its mantle, but the fine weather when the sun made its appearance could not be excelled anywhere. The citizens had their plans admirably arranged to ensure the comfort of their visitors. A reception, an excursion down the harbour, a drive about the city and its environments, with numerous other attentions, enabled the members of the school to enjoy in a very pleasant and social way the meeting with citizens and to see all objects of interest in and about the town. The outings were so arranged as not to interfere with work. It is probably quite safe to sav that in the whole nineteen years of the school no session has been held in which better results were obtained in the special subjects of the school. Every day there were classes from nine to one o'clock, and often the rooms were crowded with eager students, and the laboratory and field work were of great service to them.

The English literature class, conducted by Miss Eleanor Robinson, was, as usual, of absorbing interest to the members of the school. The course in plant study, by Mr. G. U. Hay, and for the latter part of the session by Mr. J. Vroom, supplemented by frequent excursions afield, gave special attention to the life and environment of the vegetable world-Professor L. W. Bailey, in addition to his subject of geology, also gave lectures on zoology in the absence of the regular teacher. His public lecture on the geology and physical geography of Nova Scotia was an excellent and instructive address from a master of the subject such as Dr. Bailey. Mr. F. G. Matthews' class in drawing was of the greatest interest to many who devoted their entire time to the subject; and his instruction in manual training and to the amateur class in photography were of great benefit to those interested in these subjects. Dr. Turnbull, of Yarmouth, gave a very practical course in physiology. The reception at his house, with an exhibition of the X-ray, was one of the most enjoyable features of the session. The chemistry and physics classes, under the charge of Mr. R. St. J. Freeze and M. J. E. Barteaux respectively, gave an excellent opportunity for practical work in these subjects.

The evening meetings and discussions were very interesting. The educational address of Dr. Inch was listened to with marked attention. Principal Soloan's hints to teacher and pupil how to utilize vacations, called forth much consideration and will be discussed in a future number of the Review. Other seasonable topics were presented, and the evening by Dr. W. H. Drummond, the poet of French habitant life, will long be remembered for the rare intellectual treat it afforded.

In summing up results of the school one can dwell with pleasure on what led to success: The tact and industry of the president and secretary, Mr. J. D. Seaman and Mr. W. R. Campbell, whom the school wisely re-elected to these positions; the excellent local organization, due to the foresight of the council and citizens, Principal Kempton with his staff of associate teachers, and the local secretary, Mr. Geo. W. Blackadar; and finally to the excellent working spirit shown by the students, which proved an inspiration to those who directed the classes.

There was a suggestion made in regard to the future work of the schooll,—that students as far as possible avoid too many subjects and devote their energies to one or two.

The next meeting will be held in Cape Breton if suitable arrangements can be made as to place.

The total enrolment of the school at Yarmouth was about 130.

While travelling on the steamer that runs between Revelstoke and Nelson, B. C., the captain told the following story: A Cockney who had recently arrived in Canada was complaining of the way in which the King's English is mutilated in this country. "Why what do you think I 'card the other day at a railway station when a train stopped? A man put his bare 'ead out of the car window and said, 'where am I at?'"

"Well, what should he have said?" said a stander-

"What should he 'ave said?" said the Cockney, disgusted: "Why, 'where is my 'at.' of course!"

A subscriber who has lately removed to the west writes: "Although I am teaching in the territories I feel as though I had lost a great friend when I don't get the Review."

I. H. F.

#### Art in the Public Schools.

HUNTER BOYD, Waweig, N. B.

#### I. Its Function in Pedagogy.

In a series of questions published in EDUCATIONAL Review of October, 1901, there was a sentence to this effect: "Show the bearing of this whole movement on the training of the emotions." In reply it may be said in brief that if the nobler emotions are not appealed to and refined and strengthened, "this whole movement" is only an occasion for unnecessary expenditure of time and money on the part of our teachers. Of course we readily admit that illustrative material may be made more interesting if it is beautifully executed, and in the teaching of history, geography, and "common things," its aid has been found invaluable, and we are grateful that the supply is now more abundant, and the cost greatly reduced. But its chief function is the imparting of information.

On the other hand there is a comparative dearth, in many schools, of material that appeals directly and strongly to the noblest emotions in the scholars, that is, of reproductions of works of art that are truly beautiful, and at the same time suitable for school use. It is cheering to know there is a more widespread desire for its introduction, and the best method of using it.

We shall best arrive at a solution of this problem by distinctly understanding the function of art in relation to pedagogy. Nearly all the subjects on the curriculum in the public schools are analytic in their tendency, and even poetry has not been exempted from the scientific process. The subjects are addressed to the intellects of the scholars, and it is not easy to develop enthusiasm in their study. Indeed botany is associated in many minds with hard technical words and long lists of Latin names. It is true we do not really know a thing until we can name it, but it is surely a misfortune if the dissecting process obtains to such an extent that the emotions are quiescent. We need the synthetic element in our teaching also, and it is the function of art to contribute to this. The intellectual processes are suffused by emotion and by the same emotions when art makes its presence felt in the schoolhouse. The emotions are not very active in a grammar lesson, nor in mathematical exercises, unless it be the emotion of distaste, and maybe fear of disfavour for wrong answers. But let music be heard, or a beautiful picture introduced, and the emotional nature of the scholars is wrought upon, and probably in the

same way, and at the same time. Art brings in a unifying agent into the school atmosphere. Not all can enjoy the advantage of pianoforte music, nor secure the privilege of examining a real work of art, but more or less of musical drill, and some fairly good reproduction of a good picture is practicable for a much larger number of teachers and scholars. But let it be clearly borne in mind that a new source of pleasure is to be introduced or augmented where it already exists. We earnestly trust that a greater burden will not be placed on the little memories and antipathies engendered where they do not at present exist. For some persons poetry was robbed of all possible pleasure-giving because scholars were required to analyse and analyse persistently. In addition to particulars concerning the author, and circumstances relating to the composition of the poem, archaic forms have to be explained, and "poetic license" accounted for. But we are pleading not for the insertion of a new topic, so much as the introduction of a new influence to pervade the atmosphere of the schoolroom.

Gethe in "Wilhelm Meister," has said: "Men are so inclined to content themselves with what is commonest; the spirit and the senses so easily grow dead to the impression of the beautiful and perfect, that every one should study, by all methods, to nourish in his mind the faculty of feeling these things. For no man can bear to be entirely deprived of such enjoyments; it is only because they are not used to taste of what is excellent that the generality of people take delight in silly and insipid things, provided they be new. For this reason one ought every day at least to hear a little song, read a good poem, see a fine picture, and if it were possible, to speak a few reasonable words."

## II. THE CHOICE OF MATERIAL.

Doubtless by this time most teachers are of the opinion that it is well to make use of pictures in the schoolroom. Not a few in the provinces are in possession of a large assortment of material, and in many instances on taking charge of a new school one of the first duties is to attend to the decoration of the walls. But there are those who readily confess that their acquaintance with art is very limited, and they have been governed in their choice of subjects mainly by size and cost of reproductions. They have not been working according to any particular plan in their selection, as for instance, "animal painters" as Edwin Landseer or Sidney Cooper, or Rosa Bonheur. Neither do they propose to make their scholars acquainted with the work of any particular school

of artists, e. g., the Barbizon school; but rather that they thought this or that picture was "pretty," "nice," or "cute." Indeed they were not aware of any particular motive except to relieve the monotony of the schoolhouse, or furnish something for the scholars to "write an essay upon." There is little fault if any to be found with this state of things, and much for which to be grateful. Possibly in some instances if one were to enquire for reasons the statement would be made that very little was heard at normal school about the esthetic movement and its principles. At any rate a growing desire is evident for some guidance in this matter, and the progressive teacher is left with two alternatives, either to devise an original plan, and slowly gain experience, or apply for English or American publications which deal with this comparatively new but important branch of pedagogy. Those who follow the first plan would probably like to compare notes with others who are making headway in the same department, and those who rely upon the second method are most eager that definite instruction should be given to the students who are passing through our normal schools. Possibly all would welcome a means of communication in the columns of the REVIEW. A list of books suitable for the needs and the income of the average teacher would be welcome and the names of publishers of productions, others than the admirable and inexpensive Perry and Brown series, would be acceptable. In the states of Massachusetts and Connecticut the directors of art have suggested lists of pictures suited to the various grades, and a further classification is made according to the seasons or notable days of the year. But it is felt by some that a point of contact should be found for Canadian educators; and an "Art for Schools Movement" for these provinces, or for the dominion, would soon make it worth while for a publisher to issue a series of pictures after Canadian artists, or at any rate some uniformity of choice of themes may prevail in our schools. In this connection attention may be directed to the "H. B." set issued by an American firm.\* Many of the series are in colour and the set of twenty-five can be had for less than half price by our teachers.

#### III. THE METHOD.

The method of using such pictures can be better dealt with when a specific case is mentioned, but meantime in answer to the enquiry, "How would you begin to explain a picture?" We would say, "Take *Punch's* advice, 'Don't.'" Give the artist,

the picture, the scholars the first chance. When the surface meaning is exhausted and questions arise about details in the picture, stimulate discussion, and only when interest is awake proceed to explain. We respectfully solicit experience in this department, and shall be glad to give any information about the more commonly known pictures if such is not readily accessible by other means.

"God uses us to help each other, so Lending our minds out."

\*Royal Picture Gallery Company, 152 and 158 Lake street, Chicago, Ill.

## How Nature Study Should be Taught.

Begin every lesson by showing either a specimen or an experiment, or by asking a question about some observed phenomenon.

Direct pupils to observe nature whenever they are out of the house,

Have pupils keep note-books of every feature of the progress of the seasons.

Direct pupils to collect such specimens as are needed, telling them just how, where, and what to get.

Watch the markets, and make use of the material they bring within range.

Have pupils describe and name an object and describe its parts, before you teach them its functions, habits, etc. This is "the study of structure before that of functions."

Never tell pupils anything that reasonable effort can lead them to learn for themselves. They become "doers by doing."

Commend all voluntary observations and individual studies on the part of a pupil.

Do not make the lessons so elementary as to make thinking unnecessary on the pupil's part, and do not permit them to degenerate into mere object lessons.

If there is a good prescribed course available, follow it with care; but if not, use any material obtainable, remembering that the aim is culture, not instruction.

In order to teach yourself more about the subject, do not hesitate to ask questions, by correspondence or otherwise. Remember it is not essential that the instructor should learn all his facts by the observational method which he asks his pupils to adopt.

Review the subject in a good summer school of the right kind, where both profit and recreation may be obtained.—Dr. Edward F. Bigelow, Stamford, Ct,

## The Spirit of Helpfulness.

Address of G. U. Hay to the Graduating Class St. Stephen, N. B., High School, June 30.

I need not remind you that though your school life is ended today your education is by no means complete. Tomorrow you will feel a certain freedom, a feeling that there are no more school lessons to learn. Your time will in a certain measure be your own, your energy and industry will be directed into new channels; you will come more in contact with the world, and you will begin to realize what kind of a schoolmaster is this world in which we live. Some find it a very hard school indeed. I trust it may not be so to you. The kind of postgraduate education you are likely to get from it will depend in a large measure upon yourselves. If you are always willing to learn the best that this world has to teach you, and will cultivate the qualities of self control, self-reliance, unselfishness, obedience and cheerfulness there is no doubt you will get along very well in the world's attempt to educate you.

I would like this afternoon to address a few words to you on possibilities after graduation and the doors that are open to graduates. Now, the great majority of those who leave school have to be content with the lot of "average citizens," and a very happy lot it is if you young people are trained to fill it with industry, earnestness and faith. I know of no happier lot in this world than to find some congenial occupation and to work at it earnestly with brain, heart and hand, and to sweeten that toil by devoting a certain amount of your leisure time to the reading of good literature and the study of the features of the natural world that lie so temptingly about us all thro' this Canada of ours. This is a beautiful world in which we live. It is our duty as intelligent beings to learn something about it so that we may best enjoy it as we pass through, and make it the happy place that the Creator by his goodness and wisdom

You have read in your history of England that King Alfred so divided his time that a third should be devoted to work, another third to reading, study and recreation, and the remaining third to rest and devotion. A third of a day to study, recreation and reading! How the busy man of affairs laughs at such a waste of time! and yet he may be dwarfed intellectually and in spirit by the lack of this much needed leisure. I met a New Brunswicker recently in a thriving city of the west. He had built up a fortune in less than a score of years. But had you seen and talked with him you would not have envied him his wealth. The race for money had apparently destroyed any taste, if he ever had any, for the calmer and more rational enjoyments of life. Money is a very good thing to have, if we have not too much of it, and if the strain and worry of getting it has not blunted the moral sense and dulled the desire for the higher intellectual life.

designed it to be-

Canada is a new country and the energies of her people must be devoted for a time, as in other new

countries, to the making of a living and perhaps to the making of a reasonable amount of money. But my plea to you today is-do not allow the making of money in your future life to dwarf your intellects; to blunt your sensibilities of the beautiful in Nature, in Art and Literature. Above all do not lose sight of character. Conduct, says Arnold, is three-fourths of life. There are conditions in money making today on this continent that are neither honest nor wholesome. Money is often made for selfish ends without regard to the rights of individuals or of the public. Aggregations of money, of capital, are being made that are dangerous to communities and that aim to crush individual rights. And this is because men are too eager for money and power and have not the character to use these for the benefit of the public but only for their own selfish ends. How can we find a remedy for such a state of things? It must be in wiser education and conduct. No truer words have been said than those of President Eliot, of Harvard, that the aim of education is "to lift the whole population to a higher plane of intelligence, earnestness and faith." The schools alone cannot do this. The world will have to do some teaching along this line, and less in the line of trusts, shams, and graft.

I have said that the majority of those who go out from our schools must be content with the lot of "average citizens." The minority of youthful citizens in our schools, those who are to become the governors, ministers, legislators, poets, philosophers, leaders of thought and industry, the men and women who plan work for others to do, may, with a little assistance, be left to work out their own destinies. Such men and women have done so in the past. They will do so in the future in spite of disadvantages.

But there are some people who seem to have no object or purpose in life. Every little difficulty that arises seems to turn them aside. They like to go along the path that is easiest and where there is least resistance. Perhaps it may be that there is very little in some of these people; and as an old lady once said in speaking of a friend, "You can't get more out of people, my dear, than there is in them." It may be that many persons are shy and retiring and are pushed aside by those who have not half the ability, but who have more energy. Whatever the cause there are people who seem to be leading half-starved lives and do not seem to know it; some who have not discovered the divine gift that is within them. Some one has said what a change it would make in this world if each one understood his or her special gifts and went to work at once to cultivate and apply them for the benefit of himself and society.

Now we cannot imagine any boy in the graduating class before us saying—"My work is now done. The world owes me a living—I will earn easy dollars—that is, I will get money with as little effort and with as little work as possible." Nor can we imagine any girl of this graduating class saying—

"There is no need of my doing anything. My father is wealthy. I can spend my mornings in reading the latest novel, my afternoons in lounging in a hammock or playing bridge-whist, and my evenings in going to parties."

Every self-respecting boy would scorn the thought of getting a dollar without earning it. Every girl of spirit would loathe the prospect of spending the mornings and evenings of the best of her life in idle-

ness or in the gratification of self.

"But what is there for me to do?" some one may ask. "I do not have to make my own living. I have no aptitude for business. I do not wish to become a teacher or enter any of the other professions." Well, let it be granted that you do not have to earn your own living; and that you have no necessity or inclination to become a teacher or doctor or go into business. Suppose you have no aptitude for anything in life from which you may draw a salary,—does it follow that those divine gifts within you are not to be cultivated and be made a blessing to yourself and to society? How can this be done?

The answer is: Every human soul should make the most of itself as a mark of simple gratitude to Him who created it. Every human being born into a community has obligations to the other members of that community. The education he receives, the privileges he enjoys in a well regulated town like this are not paid for by one household but by every household according to its ability to pay. If the one who is educated here in the many excellent schools that are freely provided and who enjoys other privileges moves to another country he preserves a lifelong attachment to his native place. One of the most gratifying things to me on my recent visit to the far west was to see so many people from the Maritime Provinces occupying prominent positions, and to note the attachment that all had for the place of their birth; quick at all times to speak well of it and to stand up boldly for its good name if necessary. That is the true spirit of loyalty.

And not less is this spirit of loyalty and attachment shown by those who stay at home and help to build up their own town or community and its institutions. Education, whether we receive it in the schools or in the business or social life of the com-. munity or by communing with books and nature, has for its purpose the opening of a life of activity and usefulness for each one of us. That life in its fulness and what it accomplishes for ourselves and the world around us means very much. It means that we shall keep our bodies healthy, pure and wholesome; it means that the intellect shall be clear, inquiring and receptive; it means that the spirit shall be strong, human and full of sympathy for others. How large is this God-given human nature of ours, and how full of promise it is for those who strive to think and to accomplish! Not one of its many sides may be neglected. The man who devotes his life solely to the making of money may starve his soul. Herbert Spencer says—"The performance

of every function is in a sense a moral obligation."

Let me in a few words try to show how we may use this body, mind and spirit of ours so that they may be of the greatest service to ourselves and to others.

First, as to the body,—it must be kept in good health, if the senses are to remain alert and keen. Every wholesome exercise of the body invigorates the spirit; curling, snow-shoeing, skating and hockey in the winter; walking, camping out in the woods, rowing, and all healthy outdoor games in the summer. But don't be satisfied with playing ball or hockey by proxy—don't sit down and cheer and eat candy and peanuts while others play the game. If you have to go a mile or two don't take the street cars (I hope none of you are financially interested in the street railway), but walk and enjoy the wholesome exercise, the pure air, the wayside flowers and the joyous songs of birds in the trees. The objection I have to automobiles (I may tell you in confidence that I haven't money to buy one), to street cars, and the vans that carry children to school is that the good old-fashioned habit of walking is in danger of becoming a lost art; and people are missing the exhibitantion that comes from a good bracing walk in the open air.

Why do I lay such stress on this bodily exercise and what advantage is it to the whole community that you should have sound bodies? Because if you are healthy and aim to keep healthy, your senses will be alert and keen, you will look well after your own business and the business and other interests of the town that may hereafter be entrusted to you; your intellects will be sharpened by wholesome physical exercise and you will delight in good wholesome literature instead of weak novels and thus add something to the culture of the community. And there is another fact that should have weight: Every intelligent stranger who comes to your town will notice beautiful houses and grounds, fine horses and carriages; but what will impress him most will be the alertness and physical health of the men and youth whom he meets on the streets and the poise of figure and clear complexions of the women. A healthy town with healthy people in it has a reputa-

tion that is worth preserving.

And now a few thoughts about the training of the mind. Have you ever considered how the mind acts upon the body. Every act of the body is thought over in the mind beforehand either deliberately or quickly. If you pitch a ball there is a mental image of the curve it will make and where it is going to light. If you go on a journey there is picture in your mind how you will go, what you will do and what you will see. And so it is with every bodily act that we are conscious of. It is preceded by a mental image of the act. Thus the body is the servant of the mind. How important it is then that the mind shall be carefully trained. Hitherto your mental as well as your moral and physical training have been directed in the home and school. From this time forward your education will be more in

your own hands. Now if you have tried to do your best in the school and home you have one good habit pretty well formed, and that is the power of sustained effort,—the habit of doing the best thing not only once or twice but to keep on doing it through life, and doing it with accuracy and thoroughness. If this habit is pretty well grounded the education that you will get from the world will be very considerable, for the world encourages trained workers and helps to bring out the qualities of the keen

enquiring and receptive mind.

There is one point that I have referred to before and which I must not lose sight of, and it is this: That those who engage in business or a trade or a profession, or those who may be above the necessity of earning a salary owe it as a duty to themselves and the community to cultivate their minds for their own benefit and for the benefit of the public. Many of you-all of you, I hope-have a taste for literature. What an excellent thing it would be in your post-graduate course in the world's school to form a reading club, and gather in with you some of the graduates of past years to continue the study of literature begun in your school course, or if this is not possible let two or three join together and with the assistance of a reader or scholar of some experience plan out a daily course of study in the poets and prose writers of English literature. And do not be too modern in your choice of authors. Let one or more of the following writers be on your list: Chaucer, Spenser, Shakespeare, Addison, as well as Wordsworth, Browning, Tennyson, Longfellow, Thackeray, Scott, Dickens, and others that might be named. If you read novels let Scott and Dickens be your first choice and do not be in a hurry to read the stories written in recent years. Many are worthless. It is a pleasure to know that there never was a greater demand than during the past year for reprints of the works of Shakespeare, Scott and Dickens. These have stood the test of years and are certainly deserving of more attention than those of late writers.

If you have a love for nature you can do much by the study of your surroundings to occupy your minds profitably and give benefit to others. What is needed in New Brunswick, as it is needed in other provinces of Canada, is a systematic study of our plants, birds, insects and other animals; our forests and streams with their products; our climate, soils and minerals. Much can be done by the students trained in our schools to make better known to the world our resources. What more inviting study than that of our birds who woo you from tree top and meadow with their charming melodies. A small opera glass or field glass and a book on birds with a little enthusiasm and considerable patience will make you acquainted with the differences and habits of the birds who frequent our woods and fields in summer. The many different kinds of plants that inhabit our woods, meadows and moors have a wonderful beauty and structure, and still more wonderful are the habits of many of them. Then at night

when darkness shrouds the earth, when bird and insect and blossom are resting, there are the stars that come out above you and invite you to study them. You have noticed that one star differs from another in brightness. Have you learned to distinguish the difference in color of the principal stars? Have you thought why one is red, another blue, another yellow, another white? Have you learned the names of and been able to trace the constellations in their course through the sky? If not, these and a hundred other problems will fasten your gaze and fascinate you as you look upward night after night.

There is so much to delight and instruct you in the study of nature, that once you are interested it will become a life long pleasure, and be a pleasure to those around you, for enthusiasm is contagious. Getting out of doors as much as possible, and being interested in things out of doors will keep you perpetually young in spirit at least, especially if you can spend a month or two in summer in the country or in camping out. The novelty that comes from roughing it in the wilderness, the exhibitantion that springs from making one's way up and down some of New Brunswick's rapid rivers in a canoe, or camping out on the shores of some of our picturesque lakes, or of going through great stretches of forest, or climbing mountains, not only give health and pleasure at the time,—the remembrance of them will call up a feeling of delight in after life and cause the blood to move more swiftly through the veins. It is a healthful and joyous recreation, and when it can be combined with some study of nature it helps to benefit the world as well as yourselves. This getting nearer to nature and studying her many forms will help us to a more wholesome way of living; it will refresh and renew the spirit.

I have spoken of the care of the body and the cultivation of the mind. How necessary these are to our happiness and the happiness of others! Then there is the spirit which animates body and mind. We should seek to cultivate the spirit. There is the spirit of thankfulness to Him who has created this beautiful world and would teach us how to enjoy it rationally. There is the spirit of helpfulness. Cultivate that. If you enjoy the book you are reading go and read it to some invalid or lend it to some one who has not had the same advantages that you have had. If you take delight in your "literature class" call in others to share that delight. If you have found a rare plant in your walk; or if the songsparrow, or purple finch, or thrush, have poured out notes more joyous than usual, make everyone in your neighborhood have seeing eves and hearing ears. You will have many opportunities in your lives to cultivate the spirit of helpfulness and it can be done by a thorough sympathy with and consideration for the life and surroundings of others.

You may be assured that your lives will be happy—and we all desire happiness—if you fail not to "keep up your spirits?"—the spirit of thankfulness, the spirit of helpfulness, of cheerfulness, of forbear-

ance, the spirit of giving up your own pleasure for that of others, the heroic spirit that will carry you through life without flinehing under trial.

Now I am afraid this brief address has not made clear the doors that are open to you after graduation, or has not given you much advice about the particular occupations you may follow. I did not intend to do that, but rather to point out what may claim your attention outside of your occupation, and how you may make a good use of your leisure time.

## Address of F. B. Meagher, M. A.

To the Graduating Class of the Woodstock, N. B., High School, June 28th.

I esteem it both a pleasure and a privilege to be called upon to address you this evening, but regret that some one has not been selected whose language would give expression to thoughts lofty and worthy of remembrance—some one whose eloquence would do justice to an oceasion which is not only a landmark in your educational progress, but in your lives as well, for your school days are now over, and in a certain limited sense, you are about to go forth into the world. Perhaps the happiest days of your lives have been spent. Other happy days you will see but into them will enter the cares and responsibilities of life, and then you will realize the full force of that oft repeated quotation from Virgil's Æneid, "Forsan et haec olim meminisse juvabit," for their memory cannot fade away. Your school days are over, but in a wider sense you have not severed your connection with this school. You will have a kindly place for it in your thoughts and be loyal to its interests; you will have a friendly regard for other graduating classes for old times' sake; and you will always gratefully remember those teachers under whose patient and efficient eare you have been trained and fitted in a measure for the work of life.

Some years ago (how many I would not like to say) a class graduated from a well known high school. They had no such fitting and appropriate exercises as you have here this evening, but instead were subjected to the dread ordeal of a public examination. Some acquitted themselves brilliantly, some indifferently, and with others again it was elearly a case of "vox faucibus haesit," for they could answer no questions at all, but these were minor incidents, and were soon forgotten in the glad feeling of relief which came when it was all over. Now for one long last look at the old familiar rooms which they would never again enter as pupils, then good-bye all around, and they are away. members of that class, and it was a large one, are now scattered far and wide, distance and lapse of time may have caused their school-day friendship to grow cold, but neither the one nor the other can break that tie which still binds them to the old high school of happy memory which they all attended together and where they were taught by one whose fame is now spread over the English speaking world. Many of them have done well in life. Some are pursuing the even tenor of their way unburdened by the weight of ambition, and some, alas, have joined the great majority. Of those who entered college a few won a high place in the roll of their Alma Mater, and not a few who went forth resolved to do so had their hopes come to an untimely end in the first written examination, and they who worked faithfully on undaunted by failures deserve more mention here, but lack of time forbids.

This is the history in brief of that class and I have instanced it because in a way it is a type of all elasses. Your hopes and aspirations are no doubt the same as theirs; your friendshp may be more firmly cemented by mutual intercourse or it too may grow cold in the lapse of years, but it can never die, for the same common tie will still bind you all together; you too will win honors, and you also will meet the reverses which must be bravely borne, for in this will lie the true test of your worth. The triumph of success is a great thing, but the triumph over failure is a better and greater, and they who can keep steadily on in the face of repeated failures, until they attain the goal of their ambition are most worthy of imitation, for they have been trained in that great school of strong and patient endeavor which upbuilds character and makes earnest and self-reliant men and women. They shall bear the palm for they are worthy of it as your class motto

In conclusion I wish to congratulate you on so successfully completing your high school course, and extend to you my best wishes for your future welfare and prosperity.—Woodstock Dispatch.

## Letter Writing.

The exercise in letter-writing given in language books are often stilted and unnatural and require a child to express, instead of his own thoughts, those of a person in some other situation or condition, often quite foreign to his experience. Natural and easy letters will result when the children are at home with their subject,

In a class of over forty, some one is nearly always absent on account of illness. We always write to these pupils. We tell them every bit of pleasant school news that we can remember, about lessons, visitors, exarminations, attendance, and any little event of the day. That they may not be too monotonous reading, each writer adds a bit of his own personal experience or adventure. Then a proud boy is selected as mail carrier.

There are several ethical lessons connected with this exercise: We must always send kind messages, be thoughtful for sick people, and not mention unpleasant things; we must remember that our mail carrier should be too honorable to even glance at the letters entrusted to him. Loyalty and sympathy are also developed in this way.

## The Review's Question Box.

G. H. H.—Would it not be well for teachers to invest ten cents a year in the reports of the Geographic Board of Canada and spell place names uniformly?

A correspondent writes: "It has occurred to me that you would have printed the name of the author had you known that the song beginning "It is Only a Small Bit of Bunting" (page 304, EDUCATIONAL REVIEW for May) was written by Mr. J. C. Morgan, M. A., inspector of public schools for the North Riding of Simcoe and the town of Orillia, Ontario.

M.-I am troubled with tardiness. Is there any cure for it?

Do not be too much troubled about it. There are other things worse than tardiness. I was with a superintendent recently when a teacher came to him to complain of the annoyance caused by tardy pupils. He told the teacher that it was wrong to be too much disturbed about it; that tardiness was not a sin; oftener it was a virtue. Think about this. The school above referred to was in the poorer parts of a large city, and the superintendent felt the teacher should discriminate between the boy or girl who had to be late in order to earn a few pennies to eke out the family income or to assist a tired sick mother, and the child who was habitually and carelessly late.

No, do not worry about tardiness; try all you can to overcome it. Make the first fifteen minutes the most interesting of the day. To pupils carelessly late deny the privilege of taking part in these exercises, and let them sit apart from the others. Don't pay much attention to them. When they see what they are missing—the most pleasant exercise of the school—they will come in time, if is possible.

In the face of the almost unanimous opposition of the teachers, the New York Education Committee has determined upon the abolition of corporal punishment. The power of expulsion is, however, to be vested in the hands of the principal teacher. The change can hardly be looked upon as one for the better. Although improper or frequent use of the cane cannot be too severely condemned, it is certain that a good thrashing does a boy who deserves it far less moral injury, than would be inflicted upon him by the disgrace attendant upon his expulsion from school.—Exchange.

O ye! who teach the ingenious youth of nations, Holland, France, England, Germany or Spain, I pray ye flog them upon occasions,

It mends their morals, never mind the pain,
—Byron (slightly altered).

## The First Day of School.

The first day of all days is the crucial test especially for the inexperienced teacher. All her theories acquired in normal schools may avail little if she lacks the ability to put her own heart thoroughly in touch with the souls of the little ones before her; and the children before her are invariably "so unlike those in the practice classes!"

During the first day every act, from the greatest to the least, is of vital importance and significance. The position in which she finds herself placed calls for the most painstaking preparation, not only for special work in the classes, but for the general work of the school. Any sign of weakness or indecision in this day's programme is detrimental, nay, disastrous.

In the higher grades real work can begin at once, but in the intermediate and lowest grades a day or two can wisely be taken for talks, songs, entertainment and "getting acquainted."

Do not find fault with the work of the teacher who preceded you. Remember there has been a long summer vacation and it is not strange the children should forget. Do not expect to accomplish the perfect organization of your school the first day or the first week. If it be done at the end of the first month you will have accomplished much.

Suggestions for a first day programme may be of some value. The pencil and paper on each desk is previously placed. On these slips the children should write their names, their row and the number of their seat. The old practice of going up and down aisles taking the names of pupils is unwise, for many a teacher has lost the control of her school by the vain attempt to keep the children in order while doing this. The slips are passed forward and in three minutes you have the names of fifty children.

Previously written by yourself upon the blackboard is the appropriate memory gem which serves for a talk and is memorized; for you are wise enough to select not more than two lines, but those two lines are full of meaning, and you have one or two bright little anecdotes to tell about the thought.

Even if you plan the work for various classes, there will be sure to be much extra time. Your general preparation fills just such moments.

You know some poem which is appropriate to the season. Tell the children it is better to begin learning it today than to put it off until next week, so you perhaps teach them Henry Van Dyke's little poem:

These are the things I prize
And hold of dearest worth;
Light of the sapphire skies,
Peace of the silent hills,
Shelter of forests, comfort of the grass,
Music of birds, murmur of little rills,
Shadow of clouds that swiftly pass,

And, after showers,
The smell of flowers,
And of the good brown earth—
And best of all along the way, friendship and mirth.

At another convenient place in the programme you are prepared to tell them some interesting fact in nature. Best of all is the short story which you have prepared. You do not read it. You tell it and "to be a good story-teller is to be a king among children," so establish this coveted kingship on the very first day. The story should be one of the choicest and best you know. If possible, illustrate that good story on the blackboard.

Then let the children sing. They will be delighted to sing to you their favorites. As each song is finished, say something pleasant to them about the song or about their singing. Tell them you like it, that they sang it well, that it is a pretty song, who wrote it and what it means. Above all, find no fault with any harsh tones or too loud voices,—only make a mental note of these. They can be rectified later in the school work. Let the children sing on, song after song, if they all wish it.

The gymnastics and marching will be usually enjoyable if, in addition to the usual movements, you can show them other and new motions.

The drawing lesson, always enjoyed, should, if possible, have a place in the first day's programme. Carefully prepare some design which you will first draw, then colour, at the blackboard, while the children watch you. If uncertain of your ability, practice upon it several days before school opens. Your design should be very simple but effective. It may be but a stubby little twig with an apple and three green leaves clinging to it, but the children are led to see that the red colour in your apple exactly matches the red in that real apple on your desk—and the green of your leaves is like the real green leaf on your desk. The children see that you had a plan and that you accomplished it directly and successfully.

Distribute papers and let them try to do the same with peneil outlining, ink and brush work, or water colors.

Plan to speak of some current event that is of

present interest to the whole country. Inform yourself about it; simplify the facts and tell them to the children in simple language.

In all that you plan to have the children do this first day, aim to have the work such that, while not easy, it can at least be done by all and well done. Tact in asking questions, assigning board work, reading or seat work, is required. A child dreads to fail outright the first day of all days. He is more disheartened than at other times.

A good teacher is a gift direct from God just as surely as is a good poet or artist; and looking back upon our own education we can trace our best work, our noblest aspirations, our very character, to the influence of one true and noble man or woman, and not to any one text-book or any particular study.

As the last child leaves the room at the close of the first day, and you sit in silence before the empty seats and think of the day, you will naturally ask, "What have I accomplished today?" Little in any text-book, perhaps, but you have gained and kept their attention, you have won obedience, promptness, accuracy; you have gained kindness, order, interest, and, best of all, most treasured of all, their love.

Is not this a good beginning?—Adapted from Popular Educator.

## The Beginning of a Western Town.

A correspondent writing from Rosenroll, Alberta, gives a suggestive sketch of the rise of a western town. The letter is dated about the first of May. By this time it has probably doubled in population and buildings. She says:

"Camrose, our new town, expects to be a railway terminus this fall. It was laid out last September. Lots sold at good rates from the first, but some that were sold for \$200 last fall have had \$500 refused for them since. Two churches are occupied and two others are being built. Modest little structures they are, but they form the centre of considerable of the life of the surrounding country. The two licensed hotels tell the story of another kind of life. Most of the two dozen and more buildings are business places.

"Camrose has a good site on a pretty slope rising from Stoney Creek. For awhile there was anxiety about the water supply but several good wells have lately been bored. Water was obtained at 80 or 90 feet.

"In the December Review in speaking of the government support given to schools, there was an error. The amount received from the central government until late years was seventy per cent, of the district's expenses. This has been somewhat reduced. The money is paid on a different basis. Quite a large proportion of the grant depends on average attendance, equipment, etc. This is an incentive to provide good buildings, fences and apparatus."

B. E. D.

#### Teachers' Institute.

The twenty-sixth annual meeting of the Annapolis and Digby Counties Teachers' Institute was held at Digby, May 26 and 27. There were representatives present from other counties adjoining including Inspector MacIntosh and Principal McKittrick of Lunenburg, and Principal Morton of Bridgewater! The excellence of the papers and discussions were quite equal to those of recent years. To the president, Inspector Morse, belongs much of the credit of the success of these annual meetings. The first paper was read by Principal Morton of Digby Academy, on The Three R's. In reading greater variety of readers is necessary; spelling should be taught from the context; in arithmetic accuracy is the test. This excellent paper gave rise to an animated discussion in which Principal Smith, Principal Morton of Bridgewater, and Miss Kinley took part. Miss Hattie M. Clark gave an instructive talk on Drawing. In a miscellaneous school she would make two divisions of this subject; the first, including the lower grades, to deal with outline work only, while the second, composed of the higher grades, should add shading. Principal A. W. L. Smith of Annapolis, read a paper prepared by T. H. Spinney, in which a method of reducing the vulgar fraction to the decimal form differing from that in the text book was introduced and received demonstration upon the board at the hands of the reader. Miss Mary T. Kinley read a suggestive paper on The Country School; its Discouragements and Inspirations, which was discussed by Dr. J. B. Hall, Mr. A. DeW. Foster and Miss Mabelle Fash.

In the absence of Professor Haley, of Wolfville, Dr. Hall addressed the institute on the elements which enter into the training of pupils, and gave some very practical and useful suggestions on the course of study, the pupils' surroundings and the teacher. Miss A. B. Juniper, teacher of domestic science at the Middleton Consolidated School, gave an excellent address on this subject and its bearing in education. To many domestic science means instruction in cooking only, but such a meaning is very restricted. It is a training wheh is of incalculable benefit in teaching girls to keep good homes and become intelligent mothers.

After an address by Mr. G. A. Boate on the drawing of projections, the institute appointed delegates to the Provincial Educational Association—and named the executive committee for the ensuing year.

At the final session Mr. W. K. Tibert, of Bear River, gave a lesson on elementary science to a class of grades seven and eight, which carned the well-deserved commendation of the institute.

"The REVIEW helps me very much in my work. It is always to be found on our school reading table and the pupils enjoy it with us."

E. G. P.

## A Country Newsboy.

People who travel on railway trains frequently notice dogs rush out from farm houses and try their speed in a race with the "iron horse." Such dogs, if properly trained, might be as useful as the case mentioned in the following, which is taken from the paper called *Our Dumb Animals*:

The railroad ran along one side of a beautiful valley in the central part of the great state of New York. I stood at the rear end of the train, looking out of the door, when the engineer gave two short, sharp blasts of the steam whistle. The conductor, who had been reading a newspaper in a seat near me, arose and, touching my shoulder, asked me if I wanted to see a "real country newsboy." I, or course, answered "Yes." So we stepped out on the platform of the car.

The conductor had folded up his paper in a tight roll, which he held in his right hand, while he stood on the lower step of the car, holding on by his left.

I saw him begin to wave the paper just as he swung around a curve in the track, and a neat farmhouse came in view, 'way off across some open fields.

Suddenly the conductor flung the paper off toward the fence by the side of the railroad, and I saw a black, shaggy form leap over the fence from the meadow beyond it and alight just where the newspaper, after bouncing along on the grass, had fallen beside a tall mullein stalk in the angle of the fence.

It was a big black dog. He stood beside the paper, wagging his tail and watching us as the train moved swiftly away from him, when he snatched the paper from the ground in his teeth and, leaping over the fence again, away he went across the fields toward the farmhouse.

When we last saw him he was a mere black speek, moving over the meadows, and the train rushed through a deep cleft in the hillside and the whole scene passed from our view.

"What will he do with the paper?" I asked of the tall young conductor by my side.

"Carry it to the folks at the house," he answered. "Is that your home?" I inquired.

"Yes," he responded; "my father lives there and I send him an afternoon paper by Carlo every day in the way you have seen."

"Then they always send the dog when it is time for your train to pass?"

"No," said he, "they never send him. "He knows when it is train time and comes over here to meet it of his own accord, rain or shine, summer or winter."

"But does not Carlo go to the wrong train sometimes?" I asked with considerable curiosity.

"Never, sir. He pays no attention to any train but this."

"How can a dog tell what time it is, so as to know when to go to meet the train?" I asked again.

That is more than I can tell," answered the conductor; "but he is always there, and the engineer whistles to call my attention, for fear I should not get out on the platform till we have passed Carlo."

"So Carlo keeps watch on the time better than the conductor himself," I remarked, "for the dog does not need to be reminded."

The conductor laughed, and I wondered, as he walked away, who of your friends would be as faithful and watchful all the year 'round as Carlo, who never missed the train, though he could not "tell the time by the clock."

#### The Joy of Hard Work.

Give your scholars hard work and encourage them to do it. Even the dull ones will catch something of the enthusiasm and bravely make an effort to win your approval. Never set hopelsss tasks but gradually lead up to harder and harder work as the year advances. One of the best ways to teach pupils to think quickly is the simple drill in mental arithmetic two or three times daily, calling on one and another for the answer rather than having them give it in concert. There is nothing so apt to clear the cobwebs from the childish brains as a quick test in adding or subtracting and the boys and girls really love the brisk work.

Five minute lessons on tablet or blackboard in geography are much enjoyed too. Have each pupil write capital and largest city at the top of two columns and then rapidly read the names of countries to them. Give ample time to write each word carefully and correctly but none to look about them to see what others are doing. In this way a large number of children can be at the board at once and most children enjoy putting their work where all can see,

There is really no end to the mental stimulants that may be given if one is alive to the pleasure to be derived from hard work. "Work while you work," is the only motto for the schoolroom. A young girl told me that once her teacher handed her a problem with the remark, "Here is one you may try but you won't get it. I worked a week on it myself before I solved it." She barely took time to eat and

sleep and at the end of four days was ready with a faultless solution. That lesson helped her all through life and still inspires her in the face of almost unsurmountable difficulties.—Selected from the Educational Gazette.

## The Battle Hymn of the Reformation.

The world knows Martin Luther as a reformer; comparatively few know him as a musician and hymnologist, writes Allan Sutherland in the August Delineator.. Luther wrote some thirty-seven hymns and Psalm revisions, and these have been translated into many languages. His masterpiece, however, was "A Mighty Fortress is Our God," the great battle-hymn of the Reformation, which is as dear to the German heart as the Fatherland itself, each being inseparably associated with the other. It is said that this hymn accomplished as much for the Reformation as did the translation of the Bible. D'Aubigne says that "it was sung in all the churches of Saxony, and its energetic strains often revived and inspirited the most dejected hearts." It was sung at Luther's funeral, and its first line is carved on his tomb. It was first published about 1527, and has been translated at least eighty times, doubtless the most accurate being the version of Thomas Carlyle. That of Dr. Frederick Henry Hedge, beginning "A mighty fortress is our God," is the most popular in use in this country. Kostlin has well written: "This hymn is Luther in song. It is pitched in the very key of the man—rugged and majestic, trustful in God, and confident, speaking out to the powers of the earth and under the earth, an allconquering conviction of divine vocation and empowerment." The world has many sacred songs of exquisite tenderness and unalterable trust, but this one of Luther's is matchless in its warlike tone, its rugged strength, and its inspiring ring.

An English newspaper says that a schoolmaster was in the habit of punishing scholars who came late to school in the morning by keeping them in in the afternoon. One who was five minutes late was kept in ten minutes, and so on in proportion. One morning it chanced that the schoolmaster was half an hour late, and a smart boy among his pupils was not slow to remind him of the fact. "I'm very sorry for being late boys," said the schoolmaster, with a twinkle in his eye; "and, as I punish you, it's only fair that you in turn should me; so you will all stay and keep me in for an hour this afternoon."

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## Selected Paragraphs,

The Japanese are serious-minded people, as their literary habits show. The recent report of the librarian of the imperial library at Tokyo shows that there is little demand for light literature in that capital, for fiction of any sort, contrary to the experience of most of the popular libraries in England, France and America. The Japanese mind runs to science, mathematics, medicine, language, and to what may be termed the graver forms of literature. More than 40 per cent. of the works taken out of the imperial library are of this character. The Japanese are very fond of history, in the making of which they are extensively engaged at present in the eastern war.—Philadelphia Ledger.

In a city of 4,000 inhabitants in the middle west, in May, the school board raised the salary of the superintendent and of all but two teachers. Why the exception of the two? They had no faith that the raise would be granted, and would not sign a petition to the board. All who asked received. Imagine the consternation of the neglected. They argued that if the salaries were to be raised all would share in it, and they shirked. There are a lot of shirkers just now in this matter of professional promotion. There are thousands of teachers in this country, literally, who are receiving an increase in salary who have not lifted a finger, not even a faithless prayer for it. It is refreshing to know of one town in which the school board took their inactivity at par.-N. E. Journal of Education.

A school teacher dreamed that she quit teaching and bought a farm. She felt happy in the prospect of freedom and profit. The first crop planted was wheat, and the vield was large; again the teacher was happy. The total amounted to 7,000 bushels, and the market price was a dollar a bushel; she sold it all and felt that now she could afford to do something she long had wished to do. But the wheat had been sold to 7,000 different people, a bushel to each one. A few of them paid cash but more did not, and many of them neglected to pay even when reminded. She was troubled, but awoke to find she was still a teacher. It required no Joseph to interpret the dream; she saw the point, gave heed to the printer and remitted promptly for her subscription. -The Western Teacher.

Marking time will kill a man much more quickly than marching at a quick step. In war times I remember to have seen a man tied to a tree and forced to mark time, with a guard over him to prod. He could mark time, as slowly as he pleased, but he had to keep at it. I thought the man would die. He could have marched twice as long without fatigue. The teacher who marks time is the one with nervous prostration. There is life and elasticity in progress. It is better for the blood, for the nerves, for the digestion to have something a-doing. It kills any one to teach the same this year that she did last. The one who has a perfect method, a perfect scheme of devices, is liable to break down early for lack of the elasticity of progress. Don't mark time.—N. E. Journal of Education.

Russia cannot win so long as Japan continues to exist. In that cluster of islands is to be seen, what has never before been recorded in history, nearly fifty millions of people, so perfectly united as to be fused by the fires of patriotism into a single individual, determined to die or to live as a free nation, and fighting as only such a mass of humanity, so inspired, can fight for such an end. They cannot be beaten, and no lover of humanity and freedom ought to desire it.—Chester Holcombe, in the July Atlantic.

Our schools are filling up with a spry, deft, alert, attentive, non-introspective generation of young people who will make agreeable neighbors and comfortable citizens, but they seem to be losing certain qualities of ruggedness that should distinguish a people. Our students are far too willing to take the teacher's word for it. There seems to be too little of that fixity of purpose and independence of attitude that leads one to say even of an unschooled man that he has good stuff in him. As a body, our students ask few questions, they seldom challenge a classmate's statements, they are glad to be passed by in a recitation, to avoid interrogation. They like to bloom without being torn to pieces for analysis. They are not fond of knotty problems. There is little of that rejoicing in strength to run a scholarly race. I think parents make a mistake in not commending teachers more often for requiring students to work out questions for theme 'es—G. B. Aiton, High School Inspector,

#### A Use for Pictures.

My children always beg for "pictures" when we write compositions. I have cut pictures from old magazines, etc., using advertisements as well as others. Very often the children are proud to bring pictures they have cut out. I cut pictures of corn, melons, potatoes, tomatoes, pansies, sweet peas' etc., from a seed catalogue. These pictures I let some of the girls paste (one at the top of each sheet of paper) in a tablet, and when composition day dawns they are passed to the class.—*Pop. Educator*.

#### CURRENT EVENTS.

The Canadian Pacific is planning to put on their road next year a fast train that will make the trip from Montreal to Vancouver in seventy-six hours, which is a little more than three-fourths of the time now required. It is also proposed to adopt electricity instead of steam in the operation of its trains in some parts of British Columbia, where good water powers are available.

A new great seal of Canada has been received at Ottawa, bearing the effigy of King Edward instead of that of the late Queen. The old seal will be sent to the royal mint for defacement.

The King of Italy has given his award in respect to the new Anglo-Portuguese boundary in South Africa. The line will follow the Kwando river from the Zambesi to the twenty-fourth meridian east; thence running along the meridian as far as the thirteenth parallel of south latitude, and following that parallel until it reaches the frontier of the Congo Free State.

Lord Kitchener proposes the increase of the army in India to nearly double its present strength, as a necessary precaution against invasion; and the movement of forces nearer to the northwest frontier, as the point of greatest danger. It seems to be assumed that a Russian invasion is but a matter of time.

The first meeting of the Washington Conference, as it is called, for the arrangement of a treaty of peace between Japan and Russia, will be held at Portsmouth, N. H., early in August. The plenipotentaries of both nations are now in America.

It is reported that the Prince of Bulgaria will shortly proclaim himself king, and, if necessary, fight for the independence of his country, now under the suzerainty of Turkey.

The revolution in Norway has not yet led to a disturbance of the peace. It is said that the throne has been offered to Prince Karl, second son of the King of Denmark. If he ascends the throne, the youngest daughter of King Edward of Great Britain, who married Prince Karl in 1896, will become Queen of Norway; while the Princess Margaret, King Edward's niece, who has married the son of the

Crown Prince of Sweden, is now the prospective queen of Sweden.

Commander Peary has set out for Greenland, where he will establish a base of operations and pass the winter, preparatory to making another attempt next summer to reach the North Pole. His vessel, the Roosevelt, is especially built for the purpose, and is supposed to be the fastest and strongest ship that ever sailed for the Arctic regions.

Two rival expeditions have just started for the interior of Labrador, both from the United States. One is led by the widow of the luckless explorer who last year lost his life in the wilds, and the other by the friend who was with him and brought his body back to the coast after nearly perishing for want of food.

John Paul, the Scottish sea rover, who is known in United States history as John Paul Jones, and regarded as the founder of the United States navy, but who was in his later years an officer of the Russian navy until virtually dismissed from that service, is now demanding more attention and reverence than he ever received in his lifetime. His remains have been found in France, where they lay neglected with his death in 1792. They have been received with great honors by a representative of the United States government, sent to France for that purpose, and will be brought to America for burial in the grounds of the naval academy at Annapolis, Md. No one in his own day, least of all himself, probably, would have imagined that his memory would be thus honored by the country whose service he entered to . shield himself from a charge of piracy, and abandoned for that of the Empress Catharine.

A new explosive is said to have been invented in France, consisting of ammonium nitrate and powdered aluminum, the gases from the explosion of which are harmless. It has the further merits of being safe from spontaneous decomposition or premature explosion by shock or friction, of burning only with difficulty, and of not being affected by frost or dampness.

Adrenalin, a powerful astringent discovered a few years ago by a Japanese chemist, and found useful in delicate surgery as a means of stopping the flow of blood, has hitherto been prepared only by a very costly method. It is now reported that it can be cheaply made from coal tar.

The Canadian government will set aside an area of ten townships for settlers from Great Britain, the land to be selected by an imperial commissioner and the colonists sent out under the auspices of the British government.

The bubonic plague is constantly increasing in violence in southern Asia. An official report just published shows that there were over a million deaths from it last year in India.

An astonishing incident has occurred in the Russian Black Sea fleet. For two weeks, the Prince Potentkin, the largest battleship of the squadron, was in the hands of mutineers. The other vessels

of the fleet were sent against her, but did not attack; and she was finally taken to a Roumanian port and surrendered, the Roumanian government later handing her over to the Russian authorities. It is a striking example of the dissatisfaction and insubordination that prevail throughout Russia, which the government seems unable to suppress, and the malcontents equally unable to turn into an organized revolution.

The Japanese have occupied the island of Sakhalin, which the Russians have held for the last thirty years or more as a part of Eastern Siberia. Geographically, it belongs to the Japanese archipelago. It is said to contain valuable coal mines, and will provide Japan with perhaps the finest fishing ground in the world. The island is six hundred miles in length, with forest clad mountains in the interior, and a climate resembling that of our Labrador coast.

Several of the Russian ships sunk in Port Arthur have been raised by the Japanese, and it is thought that all or nearly all of the others will be affoat by the middle of August. They are less damaged than was expected.

Canada will assume control of the Halifax garrison September 1st, and probably the fortress at Esquimalt will be taken over on the same day. The imperial officers in charge will be transferred to Canada for the present.

#### SCHOOL AND COLLEGE.

Principal W. H. Magee, Ph. D. (Cornell), has resigned the charge of the Parrsboro, N. S., schools and will be succeeded by Mr. J. Crerar MacDonald, late principal of Baddeck Academy, C. B. Dr. Magee has been long connected with the higher educational work of Nova Scotia, and his courses, especially in chemistry and physics, have been very successful, the result of the exceptionally excellent training he received. His successor, Mr. MacDonald, has a classical and scientific A license and has a good record of efficient teaching.

The first coloured girl student to graduate from the University of New Brunswick was Miss Margaret M. Winslow of Woodstock, N. B., who recently graduated at the head of her class, taking honours in and winning the Montgomery-Campbell medal for the ancient classics. A good record.

Prof. S. M. Dixon, of Dalhousie University, Halifax, has been appointed to the newly created chair of civil engineering at Birmingham, England. Professor Dixon is a graduate of Dublin University. He occupied the chair of physics at the University of New Brunswick and at Dalhousie with distinguished success, and had recently been appointed professor of civil engineering at Dalhousie.

A. Stanley Mackenzie, Ph. D., a native of Nova Scotia, a graduate of Dalhousie, and late professor of physics in Bryn Mawr college, Pennsylvania, has been appointed to the chair of physics in Dalhousie University. Professor Mackenzie was one of the most successful students trained by Dr. J. G. Macgregor and Professor Charles Macdonald, and has had a year's work at Cambridge University in England.

Professor James Leichti, professor of modern languages in Dalhousic University, has been honored with the degree of LL.D. by Muhlenburg University of Pennsylvania, a Lutheran institution.

Mr. F. A. Dixon, A. M., for many years the principal of the Sackville high school, has resigned. At the closing exercises of the school his pupils presented him with a handsome set of Kingsley's works, with warm expressions of their esteem. Mr. Dixon has been succeeded by Mr. A. D. Jonah, vice-principal of the school, and Mr. Lloyd Dixon, A. B., (Mt. Allison) has been appointed to Mr. Jonah's position. Mr. Dixon has done efficient service and will be missed from the active educational work of the province. Mr. Jonah has been a careful student and a progressive and capable teacher.

Mr. Lawrence Colpitts, M. A., has resigned the principalship of the Buctouche school and will take an advanced course of study in Germany.—Sackville Tribune.

E. M. Kierstead, D. D., professor of English literature, logic and psychology, in Acadia University, has been appointed to the chair of systematic theology and apologetics, in McMaster University, Toronto, and has accepted the appointment. Dr. Kierstead is a native of Collina, N. B., and a graduate of New Brunswick University. He will be greatly missed at Acadia and from educational circles in the Maritime Provinces where his commanding abilities, brilliant scholarship, and power as a speaker have long been recognized and appreciated.

Professor A. G. McKay, a native of Nova Scotia, has been appointed chancellor of McMaster University, Toronto.

Miss Gertie Rosengren, teacher at Canobie, Gloucester County, N. B., with the help of her friends of that and neighboring places, has raised the sum of \$63, by means of an entertainment held recently. The money will be expended in purchasing school apparatus.

Professor W. T. Macoun, horticulturist at the Central Experimental Farm, Ottawa, has been appointed horticulturist at the Macdonald Agricultural College at St. Anne's, near Montreal, Dr. F. C. Harrison, bacteriologist, and W. Loughead, professor of biology and geology at the Guelph Experimental Farm have accepted similar positions at the Macdonald college,

A party of lady teachers of the Winnipeg public schools will spend the summer vacation touring in British Columbia and Alaska waters.—Free Press.

Mr. Wm. Whitney, who has been the capable instructor of the manual training departments of the St. Stephen and Milltown schools, has resigned in order to take a further course of study. He will be succeeded by Mr. G. A. Boate, a graduate of the Truro Manual Training school, and whose work in several Nova Scotian towns has been very creditable.

Among the graduates of Yale University this year were the following from the Maritime Provinces: Geo. W. Massie and H. J. McLatchey, both of Fredericton, and graduates of the U. N. B., received the degree of B. A.; E. C. Weyman, of Apohaqui, N. B., took the degree of M. A., and won a scholarship. He will return to Yale next year and pursue post-graduate work. T. H. Boggs,

of Wolfville, and A. H. Taylor, of Kentville, graduates of Acadia, took the degree of B. A., the former receiving a fellowship and the latter a scholarship. Both will return to Yale for post-graduate work and as instructors next year. H. W. Martin, of P. E. Island, received the Ph. D. degree.

Graduates of other United States colleges, hailing from the Maritime Provinces, were,—University of Vermont, Burlington, Leslie Herbert Huggard, M. D., Henderson Corner, N. B.; Dartmouth College, Hanover, N. H., Wm. Jas. Campbell, Summerside, P. E. I., B A.; Wellesley College (Female) Wellesley, Mass., Hilda Alford Tufts, Wolfville, N. S. At Harvard University, Cambridge, Mass., Thos. M. Tweedie, graduate of Mount Allison, Sackville, in class of '02, special degree; law school degree of LL. B., William McKnight (A.B. University of New Brunswick, '01, Harvard '02), formerly of Queens Co., N. B.

As a result of the recent Normal School examinations for license in New Brunswick, four candidates were successful in gaining a Grammar School License, six for Superior School; forty-two passed in Class 1, one hundred and fifty-two in Class 11, and three in Class 111.

Misses Bessie B. and Clara A. Bridges, sisters of Dr. H. S. Bridges and Inspector H. V. B. Bridges, of New Brunswick, who have spent several years in teaching in South Africa, have been granted nine months leave of absence, a portion of which they are spending in Great Britain and on the continent of Europe. After visiting different points of interest and examining the work of some of the English schools they will visit Canada.

Mr. C. D. Richards, B. A., recently of the Woodstock, N. B., Grammar School, has been appointed principal of the Gibson, York Co., school.

Miss Julia Neales, after a year's leave of absence, the greater part of which was spent in England, will resume her duties after the vacation in the Woodstock grammar school

Sussex, N. B., is moving in the matter of a new school building. It is proposed to build one of brick or stone at a cost of from \$25,000 to \$30,000, on a plot of eight acres of land, situated on a commanding elevation. This will furnish a fine object lesson, especially the setting aside of a generous amount of land for school gardens and play grounds.

J. Hollis Lindsay, who graduated from the School for the Blind, Halifax, in June, 1904, has since been studying in the American Conservatory of Music, Chicago. Mr. Lindsay has just been awarded a diploma by the conservatory and has also further distinguished himself by carrying off the special gold medal of his class.

At the closing exercises of St. Joseph's College, which took place in June, the degree of B. A. was conferred on two graduates and three others received commercial diplomas. Numerous prizes were distributed at the close of a successful year's work.

King's College, Windsor, N. S., has wakened from a long lethargy under the able and tactful administration of President Hannah. At the encapial exercises, June 22nd, the president announced that forty new students are definitely assured for the coming year. At that time last year he had known definitely of only eight, but the number was

increased at the opening of college to twenty-five. The enthusiasm of President Hannah is catching. There is no doubt that his administration will be abundantly successful. With a growing engineering school at Sydney, a mining school at Glace Bay, money contributions flowing in, and other evidences of vitality, future progress is assured

The closing exercises of the Nova Scotia Normal school at Truro were held on the 22nd of Ja e. Principal Soloan presided, and addresses were delivered by Hon. Judge Longley, Mr. James Fraser, Dr. Stockley, Ex-principal Calkin, Principal Soloan and Supt. A. H. Mackay. Mr. John LeBlanc, of Belle Cote, C. B., won the Governor-General's silver medal for greatest proficiency, and diplomas were awarded to 152 successful students.

The closing exercises of the Fredericton, N. B., high school, June 30, were of more than usual interest on account of this being the centennial of the foundation of the school. During the last 100 years the school has been under the direction of nine different gentlemen, (a good record), including the last and the present principal, Mr. B. C. Foster. Supt. Dr. Inch stated that in his opinion the Fredericton high school was one of the best in Canada, and was at its highest standing at the present.

Dr. Ernest Hall, a school trustee of Victoria, B. C., is anxious to abolish the high school cadet corps of that city, on the grounds that military training in the schools is not sanctioned by the school act, and that it tends to foster a spirit of militarism. Cadet corps in the city schools of British Columbia and other cities of the west are certainly attractive features of school life. As the Victoria Colonist says, such training "tends to develop alertness, precision, punctuality and many other desirable qualities. No one denies its beneficial effects in strengthening and improving the body." The alert demeanor, amenity to discipline, healthy appearance of the boys in western schools is probably due in large measure to this training.

Nelson, B. C., Tribune: Our schools have during the past session maintained the standard of efficiency which has distinguished them for so long in the province, and principals C. M. Fraser and Albert Sullivan are to be congratulated. Few cities in the province have a more efficient staff, and no one privileged to be present at the closing exercises in Miss Margaret H. Moody's classroom could doubt that both discipline, patriotism, and religious influence of the highest type pervade the atmosphere of the public school.

The St. Andrews Beacon urges upon the New Brunswick government the importance of increasing the salaries of teachers and the necessity of providing a residency in connection with the provincial normal school, adding that the boarding life of the pupils is far from being satisfactory, is a menace to their health in many cases, and is not conducive to good results in study.

A Dominion exhibition will be held this fall at New Westminster, and the superintendent of education for British Columbia, Mr. Alexander Robinson, has been asked, says the *Colonist*, to take charge of a proposed educational exhibit which will include for competition the whole of the schools of the province. The exhibit will consist of specimens of penmanshlp, drawing, manual training work, the ordinary routine exercises of the public

schools, the text books in use, and any other features of interest that may be suggested. The object of this most commendable scheme is to give to strangers, and visitors generally, a comprehensive idea of the educational system of the province as carried out in actual teaching in the schools. A committee, consisting of the superintendent, Messrs. Eaton and Argus, of Victoria and Vancouver, respectively, and three provincial inspectors, Messrs. Wilson, Stewart and Gordon, will have the arrangements in charge.

The Edgehill School for Girls, at Windsor, N. S., closed a very prosperous year in June. The school is known everywhere for the excellent training it gives. Its location and surroundings, and the commanding view of the beautiful scenery about Windsor, are well fitted to aid in such a training. Miss Lefroy, the principal, has resigned her position which she has so admirably filled for several years and has returned to England.

The Netherwood school at Rothesay is another girls' school beautifully situated amid the fine scenery of the Kennebecasis. It has been growing in efficiency and popularity for years past under the wise and excellent management of Mrs. J. S. Armstrong, who has had associated with her for the past two years as principals, Miss Pitcher and Miss S. B. Ganong. Mrs. Armstrong has retired from the principalship, though still retaining the duties of instructor in the school. The scholarship and experience of the ladies who have assumed the complete charge of Netherwood are an excellent guarantee of the future good prospects of the school.

Mr. Ernest E. Fairweather becomes principal of Annapolis Royal Academy in place of Mr. A. W. L. Smith, resigned. Mr. Fairweather is a graduate of King's College and has distinguished himself as a student.

Mr. Frank E. Wheelock, B. A., (Acadia), has been appointed vice-principal of the Consolidated School at Middleton as teacher of grade 10, and Mr. B. S. Banks takes the place of Miss Mabelle Fash as teacher of grade 9.

An interesting experiment is being tried at the Middleton, N. S., Consolidated School during the present summer vacation. Scholars are brought in relays from each district in turn, and under the charge of one of the instructors keep the school garden in order and continue their work in nature-study. No regular indoor work is attempted.

Professor Roland T. Gray, a graduate of Rochester University, has been appointed to the chair of English literature at Acadia in place of Professor Kierstead. The appointment is believed to be an excellent one.

#### RECENT BOOKS.

THE ARTISTIC CRAFTS SERIES OF TECHNICAL HANDBOOKS.
Edited by W. R. Lethaby; STAINED GLASS WORK. A
text-book for students and workers in glass. By C.
W. Whall. Cloth. Pages 381. Price 5s. net.

This text-book for students, teachers, librarians and workers, illustrates not only processes and workshop practice, but also helps to create good taste in the making of objects and judgment in selection. The book is admirably illustrated and well written. It is accompanied by a series of School Copies and Examples, twelve in number, 1534x

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GEOMETRY. Part I. By A. H. McDougall, B. A., Principal of Ottawa Collegiate Institute. Cloth. Pages 112. The Copp Clark Company, Toronto.

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# The Educational Review.

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THE TEACHERS' PENSION SCHEME, as well as other matters brought before the Truro educational convention, will receive attention next month. The chief points discussed at this important meeting will be found on another page.

IF teachers intend to observe Arbor Day next spring, it would be well to take notice this fall in what situations and soils certain trees grow best. Notice what a western school superintendent has said: "Ceachers take pine trees from the hills where they grow beautifully and set them out where they die speedily."

THE October number of the REVIEW, to be published on the first of the month, will contain material to assist schools in observing the centenary of Nelson's death. As this is to be celebrated in a fitting way all over the British world, our schools should take part in it, especially because of its great historic significance.

The many friends of Professor W. F. P. Stockley will learn with regret of his intention to leave Canada and take up his permanent residence in his native country, Ireland, where his only daughter is residing. Professor Stockley's scholarly attainments, especially in the field of English literature, and his genial disposition has won for him many admirers and warm personal friends during the score of years that he has spent as teacher in three of the educational institutions of Canada — the University of New Brunswick, University of Ottawa, and St. Mary's College, Halifax.

On the 21st of October of this year the British Empire will celebrate the centenary of the death of Admiral Nelson and Britain's great naval victory, the battle of Trafalgar. The "Victory," Nelson's flagship, on which he breathed his last in the hour of his triumph, has been preserved by the order of King Edward, and will remain as a floating monument of Nelson and Trafalgar. Damaged portions of this celebrated ship have been removed, and from this material souvenirs are being made and sold, the proceeds to be expended in establishing a Nelson's Memorial Fund, one purpose of which is to build a Sailors' Rest at King's Lynn, the great admiral's birthplace. Those who contribute one dollar and upwards will receive a suitably inscribed medal or brooch, made of the copper of the "Victory." Contributions may be sent to Edward W. Matthews, Limehouse, London, E. contributing £5 5s. secures a shield, which becomes the property of the school, and may be offered in competition for the best essay on "England's Indebtedness to Her Ships and Sailors," or other patriotic or naval topic to be chosen by the school: the successful pupil to retain the shield for one year.

THERE are over five thousand teachers in the Maritime Provinces. While the REVIEW is read by the great majority of these, there are some to whom its pages are unknown. A gentleman occupying a high educational position, and a supporter of the REVIEW for many years, said, in speaking of its excellent character and its valuable contributions every month: How is it possible that a teacher can do without it?

"The school is a little state," said one of the speakers at the educational convention at Truro the other day, and there are ways in which this may be realized to the benefit of the child and the state. In several cities of the United States a form of self-government of schools has been tried in the past few years, and the plan has been so successful that President Roosevelt, President Eliot of Harvard and other eminent men have given it their approval.

The children of a school city organize, elect a mayor and council, make laws, have a regular city's charter, which may be revoked by the teachers if necessary. The children become responsible for the discipline of the school, and the responsibility may extend to the play grounds, and even to the streets. The teachers are of course the ultimate source of authority, but by the exercise of tact and good sense they may not have to exercise it. plan has been adopted by twenty-three schools of Philadelphia. A disorderly school of a thousand pupils in New York, that required the presence of policemen every day, became orderly and law-abiding within a week after a school eity was organized. Other instances are cited to show that in cities where it has been tried disorderly conduct ceased, and neater dress, better manners, improved scholarship followed. The pupils have manifested a surprising aptitude for practices of courts of justice, and some of their decisions and punishments have been found to be remarkably appropriate. And why not?

Will not some of our enterprising teachers consider the plan and try it in their schools?

#### Teachers' Salaries.

St. John City has just lost two excellent teachers from its high school staff: and this is the result of a higher appreciation of these ladies' services elsewhere, as will be seen in the paragraph in our "School and College" page. It is to be regretted that the school board could not have yielded to the request for a more adequate salary. It is presumable, however, that school boards and college boards

have their difficulties in such cases. Some time ago the Review quoted the instance of Professor Jeffrey, of Toronto University, who had made a considerable reputation on account of his research work in botany. Harvard University wanted him, and having offered double the salary that his own university gave, secured him.

Similar instances occur by the score every year. To retain the services of specially gifted teachers and pay them an increased salary would strain the financial resources of most of our school and college boards. That is not all. There are the other teachers on the staff to be considered; and these would smart at the injustice of an increase in a special case without considering their own years of honest, faithful service. To pass over such services thus would discourage many worthy men and women, and result in a real educational loss—the loss of a teacher's independence and spirit.

The question of a proper renumeration for teachers is beset with difficulties. To pay by results, when time only, and perhaps eternity, can determine these results, is not possible. Certainly the "results" of an examination are but slender tests of the real qualifications of a teacher. The only feasible scheme seems to be to raise the salaries of teachers all along the line, from the primary teacher to the professor in the university; and, in order to safeguard educational interests, insist on a wider experience, higher qualifications, and a more liberal culture for all teachers.

#### Death of Prof. Davidson.

News of the death, in the 36th year of his age, of Professor John Davidson, lately of the University of New Brunswick, was heard with a sincere and widespread feeling of regret. He died on the 31st July in Scotland, whither ill-health had compelled him to remove, with Mrs. Davidson, three years ago, on his retirement from his duties as professor. His ten vears of able work in the university, the zeal and industry with which he devoted himself to public and philanthropic movements, and the sympathy for him in his brave struggle with disease won many warm friends. He came to New Brunswick when twenty-three years of age after a brilliant school and university career at Edinburg. the city of his birth. His strong personality and his gifts as a teacher and author made him a prominent figure in educational circles. He entered into his work at the university with enthusiasm, inspiring his students with his original methods and

his earnest convictions in whatever cause he championed. His work was by no means confined to the university. The social, financial and industrial problems of Canada were studied with a breadth of outlook and a mastery of detail that gave promise of greater fulfilment with maturer years. His contributions to British and American periodicals and his books on economic subjects won for him the reputation of a keen and thoughtful observer and an indefatigable worker. His heroic spirit fighting almost to the last hour with that dread disease, consumption, is well shown in the paragraph quoted from the Edinburg *Despatch*:

"During the months of his enforced seclusion from the duties of his chair. Dr. Davidson was by no means idle. Articles on subjects relating to the branch of science in which he was a specialized student appeared steadily in British and American journals and periodicals; he did a large amount of work upon the Nelson-Harmsworth Encyclopædia; and he week by week contributed valuable political and economic articles to the columns of the Week's Survey, since it changed hands in December last. Only on Tuesday last he insisted upon sitting up in bed to complete an article for the Week's Survey, saying that he had never failed anybody yet. But this time the task was beyond his power, and he had to lay down his pen for the last time. Death ensued on Friday."

## A Long and Well-Spent Life.

Hon. David Wark, LL.D., Senator, died at Fredericton, N. B., on the 20th of August, in the one hundred and second year of his age. His life was simple, serene, honest, substantial, and without ostentation; his end was peaceful and painless. Born near Londonderry, Ireland, February 19th, 1804, he came to New Brunswick in 1825. taught school for ten years, chiefly at Richibucto, where he afterwards engaged in mercantile business. In 1842 he was elected to represent the people of Kent in the Provincial Assembly, and up to the time of his death was identified closely with the industrial and political interests of the province. His legislative career extended over sixty years. and he was the oldest active legislator in the world. He took part in the lengthy session of parliament at Ottawa in 1904. He was then in his 101st year, with his mind clear and his judgment good. career was a useful and happy one. Service and duty were his watchwords, and faithfully did he discharge every obligation.

## Mutual Improvement Associations.

Every town, village and hamlet should have its Mutual Improvement Association, which may be active both in summer and winter. During the latter season the association may meet from house to house for social and literary improvement. library is necessary. If there is none in the village, a travelling library may be secured at a mere trifle of an outlay. During a recent visit to the McGill University library the writer was shown choice assortments of books which are loaned, on application, to country schools, reading clubs, and communities possessing no free public library. These books have been carefully selected and grouped according to the wants of those using them: (1) for general reading; (2) for young people; (3) for students of special subjects. Each travelling library, consisting of twenty-five books, is loaned for a term of three months, on conditions which are sent on application to the librarian of McGill University.

Framed pictures suitable for hanging in a schoolroom may be sent with the travelling libraries, but not more than two at a time, and these may be changed as often as the library is changed.

This is an opportunity—and there are others — of which schools and communities may avail themselves for mutual improvement. As the Review has frequently urged in the past, teachers should take the lead in this improvement in communities in which they are living.

During the winter also plans may be formed, to be carried out in the summer season, to make the town or district more attractive. An appeal may be issued by the Improvement Association, which should have as many members as possible, and embrace representatives from all classes in the community, urging all to carry out some such programme as the following:

- T. Burn all rubbish possible, and bury that which cannot be burned.
- 2. Do not throw paper or other litter on the streets. (When streets are once free from unsightly rubbish, people will be anxious to keep them so).
- 3. Persuade people who must smoke not to do so on the streets, or in public places in the presence of ladies.
- 4. Do not spit on the sidewalk or on the floor of any public place or conveyance. (The public spitting nuisance is fast becoming obsolete in every civilized and well ordered community).
- 5. Persuade owners of property to destroy and keep down the weeds just starting, especially those

on their grounds or along the streets or in vacant lots.

6. The example of well kept, orderly arrangement of lawns and houses is quickly followed; therefore let the members of the Improvement Society have their lawns and gardens neat, flowers and shrubbery planted in them; houses and outhouses painted, fences and gates repaired, and everything about their premises kept neat, attractive and orderly.

## Japan's Naval Record.

Since the first of February, 1904, the newly created navy of Japan, with some co-operation of the army at Port Arthur, has sunk or captured sixty-five Russian vessels, including fourteen battleships of the first class, twelve armored or protected cruisers, four auxiliary cruisers, three coast-defense iron-clads, eleven gun-boats, and twenty-one torpedo-boats and destroyers. It has also killed or captured eleven Russian admirals, and has taken as prisoners about ten thousand men of the naval rank and file. It has not suffered a single defeat, and although twelve of its vessels have been destroyed by accidental collisions and percussion mines, it has not lost in action, a single ship larger than a torpedo-boat, and it is probably stronger and more efficient than it was a year ago. Such a record as this is not only extraordinary, but absolutely unparalleled; and when we consider the fact that these results have been attained, not by accident or luck, but by organization, practice, good judgment and consummate skill, we must give Japan credit for producing not only good seamen and gunners, but naval commanders worthy to take rank with the first in the world.

Saigo was the teacher of Togo, the Ilustrious Japanese admiral, and among the precepts of the teacher that seem to have influenced the pupil throughout his career are the following: "Where you see faults, take the blame of them yourself; where there is merit, attribute it to others. Act resolutely and the very gods and devils shall flee before you."—George Kennan, in the Outlook.

## September Calendar.

September 4th is Labor Day—a public holiday. September 29th is Michaelmas Day.

September 30th, the first day of the Jewish New Year, begins the year 5666 of the Jewish era.

## Nature Study.

Children hunting a lost ball in a meadow adjoining the play-yard discover a ground-bird's nest with four blotched eggs. Their interest is aroused. They describe the nest to the teachers and inquire to what b'rd it belongs. Unfortunate for them, if he is scientist enough and unpedagogical enough to say at once: "It is a bob-o-link's nest." were he a good teacher and no ornithologist, for then he would use their interest to lead to some educational activity which would be far more useful to them than the mere information they seek. But best of all if the teacher knows well both children and birds. In that case he can guide them to discover the answer to their question in an educative way, and in doing so excite them to ask and answer by research many other related questions. engages their interest at the favorable moment to train them to observe, think, investigate and enjoy. This is Nature study.—From Dearness's "Nature Study Course," by permission of Copp, Clark and Company, Publishers.

Eliza and Sarah Flower were gifted English sisters whose earthly lives began and ended between the opening and the close of the first half of the last century; and yet in that brief period both left their impress on their generation; and the younger, Sarah, achieved undying fame by composing the beautiful hymn, "Nearer, My God, to Thee." It was suggested by the story of Jacob's vision at Bethel, as found in Genesis xxviii, 10-22. The hymn was first published in 1841, and although it met with some favor, it was not until 1860 that Dr. Lowell Mason's beautiful and sympathetic music "quickened it into glorious life" and gave it a permanent abiding-place in the hearts of the people.—
The Delineator for September.

Sumatra grows the largest flower in the world. It measures a yard and three inches across, and its cup will hold six quarts of water. Rafflesia Arnoldii is its name.—Philadelphia Bulletin.

The smallest and simplest flowers in the world, consisting of a minute stamen and pistil, are probably the species of *Wolffia*, which grow near the surface of stagnant water as little grains, attached to rootless leaves which float. They are found in Canada near Lake Ontario.

<sup>&</sup>quot;I found your August number full of helpful suggestions."—M. A. H,

## Chipmunk and Red Squirrel.

Beneath the grassy lawn of our home in the country a chipmunk has made its abode for several years. It is quite tame, and seems to delight every time it goes into or comes out of the narrow hole to sit for some moments in a variety of pretty posings very interesting to watch. Every small fruit tree in the neighborhood is visited in turn by the industrious "chippy," and by the end of autumn its snug little winter home underground must be well provided with good things. In the bright warm days of June last the mother chipmunk brought her alert little family of two groundlings to sun themselves on the lawn and play a variety of cunning tricks-for our benefit, we might suppose, but really to make them acquainted with the ways of a naughty world. On the slightest hint of danger, the youngsters vanished into their holes like a flash. Always they were the first to go, obeying instantly the warning signal of the mother, whatever it was, while she stood guard over the hole, into which she, too, quickly retreated if we showed a desire to make a closer acquaintance.

After a week or so the little ones were no longer seen. They have now probably built homes of their own, and are storing them with food for the winter. They were beautiful little creatures, the image of the mother, dainty in form, and graceful in movement. Their sleek coats were softer in color than the mother's brownish-grey on the back, which warms into a reddish brown on the forehead and hind quarters. The black stripes on the sides formed a pretty contrast to the pure white of the throat and under parts.

A lady-visitor to the lawn the other day made a "snap-shot" of our little friend, the chipmunk, which is here re-produced. Its bright eyes stared



in timid wonder on the camera. It recoiled for a moment at the "click," but soon promptly returned to "position." This posture, which it assumes on coming out of its hole, is evidently one of reconnaissance, its keen little eyes scanning every nook

wherein an enemy may lurk, its delicate nostrils scenting every danger. When it is assured of safety, it scampers off by a succession of jumps to the tree from which it is obtaining its stores, and always by the one path, which it seems to have marked out for itself. For the past week or so its favorite hunting ground has been a red cherry tree, at the foot of which is an arm-chair. While we were all gathered round this a few days ago listening to the reading of Roberts' "Scourge of the Forest," in which is described the fleeing of terrified animals big and little-before the swift forest fire, the chipmunk went its usual way, climbing up the chair over the sleeve of the reader, and into the tree, not conscious of our presence, as long as we betrayed no consciousness. Filling its cheek pockets with cherries, it returns by a different way, but always the same for its homeward journey; it pauses at the mouth of the hole, assumes its upright posture, and then with its front paws proceeds to arrange the food in its distended cheeks as compactly as possible, so that it may not "stick" in passing through the narrow hole. For chipmunks have enemies who would like to follow the little storekeeper, if they could squeeze through the long narrow portal which leads to its treasures.

One wishes that other people were as tidy about lawns as the chipmunk. He never leaves any stray bits of food or refuse, like banana peels, about. Whatever he does with the earth that he digs out to form the tunnel-like home under ground, no one knows, for not a trace of it can be seen. He probably carries it away in his pocket-like cheeks, and hides it. He does his work secretly and effectively, like a Japanese soldier, and is very successful in concealing his whereabouts from an enemy.

He is an independent little chap, too. We have tried to help him in his work by placing peanuts near his hole; he refused to take any notice of them. Perhaps he found them not to his taste; but we would rather believe that he scorns to enjoy what he has not earned.

A little five-year-old son of our neighbor was observed to be very busy gathering fireflies during an evening walk. On his return to the lawn, he pushed these into the chipmunk's hole, saying with a satisfied air: "There! now you can see to go to bed."

## THE RED SQUIRREL.

Some time ago a tall spruce tree interrupted our view of the St. John river. It was decided one day about mid-summer to cut off the top; but the young

man who climbed the tree to do this met near the top with that tangled mass known as "witch's broom," which completely barred his way. sawed the trunk below this, and when the top tumbled to the ground the "broom" was found to contain a red squirrel's nest, out of which scrambled two feeble young ones, just able to crawl. What to do with the helpless family was a problem. The parents were nowhere in sight. The plaintive squeals of the little ones made us anxious to repair the mischief we had inadvertently done in breaking up a happy home. The sawed-off top containing the nest was propped up against another tree, and preparations were made to make the homeless orphans comfortable for the night.

In doing this the nest was carefully examined. It was a fine piece of natural work, and no one would have guessed what this round mass of twigs and small branches could possibly hold. It had no doubt been a squirrel's nest for years, and there were evidences of broods of children, and perhaps grand-children, having been reared in this family tree. There were two entrances, one above and the other below, leading to the inside, which was a compact room or series of rooms woven round with sticks, grass, leaves and moss, so as to make it completely storm proof. It was as comfortable and safe a little home as the ingenuity of a squirrel could invent.

There was no food in the house. The red squirrel's habits lead it to store up its winter stores of nuts, acorns, cones, grain, etc., in the fall, not in its nest, but in crevices, holes and various nooks near the tree in which it lodges. These it visits even in winter, going straight to its hidden stores and digging them out from under the snow. What a memory it must have! The chipmunk or ground squirrel's habits are different. It stores in different channels or rooms in its burrow food for the winter. Late in autumn we have seen it carrying in its distended pouch dried leaves, which it evidently uses to make a comfortable bed, and to strew the approaches to it, to prevent the entrance of frost and snow

While we were engaged in an awkward attempt to make the baby squirrels comfortable for the night, the mother appeared with an angry chattering and eyes that fairly danced with rage and maternal anxiety. We stood aside and watched. Pouncing upon one of her offspring she turned it over on its back, drew it close under her, patting it all the while with her paws, gathering the little one's

tail about her neck, its hindpaws close to her body back of the shoulders, and its forepaws close up to the body under her own hind quarters. This occupied fully five minutes, while we stood only a few feet distant gazing on with breathless interest. Finally when the little squirrel had been so closely packed to its mother that the two seemed to be one, the mother ran up a tall spruce near by, and, leaping fearlessly from branch to branch, was soon lost sight of in the woods. She came back in about ten minutes and went through exactly the same process with the other, scurrying over the trees to the new home she had evidently prepared in her need.

For days after if any of our household appeared on the scene of the outrage the mother treated us to a volley of squirrel abuse, leaping from branch to branch within a few feet of where we stood, and eager to wreak its spite on those who had despoiled her home. In its rage it reminded us of the squirrel of the Indian legend: The mythical Glooscap once brought all the wild animals before him, and asked each what he would do if he met a man. The squirrel was at that time as big as a man, and when it came his turn to answer, he flew at a stump and tore it with his teeth and claws. Then Glooscap thought him too dangerous an animal, and reduced him to his present size.

INGLESIDE.

At a banquet given in England during the recent visit of the Canadian Manufacturers' Association, the following story was told to illustrate the importance of union for trading purposes: "A school boy was asked by an inspector:

- "'Would you rather have half an orange, or eight-sixteenths?'
  - " 'Half,' said the boy.
- "'Why,' asked the inspector, scenting a weakness in fractions.
- "'Because,' said the scholar, with the sixteenths you lose such a lot of the juice.'"

The celebrated grape vine in the conservatory at Hampton Court, England, planted in 1769, had in 1830 a stem 13 inches in girth and a principal branch 114 feet in length, the whole vine occupying more than 160 square yards; and in one year it produced 2,200 bunches of fruit weighing on an average a pound—in all, about a ton of fruit.—Scientific American.

<sup>&</sup>quot;Your paper is a source of inspiration to me, and I enjoy reading it each month."—J. M. D,

## September Talks.

The following topics are suggested for talks and observations during the month of September. They are such as occur to the editor. Some are selected from working plans in other places. Many other kindred topics will present themselves during the month to the thoughtful teacher.

What is the name of the month? Is it the seventh month as its derivation (Latin, septem, seven) suggests?

Which was formerly the first month of the year? (March).

How many days has September?

Name the other months that have the same number of days? Those that have 31 days?

What season does September usher in?

How many months in each season?

Are the days growing longer or shorter? How can you tell?

Which are longer, the days or nights, during the first part of September?

During the latter part of the month?

When are days and nights about equal during the month?

At what other time of the year are they equal?

Are the days and nights growing warmer or cooler? Why?

Which is the harvest month of the year? When does the "harvest moon" occur? Why is it so called? What is its peculiarity?

Make a list of crops harvested in September? In August?

Are September days usually fine or stormy? What advantage is that to the farmer?

From what direction does the wind usually blow on a fine day?

Is the green color as fresh in the fields and on trees as in June or July?

What colors are taking its place? Why?

What wild flowers are most common this month? What colors are most common in the flowers?

What wild flowers that bloomed earler in the season have now gone to seed? Collect some of the seeds and study them as to use, form, color and covering.

Are there many flowers now in the school garden? In the home garden?

Can you name them?

Are the leaves of the trees still green?

What other colors do you notice in leaves?

Are plants growing as actively now as during the summer?

[The gradually lessening green color shows that plants are not now as active. In fact the active per od of growth is over early in September in most plants, except the second growth of grass, clover and some other plants. (Can you think why?) The plant food remaining in leaves and young twigs will be drawn into stems and roots to be stored for the winter.]

What birds are seen now?

Do they sing as much as in May or June? Why not? (Early in the season they are mating. Now they are getting food for their young, teaching them, and preparing for the flight to the south).

Ask the boys and girls where they went during the summer vacation. If in the country, get them to tell what the farmers were doing, and make these observations the subject of lesson-talks.

## The Empty Crayon Box.

A little thinking will enable a teacher to make some profitable use of the empty crayon box. By measurement the cubical contents may be computed and it may thus become a convenient measuring unit. Cutting off an end at the right length the dry quart, liquid quart and liter may be readily made. A sharp pen-knife and a few small brads are all that are needed in this. Ends and sides, holding as they do by mortise and tenon, may be set to show various angles. Sides, ends, tops, bottoms, can all be used in making models of various surface forms, rectangles, triangles, etc. The ingenious teacher will put some forms together for drawing models. Six-inch rulers and decimeter rulers may be in the hands of each pupil by using materials from the crayon box. Even the physiology class may get an idea of the real capacity of the lungs, stomach, etc., by knowing the cubic inches represented by the crayon box.

The uses of the ordinary shade stick may be extended into the school-room. No teacher need to be without a yard stick showing feet and inches. Also the meter with its divisions can readily be made from a shade stick. Nearly all arithmetics have the decimeter measure shown. A piece of paper cut the length of this measure and laid ten times on a shade stick gives the meter. It would be well if pupils could see these measuring units commonly in use and in comparison,

The wide-awake teacher is continually making use of common materials and finds her funds never fully exhausted.—Sel.

## August and September in Canadian History.

August witnessed some of the most stirring events of the war of 1812; in September (1755) the Acadians were driven from their homes in Nova Scotia, and it was during that month (1759) the great battle was fought at Quebec which won Canada for the British.

August 5, 1689. Massacre at Lachine by the Iroquois.

August 7, 1900. Hon. A. G. Jones became Governor of Nova Scot a.

August 9, 1842. Settlement of the boundary line between Canada and the United States by the Ashburton Treaty.

On the 10th of August, 1535, Cartier cast anchor in a small bay on the Labrador coast, which he named St. Lawrence in honor of the festival of that saint; and this name was afterwards given to the great bay and river of that name.

August 16, 1812. Detroit surrendered to a British and Canadian force under General Brock.

August 16, 1785. New Brunswick formed into a separate province.

August 18, 1833. The steamer "Royal William," the first vessel to cross the Atlantic with the motive power of steam, left Pictou for London.

August 23, 1898. Joint High Commission met at Quebec.

August 25, 1860. Opening of Victoria Bridge, Montreal, by the Prince of Wales (now King Edward VII).

September 1, 1880. All British possessions on the North American continent, except Newfoundland, declared annexed to Canada, together with the Arctic Archipelago.

September 1, 1905. Alberta and Saskatchewan become provinces of Canada.

September 1, 1860. Laying of corner stone of parliament building at Ottawa by Prince of Wales (now Edward VII.)

September 1, 1864. Confederation conference at Charlottetown.

September 1, 1904. Earl Grey appointed Governor-General of Canada.

September 3, 1783. Treaty of Versailles. Independence of the United States acknowledged.

September 8, 1760. Montreal surrendered to the British.

September 13, 1759. Battle of the plains of Abraham, and surrender of Quebec on the 18th September following.

September 11, 1814. Defeat of a British fleet on Lake Champlain.

September 13, 1902. Death of Sir John Bourinot. September 13, 1813. Defcat of British fleet on Lake Erie.

September 16, 1901. Duke and Duchess of York enter Quebec on their visit to Canada.

September 17, 1792. First meeting of the parliament of Upper Canada at Newark (Niagara).

September 19, 1889. Landslide from Citadel Rock, Quebcc; 45 persons killed.

September 28, 1892. Legislative Council of New Brunswick abolished.

#### How to Teach Addition,

By Inspector Amos O'Blenes, Moncton, N. B.

The almost universal habit of counting in the lower grades, instead of using the tables for add ng, may be prevented by the following method.

Develop ideas of numbers to 10.

Teach the Arabic numerals.

Teach counting to 100.

Teach the reading and writing of numbers to 100. In teaching children to read and write numbers the following device will save time: Place a number, say 75 on the board. Print the letter t between the 7 and 5, thus 7 t 5. The teacher points to the 7, the t and the 5, while the pupil reads seven-ty-five. Ask him to repeat quickly, and he has seventy-five. With numbers between 20 and 30, 30 and 40, 50 and 60, a change in the pronunciation will be needed. The t may soon be omitted, while the pupil reads as though it were used. In writing numbers, use the t at first. Pupils who can count may be taught to read and write numbers to 100 in two or three short lessons.

As a preparation for adding, the following drill should be given: Write all the numbers from 10 to 100 on the board, and drill the pup is until all can tell the last (right hand or units) figure of any number without using the board. Then ask such questions as the following: What is the first number after 10 whose last (right hand or units) figure is 4? after 14 whose last figure is 7? etc., until the answers can be given quickly even with the numbers erased.

Next teach the tables of ones and twos, that is, add one to each digit, then two to each digit.

The pupil should be able to answer any question on these tables without hesitation or counting before he is asked to add a column of figures. 14

Next place on the board a long column		
of figures, as in the example appended,		
using only ones and twos, except for the		
bottom figure.		
Add in the following way:		
QUESTION. Nine and two are?		
Answer. Eleven.		
Write the 11 to the right of the column.		
Add the last figure of the 11 to the next		
figure in the column, using the pointer.		
Q. One and One are?		
A. Two.	2	
Q. What is the first number after II	2	
whose last figure is 2?	I	
A. Twelve.	2	
Q. Two and two are?	9	
A. Four. –		
Q. What is the first number after 12		
whose last figure is 4?.		
A. Fourteen.		

Proceed in the same way to the top of the column, placing the results to the right.

After a few columns have been added in this way the pupil sees how the knowledge he has acquired may be used in adding. He should be allowed to use the column of results to the right for some time until all other difficulties are overcome.

The repetition (refer to example) of nine and two are eleven; one and one are two, twelve; two and two are four, fourteen; four and two are six, sixteen, etc., should be continued until all danger of counting is gone, or until considerable speed has been acquired. Then the adding may be done by simply giving the results, thus (refer to example) nine, eleven, twelve, fourteen, sixteen, etc. When the tables of threes have been learned, threes may be used with the ones and twos, and so on with the other digits. By the time all the tables have been learned the pupil should be able to add accurately and with considerable speed.

The success of the work will depend largely upon the amount of drill given. Teachers who cannot find time to examine all the work will find that pupils can soon be taught to make questions for themselves and prove them by adding each question until the same result is obtained three or four times.

The interest in the work may be sustained by frequent test in rapid adding among groups of about the same ability. I have frequently met with pupils in grade one, taught by the above method, who could add as rapidly and accurately as old accountants. Give it a trial.

## The Aim of Good Teaching.

It is vain for a teacher to attempt to work up an appearance when the reality is not there; girls and boys readily see through all such thin disguises. No word is needed; the feeling of the teacher is known at once, and the pupil takes a sympathetic attitude, believing that the teacher is right, and that following her cannot lead him far astray. same holds good in regard to the moral and religious character of the teacher. No spoken words are needed to put the pupil in accord with her in this higher domain. The instructor of character goes about among her pupils shedding upon them the light of her beneficent example, leading them to appreciate and enjoy what is grand and true instinctively. In fact, it is better that the ordinary teacher should not endeavor to give too much direct religious instruction, for religion can no more be taught than any other virtue can. Virtues are lived, and the strong imitative faculty of the child leads to the cultivation of traits that are admired. The true teacher aims to train the pupil to be strong enough to live her individual life without the help that some teachers think necessary to give their pupils. Pupil and teacher are inevitably destined to part at some time, and the teacher who encourages her charge to be dependent upon her trains to weakness and to sure failure when the parting time comes.—Arthur Gilman, in the August Atlantic.

"Don't tell me," said a teacher who has to deal with this motley crowd, "that 'All men are born equal,' for that is positively false."

"No; but the correct quotation, 'All men are created equal,' is true, and we are trying to lead upward those who have fallen, to the heights others have gained," was the happy answer.—Selected.

An old crab said to a young one, "Why do you not walk straight, my child?" "Mother," said the young one, "show me the way, will you? When I see you walking straight, I will follow you."

When V and I together meet, They make the number six complete, When I with V doth meet once more, Then 'tis they two can make up four, And when that V from I is gone, Alas! poor I can make but onc.

"I take much pleasure in the reading of your interesting and valuable paper."—F. H. K.

## N. S. Provincial Teachers' Association.

A large number of teachers from all parts of the province came together at Truro on Tuesday, August 22nd, for a three days' conference. The programme was a good one and the discussions spirited.

In the opening address, Dr. A. H. MacKay spoke of the use and abuse of the course of study. It should be used as a guide, not as a law to be slavishly carried out. Dr. Jones, of Acadia College, advocated thorough drill in elementary mathematics. Principal Smith, of Port Hood, would encourage private study by allowing students to write on as few subjects as they chose at the Provincial examinations, and having certificates of standing granted by the Council of Public Instruction.

Mrs. May Sexton, S. B., Halifax, in a very interesting address called attention to the value of the study of science in developing the power of correct observation, the ability to draw conclusions, and to give expression to one's thoughts. A study of the natural sciences fosters a spirit of truthfulness, a respect for law and order, a love of the beautiful, and a certain resourcefulness in every day affairs.

Dr. Ira MacKay, Halifax, thought that it was better to inflict corporal punishment than to say sharp things, or to allow pupils to form bad habits. Teachers have the authority to do so, if it is for the best interests of the school. Whether the punishment is excessive or not must be decided by the

judge.

Judge Chesley wished teachers to bear in mind that character building was of far more importance than giving information. This, in fact, was the keynote of the whole convention. "Give us men of upright Christian character" is the demand of the day; and "How shall we meet that demand?" is the problem of the teacher. Judge Russell would have more attention paid to the study of hygiene. He would also rule out intercollegiate sports. Judge Longley would have more attention paid to the study of civics.

On Tuesday afternoon an excursion to the Government Farm and Agricultural College was enjoy-

ed by the members of the Association.

On Wednesday Rev. Father Sullivan, of St. Bernard's, Digby, opened the session with a talk on How to Teach Children to Think. He would stimulate curiosity, encourage close observation and endeavor to strengthen the power of attention.

Miss Lavinia Hockin, B. A., Amherst, in an admirable paper, treated of the Public School as an Agent for the Development of Moral Character. She would, like the Great Teacher, lead her pupils to love God and their neighbors. The teacher must do this herself, however; for no matter what she might teach, her own life would be taken as

the standard. All acts of meanness referred to in the lessons should be condemned, and noble acts commended. Habits of punctuality, order, neatness, self-restraint, should be developed by continued watchfulness on the part of the teacher. See that the children have the right kind of reading matter, and that they have noted the good qualities in the characters depicted there.

S. A. Morton, M. A., Halifax Academy, brought forward a scheme for pensioning teachers, part of the expense to be borne by the teachers themselves and part by the Provincial Government. A committee was appointed to further consider the matter.

Principal Crombie, Bridgewater, wanted the teachers to organize, and make an effort to secure

higher salaries.

Miss Estella A. Cook, B. A., read a paper on the value of music in the schoolroom as an aid to discipline; for short periods of recreation so necessary during long sessions in order that the child's mind may be kept at its best; for securing deep breathing so necessary to the health of the pupils; for the patriotism and purity imbibed by the pupils as they try to express feelingly the spirit of the song.

Rev. Father O'Sullivan, St. Mary's Cathedral, followed this with an explanation of how singing might be successfully taught beginners by the tonic sol-fa method of notation. The reverend gentleman admirably illustrated his method by putting a class of boys he had trained through a number of

exercises.

Miss Anna B. Juniper spoke of the importance of teaching household science in our schools, and outlined a course of study that might be carried

out with advantage.

Rev. Henry D. deBlois, M. A., Annapolis, a veteran on educational matters, thought that the great fault of our present system of education was that we attempted to teach too many subjects, and our work was, therefore, superficial. He would have more drill on a few subjects. He also thought that better results would be obtained if the old method of spelling by syllables was again brought into use.

Judge Chesley suggested that the teachers take advantage of the interest aroused at the time of elections to fix upon the children's minds the duties of our public officials and the heinousness of political corruption. When teaching history, the horrors of war, and the advantages of settling disputes by

arbitration should be dwelt upon.

Dr. Eliza Ritchie, Halifax, urged the teachers to lead their pupils to admire the beautiful in the world about them, in sea and in sky, in the flight of the swallow, and the curve of the waving grain. She would also have them know something of the history of the fine arts, and of the lives of the masters. She would have the school-room ornamented with with a few good pictures, and much attention given to drawing and modelling. The address was illustrated by stereopticon views, which added very much to the interest.

At the Thursday morning session Loran A. De-Wolfe, B. Sc., Truro, spoke of the advantages of Nature Study. The study broadens a child's interests, and opens up vast opportunities for pleasure as well as profit. Here the child traces the relation between cause and effect, and this shows the fallacy of his superstitions, leads him to discover the best way of doing his work, and induces him to search for the connection between disease and its cause and remedy. He advised that as far as possible the study be correlated with other subjects, and also that frequent outdoor excursions be made.

Major B. R. Ward, R. E., Halifax, spoke of the work of the Parents' National Educational Union of London, and suggested that branches be established in Nova Scotia. It claims as a child's rights a disciplined body, a nourished mind, an instructed conscience, a trained will, and a quickened soul. Teacher and parents would come together in their union meetings and the home and school training

be harmonized.

Justice Longley thought that since the state had taken the education of the children out of the parents' hands, the parents do not have as keen a sense of their responsibility in educational matters as they should have. He hoped that the establishment of these unions would awaken in them a sense of their duties in this respect.

Prof. E. W. Sawyer, M. A., Wolfville, thought that the subjects of the high school course and that of the colleges did not harmonize, and that much time was lost. He would have a committee appointed to look into the matter and suggest improve-

ments.

Dr. DeWitt, Wolfville, said that health was a child's greatest blessing, and that the study of hygiene should be given a foremost place in his studies. He would have the pupils inspected periodically by a medical doctor, and weak ones relieved of heavy duties. Pupils should be taught the germ theory of disease, and know that the growth of these germs was favored by dampness, darkness and dirt. The spread of the germs of consumption, the "white man's plague," is due to the sputem, and if all sputem were burned the disease would be stamped out. He recommended that damp cloths be used to clean blackboards, and these cloths burned. The dust raised by the use of brushes is injurious to the lungs, and often contains germs of disease.

J. E. MacVicar, B. A., Amherst, criticised the present method of teaching penmanship, book-keeping, drawing and music rather unfavorably.

The scheme for pensioning teachers was adopted by the Association, and a committee appointed to bring the matter before the legislature. M.

#### 1mpressions of the Convention.

Probably the most important results to the average teacher of such a convention as that held at Truro are the general impressions which he carries

away with him and the inspiration which he receives. I am such an average teacher, and on request of the editor record such impressions as I have received without having hampered myself by taking notes.

In his paper on the School Course of Study, the superintendent showed us how much more flexible the course was than might be inferred from current criticisms upon it, there being a full course for each grade of larger schools, and contracted courses for smaller graded schools and miscellaneous schools; and furthermore, that over-pressure was due in most cases to local conditions.

Dr. Jones, in his paper on the Teaching of Mathematics, and Dr. D. A. Murray in discussing it, emphasized the importance of being concrete in teaching elementary mathematics, urging the use of graphical representation and numerical calculation wherever possible. The time-honored use of Euclid's Elements for a beginner in geometry was attacked severely, and mathematical drawing commended.

Principal Smith, of Port Hood, pointed out the success of correspondence schools, urged the use of academies and high schools as centres of what might be termed "secondary education extension." The discussion brought out the desirability of extending the system of "partials" to the D, C and B grades.

Scientific training in the public schools has been often urged and defended, but never, I think, with more earnestness and literary grace and expression than by Mrs. May Sexton. The very fact of a cultured lady ranging herself upon its side is a victory indeed. Briefly, scientific training rightly taught gave children the power of observation and of inference from observations made, the text-book being the authority to which to turn only when in perplexity or doubt. Such training has the merit of connecting itself with the out-of-school life of the child. Such teaching of science, however, must not be made the subject-matter of examinations.

In order to appreciate Dr. Ira MacKay's address on Corporal Punishment, its Moral and Legal Aspects, one needs to hear it delivered. Given orally, it was marked by eloquence, moral earnestness and deep knowledge of the subject. The teacher is both artist and artisan, his duty is to produce characters of moral beauty and of utility to society. This he does as the agent and representative of the state. The school is a little state, and its laws and regulations are no more conventions

than those of the state, and are as sacred. The teacher, therefore, has undoubtedly the power of corporal punishment. He has—

- 1. Full jurisdiction during school hours and on school grounds.
- 2. Concurrent jurisdiction with parent over child on his way to and from school.
  - 3. Limited jurisdiction after school hours.

He is subject to limitations of excessive punishment and permanent injury to health, which are matters of fact and can be decided only by a jury.

In its moral aspect, the use of the rod is more impersonal and less liable to cause ill-feeling than sarcasm or scolding. But it should only be used for such offences as lying, stealing, impurity. blesphemy, etc.

The aim of corporal punishment is not retributive or reformatory, and so forth, but a combination of all these. In short, it is moral.

-AVERAGE TEACHER.

#### President Eliot on Art Education.

President Eliot, of Harvard, said some very pertinent things regarding education at the recent dedication of the Albright Art Gallery at Buffalo. After calling attention to the point that the main object in every school should be to show the children how to live a happy and worthy life, he added in part:

"It is monstrous that the common school should give much time to compound numbers, bank discount and stenography, and little time to drawing. It is monstrous that the school which prepares for college should give four or five hours a week for two years to Greek and no time at all to drawing.

"All children should learn how lines, straight and curved, and lights and shades, form pictures and may be made to express symmetry and beauty. All children should acquire by use of pencil and brush power of observation and exactness in copying, and should learn through their own work what are the elements of beauty. After reading, spelling, writing and ciphering, with small numbers and in simple operations, drawing should be the most important common-school subject.

"There is great value in the sense of beauty. The enjoyment of it is unselfish. During the last twenty years philanthropists and educators have made wonderful progress in implanting and developing the sense of beauty in the minds of the people. This is shown in the establishment of public parks, cultivation of flowers and shrubs, and in the erection of beautiful buildings."

"To go to school," President Eliot continued, "in a house well designed and well decorated gives a pleasure to the pupils, which is an important part of their training. To live in a pretty cottage surrounded by a pleasing garden is a great privilege The boy who was for the country-bred child. brought up in a New England farmhouse, overhung by stately elms, approached through an avenue of maples or limes, and having a dooryard hedged about with lilacs, will carry that fair picture in his mind through a long exile, and in his old age re-visit it with delight. When a just and kindly rich man builds a handsome place for himself and family, his lavish expenditure does no harm to the community, but, on the contrary, provides it with a beautiful and appropriate object of sympathetic contemplation."—N. Y. School Journal.

A correspondent at Tipton, Iowa, sends us two characteristic anecdotes told by Booker T. Washington in a recent lecture in that town: "When I first started teaching," he said, "I taught my pupils in a hen-house. I went to an old darkey one day and said, 'Jake, I want you to come over and help me clean out that chicken-house across the way.' Jake answered with a twinkle in his eye, 'Why, boss, I daresn't go there in the daytime. We niggers do that kind of work at night.'"

"It costs \$1.89 a head to educate a negro boy in the south, while in the State of New York it costs \$20.55 to educate a white boy. Now, the way I look at it," said Booker Washington, "is this,—the white boy must be awfully stupid since it takes that much to educate him, and the black boy must be very smart."

- "And what did my little darling do in school today?" a Chicago mother asked of her young son a "second grader."
- "We had nature study, and it was my turn to bring a specimen," said Evan.
  - "That was nice. What did you do?"
- "I brought a cockroach in a bottle, and I told teacher we had lots more, and if she wanted I could bring one every day."

This, too, should be taught to every child, that it is wicked to shoot any harmless animal—of the field, forest, or air—except for necessary food. It is recognized that all animals which are a danger to human life should be destroyed. In the days to come, the wanton destruction of animal life for sport will be considered a savage custom, out of harmony with Christian principles.—Western School Journal

## Sympathy for Children.

"I wish I had felt toward humanity in my early life as I do now," said a thoughtful, middle-aged lady. "Particularly do I feel this concerning the years I was a teacher. I should have looked upon my work and the children from a different point of view."

Two or three primary teachers were near by and heard this very unusual remark.

"Do tell us just what you mean?" said a merry looking girl, evidently puzzled at the thought that pity for humanity had anything to do with teaching.

"Why, I mean just this," was the reply. "Here we are, a world of human beings, here from no wish or will of our own, compelled to bear all the ills of heredity, circumstances, and temperament, for which we are in no way responsible, in the beginning. I think a child burdened with the mistakes and shortcomings of his ancestry, handicapped at every point by conditions for which he is no way responsible, is a pitiable object—enough to make the angels weep. Little children are not conscious of this, I know, but we who know life find this to be true, and it should stir all the compassion in our hearts. We have lived long enough to know what it means to long for things that are just and right in themselves, and be denied them at every step by circumstances made for us before we existed. To look upon a school-room of poor children, or even middle class children, and know the life struggle that is before them, is enough to stir our profoundest pity. But why do I except the rich children? Opportunity stands at their door beckoning them on to the best things, but because necessity is absent they are blind to the beckoning hand, and settle into an inertness that is worse for character than the hardest struggle. So here they are on every hand. Add to this the common lot of sorrow and disappointment, and mankind deserves and calls for the tenderest sympathy from each other."

"But what about the application of this to the teacher's work? That part of it appeals to me. We can't spend all our time with individual cases, and since we must consider them in a lot, so to speak, how can we do differently from what we do? I'm sure I try to be conscientious and make them do right as well as I can."

"' Make them do right?'" Yes, that is just the trouble. What is "right?" We set up a standard of right for these little mortals in our care, and try to bend every one to it according to our idea—

and we never doubt we are right. How I used to rebel and feel injured when I was a teacher because these poor little ignorant beings didn't recognize and act up to my standards of duty and right! Bless their hearts, they didn't know what I was talking about. We were in different worlds. And I dared to call their indifference to what I was saying, stolidity or depravity. What self-righteons people teachers are in their condemnation of their children! Why, as I look back, I think many of my children were too "born-tired," too half-sick, and perhaps too hungry to be able to understand my fine ethical distinctions. How many of them had come from homes where they had heard only cross words and fault-finding from the moment they opened their eyes in the morning? How many of their parents had married wrong and saturated the home atmosphere with discomfort. Many of those poor little sensitive, defrauded tots may have known nothing in their home life but discord. Why should I have expected them to be keyed up to understand the moral harmonies I prescribed for them? We grown people would not stand the jangle one hour that hosts of children are obliged to live in all the while; and then we wonder that they come to school "out of tune." And we proceed to put them in tune by giving them talks on morals, bunching them all up in a lot, when no two of them need the same treatment. We may call this doing our "duty"-what a stumbling block that word duty may be!"

"But there is a general code of morals accepted by everybody that must be taught, no matter what sort of children we have. You wouldn't condone a lie because a child came from a bad home, would you?"

"Condone it? Oh, no! But such a child is not to be weighed in the same balance as the well-born, well-trained child. The conditions back of the lie of the unfortunate child are to be considered before he is accused of committing an unpardonable sin. The sidelights need to be thrown on every case before a teacher can decide justly or punish justly. But how can she get at the sidelights? you are going to ask. Yes, there is the difficulty we must all acknowledge. But a great deal can be known from daily association with each child, if we looked closer, thought more about it, and pitied more. But at the best, teachers must grope in the darkness as regards the inner life of their children. does not everybody move slowly and cautiously in the dark? And does not 'everybody' include teachers in the school-room?"—Primary Education.

#### Lines in Season.

A man of words and not of deeds Is like a garden full of weeds.

Good words without deeds are rushes and reeds.

He that would live in peace and rest, Must hear and see and say the best.

In hope a king doth go to war;
In hope a lover lives full long;
In hope a merchant sails full far;
In hope just men do suffer wrong.
In hope the ploughman sows his seed:
Thus hope helps thousands at their need;
Then faint not, heart, among the rest;
Whatever chance, hope thou the best.

And now, when comes the calm, mild day, as still such days will come,

To call the squirtel and the bee from out their winter home;

When the sound of dropping nuts is heard, though all the trees are still,

And twinkle in the smoky light the waters of the mill, The south wind searches for the flowers whose fragrance late he hore.

And sighs to find them in the wood and by the stream no more.

-W. C. BRYANT,

Oh, many a shaft, at random sent,
Finds mark, the archer little meant,
And many a word at random spoken,
May soothe, or wound, a heart that's broken!
—SIR WALTER SCOTT.

1 love to wander through the woodlands hoary
In the soft light of an autumnal day,
When summer gathers up her robes of glory,
And like a dream of beauty glides away.
—Sarah Helen Writman.

O sweet September, thy first breezes bring
The dry leaf's rustle and the squirrel's laughter,
The cool fresh air whence health and vigor spring,
And promise of exceeding joy hereafter.

-George Arnold.

The morrow was a bright September morn;
The earth was beautiful as if new-born;
There was that nameless splendour everywhere,
That wild exhibitantion in the air,
Which makes the passers in the city street
Congratulate each other as they meet.

-Longfellow.

Let each man think himself an act of God, His mind a thought, his life a breath or God,

-BAILES

When wealth is lost, nothing is lost;
When health is lost, something is lost;
When character is lost, all is lost;
—Motto over the Walls of a School in German

When honour comes to you, be ready to take it;
But reach not to seize it before it is near.

—John Boyle O'gende.

Our greatest glory is, not in never falling, but in rising every time we fall.

Success in most things depends on knowing how long it takes to succeed.

Perseverance is failing nineteen times and succeeding the twentieth.

Do your best, your very best, And do it every day.

I'll help you, you help me, Then what a helping world 'twill be.

Politeness is to do and say The kindest thing in the kindest way.

'Tis the golden gleam of an autumn day
With the soft rain raining as if in play,
And the tender touch on everything
As if autumn remembered the days of spring.
The buds may blow and the fruit may grow,
And the autumn leaves drop crisp and sere;
But whether the sun, or the rain, or the snow,
There is ever a song somewhere, my dear.

-RILEY.

## The Review's Question Box.

J. M. D.—Where can 1 get the best book treating on Reading and How to teach Reading? What is the cost of the books?

There are many excellent treatises on the subject. If you write to Messrs. Ginn & Company, publishers, Boston, they may put you into the way of getting what you desire.

M. A. H.—Would you kindly explain why the westerly winds blow from west to east. The geography gives no explanation?

It is difficult to give an answer to your question without entering into a discussion of the causes and directions of winds, climatic conditions, etc. This we have not space for in this number. A good book on physical geography, or Ferrel's "Popular Treatise on Winds," would supply the information. If you have not a book at hand, we would be glad to loan you one for a time.

## Exercise in Spelling.

Fundamental, arrogance, conferred, combatant, strategy, citadel, ventilation, extravagant, menace, magazine, surgeon, aggressor, conspiracy, martyr, acquittal, penitentiary, achievement, compelling, crystallization, notable, parliamentary, flippant, emanate, alleged, paralyzing, adherence, management, liquefy, appellation, Calendar, musician, concert, fraudulent, acquiesce, wrapped, eccentric, laziness, prejudice, twenty-six, ostensible, regrettable, maintenance, warrant, equivalent, contagious, serviceable, predecessor, lieutenant, nugget, typical.







BARON ROSEN



BARON KOMURA



KOGORO TAKAHIRA

#### PEACE ENVOYS OF RUSSIA AND JAPAN.

#### CURRENT EVENTS.

The bloody war between Japan and Russia, which began February 8th, 1904, has been ended by what will be called the "Peace of Portsmouth," the terms being practically agreed upon August 29th, 1905, after a conference which threatened at any time to be broken up by the stubbornness of Russia. Fortunately the intercession of President Roosevelt and the humane disposition of victorious Japan has produced a reconciliation, in which the latter country has vielded some of her most important demands. These are: She withdraws her claim to all indemnity or re-imbursement for the expenses of the war; also her claim to the surrender of interned war vessels, and the limitation of Russia's naval power in the Pacific; the island of Saghalien to be divided between the two countries, Japan having the southern and Russia the northern half. Thus a war is ended in which Russia has lost much of her military prestige, 200,000 soldiers, \$1,000,000 000, her fleet, and her so-called rights in the rich province of Manchuria.

The peace conference at Portsmouth, N. H., has been an event of such interest as to deserve a place in the history of three nations-Russia and Japan, whose commissioners have there striven to bring into harmony the demands of their respective governments, and the United States, within whose territory this remarkable conference has taken place. The envoys were there at the invitation of the President of the United States, and were treated as guests of the federal government. The negotiations, which began on the 9th of August, seemed to have reached a deadlock on the 17th, when the Russian envoys refused the Japanese demand for an indemnity, and declined to give up the warships interned in neutral ports. In other matters an agreement was reached. Russia consenting to

acknowledge Japan's influence in Korea, to make over to Japan her lease of Port Arthur and the surrounding territory, to evacuate Manchuria and give up the larger part of the Chinese Eastern Railway, and, in short, to yield everything asked for by Japan before the outbreak of the war. At the conclusion of the ten days, ending August 28th, during which President Roosevelt was in frequent communication with the courts of St. Petersburg and Tokio, the announcement was made that an agreement has been reached as given above. The task of framing the "Treaty of Portsmouth" is now going on, the representatives of both countries apparently acting in an amicable spirit, and rejoicing at the prospects of peace.

Each of the combatants has sent a great statesman as its plenipotentiary to the peace conference. Count Witte, the senior member of the Russian commission, is a big, muscular and handsome man, whose light hair and fair skin make him look like a typical Norseman; while his name betrays the fact that he is of Dutch descent. Though of humble birth, he has risen to eminence by merit, and has held the offices of Finance Minister and President of the Council of the Empire, a Russian deliberative council which somewhat resembles our senate. He has great influence with the populace, and is said to be the coming leader of the government, if popular government is to be established in his native land. As a peace commissioner, his appointment was an assurance that the Russian government was sincerely desirous of peace, for he advised a friendly solution of the difficulties before the war began. The chief representative of Japan, Baron Komura, is a very small man, dark and silent and keen. He was one of the first of the young Japanese students who came to America to study, and was the first of his race to graduate from the Harvard Law School. His life has been spent

in the service of the state, and he has held important positions in his country's service. As Foreign Minister, he was accused by his countrymen of too great forbearance in dealing with the questions in dispute between Japan and Russia, but his critics now recognize that his coolness prevented a premature outbreak of hostilities, and are ready to trust him in negotiations for peace. Baron Rosen has an imperturbable face. A closely cropped set of whiskers hides his play of expression. He seems less troubled by his responsibilities than any other of the big four. Takahira looks more like a man of ability than any of the other Japanese. He is broad of build and has a massive head for a Japanese. The striking feature of his face is his eyes, which are like the searchlights of a battleship, maintaining a steady glare, which confuses the most expert questioner. He rarely smiles and appears always to be in deep thought.

The members of the Zeigler Arctic expedition which reached Franz Josef Land two years ago, have returned in the steamer sent to their relief; their own vessel, the "America," having been crushed in the ice. Though they did not reach the Pole, their leader, Anthony Fialia, claims that they have been successful in surveying the archipelago north of Asia and discovering four new channels.

The total eclipse of the sun, on August 30th, will have been observed, if conditions were favorable, in Labrador, Spain, Tunis and Egypt. It is hoped that photographs of the sun's corona, taken at Labrador and in Egypt, with an interval of two hours between the exposures, will be of great value in determining the nature of that mysterious phenomenon.

The four Russian battleships and two cruisers sunk at Port Arthur are found to be uninjured. They were sunk by the Russians pending the expected recovery of the command of the sea; and are now, under new names, to be added to the Japanese fleet.

The visit of the French fleet to Portsmouth, which has recently brought together the war ships of France and Great Britain in token of international friendship, following a similar visit of a British fleet to Brest, may have an important bearing upon world politics—for a navy is not useless in times of peace. A great British fleet and a great French fleet lying side by side, or, as in this case, with the ships intermingled, shows not only to their own people, but to other nations, that their united force may be called into action should occasion require. Two other movements of British ships may be looked upon as peaceful demonstrations of naval power. The channel fleet is now on a visit to the Baltic; while a powerful squadron under Prince Louis, of Battenburg, is now in Canadian waters, and will visit the United States.

The new provinces of Alberta and Saskatchewan will be inaugurated on the first and fourth of this month, respectively. Hon. A. E. Forget, the pre-

sent governor of the Northwest Territories, becomes the first governor of Saskatchewan, and Hon. G. H. V. Bulyea first governor of Alberta.

The area of the two new provinces which enter the Dominion in September: Alberta is the larger, having an area of 253,500 square miles, while Saskatchewan has 251,100 square miles. There are three provinces which contain greater areas: British Columbia, the largest, with an area of 372,620 square miles; Quebec, 351,873 square miles; Ontario, 260,862 square miles. For the sake of comparison we give the area in square miles of the other provinces: Manitoba, 73,732; New Brunswick, 27,985; Nova Scotia, 21,428; Prince Edward Island, 2,184.



The Tsar-Oh. William, William, our little game is up! see who's coming round the corner!—Weekly Irish Times.

Each of the new provinces is nearly six times the size of New York or Pennsylvania, five times as large as the State of Illinois, seven times as large as Indiana. The only state that exceeds them in size is Texas (268,242 square miles). Each is twice as large as England, Wales, Scotland, Ireland put together with their population of 42,000,000 people; each exceeds the German Empire with its population of nearly 57,000,000, and its area 208,738 square miles, or France with 39,000,000 people, and an area (Corsica included) of 204.092 square miles.

There are said to be ninety-six steamships in the world of more than ten thousand tons burthen. Of these, Great Britain owns just one-half, Germany about one-fourth, the United States one-eighth, and the others belong to Holland, France, Denmark and Belgium, in the order named,

Kairn Island, twenty-five miles south of Port Simpson, is said to have been definitely chosen as the site of Laurier City, the future western terminus of the Transcontinental railway.

The arbitration court which has been considering the amount of compensation to be given to France fishermen for the loss of their former treaty rights on the shore of Newfoundland has fixed that amount at \$275,000.

The government has selected the site for a new battery, to be erected on the shore of the St. Lawrence, below Quebec. The fortification will be about five miles below the city, and its guns will be of sufficient range to command the stream at that point.

Sable Island is now connected with the mainland by the Marconi wireless telegraph.

Official figures for the year ending the 30th of June last show an increase of sixteen thousand in the immigration to Canada as compared with the preceding year. The total for the year was nearly one hundred and fifty thousand.

The residents on both sides of the boundary line have recently been celebrating the fiftieth anniversary of the opening of the "Soo" Canal, which connects Lake Superior with Lake Michigan, and is now the busiest canal in the world. The old canal, originally made by the people of Michigan, and the newer canal on the Canadian side of the Sault Ste. Marie, together carry nearly three times as much tonnage as the Suez Canal.

Wonderfully rich mines of silver and cobalt have been discovered in the Temiskaming region, and a large part of the territory on the south of Hudson Bay is believed to be rich in minerals.

A congress of delegates from the Russian Zemstvos, or provincial representative assemblies, met at Moscow in the last week of July; and later a congress of peasants from many different parts of the empire met in the same city. Both these gatherings expressed in strongest terms the dissatisfaction of the Russian people with the existing state of affairs, calling for the promised reforms in the system of government. An imperial manifesto has since been issued, giving a definite plan and date for the election of a national assembly; and Russia is at length to have representative government for the empire, as a whole, as it now has in the provinces of European Russia. This, as might be expected. is for the present merely in the form of a consultative assembly, the emperor reserving large powers to himself and his successors. The members of this parliament will be elected by representative assemblies, much as the United States senators are elected by the state legislatures; and the body may meet at times in secret session, as does the United States senate, instead of being open to the public like a British parliament. Elections will take place without delay, so that the first session may be held in January.

Harvesting has begun in the Northwest, and this year's crop is expected to yield nearly a hundred million bushels of wheat.

The Japanese language is now to be added to the regular courses of study in German foreign language schools; and numbers of students are said to be going from India to Japan to enter the universities.

The British Association for the Advancement of Science is now in South Africa, where it will hold sessions at Victoria Falls and other points of interest.

The Zionist congress has declined the offer of the British government of a tract of land in East Africa for colonization. The members of the congress were divided on the question, but most of them hope to establish a colony in Palestine.

The negroes in the public schools of Cape Colony outnumber the whites. They have well trained native teachers, and make rapid progress in their studies.

The boundary between Abyssinia and British Somaliland, over which there was a long-standing dispute, has been settled by a joint commission.

Germany's little war in Southwest Africa still continues, though there is less apprehension of danger of its spreading beyond the bounds of German territory.

Several navigators report the warm waters of the Gulf Stream to be nearer our coast than usual; and the unusual dampness of our summer weather is by some attributed to this cause.

Some of us who are no longer young may remember that it was the fashion years ago to speak of the electric fluid. Now again electricity is likened to water. An eminent authority teaches that it is not a form of energy, like heat, but may be a vehicle of energy, like water. Electricity under strain constitutes a current and magnetism; electricity in vibration constitutes light,

The growing revolt in Arabia is causing some uneasiness to the statesmen of the nations most interested, including Great Britain, France and Germany. The threatened deposition of the Sultan of Turkey from his place as the acknowledged leader of the Moslem world change the centre of Moslem power, and affect other interests besides those of the Ottoman Empire.

An irreconcilable difference with Lord Kitchener in respect to the military forces and plans of defence, has caused the resignation of Lord Curzon, Governor-General of India. He is succeeded by Lord Minto, late Governor-General of Canada.

A statue of Jacques Cartier has been unveiled at St. Malo. France, with imposing ceremonies, the government of Canada being represented on the occasion by the presence of the solicitor-general. The money required for the erection of this statue of the famous navigator was collected in Canada. The Maritime Board of Trade, at its recent session in Yarmouth, by a unanimous resolution declared itself in favor of the union of the provinces of Nova Scotia, New Brunswick and Prince Edward Island. The board also favors the admission of the British West Indies to the Dominion of Canada, and the building of a tunnel beneath the Northumberland Strait to connect Prince Edward Island with the mainland.

By a vote almost unanimous, the people of Norway have demanded the separation of that kingdom from Sweden. Either Prince Charles of Sweden or Prince Charles of Denmark will probably be chosen as King of Norway.. The latter is a son-in-law of King Edward, and his selection would seem to bring England, Denmark and Norway into closer relations than have existed since the days of the sons of Cnut.

#### SCHOOL AND COLLEGE.

Dr. W. H. Magee, recently principal of the Parrsboro, N. S., schools has been appointed principal of the Annapolis Royal Academy.

The Golden Jubilee of the founding of St. Xavier College, Antigonish, N. S., will be celebrated on Wednesday and Thursday, the 6th and 7th of September.

The united institutes of the teachers of St. John and Charlotte counties will be held in St. John on the 12th and 13th of October. A programme will be given in the next month's REVIEW.

Miss Isabella J. Caie has been appointed principal of the Milford, St. John County school. Miss Caie has had a large experience in teaching, having had charge of schools in Kent, Charlotte and St. John counties.

Mr. Chas. L. Gesner, who has had charge of the school at Belleisle, Annapolis County, has been appointed principal of the Canning, N. S., school. He has been succeeded at Belleisle by Miss Hattie M. Clarke, recently of Bridgetown, N. S.

Mr. G. W. Dill, recently principal of the Lockeport, N. S., schools, has been appointed to a position in the St. John High School.

Mr. Percy A. Fitzpatrick, A. B., of Westmorland County has been appointed principal of the Surrey Albert County Superior School.

The Mount Allison institutions at Sackville open in September. The excellent opportunities afforded by the Ladies' Academy are given in another page.

The annual meeting of the Kent County Teachers' Institute will take place at Rexton, September 14th and 15th. An excellent programme has been arranged.

The Cape Breton Normal Institute will meet during the last week of September. Several days will be spent in teaching illustrative lessons by classes, and in practical addresses and discussions, as at Port Hawkesbury last September. The meeting will be held at North Sydney.

Geo. Shephardson, recently principal of the River Hebert, N. S., schools, has resigned to take charge of the Maitland, Hants County, schools.

Miss Bessie M. Fraser, of Grand Falls, N. B., has been appointed teacher of grade seven in the grammar school, Chathon,

The series of Royal readers used in the public schools of Nova Scotia since 1877 has been superseded by new books published in part by the Nelsons of Edinburg, and partly by G. N. Morang & Company, Toronto. They are now ready for use in the schools. The selection and editing of the material which forms the series was begun two years ago by the following committee: Supt. of Education Dr. A. H. MacKay (chairman), Supervisor A. McKay, Principal of Normal School D. Soloan, Inspector A. G. McDonald, Principals Lay, Kempton and Butler, Professor Walter C. Murray, Rev. E. F. McCarthy. A series of readers in French is now being prepared, to be mcd:lled after the English texts. These will not be ready until some time next year.

P. R. McLean has resigned his position of principal of the Richibucto grammar school, and has been appointed principal of the Sussex grammar school. George D. Steele, of Sackville, will succeed Mr. McLean in Richibucto. Mr. Steele is a graduate of Mount Allison University.

The summer vacation school of manual training conducted by Supervisor T. B. Kidner at Fredericton had an attendance of thirty-four students, and the results give promise of an increased interest in that important branch of education.

The leader in the University of New Brunswick matriculation examinations this year was W. C. Abercrombie, a pupil of the New Westminster, B. C., high school, of which Mr. H. A. Stramberg, B. A., formerly of New Brunswick, is the efficient principal. Frank A. McDonald, of the St. John high school, led all the other students of New Brunswick, and is the winner of the St. John corporation gold medal awarded to the student making the highest average. One hundred and two candidates took the examination. Of these, ten passed in the first division, thirty-six in the second, twenty-three in the third, and twenty-three in the third conditionally, while ten failed. Those who passed in the first division were: W. C. Abercrombie, New Westminster, B. C.; Frank A. McDonald, St. John grammar school; J. J. Hayes Doone, Fredericton grammar school; Jean B. Barr, St. John grammar school; Beatrice Welling, Andover grammar school; Raymond L. Duark, New Westminster, B. C.; Frank E. Dickie, Moncton grammar school; Annie M. Henderson, St. John grammar school; Frank L. Orchard, Fredericton grammar school; Maud K. Smith, Woodstock grammar school.

Miss Carrie E. Small, M. A., has been appointed vice-principal of Acadia Seminary. She comes to her position with warm testimonials of her Christian character, advanced attainments and high culture. Her course through Wellesley College and Brown University was marked by the achievement of high honors, which have been supplemented by extensive travel, and a short, but distinguished, career in teaching.

Professor Samuel W. Perrott has been appointed professor of civil engineering and dean of the engineering school in the University of New Brunswick, recently held by Professor Brydone-Jack. He is a graduate of distinction in arts and engineering of Trinity College, Dublin, and has had six years' experience in teaching and practical engineering work. Professor Perrott comes with many strong recommendations of efficiency, and the appointment is regarded as an excellent one.

Sir William MacDonald, Canada's educational benefactor, has given the sum of \$20,000 to provide means for enlarging Prince of Wales College, Charlottetown, P. E. I., and for teaching pedagogy, manual training, nature study, etc.

In the Nova Scotia provincial examinations, Miss Elsie Porter and Miss Jessie McDougall of the Colchester County Academy made a record for the province in the "B" Class, the former with a mark of 1077, the latter with 1047. The one thousand mark, says the Truro Sun, has been passed but once before, and that in the case of Mr. Gilbert Stairs of Halifax who made 1011 five years ago. Miss Porter has thus the credit of leading the province.

Dr. John Brittain, who has had such a marked and successful career as teacher of science in New Brunswick, will again take up his work in the University of New Brunswick as teacher of chemistry. The excellence of his teaching and laboratory instruction there last year won the most favorable opinions from faculty and students, and the university showed its appreciation of his success by bestowing on him the degree of doctor of science.

Several changes have taken place in the staff of the St. John high school this year. Miss Katharine R. Bartlett, who has been an exceptionally successful and earnest teacher in the higher educational work for many years, has retired to take a course in nature study at the Guelph Institute, Ontario. Miss Mary E. Knowlton, whose genius in interpreting the masters of English literature has given her more than a local reputation, has resigned after an unusually successful career as teacher of literature in the St. John high school. Miss Knowlton has been appointed a lecturer in the Brooklyn Institute of Arts and Sciences, where she will deliver a six months' course of lectures during the coming winter.

Miss Bessie H. Wilson, teacher of grade eight in the St. John high school, has been appointed to fill the place of Wm. Brodie, A. M., resigned, as teacher of mathematics and Latin in grade eleven. Miss Wilson is to be congratulated on an appointment won by her own merit and skill in teaching.

The Kings County, N. B., Teachers' Institute will be held at Kingston, in the assembly hall of the consolidated school, on Thursday and Friday, September 7th and 8th. A large attendance is expected.

It is expected that the new consolidated school at Riverside, Albert County, N. B., will be opened September 11th. Mr. Geo. J. Trueman will be the principal, with a staff of eight associate teachers.

Miss Yerxa, a former St. John teacher, now in South Africa, spent her holidays in making a vacation trip to the celebrated Victoria Falls, on the upper waters of the Nile, regarded as the greatest cataract in the world.

Mr. John DeLong, A. B., has been appointed principal of the Milltown, N. B., schools,

Miss Susic E. Archibald, Truro, has been appointed teacher of domestic science in the Yarmouth schools, in place of Miss Starritt, who resigned to take a post-graduate course.

Mr. Jas. O. Steeves, of Albert County, has been appointed principal of the Centreville, Carleton County, superior school, with Miss Orchard as the primary teacher.

#### RECENT BOOKS.

[In a review last month of the "Artistic Crafts Series of Technical Handbooks" the name of the publisher, Mr. John Hogg, 13 Paternoster Row, London, E. C., was inadvertently omitted.]

Practical Mathematics. By Daniel A. Murray, Ph. D , Professor of Mathematics in Dalhousie College, Halifax, N. S. Cloth. Pages 113. T. C. Allen & Co., Halifax,

This is a compact neatly printed volume designed to bring practical problems early within the reach of young pupils. The work includes the solution of triangles, measurement of areas, heights and distances, the use of logarithms, plotting of graphs, and finding the slopes of curves; with a dozen pages devoted to four-place tables of logarithms. The book brings within the range of high school and college students and those who leave school before completing their course a great variety of practical problems which will widen their interests and increase their mathematical ability.

HIGH SCHOOL PHYSICAL SCIENCE. Part 1. Revised Edition. By F. W. Merchant, M. A., D. Paed., Principal London, Ont., Normal School and C. Fessenden, M. A., Principal Collegiate Institute, Peterboro, Ont. Cloth. Pages 339. The Copp. Clark Company, Toronto.

The revision of this elementary treatise on physical science has added to its practical value by introducing several new features, among which are manual training exercises on the construction of apparatus required in the text. The book is very fully illustrated, the directions for laboratory practice definite, the experiments simple and such as can be performed by the pupils themselves with inexpensive apparatus. The authors have succeeded in giving an excellent practical treatise in which the fundamental principles of physical science are very elearly explained.

Brothers of Peril: A Story of Old Newfoundland. By Theodore Roberts, author of "Hemming the Adventurer." Cloth. Pages 327. Price \$1.50. Copp, Clark Company, Toronto.

The "brothers in peril" are an English hero and a young Boethic Indian of Newfoundland, whose race is now extinct. The scene is laid in the early days of that colony when it was merely a fishing station. The English hero with his Indian protege have many exciting adventures—fights with savages and pirates; hairbreadth escapes; and there are love passages intermingled. The descriptions are vivid, the action of the story strong and life-like, and the interest well sustained throughout.

Introductory Physiology and Hygiene. By A. P. Knight, M. A., M. D., Professor of Physiology in Queen's University, Kingston, Ont. Cloth. Pages xiv—108. Copp. Clark Company, Toronto.

This is a series of simple lessons in physiology, the subject being considered as a part of nature study, and developed accordingly by demonstration and experiment. The lessons were prepared and taught to the first four forms of the Kingston public schools, and are published as taught. They constitute an edsy graded method of presenting the elements of physiology to a class of children, and the means of preserving the health of the body. The ill effects of stimulants and narcotics are taught in a com-

mon sense way, without lurid diagrams or repulsive language,

The Nature Study Course. By John Dearness, M. A., Vice-principal, London, Ont., Normal School. Cloth. Pages 206. Price 60 cents. The Copp, Clark Co., Toronto.

This book is admirable for its suggestiveness and the manner of leading up to the many varieties of topics connected with nature study. The teacher who will give it a careful study and adapt its methods to his own needs cannot fail to be successful and produce a large measure of interest in the school. The plans of nature work in the schools of Nova Scotia, Ontario and Manitoba are quite fully drawn upon for material and illustrations, and the strong features of each course are fully emphasized. The author has appreciated the many difficulties in the path of the nature study teacher, and has given practical aid towards surmounting them.

'MID THE THICK ARROWS. By Max Pemberton. Cloth. Pages 395. Price \$1.50. Copp, Clark Co., Toronto.

A story in which there is plenty of action, no lack of intrigue, and a plot that is very skilfully woven.

Geo, N. Morang & Company, Toronto, are the Canadian agents of a series of beautiful little pocket editions of English and American classics published by the Macmillan Company, New York. These are octavo volumes, prettily bound in red cloth, with the titles in white on the back and on the front cover. They are sold at the low rate of twenty-five cents each. We have received three volumes—Andersen's Fairy Tales, Longfellow's Hiawatha, and Hawthorne's House of the Seven Gables. The two latter are adorned with neat vignette portraits of the authors, and all are edited for use in elementary and secondary schools, with introductions and notes.

From the same publishers, Morang & Co., Toronto, a copy of Chancellor's Graded City Speller has been received, price 12 cents. It is adapted for seventh grade students, and is a useful little work, combining derivation, word-building and quotations of literary value and interest in a very admirable way.

Nature Lessons for Primary Grades. By Miss Lida B. McMurry. Cloth. Pages 191. Price 60 cents. New York: the Macmillan Company; London, Macmillan Company; Toronto, Geo. N. Morang & Company.

This book leads easily and naturally into the study of animal and plant life from objects, most of which are easily accessible to the children of every locality in Canada and the United States. About three-fourths of the book is taken up with subjects of the animal kingdom, many of which are household pets. The author's treatment of these will not only prove of great interest to young children, but lead them to be definite in observation, and kind and considerate to animals. The plentiful sprinkling of explanatory parenthetical notes throughout the text is suggestive, if not too liberal in the way of "helps."

From the same publishers (the Macmillans and Morang) there have been received A Special Method in Language, (cloth, pages 192, price 70 cents), covering the first eight grades of school work, designed to link closely with language all other exercises of the school to form a hroad and simple treatment of the subject; and A Special Method in Arithmetic (cloth, pages 225, price 75 cents), the plan of which is to outline to elementary teachers the

purpose of teaching arithmetic, and to show its relation to other subjects in the course. The author of both works is Chas. A. McMurry, Ph. D.

OBJECT LESSONS IN ELEMENTARY SCIENCE. Stage VI. By Vincent T. Murché. Cloth. Pages 325. Price 2s. Macmillan & Co., London,

This book is divided into four parts, the first treating, in a simple illustrative way, of the mechanical powers; the second of the ordinary chemical processes; the third of the structure and functions of the chief organs of the human body; and the fourth of the geographical distribution of certain plants and animals, their use to man, and the trade and commerce arising from them. The arrangement in this stage, as in the previous ones, is clear and methodical, no step being left unexplained.

Practical Experimental Science. By W. Mayhowe Heller, B. Sc. (Lond.), and Edwin G. Ingold. Cloth. Pages 220. Price 2s. 6d. Blackie & Son, London.

In this book we have the principles of scientific teaching very carefully illustrated; and the author places special stress on the importance of laying a foundation of real knowledge on which future progress may be securely built. To this end he weighs carefully the results of observation and experiment, the sifting of information from many sources, and the gathering of experience by skilfully directed methods. The measurement of length, area, volume, mass; of the weight and pressure of air; of temperature, expansion and kindred topics, are very fully treated, with abundant illustrations.

In "Blackie's English School Texts." edited by W. A. D. Rouse, Litt. D., there have been issued Charles Lamb's "Adventures of Ulysses" and "Sinbad the Sailor." Each is accompanied with a brief introduction, the pages are clear and in large type, which is a pleasure to the eye. Price 8d. each. Published by Blackie & Son, London.

In "Blackie's Little French Classic Series," Blackie & Son, London, there are two neat little pocket volumes, containing an introduction, notes and vocabulary, price 6d. each. Alexander Dumas's "Jacomo ou le Brigand," one of the rare short stories of that gifted author; and Mateo Falcone, which Walter Pater pronounces "the cruelest story ever written," by Prosper Mérimée.

In "Blackie's Latin Texts" there is begun a new series designed for students in the first two or three years study of Latin. Each volume, the first being *Eutropius*, price 8d., has a short introduction dealing with the author's life and works. A useful feature in the text is the marking of all yowels long by nature.

Other texts from Blackie & Son are Longfellow's "Hiawatha," with copious notes and vocabulary, price 1s.; "Story Book Readers," fourth series, price 4d., containing Miss Cuthell's interesting story of a seaman's little boy and his adventures; "School Recitations," for senior pupils, price 1d., with standard poems by the best authors.

PRIMARY READERS. By Katharine E. Sloan. No. 1, pages 151, price 25 cents; No. 2, pages 174, price 30 cents. The Macmillan Company, New York; Geo. N. Morang & Co., Toronto.

The aim of these primary readers is to teach children to read with the least labor and in the shortest time. The phonic method is the means used to secure this end, but the lessons are so arranged that the word or sentence AUTHORIZED BY BOARD OF EDUCATION FOR USE IN THE SCHOOLS OF NEW BRUNSWICK.

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method may take its place, or be used simultaneously with it. The subject matter is well selected, the colored plates and other engravings are for the most part natural and attractive.

STUDIES IN MODERN GERMAN LITERATURE. By Offic Heller, Professor of the German Language and Literature in Washington University, Cloth, 30t ages. Mailing price, \$1.35. Ginn & Company, Poston.

The author has confined his Studies to Sudermann, Hauptmann, and to the German women writers of the century. It is a timely contribution to present day literature. The author limits his choice of subjects with the avowed object of directing attention to certain aspects of modern German thought, rather than to make the volume a "guide-book to German literature." His chapter on women-writers is especially interesting to English readers. Although Germany has produced no woman writer comparable to England's George Eliot, or George Sand, of France, the author concludes a highly appreciative discussion of four women writers—Isolde Kurz, Clara Viebig, Helene Böhlau, and Ricarda Huch—with the frank admission that one cannot name the foremost living writers of Germany without including several women.

In the "Belles-Lettres Series," published by D. C. Heath & Company, Boston, reference to which has been made in other numbers of the Review, we have three volumes lately issued. One of these is Selected Poems, by Algernou Charles Swinburne, edited with introduction and notes by William Morton Payne, LL.D. The selections have been made with excellent judgment, and embrace perhaps the best productions of the one great poet left to the English

race, whose contemporaries have passed away. The two greatest of Swinburne's odes, "Athens" and "The Armada," are to be found in the "Selections." Two volumes belong to the English drama—Bussy D'Ambois and The Revenge of Bussy D'Ambois, by George Chapman, edited by Frederick S. Boas; and Society and Caste, by T. W. Robertson, edited by T. Edgar Pemberton. The attention of book lovers and librarians is directed to this great work published by Messrs. Heath & Co. The general motto of the series, which will include, when completed, some two hundred volumes, is "Literature for Literature's Sake." They should meet the approval and appreciation of scholars. They are to embrace the best products from the dawn of English literature down to the present time.

AGRICULTURE THROUGH THE LABORATORY AND SCHOOL GARDEN. By C. R. Jackson and Mrs. L. S. Daugherty, State Normal School, Kirksville, Mo. Illustrated. 402 pages. Cloth. Price \$1,50 net. Orange Judd Company, New York.

This book is designed to prepare teachers to give practical and definite agricultural instruction in public schools. The plan of presentation is original, and any energetic teacher, by working out the theories and experiments, may do creditable classwork. It will aid the teacher in the nature work of schools. Although primarily intended for use in schools, it is equally valuable to any one desiring to obtain, in an easy and pleasing manner, a general knowledge of elementary agriculture. It contains a large number of engravings, and is printed in large, clear type on handsome heavy paper, and is bound in cloth.

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Magnetism and Electricity for Students. By H. E. Hadley, B. Sc. (Lond.) Cloth. Pages 575. Price 6s. Macmillan & Co., London.

This is intended to meet the requirements of students who have worked through the author's elementary book on the same subject. With that as a preliminary, the present advanced treatise furnishes a complete text-book in magnetism and electricity.

The Principles of Argumentation. Revised and Enlarged. By George P. Baker, Assistant Professor of English, Harvard University, and H. B. Huntington, Assistant Professor of English, Brown University. Cloth. 677 pages. Mailing price, \$1.40. Ginn & Co., Boston.

The favor with which the Principles of Argumentation has been received during the nine years that have elapsed since its publication has made a more comprehensive treatment desirable. The authors have made numerous additions and improvements, especially in the chapters on debate, refutation, analysis and persuasion. The treatment of the latter subject is fresh to text-books, and is so presented as to have a bearing for courses not only in written argument, but also in oratory and debate. Exercises are given at the end of each chapter, and much illustrative material has been added throughout the book to secure a full and simple course on argumentation.

In the "English Literature for Secondary Schools" series, Macmillan and Company, London, have published three additional volumes in linen binding, on good paper, with clear type. These will be found very excellent for classroom use, each volume being provided with introduction and a few suggestive notes. The extracts from the different authors have been made with care and judgment. The volumes are: Longfellow's Shorter Poems, edited by H. B. Cotterill, M. A., price 18.; Essays from Addison, by J. W. Fowler, M. A., price 18.; The Tale of Troy, re-told in English by Aubrey Stewart, M. A., price 18. 6d.

#### RECENT MAGAZINES.

The August Atlantic Monthly (Boston) is a fiction number of great interest, and the essays are upon timely topics and have all the readableness of stories. Although the number is largely devoted to fiction, it contains an exceptionally important and timely paper upon The Literature

of Exposure, by George W. Alger, whose terse discussions of important contemporary issues have found so much favor with *Atlantic* readers.

The Atlantic for September has three very readable articles on Education, which with the discussion of other timely topics, several good stories, poems and literary essays make up a number excellent in its variety, ability and brightness.

The colored illustrations in the Canadian Magazine (Toronto) for August are especially good, as are the reproductions of Turner's pictures. The fiction is exceptionally good, and every story is by a native writer. The whole number is full of interesting features.

The Canadian Magazine for September opens with an article from the pen of Mr. Justice Longley entitled Moral Heroism. There are several stories in the number, written by Canadians one of the best of which is The Other Miss Robbins, by Isabel E. Mackay.

The most notable review article on Sweden and Norway is Scandinavia in the Scales of the Future found in the Living Age (Boston) for August 5th. British Foreign Policy, and Birds and Beauties of an Old Orchard are articles which will interest the reader in the number for August 12th, and in the number for August 19th we have the inspiration of a good example in the sketch entitled My First Success.

The Chautauquan for August is principally taken with studies of questions in the Far East, and there are articles of great interest to the student and general reader on Korea, the Russo-Japanese War, and Highways and Byways, which take in the current events of the world.

The Chautauquan for September has a series of articles on the Russo-Japanese situation, in addition to discussions of other Oriental questions and contributions of current interest

The earliest creations of autumn are attractively set forth in the September Delineator, along with fashion comment and prophecies, and there is much in the number of interest from other than the standpoint of fashion. Mrs. Mary Hinman Abel contributes an article on the pure food question. The hymn, Nearer, My God, to Thee, is the subject of a paper by Allan Sutherland, and there is an enjoyable travel sketch, describing and picturing the beautiful lake district in England. In the way of fiction the number contains some readable stories, and there are also entertaining pastimes for children, including an animal fairy tale by L. Frank Baum.

# The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

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In the very full article contributed in this number on the Nelson centenary, by Miss Robinson, our readers will find material for a review of the stirring events of one hundred years ago.

Much is said about the importance of punctuality in pupils attending schools. Teachers should set a good public example in being prompt to the minute while attending the session of an institute. Subscribers of the Review should examine the numbers on their addresses. Number 220 means that the subscription is paid to October 1, 1905. If the figures are less, it shows that they are in arrears; if greater, that they are paid in advance; number 232 means that they are paid to October 1, 1906.

NEXT month, or the following, the REVIEW will begin the publication of a series of pictures, reproductions of the world's best artists. The design is to furnish material for decoration of schoolrooms, aids to composition and the study of history, geography and other subjects. The pictures will be accompanied by instructions showing how to use them to the best advantage.

In Mr. Butler's notes on the "Deserted Village" in this number, our readers will find his treatment of the subject applicable to any selection of literature they are preparing for classes; and so will the teachers of primary and intermediate work, who, if not qualifying themselves for high school positions, are fitting themselves to become better teachers by the careful study of the best English literature.

THE attention of teachers is directed to the announcement of the courses of manual training at Fredericton. The demand for teachers of manual training and household science is growing steadily. Under the regulations for consolidated schools in New Brunswick, these two branches must be taught if the special government grant is to be earned by the district. Manual training is also increasing in popularity in the towns of the province, and two, if not more, teachers have been borrowed from neighboring provinces to fill the demand for qualified instructors. The New Brunswick director, Mr. Kidner, says that the short course which began in September is full, but applications for the January to tune course are invited.

A fine coloured picture of the death of Nelson can be obtained from the Messrs. Steinberger, Hendry & Company, Toronto. Price \$2.

In the teachers' pension scheme recommended for Nova Scotia, it is proposed to form a fund from the following sources: Teachers whose salaries do not exceed \$300 shall contribute one per cent; those who receive more than \$300 and not more than \$800, two per cent; and those who receive more than \$800, three per cent. In addition, there will be interest on the permanent fund, and the government of Nova Scotia is expected to contribute \$2,000 a year.

A NATIONAL conference of trustees of American colleges and universities will be held at the University of Illinois, Urbana, Illinois, begnning Tuesday, October 17th, during the week in which Dr. Edmund J. James will be formally inaugurated as president of that university. Some important questions will be discussed regarding college administration, which in the United States is managed by boards of trustees composed of non-experts, that is to say, by laymen interested in, but not engaged in, professional educational work. While this method of control is regarded as satisfactory by some, by others it is held to be a serious weakness to the system of higher education. In England the old universities are self-governing bodies, controlled largely by the faculties; in France and Germany they are departments of the government, and so far as they are not directly under the control of the government, they are autonomous, that is, ruled by the faculties.

#### Nature Study in Canada.

In an article on Nature-study in the Schools of Nova Scotia, published recently in the Ottawa Naturalist and later in the Nature-Study Review, of New York, Dr. A. H. MacKay gives an interesting summary of the growth of the nature-study idea in Eastern Canada, beginning with the presentation, a quarter of a century ago, of an outline of a nature course for the schools of Nova Scotia. At the instance of Dr. Allison, superintendent of schools, Dr. MacKay, then principal of the public schools and the historic academy of Pictou, laid before the N. S. Educational Association on the 14th July, 1880, the outline of a course which, after discussion and revision, soon after became a part of the pre-

scribed course of the first eight grades of the Nova Scotia schools.

Early in 1887 three teachers representing the provinces of Nova Scotia, New Brunswick and Prince Edward Island met at Pictou on the invitation of Principal MacKay, and the result was the founding of a journal, whose primary object was to foster the nature study idea. Quoting the words of Dr. MacKay:

In 1887 The Educational Review, which has ever since been continuously published at St. John, N. B., was started with the object of developing the nature-study side of the course, as well as serving incidentally as a teachers' organ for the Atlantic Provinces of Canada. Illustrated lessons on natural objects were prepared, the most continuous being the series under the title "Ferndale School." The whole environment of common-school life was more or less covered, instruction for teachers on various subjects, including even the evening sky, which was illustrated by a series of star maps. The Ferndale series dealt with the biological side mainly; but other papers covered mineralogy, physical phenomena of common range, and so forth, before any similar effort appears to have been made in any other province of Canada.

Dr. MacKay then traces the growth of naturestudy in connection with the normal school of Nova Scotia, and the appropriations of Sir William Macdonald at Guelph, Ontario, to provide suitable instruction for teachers of nature-study throughout Canada. He also alludes incidentally to the work carried on by the teachers and schools in his own province, where such observations are made as the first flowering, leafing and fruiting of plants; the migration of birds; thunderstorms, frosts, high and low water, etc. These have been taken so regularly and proved of such utility that many schools elsewhere, from Nova Scotia to British Columbia, have adopted the same plan; with results that promise to become increasingly useful.

The "Ferndale Series," referred to above, was the contribution to the Review of Dr. MacKay, and he has been asked to revise that suggestive series, bring it up to date and publish it in pamphlet form with other related matter. Such a guide to nature study would be invaluable to the teacher, and it is hoped that Dr. MacKay may find time to elaborate his early work.

The Boston Traveller thinks that the hen whose egg product is valued at \$280,000,000 yearly is more desirable as a national bird than the lordly eagle, which causes loss rather than gain to the country. The suggestion is practical, if it is not sentimental.

#### Summer Holiday Activities.

In his evening talk before the summer school of science at Yarmouth in July last, Principal Soloan, of the Nova Scotia normal school, outlined an attractive course by which boys and girls may make the summer holidays a source of unending delight and benefit to themselves. In his wild garden at Lake Annis, Mr. Soloan occupies much of his leisure vacation moments, when books and correspondence and the calls of teachers' conventions will allow him, in the study of nature which is lavish and in great variety about him. It was in congenial mood, then, that he spoke of the opportunities of healthy enjoyment that lie open to children in vacation, and he has yielded to the request of the Review to place these views before a wider circle of teachers.

To enjoy a vacation and yet make it useful is Mr. Soloan's plea, and teachers will readily enter into sympathy with it on account of its possibilities to themselves and to their pupils. All through the school term there is too little time to read the stories or books that lend interest to literature, history. geography and other school studies; references are constantly being made through the winter months to objects of nature-study, such as are seen in field, forest and garden, to birds, insects and plants, which may be observed only in the mid-summer months. How good it will be then to anticipate the joys of coming vacation and have boys and girls jot down in their note-books what may be read as a supplement to present lessons, or what may be observed in their rambles afield in summer. It is hoped that Mr. Soloan's idea given below may meet with the cordial sympathy and co-operation of our readers:

Is it not worth while to consider whether the summer-holiday activities of the schoolboy and schoolgirl could be availed of to such a degree as to render them a direct asset of the school business without thereby impeaching the rights of youth to untrammeled enjoyment of holiday blessings?

That a boy's holidays are a period of intellectual sleep would be a most thoughtless conclusion. True it is that during such periods certain activities called into daily requisition in the classroom cease to be operative; but, on the other hand, with the advent of summer freedom, various other mental processes wake to unwonted activity. Like those of older people, the schoolboy's pleasures are in the main intellectual: his rambles, his games, his masqueradings, quite as much so as our own. Let us admit, then, as we readily can, that formative influences

are potent in the mind and heart of the pupil whether school keeps or not.

It remains, then, to inquire whether these influences can to any extent be regulated, modified, or, indeed, supplied by the teacher after school has closed. The faculty of observation, for example,—this is ever lively in youth. And could not young persons' holiday observations be given point, rendered more exact and more permanently available if some general instruction, encouragement and aim were supplied in advance by the teacher?

I shall not try to elaborate the theme very much. Consider, however, the whole realm of school studies, and the thoughtful teacher will hardly discover one subject treated in the schoolroom that does not lend itself to independent out-door treatment by the pupil—independent, or, better, slightly .. dependent on pre-suggestion and advice of the teacher. It is nature-study? Think how manifold and full are the processes of nature during the six weeks following the closing of school. It is the fruition period for what was but flower or bud in the fresh spring days of May and June; the hail and farewell period for many of our birds of passage; the nesting-time of others; and the season when not only flower and bird world, but the insect world, too, is at its gayest. The very heyday of nature! And, in the midst of the blaze of summer glory at which the coldest hearts are lighted to warmth and joy, our young folk are storing up an enthusiasm which can be transformed into an active principle in the nature work for weeks and months afterward.

The specific problem for the teacher is, first, how he may direct and encourage the holiday efforts of boys and girls to enjoy and to know nature's moods and processes; secondly, how this acquired knowledge and enjoyment can be enlarged and correlated by subsequent recall and conversation after holidays are over. Let me suggest. What boy or girl will deem it drudgery or an inroad into holiday freedom to be asked to acquaint himself thoroughly, during the idle summer days, with the life and habits of some species of bird or insect, or with some group of plant-phenomena? Suppose a few young people bring back to school the store of definite information which the teacher has before holidays shown to be easily and pleasurably obtained,—what themes there for talks with these eager lads and lasses whose reports on various heads lack none of the charm of new discoveries! How keenly idle ones will regret their aimless and fruitless days, and will take a lesson for future application!

Nature-study aims at learning nature-processes in their continuity and in their manifold relations. This is largely where the school garden gets its value as a medum of instruction and education. But a school-garden is not indispensable. Only see to it that the summer vacation is not a lacuna, something dropped completely out of the school year, leaving direct observation restricted to spring and autumn phenomena, which will remain largely meaningless apart from their summer context.

Leaving for the nonce the volume of nature for that of the printer, perhaps we may even to some purpose direct the reading of our pupils in history, romance, or travel, by encouraging them to seek points of contact between their holiday reading in these subjects and the history and geography of the school. Geography furnishes a delightful field of study to young people given to the pastimes of fishing, berrying and picnicking. An illimitable range of concrete phenomena presents itself; and the teacher need only to give the cue through suggesting, for example, the making of a map of certain localities showing such features as drainage, flora, division into arable, pasture and woodland, lakes or ponds (the latter features quite within the power of older pupils to survey and plot in detail).

Not only our pupils, but ourselves, will be gainers by this effort to interpret life's mysteries as significant and interrelated, items which to the careless glance may have seemed distinct and separate falling into place in that large and unified plan which we designate by such vague terms as nature or universe.

We often expect too much of the new pupil. We forget that our suggestions which are clearly understood by the old pupils are as Greek to the new ones. We must go slowly at first, take nothing for granted, encourage the timid ones and establish the We cannot at-home feeling as soon as possible. study the individual too thoroughly-his habits, his capacity to work, his power of attention and concentration. We sometimes expect the in-coming pupil to know as much as the out-going. We try to remember what the last year pupil knew when he entered this grade. That knowledge would be of very little practical benefit to us. We have a new soul to deal with. Before we can develop that soul we must understand it. Then by presenting the points clearly and simply, the flood-gates will open and the overflow of gladness will more than repay us for our efforts.—Sel.

#### Visiting Schools.

When a visitor goes into a schoolroom and finds teacher and scholars, after a greeting which puts him at his ease, cager to resume the work thus interrupted, he concludes that the teaching is a vital thing in that school. If the visitor is a first consideration and the lesson a secondary matter, it shows that something is lacking. Every visitor appreciates a courteous reception, and, if he has interest enough in the school to remain for a time, is doubly appreciative of a bit of good teaching on receptive young people.

While visiting the Victoria, B. C., school recently, the superintendent took me into the English literature room, where a class was studying Shakespeare's "Merchant of Venice." The poise of body and interested looks of each pupil showed that something was a-doing. Teacher and pupil paused to give the visitor a cordial greeting. The superintendent introduced him to the bright lady teacher in eharge who was "from the Atlantic Provinces a few years ago"—a not uncommon form of introduction in the West.

"Would you like to stay and see some of our work?" said the teacher pleasantly.

"That is what would please me most of all."

Then some pupils were called upon to read short passages; others read extracts from essays written on the characters of the play. Comment was freely made by the pupils on the passages read or on the essays.

"Would you like to say something to the school?" said the teacher as the visitor rose to depart.

That was an easy matter, as the visitor could say something to the point without being commonplace.

Forthwith the superintendent ushered his visitor into a grade preparing for the high school. also was presided over by a lady teacher "from the Atlantic Provinces." Nothing could exceed the beauty of the interior of this room. The walls were decorated with pictures, flags and mottoes, not too many, but just enough to make the effect most pleasing to the eye, and this effect was heightened by the banks of ferns and flowers (then, early May, in profusion in British Columbia) on the table and in the corners of the room. But there was nothinga-doing in that school. The visitor was called upon to make the inevitable speech. He can only recall now that he stumbled through some nothings about pretty schoolrooms,- and felt relieved when he found himself again in the open air.

A few days ago a half hour was spent in Fred-

reletens in Henring to a leason given to a class of applied leaders in the portral echool. Previous lessons his dwell on the structure of a bean send and growth of the plant up to the time that it had attained the right of from six to nine inches. This mud people decembellate stages were shown in bean plants that hel been grown by cotton wood. These placed uprior in a light less and shown through small percot glass were possed among the metihere of the case. The point make discussion when the visitor stered the room was to determine the Charles of the spatistion of the edyletons of the bean from the grand during the early period of growth Alded by brakill to drawing and the unique method of showing to growing plants, the teacher did little healthen her jug the class to the point by a series of questions, drwing torth their reasons until the cotritupower as obtained. Here was a well-direct ed nature leson with observation reasoning and expression gang band in band

#### In All-Round Training,

In an address on manual training, given recently by Dr. Jame P. Hanny of New York, he referred to its value i lending interest, by doing, reall the subjects of he school course, drawing, nature study, minhs lessons, literature, and the like. In stead of livy mental images, the strong virile manual training word would give clearness and debutters. If the other subjects of the school course, and reduce a near thorough and intelligent classes sudent. In addition to this, he mays,

Our papet to considerations, completes his elementary school life a criteria. To leave the cloud with his thilly and out adjuly only other than the found is gifted with mostly bill. He can perform one score of operation of a familiar with one case of foods He will make a you want tought plan and up it. He completely a complete decemption and apply it. He has completed data, his school life half a hundred model or mare, book by home identifying angle prices of teleptific approach. Through he work by he concered a afrong contrative hard, and will be a formed to a the world that since construction could be has hed nowakened in the most estimate one his hed he eye opened to hear not shatted, has concrete. Beauty to from fenemed to long through correlating for it to discover fine lines, harrowing propertions and fitting decoration Above all, he as period to him, himself in know nomething of it power which her in his control brone filled in his destrong frond, manuflology of his consorbibity to mould and top the environment to which be the Thus the acts her served their purpose as exceeded elements to his elections schooling

#### A Tonubor's Reward

Proposed John Milliam Las John appointed to take charge of the nature study fraining in the may callege which 'ar William Macdonald is estate Indiana at 1st Annes, may About eal. The appoint ment will take effect next autumn when it is expect ed, the college will be opened. Those who have followed by Britism's weit from the common school, where he was a thorough and proposition tracker, to the University of New Brimowick, where the same thoroughness now characterizes his work as tem by of science, will admit that there are rewards for the diligent and faithful schoolmaster who aims uncomply to perfect himself in his shown work and who hopours that work. Who ever adjacovered a Mr. Brittain, and problemed film for teacher of parmal siems in the acquist school more than a sore of years ago, did good service for education in New Britiswick Professor Robert son's been wisdom ted him to discover in Ale Brit. tain the man to lead one blanch of the movem of by betripperioral schools in the province, and now In schools have a great step further upwards in maniany loop the head of the nature tridy division in a college from which great results are anticipated for Camada

The following statement made regarding history to equally applicable to the tinds of prographs. At least three fointles of the time pent by a boy of twelve in trying to learn a hard beson out of a least is time thrown away. Perhaps one fointle of the time is devoted to more or best desperate and constitutions effort, but the large remaining pertion or dwardled away in thinking of the last paine of full and longing for the next paine of tage." The problem of the tracher is to overcome this difficult, not choicate this waste.

The ter, is told of an Ontario pull, lately arrived in Montreal that wishing to attain social promitions. The became a preat reader of literature and lister, — After a diligent come a estembling cost one with she was thrown into the cost, of a Metall Indent, when till of all lootball dances findly there was a pair c and she hade in with a Wash't of awful about this. Once is a 'soft' Why, what is the matter — tannered the turbul confused. "My practice to about affect the pict." didn't year break." Why the poor those had be headered to didn't year break." Why the poor those had be headered to didn't year break."

#### A Warning Note from the West.

We have the following letter from Inspector W. S. Carter with permission to publish, which we gladly do, asking for it a careful reading:

Edmonds, Washington, U. S., September 12, 1905.

W. S. CARTER, ESQ.

Dear Sir, - \* \* \* \* You are now, probably, just beginning your visits among the Charlotte County schools. Tell the teachers not to be misled by the wonderful tales of high salaries in the "Golden West.' In the city schools very good salaries are paid, but it costs much more to live here than in New Brunswick. Besides, the teachers are paid so much per month—the school year varies here, but is never more than nine months. There is no supplementary allowance from the state; and until a life certificate has been obtained the examinations are a tax upon an income, as one must go to the county seat for the ordinary and to the state capital for the "life" certificate examinations. Then, attendance at county institutes is compulsory. Every teacher must attend the sessions of the institute or have his certificate cancelled, unless excused by county superintendent on account of illness. Even if not teaching, one must attend, and fares are not reduced.

I think there are very few (if any) New Brunswick teachers who would be willing to teach the school history -even for many times the salary paid. In the primary grades one avoids that, but it is quite difficult to have a number of pupils who know not one word of English until they come to school. Besides all this, the schools are harder to manage, and the results obtained out of all proportion to the amount of effort on the part of the teacher. Our schools in the East are much more thorough and effieient, our teachers a much finer class of people. I have attended the institute in two of the leading counties in this state, and met many teachers from two other counties, and this is my candid opinion. Let the teachers impress upon the minds of even the youngest pupils that there is no country with such a glorious history as the one of which we Canadians form a part—no flag that means so much as ours. Prosperity, safety and the truest liberty are found in its shadow, as nowhere else on earth.

Every country must have some drawback, and so Canada has quite severe winters, but they are not by any means an unmixed evil. When I see what Canadians are doing to-day to build up a rival nation at the expense of their own, I feel like starting out to preach a crusade—beginning at the schools.

Let every school have a small flag, which one of the children can hold up in view of all the others, and let them all salute the flag as part of the opening exercises. This may seem a small thing, but it will tell in after life.

Pardon me for intruding upon your time, but this subject is very near my heart, and I know you are the best one to bring the matter before the teachers of Charlotte County.

Sincerely yours,
EDA RUSSELL.

"Your paper was invaluable to me during my last year's work. I wish you every success,—N. C.

#### October Talks.

The clear evenings of October give a good chance to study the skies, which are now full of interesting things. The bright star that rises in the east before nine o'clock is Jupiter. Notice that it rises earlier Explain this. The sun rises later each evening. each morning and sets earlier each evening. plain. The reddish star in the west that sets about nine o'clock in the evening about the first of the month is Mars. Above it to the left is another red star, which is called Antares, which means the Rival of Mars. It is a fixed star in the constellation of the Scorpion. At present it is brighter than Mars; sometimes the latter is the brighter. Can you find out why? Venus is now morning star and very bright. The large yellowish star that comes to the meridian about nine o'clock in the evening, following the sun's course, is the planet Saturn. It is now a very interesting object to look at through the telescope, as its rings are visible.

Have a short interesting talk on the year as a whole, including the months and seasons, telling some characteristics of each. What is the meaning of October? Is it the cighth month? How many months come before and how many after it in the year? What are the farmers doing this month? What crops are all in the barn or cellar? fruits are now ripe? Name all the fruits that grow in this country? What changes are noticed in the weather? What colors are seen in the leaves of trees? in flowers? Do you notice any buds on the branches and twigs of trees? Do these stay on all winter? What will they become next spring? Notice that the brooks are fuller than in September. Why? What birds are with us this month? What ones have gone? Where? When will they return? There are few insects on the wing; what has become of them? (They are burrowing in the ground in old stumps, on trees and elsewhere. Look for cocoons, for "willow cones," swellings on the golden-rod, etc).

When is Hallowe'en? What children's games may be practised that evening?

Thanksgiving Day this year is October 26th. Explain the significance of the day, and why we should be thankful. Speak of the great extent of Canada, the wonderful wheat harvest in the Northwest, exceeding 100.000,000 bushels, the greatest in our history. Is this all needed for home consumption? Where is the surplus sent? Should Thanksgiving Day be entirely given up to feasting? Teach thankfulness. Call attention to the many

reasons why we should be thankful, and to the benefit to ourselves when we appreciate the many good things we receive from the Creator. Clay modelling of fruits, such as apples, plums, small pumpkins and squashes, etc., is a good exercise and appropriate to the season. Select from books and past numbers of the Review poems and stories on Thanksgiving.

In thirty-one Bavarian towns there are government agricultural institutions where from November to March, when they are not in the fields, the farmers for a nominal fee attend the schools of soil cultivation and fertilization, crop succession, stock raising, rudimentary bookkeeping, etc. Then in the spring the teachers go through the country advising the farmers on conducting and improving their farms, forming co-operative clubs and lecturing on scientific and practical subjects. This is entirely free, the state assuming all expenses, and the results are said to be excellent.—Consular Reports.

Exercise in Spelling. — Notable, vengeance, guttural, sergeant, paralysis, comedian, peaceable, irrelevant, dynamite, installation, conceding, atrocious, benefitted, aspirant, remnant, leprosy, collapse, besieged, courtesy, malfeasance, battalion, holiday, gaseous, codicil, substantial, chattel, alleged, bigamy, weapon, scythe, imperative, collision, tenement, magician, censorship, precede, lieutenant, contagious, vigil, warrant, villain, controversy, incessant, illegal, pigeon, prejudicial, malady, parcel, civilian, innocent.

#### October in Canadian History.

It was on the 12th October, 1492, that Columbus discovered America.

October 5, 1813. Proctor defeated at Moraviantown by U. S. forces.

October 5, 1869. The great Saxby gale.

October, 1871. Fenian raid in Manitoba.

October 10, 1864. Confederation conference at Quebec.

October 13, 1812. Battle of Queenston Heights. October 13, 1820. Sir William Dawson, the eminent Canadian scientist, born at Picton.

October 21, 1871. Boundary line settled between British Columbia and United States, and the island of San Juan awarded to latter country.

October 26, 1813. DeSalaberry defeated the U. 'S. forces under Gen. Hampton.

October 30, 1899. Departure of first Canadian contingent from Quebec.

#### The Old School.

When the last long line has passed from sight,
And the footsteps echo away,
I often sit at my desk and muse
Alone at the close of the day;
And I think of the children of other years,
Who, under my loving rule,
Have morn and night passed in and out
The halls of the dear old school.

And oft, in the short December days,
As I sit in the quiet room,
When all of the children are gone away,
Young faces people the gloom;
Right there is the seat where Roy once sat.
Who went in the fragrant June;
I laid a rose on his heart and wept
That Roy should be called so soon.

And there in the self-same row sat Clare
Of the brown and serious eyes;
They tell me an honored name has Clare,
In her home 'neath southern skies;
And here sat Guy, of the radiant face,
Oh, the tears will fall, I own,
When I think of Guy, our soldier boy,
Who died in the far Luzon.

Ah, sweet and sad the memories

That cling to the dear old room,
And oft my pen forgets to move

As I sit in the early gloom;
And I bless the children, one and all,

Who, under my loving rule,
Have morn and night passed in and out

The doors of the dear old school,

—Carrie Shaw Rice.

#### A Poem You Ought to Know.

Of all the meals you can buy for money, Give me a meal of bread and honey!

A table of grass in the open air, A green bank for an easy chair;

The table cloth inwrought with flowers, And a grasshopper clock to tick the hours.

Between the courses birds to sing To many a hidden shining string.

And neither man nor maid be seen But a great company of green,

Upon a hundred thousand stalks, Talk to us its great green talks.

And when the merry meal is done, To loiter westward with the sun.

Dipping fingers cre we go In the stream that runs below.

Of all the meals you can buy for money,
Give me a meal of bread and honey.

—Richard Le Gallienne,



#### Nelson and the Centenary of Trafalgar.

By Eleanor Robinson.

"Thine island loves thee well, thou famous man, The greatest sailor since the world began."

These words of the Poet Laureate are no poetical exaggeration. It is the simple truth to say that Nelson stands first in his profession. Who is the greatest soldier, statesman—poet—that ever lived? We might get many different answers to these questions. But the question, "Who is the greatest of sailors?" one name comes from the lips of all. And this great man came in time to meet one of the greatest needs of his country, and to save her from one of the most terrible dangers by which she was ever threatened. October 21st, 1805, the day whose centenary we celebrate this month, was the day of a great deliverance. It was the object of the Emperor Napoleon to invade England; his army of 150,000 men was ready, but the success of the invasion depended on the French fleet getting control of the Strait of Dover. Through nearly all the summer of 1805 the people of Great Britain were in "bitter suspense and widespread panie." Then in November came the news that the naval power of France had been broken at Trafalgar. With the sense of relief, and pride at the glory of the victory, came the grief at the loss the country had sustained. "England has had many heroes,"

says Southey, "but never one who so entirely possessed the love of his fellow-countrymen as Nelson.

Horatio Nelson, son of Edmund Nelson, rector of Burnham Thorpe in Norfolk, was born at Burnham Thorpe on the 29th of September, 1758, and was the sixth in a family of eleven children. Several anecdotes are told of his courage and independence, and one that shows his sense of honour and perseverance. As he and a brother were on their way to school one stormy day, they found it so hard to get on that they returned home and told their father that it was impossible for them to reach the Their father replied, "If that be so, I have, of course, nothing to say; but I wish you to try again, and I leave it to your honour not to turn back, unless it is necessary." On the second trial, the elder brother wanted to give up again, but Horatio held out, repeating, "Remember, it was left to our honour," and the journey was accomplished.

The story is that when only twelve years old, and a very delicate boy, he asked his uncle. Captain Maurice Suckling, to take him to sea, in order to relieve his father of the support of one of his large family. "What has poor little Horatio done?" cried the nucle, "that he, being so weak, should be sent to rough it at sea. But let him come, and if a

cannon ball takes off his head, he will at least be provided for." A midshipman in those days did indeed have to rough it, for in the Royal navy the food was bad and the discipline harsh, even cruel. From his uncle's ship, the "Raisonnable," Horatio was transferred to the "Triumph," and was sent from there on a voyage to the West Indies in a merchant ship. "From this voyage," he says, "I returned a practical seaman, with a horror of the Royal navy upon me. \* \* \* \* It was many weeks before I got the least reconciled to a man-of-war, so deep was the prejudice rooted. However, as my ambition was to be a seaman, it was always held out as a reward, that if I attended well to my navigation, I should go in the cutter and decked long-boat, which was attached to the commanding officer's ship at Chatham. Thus by degrees I became a good pilot, and confident of myself among rocks and sands, which has many times been of great comfort to me."

In April, 1773, he was allowed, at his own earnest entreaty, to go as captain's coxswain on an expedition to the North Pole, and on his return, in October, he was appointed to the frigate "Seahorse." In 1776 he passed his examination and was made lieutenant; in 1778, when only just twenty, he was promoted to be commander, and in six months was appointed captain, of the "Hinchinbroke," a French prize. Meantime he had served two years in the East Indies, and also at Gibraltar and Jamaica. As captain of the "Hinchinbroke," he had command of an expedition against Fort San Juan, in Nicaragua, where he distinguished himself by his zeal and courage. "He was the first on every service whether by day or night." But his health, already injured in the East Indies, now broke down, and he was invalided home. The next year he was well enough to take command of the "Albemarle," a twenty-eight gun frigate, and in her he made voyages to the Baltic, and to Newfoundland and Quebec. From the latter place he wrote: "Health, that greatest of blessings, is what I never truly enjoyed until I saw fair Canada." Quebec he went to New York, where he met Lord Hood, who was then in command of the West Indian fleet. Lord Hood has a very high opinion of the young captain, and introduced him to Prince William, afterwards William IV, with words of commendation. The Prince said many years later of this meeeting:

He (Nelson) appeared to be the merest boy of a captain I ever beheld; and his dress was worthy of attention. He

had on a full-laced uniform; his lank, unpowdered hair was tied in a stiff Hessian tail, of an extraordinary length; the old-fashioned flaps of his waistcoat added to the general quaintness of his figure, and produced an appearance which particularly attracted my notice; for I had never seen anything like it before. There was something irresistibly pleasing in his address and conversation, and an enthusiasm in speaking on professional subjects that showed he was no common being. . . . He had the honour of the King's service and the independence of the British navy particularly at heart; and his mind glowed with this idea as much when he was simply captain of the "Albemarle," and had obtained none of the honours of his country, as when he was afterwards decorated with so much well-earned distinction,

After this Nelson served in the West Indies in command of the "Boreas," and was married at Nevis. In 1787 his ship was paid off, and for nearly five years he and his wife lived at Burnham Thorpe. There he read and studied and improved his education, but constantly wishing for active employment, and at last, in 1793, when war with France was threatening, he was given the command of the "Agamemnon," a sixty-four gun ship.

The time of apprenticeship of small commands and of forced inactivity was over, and now, at thirty-four, Nelson was entering upon his real war service, where all his devotion to his country, his zeal and ability, and all that he had learned in persevering practice in his profession, were to be called upon and put to the test.

The first great battle in which Nelson took part was the action fought off Capt St. Vincent, on St. Valentine's Day, 1797, when fifteen British ships, under Sir John Jervis, defeated the Spanish fleet of twenty-seven. Nelson, to quote the Admiral's words, "contributed very much to the honour of the day." He did this in two ways; by planning the manner of attack, and by conspicuous valour. During the action his ship, the "Captain," a seventyfour-gun ship, had so much of her rigging shot away that she was practically disabled; she was alongside the "San Nicolas," an eighty-four-gun Spanish ship, on whose other side lay the "San Josef," carrying 112 guns. Both the Spanish ships had suffered severely; Nelson boarded the "San Nicolas" and received her surrender; the "San Josef" opened a small-arm fire upon the boarders, but shortly a Spanish officer put his head over the rail and said they surrendered. "And on the quarter-deck of a Spanish first-rate," wrote Nelson, "extravagant as the story may seem, did I receive the swords of vanquished Spaniards, which as I received I gave to William Tearney, one of my

bargemen, who put them with the greatest sangfroid under his arm." The story of this exploit caught the popular fancy, and Nelson at once became a hero in the eyes of the English people. For this victory Admiral Jervis was made Lord St. Vincent, and many honours were conferred on Nelson, the King making him a Knight of the Bath. At this time he was promoted to be rear-admiral.

Some of Neison's finest characteristics are shown in the story of the unsuccessful attack on Santa Cruz in July, 1797. The first attempt, under Troubridge, failed, and Nelson wrote: "Although I felt the second attack a forlorn hope, yet the honour of our country called for the attack and that I should command it. I never expected to return." He was struck by a grapeshot in the right elbow, as, with sword drawn, he was stepping ashore. Faint and bleeding, but elinging with his left hand to his sword, which had belonged to his uncle, Capt. Suckling, he was got back into the boat, to be conveyed to his ship, but at this moment the cutter "Fox" was sunk by a shot, and the Admiral insisted on waiting to see to the saving of the men. On being rowed to the nearest ship, he refused to go on board for fear of frightening the captain's wife, whose husband was with the attacking party. He went up the side of his own ship without assistance, and called to the surgeon to get ready his instruments, as he knew he must lose his arm, and the sooner it was off the better. The first attempt that he made at writing with his left hand, only three days later, was the request for the promotion of one of his lieutenants. Such incidents as these explain why he won, not only admiration, but affection. He was always a popular commander, because he cared for his men, as well as led them to victory. One of his greatest achievements was maintaining the health of his crews; he studied every detail that affected their comfort and welfare. Moreover, he was always proud of his men. He never complained of them, but writes in such words as these: "Not a man or officer in the 'Albemarle' that I would wish to change." "Nobody can be ill in the 'Agamemnon's 'company, they are so fine a set." And of his captains he says, "They are my children; they serve in my school, and I glory in them."

Nelson's experiences in fighting were remarkable, even in a hard fighting age. In 1797, when not yet forty, he had been actually engaged against the enemy upwards of *one hundred and twenty times*. And his most famous battles were yet to come. In April, 1798, the Admiral, on board the "Vanguard,"

rejoined Lord St. Vincent off Cadiz, and on August 1st of the same year he defeated the French flect in the far-famed battle of the Nile. When, in October, the news of this great victory reached London, there was intense enthusiasm. A special thanksgiving prayer was read in all the churches for three Sundays; the King's speech at the opening of parliament referred to the "great and brilliant victory which may lead to the general deliverance of Europe." Nelson was gazetted a peer by the title of Baron Nelson of the Nile and Burnham Thorpe; he was voted a pension of £2,000, and honours were showered upon him from all quarters.

In 1801 a British fleet under Sir Hyde Parker was sent to the Baltic against the Northern Confederacy of Russia, Sweden and Denmark, who were opposing England, and Nelson, as Vice-Admiral, led the attack on the Danish fleet at Copenhagen, It was there that the well-known incident occurred of his clapping the telescope to his blind eye and declaring that he could not see the signal to cease firing. This was really only a joke, as it was understood that he was to continue the action if he thought best. That his kindness and humanity were not only for his own countrymen is shown by the letter he sent to the Danish Crown Prince during the battle, which runs as follows: "Lord Nelson has directions to spare Denmark when no longer resisting; but if the firing is continued on the part of Denmark, Lord Nelson will be obliged to set on fire all the floating batteries he has taken, without having the power of saving the brave Danes who have defended them." It is to this that the poet Campbell refers in "The Battle of the Baltic," in the lines:

"Outspoke the victor then.

As he hailed them o'er the wave,
Ye are brothers, ye are men,
And we conquer but to save."

This letter brought on a truce, and Denmark afterwards left the confederacy. Nelson was now raised to the dignity of viscount, under the title of Viscount Nelson of the Nile and Burnham Thorpe.

In October, 1801, peace with France was signed, but it was not to last. War was declared again in May, 1803, and Nelson, as commander-in-chief, was sent to the Mediterranean to hold the French fleet in check. He blockaded the French ships in Toulon for eighteen months, determined to fight them whenever good opportunity offered. In April, 1805, the French fleet under Admiral Villeneuve sailed out of the Mediterranean and were joined

by Spanish ships from Cadiz. Nelson made ready to follow them. Napoleon's plan was that his three fleets should sail from Brest, Rochefort and Toulon at about the same time, meet at Martinique, and returning all together gain control of the channel and open the way for the invasion of England. The Rochefort squadron sailed in January, waited in Martinique for the time agreed upon, then returned alone; the Brest fleet was blockaded so closely by Cornwallis that they could not get away at all. Villeneuve's ships were pursued by Nelson to the West Indies, and when the French admiral found that he had missed his colleague and that Nelson, with fourteen ships, was close upon him, he thought it wiser to return to France. Nelson, misled by false information, sailed for Trinidad, but finding no trace of the enemy, and deciding that they had gone back to Europe, he made for Gibraltar, where in June, 1803, he set foot on shore for the first time in two years. On the 22nd of July Villeneuve's fleet was met by fifteen British ships under Sir Robert Calder, and an indecisive action was fought; but Villeneuve turned southward and anchored in Cadiz Bay. When Nelson, who had returned to England, heard this, he said: "Depend upon it, 1 shall yet give Mr. Villeneuve a good drubbing." On September 14th, 1805, he left England for the last time, embarking at Portsmouth in the "Victory." He joined the English fleet off Cadiz on September 28th, and was received with great jov. The enemy had thirty-six ships, while Nelson had but twenty-three. He kept urging the authorities at home to send him out more ships. He realized that the French fleet must be destroyed. "It is annihilation that the country wants, and not merely a splendid victory, \* \* \* Numbers only can annihilate." He planned the method of attack in all its details, and explained and discussed the plan with the admirals and captains of the fleet; so that when, on the morning of the 21st, the enemy's ships came in sight, every officer in command knew what was to be done.

When he had seen everything arranged for battle, Nelson went down to his cabin and wrote a brief note of what was happening. Then, on his knees, he wrote the following prayer: "May the great God whom I worship grant to my country—and for the benefit of Europe in general—a great and glorious victory; and may no misconduct in anyone tarnish it; and may humanity after victory be the predominant feature in the British fleet. For myself, individually, I commit my life to Him who

made me, and may His blessing light upon my endeavours for serving my country faithfully. To Him I resign myself and the just cause which is entrusted to me to defend." At half past eleven Nelson made the celebrated signal, "England expects that every man will do his duty." At twenty minutes past twelve Vice-Admiral Collingwood's ship, "The Royal Sovereign," fired the first gun upon the enemy, though she had been under heavy but ill-directed fire for some time. The "Victory," attacking the enemy's centre, was also exposed to Nelson's secretary, standing by his heavy fire. side, was killed by a round-shot, and another passed between Nelson and Captain Hardy. At twenty minutes past one a musket ball from the mizzen top of the French ship "Redoubtable" struck Nelson on the left shoulder and passed through his lungs and spine. As Captain Hardy raised him, he said, "They've done for me, Hardy." "I hope not," answered Hardy, "Yes," replied Nelson, "my back-bone is shot through." He was carried below, covering his face with his handkerchief that his men might not know that he was wounded. He lived for three hours, still anxious about the battle, still caring for the safety of his men. "Will no one bring Hardy to me? He must be killed!" And when Hardy came,—"How goes the battle?" When the message was brought that fifteen ships had struck, "Only fifteen! I had hoped for twenty." "Anchor, Hardy, anchor!" he repeated, fearing for the safety of crippled or disabled ships in the bad weather that threatened. Then "Kiss me, Hardy," and the last words, "Thank God, I have done my duty."

In less than an hour after his death the battle was over, having lasted five hours. Eighteen of the enemy's ships had been captured and the rest had fled.

The news of the battle reached England on November 6th. The "Victory," with Nelson's body, arrived at Spithead on December 5th. The body lay in state in Greenwich hospital from the 4th to the 8th of January, and on the 6th it was placed in the crypt of St. Paul's cathedral in a sarcophagus made by Cardinal Wolsey for Henry VIII. Above in the eathedral is a monument by Flaxman. There are many other memorials of him in different parts of the kingdom, the most notable being Trafalgar Square in London. In the centre of this great open space rises a granite column 145 feet high, crowned with a statue of Nelson. The pedestal is adorned with reliefs in bronze, cast with the metal of cap-

tured French cannon, and representing scenes from the four great battles, St. Vincent, Aboukir, Copenhagen and Trafalgar. Four colossal bronze lions couch upon pedestals running out from the column in the form of a cross. But his most lasting memorial is in the hearts of his countrymen.

Sharer of our mortal weakness, he has bequeathed to us a type of single-minded self-devotion that can never perish. As his funeral anthem proclaimed, while a nation mourned, "His body is buried in peace, but his name liveth forevermore." Wars may cease, but the need for heroism shall not depart from the earth, while man remains man and evil exists to be redressed. Wherever danger has to be faced, or duty to be done, at cost of self, men will draw inspiration from the name and deeds of Nelson.—Mahan's Life of Nelson.

Note.—The following books will be found useful in preparing lessons on Nelson: Mahan's "Life of Nelson," Southey's "Life of Nelson," "Nelson and His Captains," W. H. Fitchett. "Nelson" in English Men of Action Series, J. K. Laughton. "Horatio Nelson and the Naval Supremacy of England," W. Clark Russell.—Heroes of the Nations.

For recitation—Browning's "Home Thoughts from the Sea." Scott's introduction to the first canto of Marmion—lines beginning, "To mute and to material things." Tennyson's "Ode on the Death of the Duke of Wellington"—lines beginning, "Who is he that cometh, like an honoured guest," and "Mighty seaman, tender and true," Campbell's "Battle of the Baltic."

#### A School Outing.

A teacher kindly sends to the Review an account of an outing held at Maple Grove, N. B. This pleasant practice of parents, teachers and children meeting together is one that might be used to advantage these pleasant autumn days, giving the boys and girls wholesome enjoyment, and making the teacher's work easier, because such reunions bring them into closer relations with parents. Our correspondent says:

Yesterday afternoon we held a very enjoyable school picnic here, upon grounds well shaded with trees, just across the highway in front of our schoolhouse. Notwithstanding the busy harvesting, there was a good attendance of parents and friends assembled to enjoy themselves with the school, in swinging, games, races, etc. Twelve prizes were awarded in the competitions. The children were freely treated to candy and nuts. A delicious function was served on the grass by the ladies, to which ample justice was done. The weather was delightful, and all appeared to enjoy themselves very much. At sunset all dispersed for their various homes, agreeing that they had spent a most delightful afternoon.

#### Our Native Trees.

BY G. U. HAY.

THE POPLARS AND WILLOWS.

The poplars and willows are near relations, belonging to the great willow family (Salicaceæ). Nearly all our native willows are shrubs, except the black willow (Salix nigra), which is of rare occurrence here. Those large tree willows found in cultivated places throughout these provinces are not native, but have been planted for ornament. One species called the brittle willow (Salix fragilis) because the twigs break easily at the base, is frequently found with a trunk diameter of from four to six feet. One at Ingleside, N. B., is nearly six feet through the trunk, and is supposed to be over a hundred years old. It is still a handsome tree.

The wood of the willows is soft and white, and is used for making wooden dishes, toys, and other similar purposes. What is used here, however, is imported. It has been suggested that the willow might serve a purpose in the manufacture of coffins, as it easily decays. The young stems and branches of certain willows are withy, and used by Indians for making baskets.

Both poplars and willows are fast growing trees. Most of the latter grow in moist, low places, and along streams. They are sometimes planted by rivers where washouts occur, to prevent further ravages in freshet times. The poplars grow on higher ground, usually with white birches, red maple and others that love a light soil; but all of them flourish and grow to a larger size in richer ground. The common poplar or aspen springs up readily after the ravages of a fire. This may be due to the rapid spread of the seeds which are enclosed in a cotton-like envelope; or, where this tree has occupied the ground before the fire, young ones may rapidly spring up from underground suckers which have not suffered from the heat.

Three poplars are native to these provinces—the aspen, the large-toothed-leaved poplar and the balsam poplar. They are not favorites with farmers or horticulturists on account of their spreading so rapidly from the suckers of older trees; and they are objectionable as shade trees (as are all poplars, native or foreign) from the cottony masses of seeds which cover the streets or paths in late spring.

The most common poplar is the aspen, sometimes wrongly called "popple," This is the Populus tremuloides, its specific name being derived from the trembling of the leaves, which quiver in the

slightest breeze. This is caused by the flat thin petiole of the leaf being easily swayed by the wind. There is a legend that the wood of the cross was made from this tree, which is the cause of its trembling—as if for shame. This quivering is characteristic of other poplars, and is no doubt the reason for the name of the genus, from the Latin populus, the common people, because of the restless, swaying character of the mob.

The leaves of the trembling poplar are broadly ovate or roundish, finely crenulate or toothed all round and coming to a sharp point. The bark is greenish; the wood soft, weak, light in colour. A cubic foot of it weighs twenty-five pounds. The young growth is used for making excelsior matting, and the wood makes a good finishing when found large enough, the fibre being tough, although the heart is bad.

The large-toothed-leaved poplar (Populus grandidentata) is larger than the preceding, with the edges of the leaves broken up into great teeth. Its wood is slightly heavier and more compact than the preceding, weighing twenty-nine pounds to the cubic foot. Its uses are the same. In spring, its leaves are a soft grayish white colour, and coming out after many other trees are in bloom produce a beautiful contrast to the delicate fresh-green tints of the woods,

The balsam poplar (Populus balsamifera) is a larger tree than either of the preceding, and has very resinous buds. It is not common; but the writer observed great stretches of low land covered with it along the upper valley of the Restigouche river, where its suckers had formed a dense matting in the gravelly soil, shutting out every other tree. A variety of the balsam poplar called the Balm of Gilead (Populus balsamifera, var. candicans) is frequently planted for ornament, but there are the same objections to it as above noted.

The Lombardy poplar and the abele or white poplar are not native, but are frequently planted. One or two of each add to the beauty of a grove or the borders of a lawn.

#### A Home-Made Recitation Book.

Having quite a collection of select reading, poetry, etc., cut from old journals, papers, and magazines, I decided we could best preserve them for future use in a scrap book.

I obtained an old law book—this was selected because it was large, well bound, and put together with strong thread—and carefully removed every other leaf, sometimes two or three in a place, to allow for the paper to be put in.

It was then divided into sections, one for Christmas selections; others for humorous, patriotic, pathetic selections.

The recitations were then neatly pasted into the book each in its proper place. After it is all filled we are going to arrange an index.

The pupils take interest in finding something "good enough" for the book, for of course only the best selections are put into it, and those bits suitable for pupils as recitations for Friday afternoons, or for special entertainment programmes.—

Teachers' Magazine.

Will teachers who have good selections for Christmas, Empire, Arbor Day, Friday afternoons, and other school occasions, kindly send copies of them to the Review for publication, so that other teachers may have the benefit of them.

#### The Poetry of Earth is Never Dead.

The poetry of earth is never dead:
When all the birds are faint with the hot sun,
And hide in cooling trees, a voice will run
From hedge to hedge about the new-mown mead:
That is the grasshopper's—he takes the lead
In summer luxury,—he has never done
With his delights, for when tired out with fun
He rests at case beneath some pleasant weed.
The poetry of earth is ceasing never:
On a lone winter evening, when the frost
Has wrought a silence, from the stove there shrills
The cricket's song, in warmth increasing ever,
And seems to one in drowsiness half lost,
The grasshopper's among some grassy hills.

-Keats.

In the study of a poem the following exercise has been found to be profitable and pleasant: One pupil reads a stanza. He reads it again, this time changing as many words as possible to words having the same meaning, also the same number of syllables, if possible. The following is an illustration, as read by a pupil in the fifth grade:

"Then Nature, the loving mother In the moony month of leaves, Arrayed in yellow and crimson Her children, the autumn leaves."

The verse changed reads as follows:

"Then Nature, the gentle mother,
In the shining month of leaves,
Dressed in yellow and scarlet

Her children, the forest leaves,"

-Selected.

#### Notes on "The Deserted Village"\*.

By Principal G. K. Butler, M.A., Halifax.

OLIVER GOLDSMITH (1728 - 1774).

Goldsmith was born in the county of Longford, Ireland. His father was curate at this place. As a boy, Goldsmith attended the village school taught by an old soldier, whom he afterwards pictured in the "Deserted Village." At the age of seventeen he went to Trinity College as a sizar (a free student receiving tuition in return for certain work). He quarreled with his tutor and left, but afterwards returned.

He tried different professions, and while on the continent as a medical student, toured Europe, supporting himself by playing on the flute. On his return he tried teaching, but finally took up work as a hack writer.

The Vicar of Wakefield, his first important work, he sold in 1764 for £60 to pay rent. In 1770 the "Deserted Village" appeared.

Among his other works are: "The Traveller," "She Stoops to Conquer," Histories of Greece, Rome, and a History of Animated Nature.

It is presumed, of course, that the first lesson assigned on the poem is the reading it all through at home. When that has been carefully done, the class is ready to begin its study. This applies equally as well to all the selections for the year. The more the pupil absorbs and retains, the greater will be the benefit derived by him; and there is no royal road to this result. Repeated reading on the pupil's part, and constant questioning by the teacher, alone can accomplish the purpose aimed at.

Concerning the title, the children should be asked to tell in their own words the cause of its desertion. Is the same cause at work in Nova Scotia? Where is the village supposed to be? Grade VIII may be given an occasional word or phrase for parsing, and any questions of that kind in these notes are intended for that class.

Page 1, line 1. In what case is Auburn, and what figure of speech would you call it? Plain; in other parts of the poem he applies another title to it. What is it?

- 7. Green. What would we call it? Have we anything similar?
- 27. Smutted face. Very likely many of the children have a game of this character. There used to be one among the boys some years ago.

On this page the following words are worthy of a little dictionary work by the pupil: swain, parting, seats, cot, decent, train, feats. There are also some other figures of speech besides those mentioned; find a metonomy and also give a definition. If the children know the different metrical feet, have them scan a few lines as practice. Those who have read

Gray's "Elegy" could see a similarity and a difference. What are they?

Page 2, line 2. Taught toil to please. Ask for explanation.

- 6. Is the verb are fled active or passive? Why? Compare with the forms is come, was gone.
  - 10. What does this line mean?
  - 13. Why solitary?
- 20. O'ertops. Try to get a list of words similarly formed. English formerly, like modern German, compounded its words thus.
  - 24. Meaning? How are new words created?
- 25. One of the problems of England is the restoration of physical vigour to the so-called lower classes.
- 28. How many people to the square mile would this allow for? Was England or any other country ever so thickly peopled?

Word study: Lawn, tyrant, stints, desert, spoiler, wholesome, glades.

Page 3, line 3. Meaning? Look up the derivation of wealth.

- 4. Parse train. What is the meaning?
- 8. As an illustration, take some of the modern large cities, such as London and New York. The greater poverty seems always to be found nearest the greatest wealth.
- 22. Compare train here with the same word in line 4.
- 24-25. Consult the life of Goldsmith as an illustration of these, and all will agree as to the truthfulness of them.
  - 26. Meaning of last clause?
- 28. Compare *husband*, the verb, with the noun. *Life's taper* is what figure?
  - 29. What does this mean?

Word study: Opulence, allied (especially pronunciation).

Page 4, line 10. What is the meaning of the word world?

12-15. Meaning of these lines? Why guilty state?

15-18. Figures of speech?

21. Meaning?

22 et seq. Compare the opening stanzas of Gray's "Elegy" for a description of the same time of day. One of the facts mentioned does not suit our hours; which one?

Word study: Deep, vacant.

Page 4, line 1. Why sweet confusion? How can the adjective be true?

The Preacher. Those who can should read parts of the "Vicar of Wakefield," where we have him

<sup>\*</sup> Pages and lines as in reading for grades 7 and 8, Nova Scotia School Scries.

described at greater length. Of what man is this a description more or less fanciful? In Chaucer we find the other well known description of the parson.

- 20. We must remember, of course, the greater purchasing power of money in that country at that time as compared with our time and country. What is the meaning of passing?
- 21. What figure of speech is ran his godly race? 23-24. What is the meaning of these lines? What does Goldsmith wish us to imply concerning appointments in the church at the time he is writing?
- 26. Raise and rise. This line will illustrate a lesson on those two verbs.
  - 27. Vagrant train. What would we call them? 29. Why long remembered?

Word study: Fluctuate, mantling, cresses, faggot, pensive, copse, fawn, broken.

Page 6, line 5. What does pity gave ere charity began mean?

7. And this?

- 13. Compare with the ungracious pastor mentioned in Hamlet, "who reeks not his own rede."
- 14. Parting. Compare "The curfew tolls the knell of parting day." What figure of speech in this line?
- 17. Parse *fled*. The last four lines of the page are a good example of a figure of speech.

Word study: Glow, scan, scoff, rustic, vale.

Page 7, line 2. Why unprofitably?

- 3. Noisy mansion. Many similar epithets can be found in literature. Two modern schools and schoolmasters may be found in the "Drumtochty School" and "Glengarry Schooldays."
- 6. To what class of pupil did Goldsmith evidently belong? However, the idle and truant scholar does not always make the most famous man.
- 9. Full well; the same phrase is used on p. 34.1.2. What part of speech is full here? What other word or words could be used in its place?
- 17. Terms and tides presage. What does this mean?
- 26. A word is here used that we would not now be allowed to use in modern correct English. Which?

The Inn. What takes the place of this in modern villages as a place to congregate and talk politics? Word study: You, furze, boding, gauge.

Page 8, line 2, Sanded floor. The generation of Nova Scotian now passing away can recall the same custom here.

- 10. Can any of the pupils tell of having seen something like this?
- 11. What do you understand by chimney? Give modern word for place mentioned.
- 23. Find word mantling already used and compare their meanings.
  - 27. Train again; compare former uses.
- 32. Vacant was already used in this meaning. What do pupils give as its meaning when first asked?

Word study: Aspen, transitory, ballad, ponderous, deride, gloss, native, masquerade.

Page 9, lines 16 et seq. Horace, who lived about 1800 before Goldsmith, laments of the luxury of the wealthy Romans in much the same terms.

- 21. How can this be?
- 22. Scat. Compare with the same word already used. Why are his sports solitary?
- 27. The prophets are still predicting the downfall of England's power, and still lamenting the glories of the past.

Word study: Decoy, limits, spurns, solicitous. What figure of speech is found on this page?

Page 10. Word study: Verging, vistas, strike, contiguous, limits, baneful, pamper, brocade, plies, square, chariots.

13. There is a figure of speech.

Page 11, line 7. Wheel: meaning? Parse brown and country. Is the lot of the emigrant here truly represented? To what country does Goldsmith make them go? What British possession has the climate and characteristics here mentioned?

29. Mingling the ravished landscape with the skies. What is the meaning of this? Of what countries can this now be said?

Page 12, line 1. Has parting the same meaning as in 1, 4?

- 6. Main. What other word has been used. What do we call the western main?
- 23 ct seq. Name some of the kingdoms Goldsmith may have had in mind in writing this.

Word study: Walks, conscious, plaints, cot, insidious, florid, sapped.

Page 13. Goldsmith's time is not considered by anybody as the golden age of English poetry, though one or two poets of high rank lived then. Who were they?

These notes will be helpful if they suggest other questions and difficulties, and more so still if those be sent to the Review. Any I can answer, I will; others, perhaps, can supply vacancies in my knowledge.

#### Schoolroom Decorations.

MIRIAM L. DYSART, COCAGNE, N. B.

To decorate a schoolroom is to make it a pleasant and profitable workshop. High bare walts,dingy ceiling, broken plaster and defaced blackboards, creaking doors and rattling windows make up surroundings bleak and dismal enough to dampen the spirits and enthusiasm of almost any teacher; and a hundred times more do they affect the tender spirits of young children.

Let festoons and strings of evergreens be strung along over top of windows and doors, let a few neat inexpensive pictures break up the monotony of bare walls, let attractive designs in black and white, or in colors, adorn the unused blackboards-and how great the change! How bright and sunny everything has become. If now a few appropriate mottoes be placed in convenient unoccupied places (and what school has not large wastes of cheerless plaster high up under the ceiling), and if flowers in season be added, then we may be said to have a schoolroom at least moderately decorated, and even then perhaps unusually attractive. It will be found that the children can be kept interested and attentive with much more ease than in the bleak and bare house, the cheerless, undecorated school.

Many, if not all, the decorations used in a schoolroom may be made to serve a double purpose. They may be useful as well as ornamental. It is not enough that they delight the eye—they should instruct, stimulate and encourage the young.

Among the blackboard decorations which serve the double purpose of adding to the appearance of the room as well as inducing regular attendance and competition in work, is the bee-hive. This is a picture of a hive drawn in some quiet corner. Let the hive be the goal and the bees the pupils. Good conduct and satisfactory work entitle them to approach the hive. The effect of this little scheme is wonderful. The pupils, in their eagerness to be numbered among the "busy bees," give better lessons, and are more careful of their conduct, and the result is general improvement. Another device that is equally effective and attractive is the roll of honor, bearing the names of the pupils making the highest averages.

A calendar for the month might decorate any unused blackboard surface. So these little devices while adorning the walls, assist both the teachers and pupils in raising the standing of the school.

Many valuable lessons may be taught from these

decorations. Take, for instance, flowers. In the spring we have the mayflower. In ten minutes the teacher can give an interesting oral lesson on this plant; point out the different parts of a flower; get opinions as to why it is called the harbinger of spring, and relate some little story about it. Similarly, throughout the year, short nature lessons can be given on the flowers which decorate the room.

Besides lending beauty the flowers furnish good seat-work; the children can write short descriptions of them, or can draw them, and in selecting and arranging them the pupils have perhaps their first lessons in art.

Likewise many valuable lessons can be learned from the wall pictures. From the landscapes the pupils can become familiar with such geographical terms as mountain, river, lake, cape, island, etc. Pictures of the domestic animals will probably furnish most interest to the children. Many interesting facts can be learned about the horse; for example, his food, his habits, his kindness and faithfulness to man, his willingness to work and his ability to understand. Encourage the pupils to tell any stories they can that will prove the horse a noble and intelligent animal. The teacher can add some little story of the wild animals, and let the children state the points of resemblance or of difference between the wild animals and the domestic. These exercises on the pictures and flowers encourage reproduction and picture stories.

For the more advanced pupils the teacher can select pictures of such authors as the children are studying. This plan is very successful, for the reason that the personality of the author can be associated with the lessons.

The children's maps can be used to decorate the room in an effective manner, and the exhibition of work is almost certain to win the approval of visitors and to stimulate the interest of both pupils and parents.

By this simple and attractive decoration habits of order and enterprise are fostered, a spirit of excellence in school work is created, many pleasant and profitable exercises are furnished, and, most important of all, school life is brightened.

A map is the best and most accurate means of expressing certain geographic facts. Children should learn to read a map as readily as a newspaper, that they may use maps intelligently in later years.—Journal of Geography.

#### Mental Mathematics.

F. H. SPINNEY, OXFORD, N. S.

Probably no part of elementary mathematics furnishes such a variety of interesting problems as does the "unitary method." It is in connection with such problems that teachers who delight in long written expressions can have their most ambitious desires in that direction gratified.

It must be admitted that these expressions, when neatly written upon the board, or in well-kept exercise books, present a pleasing appearance to the artistic eye; but they often represent but a mechanical expression of rules previously learned, without a clear comprehension of the relation existing between the terms involved. Besides, there are more appropriate subjects of the curriculum affording abundant opportunity for artistic workmanship; so we can well afford to limit the use of mathematics to the exercise of rapid and accurate reasoning. The following simple problem is a typical question of the unitary method: If 3 boys in 4 days earn \$10, how much can 15 boys earn in 12 days? This is usually solved in the following manner:

3 boys in 4 days can earn \$10 1 boy in 4 days can earn  $\frac{\$10}{3}$ 1 boy in 1 day can earn  $\frac{\$10}{3x4}$ 15 boys in 1 day can earn  $\frac{\$10x15}{3x4}$ 15 boys in 12 days can earn  $\frac{\$10x15}{3x4} = \$150$ 

In mental arithmetic exercise, let the teacher write the question on the board:

- (a) 3 boys in 4 days can earn \$10
- (b) 15 boys in 4 days can earn ?
- (c) 15 boys in 12 days can earn ?

If it is the first lesson, the following dialogue might take place, pupils raising hands to give the answers: Teacher—How many more men in (b) than in (a)? Pupil—5 times as many. T.—Then, how much will 15 boys earn? P.—5 times \$10=\$50. T.—How many more days in (c) than in (b)? P.—3 times as many. T.—Then, how much will 15 boys earn in 12 days? P.—3 times \$50=\$150. After doing several questions in this manner, express the question in two lines:

3 boys in 4 days earn \$10 15 boys in 12 days earn ?

After many questions of this nature have been solved mentally, the following written forms will be plain;

- I. 3 boys in 4 days earn \$10
  - 15 boys in 12 days earn  $$10\times5\times3$
- II. 5 men in 4 days earn \$30
  - 15 men in 2 days earn  $30\times3\times2$
- III. 4 men in 5 days earn \$30
  - 6 men in 7 days earn \$30 x 1\frac{1}{3} x 1\frac{2}{3} = \$63
- IV. 7 men in 9 days earn \$126

20 men in 4 days earn \$126 x  $\frac{20}{10}$  x  $\frac{4}{9} = $160$  To enable the teacher to quickly place a number of questions on the board for rapid solution, the following form will be found convenient:

	Men	Days	Wages		Men	Days	Wages
(I)	5	4	\$30	:	15	2	?
(2)	6	7	\$63	:	2	1.4	5

To attain greater speed in mind and hand, I frequently try the following plan. I place upon the board about 10 problems in the above form; and allow the pupils to commence their solution about 10 minutes previous to the time for dismissal. When a pupil has shown me his exercise book with the required answers correctly filled in, he is permitted to retire. Any teacher who desires to witness a scene of the most intense activity should occasionally resort to such a method.

The following 8 questions were solved by one of my pupils in 6 minutes:

Men	Days	Wages		Men	Days	Wages
(1) 3	2	\$ 10	:	I 2	4	5
(2) 7	5	\$ 60	:	14	15	?
(3) 4	ΙI	\$ 66	:	I 2	33	5
(4) 10	13	\$260	:	30	26	
(5) 14	17	\$300	:	28	51	?
(6) 4	4	\$ 32	:	12	12	5
(7) 7	IO	\$105	:	?	10	\$420
(8) 4	5	\$ 30	:	4	?	\$ 90

"We owe the steel pen," said an inventor in the Louisville Courier Journal, "to a man named Joseph Gillott, an Englishman. He was a jeweller, and lived in Birmingham. One day, accidentally splitting the end of one of his fine steel jewel-making tools, he threw it peevishly on the floor. An hour later it was necessary for him to write a letter. Where was his quilt pen? He searched high and low, but could not find it. Looking, finally, on the floor, he discovered, not the pen, but the broken steel tool. "I wonder if I couldn't make shift to write with this," he said. And he tried to write with the split steel, and, of course, succeeded perfectly. To this episode we owe the steel pen, which has superseded the quilt all over the world,

#### Rhymes and Recitations for Little People.

FINGER GAME.

This is the mother so kind and dear, This is the father so full of cheer, This is the brother strong and tall, This is the sister who plays with her doll, And this is the baby, the pet of all; Behold the good family, great and small.

Elizabeth, Elspeth, Betsy, and Bess, They all went together to seek a bird's nest. They found a bird's nest with five eggs in, They all took one, and left four in.

There were once two cats of Kilkenny,
Each thought there was one cat too many;
So they fought and they fit,
And they scratched and they bit,
Till, excepting their nails
And the tips of their tails,
Instead of two cats, there weren't any.

The robin and the redbreast,
The robin and the wren;
If you take from their nest
You'll never thrive again.

The robin and the redbreast,
The martin and the swallow;
If you touch one of their eggs,
Bad luck will surely follow.

As I was going to St. Ives, I met seven wives,

Each wife had seven sacks; how many sacks in all? Each sack had seven cats; how many cats in all?

Little Betty Blue
Lost her holiday shoe,
What shall Betty do?
Buy her another
To match the other,
And then she'll walk upon two.

High in the Pine Tree
A young turtle dove
Built a little nest
To please his little love.
In the dark shady branches
Of the high pine tree
How happy were the doves
In their little nursery.

The young turtle doves

Never quarreled in their nest;
They loved each other dearly,
But they loved their mother best.
"Coo," said the little doves,
And "Coo" said she;
And they all lived so happy
In their little nursery.

Three little bunnies,
Out for a run
In the bright moon-light,
Oh, what fun!

"Dear," said the little one,
"What is that
Sitting on the fence
With cheeks so fat?
See its big teeth
And eyes so bright!"
Then home they ran
With all their might,
Three funny little bunnies
With eyes so bright.

-Selected.

"Little drops of dew
Like a gem you are,
I believe that you
Must have been a star.

"When the day is bright In the grass you lie, Tell me then at night Are you in the sky?"

#### Lines in Season.

One step and then another, And the longest walk is ended; One stitch and then another, And the largest rent is mended.

Every time the world's best men Are made from boys who try again.

"Do you wish for a kindness? Be kind.
Do you wish for a truth? Be true.
What you give of yourself you find—
Your world is a reflex of you."

I am sure that hands, lips, eyes,
Have work to do,—
The first to be helpful, the next to be wise,
And the last to be bright and true.

Let us be content to work, To do the thing we can, and not presume To fret because it's little.

E. B. Browning.

It is not winter yet, but that sweet time
In Autumn when the first cool days are past.
A week ago the leaves were hoar with rime,
And some have dropped before the north wind's blast;
But the mild hours are back, and at mid-noon,
The day hath all the genial warmth of June.

-Selected.

"Then followed the beautiful season,
Called by the pious Acadian peasants the Summer of All
Saints.

Filled was the air with a dreamy and magical light; and the landscape

Lay as if new-created in all the freshness of childhood."

-Longfellow.

Heaven is not reached at a single bound,
For we build the ladder by which we rise
From the lowly earth to the vaulted skies,
And we mount to the summit round by round.

-F. G. Holland.

#### N. B. Teachers' Association Statistics.

Owing to the delay of one person who had a list of names, the secretary-treasurer of the N. B. Teachers' Association has been unable until now to furnish the number of members of said Association on June 30, 1905. There were then 382 pledged members, with dues fully paid up, distributed as follows: St. John City and County, 66; Kings, 54; Northumberland, 46; Westmorland (exclusive of Moncton), 39; Carleton, 29; Gloucester, 27; Moncton, 25; York (exclusive of Fredericton), 21; Kent, 21; Fredericton, 18; Sunbury-Queens, 16; Albert, 8; Charlotte, 7; Victoria, 4; Restigouche, 1; Madawaska, 0; total, 382.

During vacation a considerable number joined, and the response from Kings and Kent institutes this term has been encouraging. Returns from York, Sunbury and Queens institutes have not yet arrived at secretary's office,

All teachers who have not subscribed to the union agreement are requested to send name and fee of 25 cents at once to the secretary-treasurer, 11, 11. Stewart, Harcourt, Kent Co.

#### Teaching Children to Talk Naturally.

"If I could only get children to speak as naturally in their reading as I hear them speak in their games on the play-grounds, I should be happy," said a teacher at an institute the other day during a discussion on reading.

There is nothing so monotonous as the "school. tone" in reading. Try to get children out of it by encouraging them to talk naturally in school. Some portion of the week might be devoted to the cultivation of this art. One teacher devoted a part of every Friday afternoon to such an exercise. Early in the week she assigned some subject of investigation, either one of general interest, or one connected with the work the class were then doing, in art, history, science, etc. On Friday, each pupil is expected to rise and make his report fluently and in correct English. The subjects chosen are always so interesting that the children soon forget that they are talking, and look forward to this hour with enjoyment. The lessons in nature study especially prove very suggestive. The pupils are asked to make all kinds of observations for themselves, much of which may be done on their way to and from school, and report their record on Friday, with any inductions which they may have been able to make for themselves. The month of October is one of the most interesting for such observations,

#### Letter Writing.

At least one period each week should be carefully devoted to letter writing. Remember, where date and heading should be placed, pay particular attention to manner of addressing and beginning of letter.

There is much of good style in an elegant and correct closing of a letter, as also in the method of signature. The envelope, too! How many realize the impression a stranger forms of the writer of a letter from the outside of the envelope? There is one proper place for a stamp. It takes no longer to place it straight and right side up than to slap it on wherever it happens to stick. Then the address: teach your pupils that, next to using good and clean stationery, the writing an address on an envelope in a way that will not make the receiver ashamed is important.

You may easily represent upon your board by chalk outline the shape of letter paper and envelope, and give a careful lesson by talk and drill upon the subject, and require letters embodying the special principles taught to be written to imaginary persons, or addressed to yourself or some member of the class.

You will readily awaken much enthusiasm and pride in the subject.

Do what you can to improve this much neglected part of common education.

We suggest below headings for subjects of different lessons on the art of letter writing; one lesson at least may be well spent on each point;

- t. The parts of a letter.
- The address,
- 3. The heading.
- 4. The salutation.
- 5. The body of a letter.
- 6. The conclusion.
- 7. The superscription.
- 8. Manner of folding.
- 9. A business letter.
- 10. A letter ordering periodicals.
- 11. Change of address.
- 12. Ordering books.
- 13. Ordering bill of goods.
- Making out a bill.
- 15. Give a receipt.
- 16. Invitation.
- 17. Regrets.

—American Primary Teacher.

#### The Strand from Above.

The sun rose on a bright September morning. A thousand gems of dew sparkled in the meadows, and upon the breeze floated, in the wake of summer, the shining silken strands of which no man knoweth the whence or the whither.

One of them caught in the top of a tree, and the skipper, a little speckled yellow spider, quit his airship to survey the leafy demesne there. It was not to his liking, and, with prompt decision, he spun a new strand and let himself down straight into the hedge below.

There were twigs and shoots in plenty there to spin a web in, and he went to work at once, letting the strand from above, by which he had come, bear the upper corner of it.

A fine large web it was when finished, and with this about it that set it off from all the other webs thereabouts, that it seemed to stand straight up in the air, without anything to show what held it. It takes pretty sharp eyes to make out a single strand of a spider-web, even a very little way off.

The days went by. Flies grew scarcer, as the sun rose later, and the spider had to make his net larger that it might reach farther and catch more. here the strand from above turned out a great help. With it to brace the structure, the web was spun higher and wider, until it covered the hedge all the way across. In the wet October mornings, when it hung full of shimmering rain-drops, it was like a veil stitched with precious pearls.

The spider was proud of his work. No longer the little thing that had come drifting out of the vast with nothing but its unspun web in its pocket, so to speak, he was now a big, portly, opulent spider, with the largest web in the hedge.

' One morning he awoke very much out of sorts. There had been a frost in the night, and daylight brought no sun. The sky was overcast; not a fly was out. All the long gray autumn day the spider sat hungry and cross in his corner. Toward evening, to kill time, he started on a tour of inspection. to see if anything needed bracing or mending. He pulled at all the strands; they were firm enough. But though he found nothing wrong, his temper did not improve; he waxed crosser than ever.

At the farthest end of the web he came at last to a strand that all at once seemed strange to him. All the rest went this way or that the spider knew every stick and knob they were made fast to, every one. But this preposterous strand went nowherethat is to say, went straight up in the air and was

lost. He stood up on his hind legs and stared with all his eyes, but he could not make it out. To look at, the strand went right up into the clouds, which was nonsense,

The longer he sat and glared to no purpose, the angrier the spider grew. He had quite forgotten how on a bright September morning he himself had come down this same strand. And he had forgotten how, in the building of the web and afterward when it had to be enlarged, it was just this strand he had depended upon. He saw only that here was a useless strand, a fool strand, that went nowhere in sense or reason, only up in the air where solid spiders had no concern. . . . . .

"Away with it!" and with one vicious snap of his angry jaws he bit the strand in two.

That instant the web collapsed, the whole proud and prosperous structure fell in a heap, and when the spider came to he lay sprawling in the hedge wth the web all about his head like a wet rag. In one brief moment he had wrecked it all-because he did not understand the use of the strand from above. -The Outlook, Translated from the Danish by Jacob A. Riis.

#### Teachers in Session.

KINGS COUNTY, N. B., INSTITUTE.

The Kings County Teachers' Institute met at the Macdonald consolidated school, Kingston, on Thurs day and Friday, September 7th and 8th. natural beauties of the village and its surroundings and the attractions of the school served to draw a large number of teachers together. The arrival of Sir William Macdonald and Professor James W. Robertson at the close of the first afternoon's proceedings, although somewhat in the nature of a surprise, was none the less welcome, and gave an additional interest to the proceedings. Both gentlemen examined the school grounds, buildings, and the pleasant class-rooms with the closest attention, and in the evening gave addresses at the public meeting, where a fine programme of music, recitations and speeches was carried out.

At the opening of the institute on Thursday morning. Principal D. W. Hamilton, president of the institute, gave an outline of the advantages to be derived from consolidation, and especially referred to the Kingston experiment. Inspector Steeves, Trustee Isaac Saunders and Dr. John Brittain followed in short addresses. In the afternoon a visit was paid to the school garden, where Principal Hamilton gave some idea of the methods followed. Then came an excellent paper on School Gardens, by Arthur Floyd, of Norton, and the discussion on the paper was led by Miss W. A. Toole. A nature study excursion under the direction of Prof. Brittain followed, and was greatly enjoyed by the teach-

ers present.

Friday morning's session of the institute was spent in observing the work of the different classrooms in the Macdonald consolidated school. From 9 to 10 the opening exercises in the assembly hall gave the visiting teachers an opportunity to enjoy a fine programme. This was followed by an examination of the work in the rooms where the teachers of the schools conducted the usual lessons. and afforded an object lesson as interesting as it was instructive. In the afternoon the members of the institute listened to an address from Professor Robertson, followed by a lesson on cardboard construction by Mr. T. B. Kidner, director of manual training, and a paper on spelling by Mr. H. A. Prebble, principal of the Hampton Village school. The election of officers resulted as follows: Mr. A. E. Floyd, president; Miss Ina E. Mersereau, vicepresident; Mr. W. C. Jonah, secretary-treasurer.

#### KENT COUNTY, N. B., INSTITUTE.

The Kent County teachers met at Rexton, N. B., on the 14th and 15th September. Although the attendance was smaller than usual, only about twenty-five teachers being present, the meeting was one of the best ever held in the county. The papers were on a variety of school topics. They were brief and to the point, as were the discussions that followed each. The public educational meeting on Thursday evening was largely attended and an excellent programme of music and addresses was carried out. On Friday evening there was a very enjoyable social reunion of the visiting teachers and people of Rexton Both meetings were held in the public hall, which was attractively decorated for the occasion. Very few places can boast of a more beautiful and commodious public hall than Rexton.

In the absence of the president, Mr. G. A. Coates, who has retired from teaching, Inspector Chas. D. Hebert took the chair and presided over the meetings of the Institute. In his opening and other addresses at the institute, Inspector Hebert, who speaks fluently and in well chosen English, referred to many desirable improvements in the schools whose interests he has evidently very much at heart. These are,—a remedy for irregularity of attendance, a closer sympathy between parents and teachers, well kept school grounds, and attractive decorations for schoolrooms.

Miss Miriam L. Dysart read a well written paper on Reproduction of Stories. Another on Schoolroom Decorations, prepared by the same teacher, will be found on another page. Miss Dysart speaks on what she practises, for, said the inspector, her schoolroom has the neatness and attractiveness of the most cozy home. Mr. J. A. Edmunds, vice-principal of the grammar school, Richibucto, gave an expert talk on elementary arithmetic. Mr. G. Douglas Steele, vice-principal of the grammar school, read an excellent paper on the Importance of Reading, which he characterized as the most important subject of the school. The greatest care should be taken to secure proper ex-

pression and a clear understanding of what is read. Miss Kate Keswick read a paper on the Relation of Teacher and Pupil, strongly urging greater sympathy and courtesy. Mr. H. H. Stewart, secretary of the New Brunswick Teachers' Association, spoke on Professional Etiquette, referring to the failure of some teachers in courtesy to trustees and districts, the unwise practice of some who belittle their predecessors' work, and condemning the frequent practice of under-bidding other teachers in order to secure schools near home. The New Brunswick Teachers' Association, numbering last June about 400 dues-paying members, had been instrumental in decreasing under-bidding, and in many places of raising salaries. A second paper prepared by Mr. Stewart was read later-the Educative Value of History.

At Friday morning's session Mr. A. E. Pearson read a paper on the Care of School Grounds. This, with the discussion that followed, was one of the most valuable presented to the institute in the practical hints brought out on tree-planting and ornamentation of grounds. In the afternoon Dr. Hay gave a model lesson on plants collected within a few paces of the schoolroom, followed by an excursion illustrative of the lesson.

The institute will be held next year at Harcourt. The following officers were elected: President, Inspector Hebert; Vice-president, Kate Keswick; Secretary, A. E. Pearson; additional members of the Executive, Minnie Buckley and H. H. Stuart.

### YORK COUNTY TEACHERS' INSTITUTE.

The York County, N. B., Teachers' Institute met at Fredericton on Thursday and Friday, September 21st and 22nd, in the assembly hall of the high school building. A large number of the teachers of Queens and Sunbury Counties joined the institute, the total number enrolled being over 150. The low fares on railway and steamboat, and the attractions of the beautiful city of Fredericton, which had drawn a large number of other visitors to the Exhibition, was an opportunity of which many teachers availed themselves. The addresses at the opening were encouraging and stimulating. President F. A. Good thought teachers should have noble ideals, and endeavour to the utmost to attain to them. Chief Superintendent Dr. Inch encouraged teachers to work for the best results; not to talk too much about salaries, but to let their work appeal to the ratepayers, whose means supported the school. Inspector Bridges followed up this thought by urging teachers to invite ratepayers to the school to see the work done, and then to suggest on this basis an increase of salary. Dr. Hay thought teachers should have a friendly competition with each other in making schoolrooms so attractive and interesting that scholars would delight to be in them. Principal Foster would like to give his opinon of those people who talk merely and do nothing to improve teachers' salaries.

'Round table discussions on nature work, led by

Mr. H. G. Perry and President Good called forth many useful hints on the best way to utilize material found in the neighborhood of the schoolroom. The opinion was expressed that a nature-study course should be outlined for the guidance of teachers.

At Friday's sessions the addresses and discussions were of much interest. Mr. T. B. Kidner illustrated, with a very complete series of models and pupils' work, how a practical course in manual training could be carried out in country schools; Miss Agnes Lucas gave an interesting address on Ambidexterity; Miss E. L. Thorne gave some pleasant impressions of a visit paid to the hgh schools of Boston, Buffalo, Chicago and Toronto. She had been pleased with what she saw, especially the uniform courtesy of the pupils, but in the matter of foundation work she believed that New Brunswick schools were equal, if not superior, to any that she saw. We have much to attain to, however, in the branches of music, drawing and physical culture. Professor W. C. Murray, of DalhousieCollege, gave a very clear and interesting address on Psychology, in which he outlined numerous points that may guide the teacher in training the child. The new psychology that has arisen is that which studies the child, as a botanist would study the growth of a

The following are the officers of the institute for the current year: C. D. Richards, B. A., president; Miss Sadie Thompson, vice-president; Miss E. L. Thorne, secretary-treasurer; B. C. Foster, H. G. Perry and Clarence Sanson as additional members of executive.

#### CURRENT EVENTS.

The 21st of October is the one hundredth anniversary of the battle of Trafalgar. The proposal to celebrate the day throughout the British Empire is opposed by some on the ground that Lord Nelsen's private life was not commendable; and by others, for the more convincing reason, that the good understanding existing between the French and British peoples should not be disturbed by our ill-timed rejoicings over the event.

The British government will establish a vast naval depot at Singapore, making it the centre of British naval power in the Far East.

The Germans have won a victory over the rebellious natives in German Southwest Africa.

The bridge over the Zambesi River at Victoria Falls was formally opened on September 12th. It crosses the gorge below the falls, at a height of four hundred and twenty feet above the water; and is the highest bridge in the world.

The flagship of the Japanese admiral accidentally took fire and sank in the harbor of Sasebo, and hundreds of men were lost. An effort will be made to raise the ship. Admiral Togo was not on board at the time of the disaster.

By a series of earthquakes in Calabria, Italy, more than two hundred towns have been damaged, and about six hundred lives lost.

The conclusion of peace with Russia has given great dissatisfaction in Japan, and serious riots have resulted in some of the larger cities.

The first Buddhist temple in America, or, at least, the first within historic times, will shortly be erected at Los Angeles, Cal. There are some rather incredible stories of Buddhist missionaries on the Pacific coast of America before the days of Columbus,

Astronomers who went to Labrador to observe the recent eclipse of the sun were disappointed, as the weather was unfavorable. In Egypt, however, the observations were successful; and one result is said to be the discovery of a new planet between Mercury and the sun.

A special agent of the Canadian government has prevailed upon the government of Uruguay to release the Canadian sealing vessel and her captain, so long held on a charge of poaching in Uruguayan waters.

Quickly following the close of the war, the Czar has decided to call another peace conference to meet at the Hague. The time and scope of the conference have not yet been announced. Lord Salisbury's dream of a European federation, and Tennyson's parliament of man, would seem to be nearer realization if the nations would cease preparing for war while they are talking of peace.

The French war department is experimenting with a machine gun to fire three hundred bullets in less than a second.

A state of war exists in Southern Russia, where the Tartars are in arms against the Armenians. The Armenians have the lead in the commerce and industries of the Caucasus region, and the Tartars The great oil are bent upon their extermination. works at Baku have been destroyed. The region is under martial law, but the military are unable to control the situation. Latest advices say that a truce has been arranged between the warring parties, to take effect October 14th; and that a conference of representative Armenians and Tartars, held under the presidency of Prince Louis Napoleon. governor-general of the Caucasus, has decided to summon a general congress representing the inhabitants of the Caucasus, for the purpose of discussing the causes of the enmity.

Negotiations for the separation of Sweden and Norway are still proceeding, and will probably end in a peaceful dissolution of the union.

A reduction in the force of the Northwest Mounted Police will follow the creation of the new provinces of Alberta and Saskatchewan.

The territory of Keewatin has been taken from the control of the governor of Manitoba, and attached to the Northwest Territories. The proposal to build an Australian Transcontinental railway has been thrown out by the federal government.

Hard times in South Africa has had an effect upon polygamy among the Zulus. The richest and most powerful chiefs now seldom have more than fifty wives, and the ordinary natives are content with one. Money that formerly went to the purchase of wives is now said to be devoted to buying cows.

Dr. Barnardo, who died in London on the 20th ult., is said to have rescued over fifty thousand orphan children and trained them for useful lives. He was born in Ireland in 1845.

By the new treaty with Japan, the full particulars of which have not yet been disclosed, Great Britain secures the aid of Japan in case of any attack upon British India.

The French expedition to Greenland under the Duke of Orleans has discovered unknown land.

The arms of Prince Edward Island have been officially sanctioned as follows: Argent, on an island, vert, to the sinister an oak tree, fructed, to the dexter thereof three oak saplings, sprouting, all proper; on a chief, gules, a lion passant guardant, or. This is, in common parlance, on a silver ground a representation of an island with the three small trees under the great one, familiar on the old coinage of Prince Edward Island; and across the top of the shield the same golden lion on a red background that is seen in the arms of New Brunswick. By doing away with the motto, "Parva sub ingenti," which was quite in place on the seal of the province, but not in a coat of arms, and by adding the touch of color in the red chief with its gold lion, it makes a pretty combination; and it effectually disposes of the impossible arrangement of oak and maple leaves with which some Ontario publishers had endowed the Gulf Province.

It is estimated that the Canadian wheat crop this year will aggregate one hundred million bushels.

Thursday, October 26th, is appointed as Thanks-giving Day.

#### SCHOOL AND COLLEGE.

Mr. S. R. MacInnis is the principal of the Berwick, N. S., schools this year, with Miss V. M. Batten and Mrs. J. W. Margeson as associates.

Mr. R. B. Masterton, A. B., has been chosen principal of the Port Elgin, N. B., superior school. Mr. Masterton is an experienced and capable teacher, and the prospects of the school are excellent for the coming year.

The New Glasgow, N. S., high school, of which Mr. John T. McLeod is principal, has made several changes in its staff of teachers for the present term. Mr. W. C. Stapleton, of Halifax, is the vice-principal, Miss Redmond, of Pugwash, the teacher of domestic science, and Mr. Douglas Patterson of Truro, the head of the manual training department.

A new department of domestic science has been opened in the Sydney, N. S., schools. Miss McCallum has been engaged as teacher.

Mr. J. Keith has been chosen principal of the Benton, N. B., superior school, with Miss Inez Day as teacher of the primary department.

The Acacia Villa school, Hortonville, N. S., has re-opened for the current year with larger numbers and brighter prospects than ever under the charge of the experienced veteran teacher, Mr. A. McN. Patterson.

Miss Mabel V. Elliott, who went from Newcastle, N. B., with the corps of teachers to South Africa three years ago, was recently married at Durban to Mr. Chas. J. Stewart, of London. The happy couple, to whom the Review extends its best wishes, will reside at Umzumbi, Natal.

Miss A. Laura Pcck, B. A., of Wolfville, N. S., for several years teacher in the schools of New Brunswick, will leave shortly for India as a missionary.

The Provincial normal school of New Brunswick opened at Fredericton, September 6th, with the largest enrolment in its history—260 students, of whom twenty-three are in the French department.

Mr. J. W. Hill, of Hampton, has accepted the principal-ship of the McAdam, N. B., superior school.

Mr. F. R. Branscombe, of Cornhill, has taken charge of the advanced department of the Hopewell Cape, N. B., superior school.

Principal R. W. Ford continues his efficient management of the Wolfville, N. S., public school with the following named staff of associate teachers: Miss Ella McLean, Miss Gertrude McIntosh, Mrs. Prudence Parker, Miss Elizabeth Elderkin, and Miss Maie I. Messenger. The latter takes the place of Miss Hamilton, absent on leave.

Miss Edith A. R. Davis, A. B., of Fredericton, who taught last year in Albert County, has gone to Chicago University to take a post-graduate course in classics.

The teachers of Glace Bay, N. S., at a recent meeting, decided to re-organize their local institute and hold meetings quarterly in future. Principal D. M. Matheson is the president.

Mr. Harry Burns, B. A., has been appointed principal of the Dorchester, N. B., superior school, with a capable staff of associate teachers, of whom Mr. Edward A. Lynch, B. A., has charge of grades seven and eight.

Miss Blanche Moser, of Parrsboro, has been appointed to a position on the Sydney Mines, N. S., schools.

Miss Laura Creelman, of Truro, is on the staff of the Port Flawkesbury, N. S., schools this term.

Messrs. Clement Kelly, B. A., W. R. Shanklin and Fletcher Peacock, of New Brunswick, have gone to Guelph, Ont., to take a three months' course in nature study, provided for by the N. B. Department of Education.

Miss Gladys Strople has charge of the school at Glasburn, Antigonish County, this term.

That is the proper spirit; and we hope it is a spirit that will take possession of rate-payers and schools elsewhere.

Principal Oulton, of Amherst, has taken charge of the Lower Stewiacke, N. S., school for the present term.

"The Upper Sackville school has begun work with Baxter Barnes again as teacher. The district voted \$300 for repairs on school house, fence and grounds. The inside of the building has been thoroughly remodeled, enlarged and painted inside and out. New seats have been purchased and a room provided for the children to wash. A new fence has been erected. The contract has been given for levelling the lawn, which will be done soon. The rate-payers are unanimous in the determination to make this one of the best schools in New Brunswick."—Sackville Post.

Mr. G. E. F. Sherwood, A. B., recently of the Bloomfield, Kings County, superior school, has been appointed principal of the grammar school, St. Andrews, N. B.

Mr. W. J. Shields continues as principal of the Hantsport, N. S., schools, a position he has held with distinction for several years. With him are associated Miss Sadie E. Shaw, Miss Bowlby, Miss MacCully and Miss Miller.

Mr. M. D. Davidson has been appointed principal of the North Sydney schools, N. S., with Mr. W. E. Haverstock as vice-principal.

The Sussex, N. B., school trustees have decided on a well chosen site for a new school building, which will be commenced in a short time.

Mr. H. A. Prebble has been appointed principal of the Hampton Village, N. B., school, in place of Mr. Weldon U. Pickel, who has gone to the Northwest. Miss Frances Prichard, of the Hampton Station school, has resigned to take a year's course in nature study at Guelph, Ontario. She is succeeded by Miss A. Beatrice Hoskin.

The Westmorland County, N. B., Teachers' Institute meets at Dorchester on the 5th and 6th October. A full programme will be found on another page.

Dalhousie College, Halifax, has established a central evening school at Stellarton, N. S., for the instruction of classes in mining and engineering.

Netherwood, the Rothesay, N. B., School for Girls, has opened with the largest number of resident students in its history.

Mr. Joseph Howe, who has been a prominent figure in Acadia College athletics, has been appointed teacher in Horton Academy, Wolfville.

The idea of central schools is growing in New Brunswick. The rate-payers of Hampton and Hampton Village recently voted for consolidation; seven districts of the parish of Springfield have united to form a school at Belleisle Creek; two districts in Dorchester parish have united; and the new consolidated school at Riverside has opened with over 200 children in attendance, who, with the parents and teachers, are delighted with the new educational conditions,

Principal Barker, of Fredericton, has taken charge of the St. Martins, N. B., superior school.

Mr. A. B. Connell, secretary of the Woodstock, N. B., school trustees, has resigned, leaving a record of valuable services extending over nearly a generation.

The Charlotte County teachers will meet with the St. John teachers on the 12th and 13th, as will be seen by advertisement on another page. Both railways offer reduced rates.

Rev. C. Brockwell, curate of Cheshunt, Eng., has been elected to the new chair of divinity at King's College, Windsor, N. S. He will take part of the work that has been done by Professor Vroom.

The new session of the institution for the Deaf and Dumb at Halifax has begun, and Principal Fearon would be grateful for information regarding deaf children of six years or over, who have not yet come under instruction. This school is empowered by acts of parliament to admit pupils from all parts of the Maritime Provinces, also from Newfoundland.

Mr. F. S. Small has resumed the principalship of the Apohaqui, N. B., superior school, with Miss W. A. Toole as associate teacher. Miss Toole has recently taken a course in nature study at Guelph, Ont., and an advanced course at the N. B. normal school.

Miss Kathleen Cockrell, of the high school, Victoria, B. C., is an exceptionally brilliant student, as the following record will show: Last year she stood at the head of all the candidates in British Columbia. This year, in the wider field, where she had the entire Dominion to compete with, she stood second on the list, being exceeded by one only, a young man who has been a student of Upper Canada College at Toronto for some years. Out of a possible 600 she made an aggregate of 507, or an average of 84 in all subjects. The young man who stood ahead of her made an aggregate of 515 out of a possible 600, thus leading her by eight points only. There were about 280 candidates in all. Miss Cockrell has just passed her sixteenth year, which is the youngest age at which students are admitted to McGill. Congratulations to Principal Paul and the Victoria high school staff on the success of their clever pupil.

The prospects at Mt. Allison University, Sackville, are perhaps more encouraging than they have been at any previous year in its history. At the Ladies' College, there are more students than at the opening last year. The Academy has a much larger attendance than last year. The University residence promises to be full, notwithstanding the provision of thirty-six enew rooms in the fourth floor of the residence.

The P. E. Island Teachers' Association met at Charlotte-town on the 27th, 28th and 29th September

Sir William C. Macdonald and Professor James W. Robertson, after their visit to Kingston, N. B., went to Middleton, N. S., to visit the consolidated school at that place. At a public meeting on Monday evening, September 11th, Dr. A. H. MacKay plainly intimated to the people that they must expect no assistance from the government, but must depend on themselves after the Macdonald gift had been expended. At present the average amount throughout the consolidated district is about half the average sectional assessment of the province. Robertson excelled himself in his plea for a better education for the children. He stated that if the consolidated section would raise instead of about forty cents on the hundred, as at present, the amount of \$1.50 on the hundred, or equal to the average of the highest county in the province, Sir W. C. Macdonald would stand by the school for three or five years longer.

The Restigouche County teachers' institute will meet in Campbellton on the 12th and 13th of October.

The Albert County, N. B., teachers' institute will meet in the consolidated school building, Riverside, on the 5th and 6th of October, and the Westmorland and Northumberland Counties' institutes will meet on the same dates.

Fortunately it is seldom that we have to record such a vicious and apparently unprovoked assault as that made recently on the respected principal of the Sackville high school, Mr. A. D. Jonah. A boy was disobedient and Mr. Jonah punished him by pulling his ear, but not so as to cause any serious injury. The father assaulted the teacher on the public street, striking him violently in the face several times, for which he was fined \$20 or two months in jail. This is considered a light punishment for a serious and brutal offence.

Arrangements are being completed for the consolidation of Hampton Village and Hampton with a few of the outlying districts in one central school.

A party of eight teachers from Nova Scotia left Truro last Thursday for Guelph, Ont., to take the full course in nature study at the Ontario College of Agriculture. The party consisted mainly of young ladies.

Dalhousie University opened on the 13th September with a large number of students in excess of last year's registration. The following are winners of bursaries: Miss Thompson, of the Halifax county academy, first scholarship, for first-class distinction, junior matriculation; J. Congdon Crowe, Truro (Colchester county academy), second scholarship, for second-class distinction.

Professor Harold Geoghegan, of Trinity College, Dublin, has been appointed to the chair of English literature and modern languages at the University of New Brunswick. He has a fine record as a scholar and experienced teacher, and comes to his new position with very high testimonials. Lectures begin at the University on the 2nd of October, and the formal opening took place September 28th.

Miss Katharine Wisdom, of St. John, a distinguished graduate of McGill University, and recently a teacher in the Ottawa Ladies' College, has been appointed to a position on the teaching staff of Trafalgar Institute, Montreal.

The fiftieth anniversary of the founding of St. Francis Xavier College was celebrated at Antigonish, N. S., during the first week of September. Delegates from sister colleges throughout Eastern Canada, and many former graduates and distinguished visitors, graced the occasion. There was a feeling of just pride in what the college has accomplished in its fifty years of endeavour, and hope for a still higher attainment in the future. A notable figure in the celebration was the venerable Bishop Cameron, now nearing four score years. He has been with the college from its beginning, and is now chairman of the board of governors. Among the honorary degrees conferred were the following: LL. D. on A. H. MacKay, Superintendent of Education for Nova Scotia; Rev. Dr. Forrest, president of Dalhousie College; Mr. David Soloan, principal of N. S. Normal School; Mr. Samuel N. Robertson, principal of Prince of Wales College Charlottetown; Dr. E. M. Kierstead, late of Acadia College; Dr. Falconer, principal of Pine Hill College, Halifax.

#### RECENT BOOKS.

MAID MARGARET OF GALLOWAY. By S. R. Crockett. Cloth.
Illustrated. Pages 417. The Copp, Clark Company,
Toronto.

This book takes the reader back to the times of the Douglases and early Stewarts in Scotland, the days of border feuds, when great personal strength and prowess, skill in archery and the broadsword won the victory on many hard-fought fields. The narrative carries the interested reader through exciting scenes and bright descriptions of Scottish scenery. Lack of judgment is shown in prolonging the story after it is finished. The story really ends with the capture of the castle of Thrieve—the final stronghold of the Douglases.

In Blackie's English School Texts we have received Sir Walter Raleigh's "Discovery of Guiana" and Swift's "Gulliver's Travels," each with introduction, carefully edited text, good print, and bound in cloth covers. Price 8d. each. Blackie & Son, London.

In "Blackie's Little French Classics" series we have Voltaire's pretty story, "Le Blane et Le Noir," with an introduction containing a brief sketch of the author and his times. Price 4d. Blackie & Son, London.

Mikon's Paradise Lost. Book V. Edited with introduction, notes and appendices. By Albert E. Roberts, M. A. Cloth. Pages 84. Price 1s. Blackie & Son, London.

A convenient pocket text-book, with a helpful series of notes, and appendices showing the structure of Milton's verse.

TALES FROM SPENSER. School Edition, with introduction, notes, glossary. Linen. Pages 167. Price 1s. Macmillan & Co., London.

The book contains such deserving-to-be-known stories as Una and the Lion, Una and The Prince, Una and the Dragon, Britomart and The Mirror, How Britomart Found Artegal, and others, told in modern English prose.

L'Anniversaire de Blanche. By Clémence Sannois.
Cloth. Illustrated. Price is. Blackie & Son, London.
A series of bright little juvenile scenes cast in a story in which the author has conceived the happy idea of building up a working vocabulary of everyday French around the make-believe operations of "playing at house."

I.A PREMIERE ANNEE DE FRANCAIS. By T. B. Kirkman, B. A. (Oxon.) Cloth. Illustrated. Pages 200. Price 2s. Adam and Charles Black, Soho Square, London, W.

This is an introductory French reader on a plan as novel as it is interesting. The text describes, in the form of dialogue, narrative and verse, a day passed by an English boy in a French family at Paris, a choice of subjects which puts the vocabulary to be taught in a thoroughly French setting. It is divided into three parts; the premiere partie, which describes the morning at home, lessons, meals, etc.; the deuxieme partie, describing an afternoon spent in Paris, sight-seeing, shopping, playing, all illustrated from photographs; troisieme partie, an evening at home, stories and songs. Ten preliminary lessons on classroom terms precede the use of the text, which, with "Lesson Notes," exercises, vocabulary, make up an excellent introduction to the study of French.

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AN INTRODUCTION TO ALGEBRA. By R. C. Bridgett, M. A. Cloth. Pages 95. Price 1s. A Text-Book of Algebra. By A. E. Layng, M. A. Part I. Cloth. Pages 176. Price 2s. 6d. Blackie & Son, London.

These two volumes furnish a suitable introduction to Algebra, approaching the subject through arithmetic, and gradually leading from problems interesting to the beginner to the algebraical treatment of questions connected with mensuration and geometry.

French Lesson Notes. By F. B. Kirkman, B. A. (Oxon.) Cloth. Pages 96. Price 1s. 6d. Adam and Charles Black, Soho Square, London, W.

This is an attractively printed little book on excellent paper, designed to accompany the French readers by the same author and publishers. Its merit is in the natural and interesting way it leads teachers and children to "talk" French in the classroom.

The first of a series of eight supplementary readers containing approved selections for reading and memorizing has been received from Hinds, Noble & Eldredge, publishers, New York. The selections are good, and the volume is only 25 cents.

#### RECENT MAGAZINES.

The October number of the Delineator is excellent in its literary and household features. Of widespread interest to parents, teachers and all who lead or follow in educational lines is an exceptional article, Education for Life through Living, by William H. Maxwell, superintendent of New York City schools; N. Hudson Moore writes interestingly of old desks and secretaries, giving the hallmarks that enable the amateur to place them correctly; Allan Sutherland tells the history of Onward, Christian Soldiers, a hymn that is the inspiration of the young; Clifton Johnson takes the reader across the wild coast of Devon into the wilder country that was Lorna Doone's.

There are several interesting educational and literary articles in the weekly issues of Littell's Living Age from the 9th to the 23rd September: Japanese Education, by Baron Suyematsu; Landscape and Poetry, from the Loudon Times; the Serpent in Literature, by W. H. Hudson; A Classical Education, by Arthur C. Benson; The Child and Religion,—Scientific Method in Religious Training, by Professor James Sully.

#### OFFICIAL NOTICE.

#### New Brunswick Board of Education.

MANUAL TRAINING COURSES.

Training courses for teachers desirous of qualifying as licensed Manual Training instructors will be held at the Provincial Normal School during the session of 1905-6 as follows:

Short course.—September 18 to December 22, 1905. Full course.—January 8 to June 29, 1906.

The short course is intended to qualify teachers for the license to teach Manual Training in rural schools. Candidates for admission must hold at least a second class Provincial license, and be prepared to furnish evidence of their teaching ability.

The full course is intended to qualify teachers for the license to teach Manual Training in town schools. Candidates for admission should hold a first class license, but teachers holding a second class license, and having a good teaching record, may be admitted on their merits.

In each course, students showing little aptitude for the work will be advised to discontinue at the end of one month from the date of entrance.

Tuition is free, and the usual travelling allowance made to Normal students will be given to teachers who complete their course and proceed to the teaching of the subject in the Public Schools of the Province.

#### HOUSEHOLD SCIENCE.

No provision exists at present in the Normal School for the training of Household Science teachers, but certain institutions have been approved by the Board of Education as training places for New Brunswick teachers desiring to qualify as licensed teachers of the subject.

Full particulars of the several courses outlined above may be obtained from the Director of Manual Training,

> T. B. KIDNER, FREDERICTON, N. B.

Approved:

J. R. INCH, Chief Superintendent.

## Educational Review.

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p. 120; Litteli's Livio	g Age,	p. 118; (	Over 30	Years' l	Experie	oce,	
p. 118.							

We direct attention to the advertisement in another column of the valuable prizes offered by Lord Meath and the League of the Empire for competition in all schools of Great Britain and the Colonies. It is hoped that New Brunswick schools will be heard from in this competition. The subjects are suggestive. It would be a great honour to win a prize in competition with all the schools of the whole Empire.

THE Educational Monthly, Toronto, contains a reference to the late John Miller, by whose death on the 2nd of October Ontario loses one of its leading educational men. For the past fifteen years he had been Deputy Minister of Education, and was president of the Dominion Teachers' Association.

THE late L. P. Fisher, of Woodstock, N. B., whose property amounted to nearly half a million dollars, left ample funds for establishing a public library, a well equipped modern school building, the nucleus of a superannuation fund for teachers, and other beguests for the improvement of the townspeople. A noble example.

In this number of the Review is begun a series of reproductions of the pictures of famous artists to serve for school decorations, subjects for composition, etc. Rev. Mr. Boyd will furnish notes for these pictures as they appear, and Mr. T. B. Kidner, in the next number, will give directions how they may be framed inexpensively. Mr. Boyd's art notes in this number will be found very helpful and interesting.

THE union of Baptist and Free Baptist denominations in New Brunswick, now happily consummated after months of careful consideration, will no doubt be followed by a similar union in the other provinces of Canada. The two weekly papers which have been the organs of these two bodiesthe Messenger and Visitor, edited by Rev. Dr. S. McCully Black, and the Religious Intelligencer, by Rev. Dr. Jos. McLeod-have become one, which will in future be published as the Maritime Baptist. The union of these two excellent weeklies, with such gifted editorial writers as Dr. Black and Dr. Mc-Leod, will make the united paper of exceptional strength and interest to the denomination.

THE introductory sketch on Physical Geography by Professor Bailey, which appears in this number, will have many interested readers among those teachers who feel dissatisfied with their results in teaching geography. Professor Bailey opens to their view an absorbing and fascinating course by which geography can be made a live, interesting subject in accord with the nature-study of our schools. This preliminary sketch will be followed by a series of articles on this subject.

#### School Correspondence.

The REVIEW has frequently spoken of the value to our schools of pupils corresponding with the pupils of other schools in different parts of the empire. The advantages of such correspondence are many: there is the incentive to do one's best in writing such letters; there is the interest in receiving answers from Britain and distant parts of the Empire; there is the closer comradeship of our English-speaking boys and girls, and there is the additional stimulus of studying the history, geography and customs of these places.

It may not be generally known to teachers that there is a "Comrades Correspondence Branch" to the imperial order of the Daughters and Children of the Empire, the object of which branch is to promote correspondence among schools and inspire an educational and friendly interest in the Empire as a whole, and in its different parts. The work has grown very rapidly in the three years since it was There are boys and girls in the schools throughout Canada whose "comrades" are in Great Britain, South Africa, Australia, Ceylon, and the West Indies, and the interchange of school letters is very interesting and instructive, comprising descriptions of the scenery, home life and sports in many different lands.

Another, and quite a different department of this correspondence work, is the school-linking scheme which consists in joining any one of our schools with another in any part of the Empire. The schools are supposed to be working under similar conditions, as in country or in city, and the correspondence is continued while it is mutually profitable, the letters leading in many cases, to the exchange of post-cards, specimens, essays, etc.

Teachers who wish to have their schools linked with others in this correspondence may write to Mrs. G. C. Vanwart, Fredericton, or to the secretary of the Canadian branch, Miss Mabel Clint, 31 York Chambers, Toronto.

G. M. Duncan, M. D., once the efficient teacher of the Bathurst Village superior school, and for more than a score of years the secretary of the board of school trustees, which duties he has discharged with intelligence and a regard for the welfare of teachers, writes as follows: "I enjoy each number of the Review. It is worth three times its modest price to any go-ahead, up-to-date teacher, or one who wishes to be such. Its hints and advice are worth years of experience."

#### Nature-Study.

HINTS FOR NOVEMBER TALKS.

Teachers should give a few lessons now and then on the stars, especially at this season when their brightness attracts us. That large star that rises in the east shortly after seven o'clock in the evening is the planet Jupiter. Notice that it is between the V-shaped cluster below it, called the Hyades, and the group of six bright stars above, called the Pleiades. Get the pupils interested in this planet by asking them to observe which group it has drawn nearer to after a week or ten days. Because it changes its place with regard to the other stars proves that it is a planet, and not a fixed star. Have the scholars make drawings every few days of the Hyades and Pleiades and Jupiter's various positions, making a series extending through the month, and then have them compare the last drawing with the first. Ask the pupils to learn something about these clusters of stars and the planets, and to look up references about them in literature, especially in the Bible and in poetry. What planet is in the eastern skies now in the mornings? Prove that it is a planet by observing its "wanderings" during the month among the early morning stars near it. Is the moon a planet? Watch its progress through the sky during this month for the proof.

Did you draw the attention of your scholars to the varied colours of leaves in October? trees had scarlet leaves? dark-red? brown? goldenyellow? Which trees were the first to shed their leaves? which next? What trees or shrubs (deciduous) still have their leaves on? What tree with small needle-shaped leaves is deciduous? change of colour took place before its leaves fell? What advantage is it to trees to shed their leaves? Pick up some of those leaves that have fallen and examine them. They are withered and dry, and you can easily crush them between your thumb and finger. What has become of the soft, pulpy mass that made up the substance of the summer leaves? Why did the leaves fall? Was it because of the frosts? of the winds? Did the summer (strong) winds tear off the leaves? Leaves fall when their work is done, whether in midsummer or autumn, Examine branches where leaves have been and notice what has helped to push them off. Does the leaf leave any mark to show where it was attached to the twig or branch? What other marks do you observe on twigs or branches? What do they mean? Someone has said that the beginning of

the year is now rather than in spring. Can you give any good reasons for this statement? Examine trees, shrubs and the ground beneath them for any proofs. If you find any buds beneath the dead leaves, be sure to cover them over again.

Look this month for the bright scarlet berries of our Canadian holly (Ilex), which can now be seen, about the size of peas, close to the twigs after the fall of the leaves. They are worth looking for, and when found are a delight to the eye. These with the haws of the thorn and the hips of the roses make very pretty decorations.

watch for and enjoy those bright Indian summer days that nearly always come in early November after the fall of the leaves and after nights of severe frost. Sometimes the Indian summer lasts for a day or two, sometimes it is prolonged into a week or more; occasionally we have a succession of summer days at intervals between cold north winds and Read the description in Longfellow's Evangeline, and find out what other writers have said about this all too brief and charming season. The blossoms of the witch-hazel may be found at this season in low thickets or along streams. The yellow flowers of this tree or shrub, which give a bright golden glow to some of our woods when everything else is dull and brown, and the scarlet berries of the Canadian holly, have been seen by comparatively few people, and yet both are common.

The birds-most of them-are gone to their winter homes in the south, many of them sojourning for a few days or hours, here and there on the way, to rest themselves where food to their liking is more or less abundant. It must not be supposed that birds leave us entirely on account of the cold weather. Abundance of food is the first consideration. Many could endure the severe colds of our winters, but the snow covers their food. Of the small birds that stay with us, the chick-a-dee and the nuthatch are the most familiar. Children can help these and other birds through the winter season by scattering crumbs round their homes or the school house, or by fastening a small piece of pork to the limb of a tree for them to come and pick at. The chic-a-dee especially will become very tame and seem to repay your interest in him by telling you his name in a series of confidential little "chick-adee-dee's." Another little bird that remains with us until very late in autumn is the golden-crowned kinglet, so-called on account of the bright reddish orange spot on the top of its head. Its body is olive

green in colour, with under parts dull white. Flitting actively from tree to tree its only perceptible note at this season is a fine "tee-tee," only noticed by practised ears.

The recent death of Dr. Thomas J. Barnardo took away the leading English philanthropist and the man who, in all the world, has done the most for homeless children. "The father of nobody's children," as he was called, is credited with the rescue of 60,000 waifs. He established homes for boys and girls, and no child was ever refused admission. The inmates were well cared for, taught useful trades and given positions where they could earn Many that were willing to go abroad a living. were established in Canada and other colonies.

Mr. Andrew Carnegie, the distinguished philanthropist, has ordered a special library edition of 500 copies of the forthcoming volume of Mr. Wilfred Campbell's verse to present to his libraries throughout the English-speaking world. The edition is to be called the "Carnegie Edition," and each volume will have the inscription, "Presented by Andrew Carnegie." This is a high compliment to our distinguished Canadian poet, the qualities of whose genius the critics and readers of two continents have recognized.

#### Grammar in a Nut-Shell.

The following lines may not commend themselves to the makers of verse, but if committed to memory they may aid children to classify parts of speech and decide for themselves where a word should be placed:

> Three little words you often see Are articles a, an and the, A noun's the name of anything, As school or garden, hook or swing, Adjectives tell the kind of noun, As great, small, pretty, white or brown, Instead of nouns the pronouns stand, Her head, his hand, your arm, my hand, Verbs tell of something to be done-To read, count, laugh, sing, jump or run. How things are done the adverbs tell, As slowly, quickly, ill or well. Conjunctions join the words together, As men and women, wind or weather, The preposition stands before A noun as in or through the door. The interjection shows surprise, As O! how pretty, Ah! how wise, The whole are called nine parts of speech, Which reading, writing, speaking teach.

-Exchange.

#### Our Native Trees.

By G. U. HAY. THE BIRCHES.

The birches and alders belong to the same family (Betulaceæ). The alders scarcely rise to the dignity of trees. They are very common, especially along shores or low grounds, where they often form close thickets. They are sometimes appropriately referred to as weed-trees or shrubs. The birches also grow in great abundance in these provinces, forming in many places the largest proportion of our deciduous trees. In late autumn they give to the forests that faded yellow appearance from the changing of their leaves, the colours of which differ from the brilliant scarlet of the maples or the rich browns and reds of the beeches and oaks.

At this time of the year, if birch trees are examined, the long scaly upright buds may be seen, which are destined to become the branches and twigs of the next and future seasons. The catkins, which are formed during the summer, at the same time with the buds, may also be seen in twos or threes on the twigs or smaller branches. The catkins contain the simplest kind of flowers,—the staminate catkins longer than the others and usually in threes, have stamens, and the shorter pistillate catkins, usually in twos, contain little pistils, which during the next season may have seeds with narrow wings, which enable them to be carried far and wide by the winds. The stammate catkins become long and drooping, and of a rich golden colour in the early spring, and their pollen is carried by the winds to fertilize the pistillate flowers, before the leaves of the birch are unfolded. So it happens in most of our deciduous trees that the flowers unfold in spring before the leaves. Do you see why?

There are two kinds of white birch, which are frequently found growing together. They are usually very readily distinguished apart. have white bark, but in one the bark is very tough and durable, splitting in paper-like lavers. This is the canoe-birch or paper-birch (Betula papyracea). In parts of our northern forests it grows to the height of sixty to eighty feet, with a trunk diameter often from two to three feet. Only in the most remote forests can the canoe-birch be seen of a large size and in all its native beauty. This tree well deserves the name that poets have given to it-"The Lady of the Woods." It extends farther north than any other decidnous tree. Its leaves are ovate in outline, taper-pointed, heart-shaped or abrupt at the base, doubly serrate on the edges, and of a dark

green colour above and pale beneath. Its wood is hard, strong, light in colour, but becoming a red-dish-brown with age. Its weight is thirty-seven pounds to the cubic foot. Its bark is chalky white, impervious to water, very useful to the Indian who makes his canoe and wigwam from it, and uses it for various ornaments which please the white man's fancy. Its wood is much used for fuel and for furniture and like purposes.

The other white birch is smaller, and found more frequently on poorer soils near the coast, hence its name of poverty birch, old field birch. Its greatest height does not exceed forty feet, and its slender trunks, usually growing in clumps, scarcely exceed a foot in diameter when at their greatest size, which is seldom attained in these provinces. Its bark is chalky white, and does not separate in layers like til canoe birch. The scientific name of this, the American white birch, is Betula populifolia, since its leaves resemble those of the aspen poplar, and as they are on long slender stalks they tremble like the leaves of that tree. They are triangular, smooth and shining on both sides, and very long pointed. The wood of the American white birch is softer than that of the canoe birch. The weight of a cubic foot is thirty-six pounds. Its wood is used for spools, shoe-pegs, barrel hoops, and for fuel.

The yellow or gray birch (Betula lutea) is one of the largest, if not the largest, deciduous tree of Canadian forests, frequently attaining in its maturity a height of from eighty to one hundred feet, and a trunk diameter of from three to four feet. Its bark is a yellowish, silvery-gray colour, separating from and often hanging on the tree in thin satiny layers. The leaves are ovate and usually more narrow toward the base than those of the white birches. The graceful form of this tree, frequently dividing into smaller stems above and assuming a rounded or hemispherical form, makes it desirable for ornament and shade. Its lumber is valuable for many purposes. It takes a fine polish, which makes it beautiful for furniture. It is used in the manufacture of agricultural implements; for the keels, lower timbers and planks of ships; for piles, foundation timbers, and sluices, being almost indestruc-Libie under waters. It is excellent for fuel, burning readily and producing a great heat. The wood is hard, strong, light brown in colour, and a cubic foot weighs forty-one pounds.

The cherry or sweet birch (Betula lenta) grows in much the same situations as the yellow birch, namely, in moist rich woods. Its twigs and bark are more aromatic and bear a resemblance to the garden cherry tree. Its bark is dark brown, and does not readily separate into layers, becoming furrowed with age. Its timber is a beautiful dark brown, sometimes rose-coloured, fine-grained and very valuable for timber. A cubic foot weighs forty-seven pounds. The wood of this birch is even more serviceable for the uses described in the yellow birch, being heavier and well adapted for ships' timbers and all purposes intended to withstand the ravages of water.

In discussing the vertical system of writing, its opponents always seem to assume that writing is taught exclusively for the use of banks, mercantile houses and offices. But, a great majority of the people—farmers, mechanics, laborers, etc.—have no ledgers to keep, and need a knowledge of penmanship merely that they may be able to write letters in a neat, legible manner. In considering the relative value of systems, the opinions of business men must of course be given weight, but it should be remembered that in the arranging of courses of study the needs of the greatest number of our people must be constantly kept in view.—Western School Journal.

"Hearts like doors can ope with ease
To very, very little keys;
And don't forget that they are these,
'I thank you, sir,' and 'If you please.'"

The world is so full of a number of things

I'm sure we should all be as happy as kings.

—Robert Louis Stevenson.

A penny saved is a penny earned, And word by word is each lesson learned.

The sun is not abed, when I At night upon my pillow lie; Still round the earth his way he takes, And morning after morning wakes.

While here at home, in shining day, We round the sunny garden play, Each little Indian sleepy-head Is being kissed and put to bed.

And when at eve I rise from tea, Day dawns beyond the Atlantic Sea; And all the children in the West Are getting up and being dressed.

-Robert Louis Stevenson.

And soon, too soon, around the cumbered caves. Shy frosts shall take the creepers by surprise, And through the wind-touched reddening woods shall rise. October with the rain of ruined leaves.

-Archibald Lampman.

#### The Lady of the Lake.

PRINCIPAL G. K. BUTLER, M. A., HALIFAX, N. S.

SIR WALTER SCOTT (1771 - 1832).

[At the age of eighteen months Scott was seized with a disease of one leg, which rendered him lame for life. He received part of his education with a private tutor, and afterwards went to the high school at Edinburgh. Contrary to a prevailing opinion, he was not a dull boy at school. He did not especially distinguish himself, however, and was fonder of leading a raid against the boys of another school, or of collecting around himself a few companions and relating long stories of Border forays, real or imaginary. Possessed with a marvellous memory and a voracious appetite for reading, he early filled his mind with that out-of-way knowledge which is found in his poems and novels.

He spent one or two terms at the university, and then entered his father's office as a clerk, at the same time studying law with the successful intention of becoming a barrister. During this time he and his boon companion made many expeditions into the nearer Highlands, "the Lady of the Lake" country. In Red Gauntlet he gives us a picture of himself at that period of his life.

' After a few years' practice at law he became sheriff of Selkirk, which position he held till his death. Later again he became clerk of the sessions at Edinburgh,

His great ambition was to become founder of a family. He purchased a small estate on the Tweed, which from time to time he added to. His mansion, Abbotsford, at first of quite humble pretensions, was enlarged to almost a palace. Here for the seven or eight most prosperous years of his life he dispensed the hospitality of a prince. No bore, however troublesome, no lion-worshipper, however offensive, ever received anything but the most polite treatment.

Owing to his too great trust in the Ballantynes he became deeply involved. In 1825, when the crash came, he set to work at the age of fifty-four to pay off his debts. From that time until overcome by paralysis his life was one incessant round of toil, and if ever a man worked himself to death, Scott did.

In 1831-32 he took a tour of the Mediterranean in a British ship of war, which the government placed at his disposal. This was to see if change of climate would restore him to some degree of health, but it failed, and he gradually grew worse. Ite died in September, 1832.

It is impossible in limited space to give an estimate of him. Read his poems, read his novels, histories, critical essays. Read his life by his son-in-law, Lockhart. If then your admiration for the man has not become intense, the literary side of your character is lacking. How many men ever lived who could dictate a novel like "Ivanhoe" lying in bed racked with pain, which at times became excruciating? This Scott did.

None of Scott's descendants of the male line are living. The family scat is now held by the descendants of Lockhart.

Scott began his literary work by translations from the German, after which he published the "Minstrelsy of the Scottish Border" in 1802-3. His first great poem was the "Lay of the Last Minstrel," published in 1805, follow-

ed by "Marmion," 1808, "The Lady of the Lake," 1810. Beginning in 1814, he published the Waverley novels for the next eighteen years.]

Having read the poem over as an introduction to its study, it would be well to see if any differences between it and "The Deserted Village" can be found. Its character, a story; its metre, etc. Goldsmith wrote to keep the wolf from the door; Scott, using the same figure, wrote to make his door a more ornate one. Scott practically never revised his work, and in that respect is a poor example for those of us less clever than he.

The poem opens in this selection at the close of the first day. It might be well to have a complete edition for reference.

Page 14.—1.\* From what is figure taken? What figure is it? 3. Why apply adj. "purple?" What would you call "spire?" 4. What figure? "Shooting" refers to what? 12. What names do we give "grey birch" and "aspen?" 13. Why call the oak "warrior?" 14. Here is a figure. 16. Find objects of verb "flung." 18. Those who are familiar with boats may not be able to connect "athwart" with another word commonly pronounced quite differently. 19. "White peaks," be careful at this point. What season of the year is it? Are Scotland's mountains very high? 23. What part of speech is "wondrous?" What word is commonly used in its place? Word study, etc.: Flinty, ravine, abruptly, thunder-splintered, pinnacle, quaked, rifled. What is this page a description of? Watch Scott's descriptions of scenery, and see whether they are those of a man who kno vs what he is writing about.

Page 15.—1 et seq. How does the hunter get out of the glen? What does he catch sight of as he reaches the top? 9. Compare this line with 1. 4 of page 14. 10 et seq. What kind of lake is Katrine? regular, wide, etc., or the opposite? What river flows through it? In what part of Scotland is it? Those who have the time and opportunity (teachers, I mean) may improve their powers of teaching this by reading the earlier part of Lockhart's "Life of Scott." 16. "Sentinel" is what part of speech here? 17 et seq. Put these in four or five simple English prose words. 30. "Skiff," what else does he call it? Word study: Nice, ken, broom, airy, crags, knolls, wildering, wound, eddying,

Page 16.—3. 4. What figures? 13. Why "Grecian" art rather than any other? 19, 20. Put these in every-day English. 32. What does he mean by

"mountain tongue?" Why apply adjective "silver" to them? Word study: Leave, brake, strand, chisel, mood, hare-bell, accents, sword, plaid.

Page 17.— 1. Parse "birth." 10, 11. How could you tell Ellen's kindness and worth from her eye? 26. "Impatient," etc. What does this mean? 27. "Gale" is not used in its usual meaning. What does it mean here? What usually? 30. Parse "while." 32. Why "less resolutely?" 37. "Shallop" was first called what? Word study: Spy, shaggy, guileless. filial, indignant, hazel.

Page 18.—7, 8. Why not? Word study: Prune, wont, proscribed, reassured, secluded, stalwart, fidelity, weal, woe, pibroch.

Page 19.—I. Ben-ledi, etc. What figure? What was the "Cross of Fire?" 7. "Young waters," Why apply this adjective? Of what river is the Teith a tributary? What lakes does it pass through? 14. What is the meaning of "sympathetic eye?" How can one's eye reel? Word study: Outlawed, alliance, fatal, coronach, stripling, sable, strath.

Page 20.—Here we have several different names for the "Cross of Fire." Why is each appropriate? 3. Pole-axe, what was this? 9. Why "as if in parting life," "parting" here as in "Deserted Village," "where parting life was laid." "Drowning men catch," etc., finish the proverb. 11. "Opposing" is here used for what word in common use? Word study: Torrent, tide, strained, hamlet, adherents, augury, confidence.

Page 21.—4. Why "Saxon?" 8. Compare "gale" here with the same word already used on page 17, l. 27. 15. What is the meaning of "space and law to the stag?" Word study: Fray, gestures, imbrued, crest, favour, embers, basked, beset, beast of game.

Page 22.—3. Does the sporting Englishman now trap the fox? How does he get him? Is he now allowed "law and space?" 4. "Thus" how? 9. How "write it on their crest?" 11. How did a knight win his spurs? 17. "Hardened" how? Beef treated in the same way is called what? 26. 27. What augury was laid upon his fate? 28. Look up past tense of "wind," page 15, l. 25. 35. Look up first part of complete poem and find passage beginning: "Such then the reverence," etc. Word study: Recked, mark, cheer, clansman, avenging, assail.

Page 23.—6. Meaning of this line? 15. Another way of indicating time. Notice that he never speci-

<sup>\*</sup>Lines numbered as in N. S. School Series.

fies exact time, such as saying it was now five o'clock. Pick out different ways of marking time. 18. "Deep" is not usually applied to a lake, but to the? 21. Why "hollow path?" 23. Compare "Horatius."

"In yon strait path a thousand May well be stopped by three."

30. Is this line connected with "He sought these wilds," or "traversed by few?" 31, 32. What does Fitz James mean? Word study: Myself, stock, ward, ford, lullaby, heath, wreath, twined, hardihood, trace, abating.

Page 24.—6. Figure? Does the mist hang over the hill? Compare Evangeline: "And mists from the mighty," etc. 7. The chief's name? Why dangerous? Look up page 21. 10. Ask for meaning. A tine which admits of different interpretations. 11. Parse "since." Is it time or cause? 18. This line will help to fix correct pronunciation of "again." Word study: Sooth, yon, vowed, swain, curlew, bonnet, lurking. shingles, bracken, tuft.

Page 25.—6. "Beck," we use a longer form of the word. 12. Meaning of "step forward flung?"
22. "Manned himself" means? 26. Parse "come." 29. Why "respect and surprise?" 31. Is an example of what figure? 32. Parse "space." Word study: Subterranean, verge, Dhu, bracken. osiers, copses.

Page 26.—12. "Witness" has not the usual meaning here. 17. Why "that I need not say?"
24. For a fuller description of "every vale" consult complete edition Canto v, stanza vii. 26. What figure? 27. Case of "path." 31. Name of torrent? Word study: Pennon, glinted, glaive, targe, jack, apparition, delusion, ford, Gael, trust.

Page 27.—2. What clan? 10. Meaning? 26. Meaning? 28. Who was Red Murdoch? 29. What figure of speech? 31. What James? Word study: Ruthless, ward, vantageless, fend, grace.

Page 28.—1. What figure? 3. What "kern" had he slain? When? Why? 4. Difficult. Ask pupils for meaning; send theirs and your own to writer of these notes. 10. What is a carpet-knight? What other kind of knight do we sometimes meet in literature? 15. How can Roderick's words "steel" a sword? 16. Whose braid was it? How came Fitz-James to have it? 23. He afterwards proves this. When and how? 32. Why "dubious?" 38. How can a sword be a "shield?" Word study: Truce, ruth, cairn, falchion, brazen, wield,

Page 29.—6. Figure of speech? 7. Study word "tide" in its various uses. 13. "Invulnerable," look up in dictionary and see if it has just its ordinary meaning. 25. Compare "Horatius," 1. 376,

"Like a wild cat mad with wounds."

29. Who says this? Word study: Flint, war, tartans, lea, recreant, toil, clotted. Which of these is

not the common word with same spelling?
Page 30.—3. What figure? Compare "tide"
with same word on preceding page. James of
Douglas is connected with one of the other characters of the story. Word study: Ill (parse this

word), odds, guise, high, burgher, applauded.
Page 31.—5. Meaning of "chime" in this line?
Word study: Lay, escaped, melody, stout, fancy, frames.

Page 32.—5. Meaning of word "presence?" 7. "Whose will was fate," means what? 16. "Sheen" is what part of speech? 19. What was his title? 20. What do we call a "snow-wreath?" 25. Where had Ellen got the ring? When? From whom? 30. Parse "Fair." 33. "Fealty," for this read up the "Feudal System." 38. What part of speech is "wrong?" Word study: Aerial, port, plume, stay, suppliant, signet-ring, even, slanderous.

Page 33.—I. "Vulgar crowd." Compare "thou many headed monstrous thing." For Scott's own opinion of the "vulgar crowd," read his life towards the last, when the agitation for the reform Bill was going on. 5. Who was "Bothwell's Lord?" 6. What figure of speech? 7. Meaning of word "infidel" here? 16. What figure? 21. Compare l. 26, p. 27. 23 ct seq. Look up life of James if possible. 40. What is a "talisman?" Word study: Confirm, proselyte, veils, insulted, glaive.

Page 34.—4. What was "the weakness of her breast?" Compare p. 17, l. 25. 13. "Parting," again for? Word study: Conscious, probed, ire. wile, outlawed.

Older pupils might be induced to read some of Scott's novels. They could scarcely employ their spare moments better.

Vancouver, the largest and most prosperous city on the Canadian Pacific coast, has a population of 45,000. What cities of the Dominion equal it in population? What cities exceed it?

"Your paper comes as a welcome monthly visitor, and a careful reading of its columns cannot fail to be of value to any teacher."

G. S.



THE OLD TEMERAIRE. From a Photograph of Turner's Painting.

### Art Notes - No. I.

By Rev. Hunter Boyd, Waweig, N. B.
The Fighting Téméraire Tugged to Her Lass
Berth to be Broken Up, 1838.

"The flag which braved the battle and the breeze, no longer owns her."

Exhibited at the Academy in 1839, with the above lines cited in the catalogue. Of all Turner's pictures in the national gallery, this is perhaps the most notable. The subject of it was suggested to Turner by W. Clarkson Stanfield. They were going down the Thames by boat, to dine, perhaps, at Greenwich, when the old ship, being tugged to her last berth at Deptford, came in sight. "There's a fine subject, Turner," said Stanfield. This was in 1838. Next year the picture was exhibited at the academy, but no price was put upon it, would-be purchaser offered Turner 300 guineas for it (\$1,500). He replied that it was his "200guinea size" only, and offered to take a commission at that price for any subject of the same size, but with the "Téméraire" itself he would not part. Another offer was subsequently made from America, which again Turner declined. already mentally included the picture, it would seem, amongst those to be bequeathed to the nation; and in one of the codicils to his will, in which he left each of his executors a picture, to be chosen by them in turn, the "Téméraire" was specially excepted from the pictures they might choose.

[Note.—Let the teacher explain to younger pupils what is meant by the "original," in this instance a very large oil-painting, enclosed in a massive gilt frame.]

THE TÉMÉRAIRE,

The "Téméraire," second rate, ninety-eight guns, was named after an older "Téméraire," taken by Admiral Boscawen from the French in 1750. At the battle of Trafalgar, she was next to the "Victory," and followed Nelson into action; commanded by Captain Eliab Harvey. Her masts were so damaged as to render them unfit to carry sail, and her rigging of every sort was cut to pieces, but when she was sold the vessel was rigged temporarily, and Turner painted her as he saw her. The vessel loomed through the evening haze pale and ghostly, as she was being towed to her last moorings at Deptford by a little fiery, puny steam-tug. In consequence of the prominent part the "Téméraire" took in the battle of Trafalgar, she was called among the sailors "the fighting 'Téméraire,'" and

Turner called his large, beautiful and poetical picture by that name when it was first exhibited. But when the plate was engraved for the Royal Gallery of British Art, and it became necessary to give a brief history of the ship, the pet title was dropped, and it was called the "Old Téméraire."

CRITICISM OF TURNER'S ORIGINAL PAINTING.

To those who have seen only photographs, or small prints in the *Perry* or *Brown* series, it may be difficult to seriously accept the estimates that have been written upon the famous picture in the National Gallery.

The teacher has to take these descriptions on trust, and must not be surprised if the scholars find little to evoke their enthusiasm. But a small print in black and white affords sufficient material for close scrutiny, and the child's imagination may be appealed to with considerable success if an appeal be made to the principle of association. Enquire about local rivers, or rivers seen during holidays, and bring out any facts concerning large wooden ships, and the form and use of steam tugs. Much will be gained if the scholars can be induced to observe sunsets, and especially the effect of sunset upon a sheet of water. Make enquiry concerning "buoys" and "spars" and other nautical terms. Invite them also to procure pictures from magazines showing old wooden men-of-war, and vessels employed recently in the sea of Japan. References to "hearts of oak," and similar terms, may also be collected from literature, for instance, Holmes' "Old Ironsides." When each element in the picture has been expanded to actual size, and the colours of sunset effects have been recalled, the little black and white reproduction has fulfilled its function, it is either a kind of shorthand note for those who have visited London and examined the original, or it is an uid in understanding and enjoying various famous descriptions of this great picture of the Victorian era.

There are two notable accounts of this painting—Ruskin's Modern Painters, vol. i, pt. ii, sec. i, ch. vii, and Notes on the Turner Gallery. Also Thornbury's Life of Turner.

We have not space for more than a few sentences. First let us take Thornbury, who says: "It is the noblest English poem, founded on English scenery and English everts, ever thrown on canvas. Turner looked at the 'Téméraire' not as an old friend going to the grave, but as an old warrior going to his rest; and, to celebrate its grand apotheosis, he turned the sky and earth into a gory battle-field; and so in gorgeous sunset she moves in pomp to her

burial. In the painter's eyes she then was no longer the pale ghost of her former self, but a war ship moving through the sulphurous flame at Trafalgac, with the blood oozing through her planks as the wine pours from the wine-press at vintage time. He knew, when he painted this picture, that he should touch the heart of England, because his own heart was touched as he painted it."

Mr. Ruskin says, in contrasting Turner's work, the "Ulysses," with the "Téméraire," painted at an interval of ten years—the one picture is of sunrise, the other of sunset: "The one of a ship entering on its voyage, and the other of a ship closing its course for ever. The one, in all the circumstances of the subject, unconsciously illustrative of his own life in its triumph, the other, in all the circumstances of its subject, unconsciously illustrative of his own life in its decline. Accurately as the first sets forth his escape to the wild brightness of nature, to reign amidst all her happy spirits, so does the last set forth his returning to die by the shore of the Thames." Mr. Ruskin calls attention to the exquisite precision of the lines and the nobility and pathos of the subject. Lastly, Mrs. Emery says: "The buoy and the row-boat and the white sails, all at different distances from us, help strengthen the effect of breadth in the water spaces. We involuntarily measure the horizontal distances according to the variations of these details in size and distinctness, and come to realize it is a wide expanse."

# How to Use the Pictures.

If you have access to more than one rendering of "The Old 'Téméraire,' "note carefully the difterences. Observe especially if the moon is indicated in the upper left hand corner, also the relative heights of the masts.

In any case, note that *unity* in the composition of the picture is obtained by focusing all the diagonal lines of the picture upon the sun. (The picture might indeed have been called "The Sunset.") Observe the receding lines of the shore, the converging cloud shadows, the "sun glade." Note also the line from the topmost mast, the direction of the smoke, and the shape of the sail alongside the tug. Invite other remarks of a similar kind, and secure from the scholars a rough outline of the picture (from memory, without previous intimation) with these diagonals indicated in dotted lines.

N. B.—Do not use any of the above material in the class until a full discussion has been held, or written accounts attempted, then invite fuller compositions, and propose this query: Describe the probable feelings of old sailors when the "Téméraire" was sold and removed from Plymouth, the men on the tug, and the demolishers at Deptford.

# For Reproduction.

Two Friends.

In the Zoological Gardens in San Francisco is a big lion named Paul. There wandered one day into these gardens a little kitten. So far as this little kitten knew, there was nothing in this great big world but friendly, lovable people. The kitten went about all day in the gardens, being fed by the children, and when night came she found herself in with the animals in the zoo. She felt quite at home, for some of them were her relations—very much larger and somewhat different in shape, but still they were cousins and second cousins. In one of the cages was a big lion who was very old. The kitten, just like all lovable things, felt very sorry for the big lion, who found it difficult to stand up, and whose head was gray; so Kitty made up her mind she would be his friend; and wasn't it beautiful? Old Paul was just as anxious to be Kitty's friend. When Kitty got into the cage Paul got up and met her, and put his head down close to her, so that it was almost like a kiss. When Paul lay down again, poor tired little Kitty crawled right on his neck, and there the keeper found her in the After this Paul and Kitty were the closest friends, and Kitty for several weeks slept right in the curve of the lion's neck, and in daytime crawled all over him.—The Outlook.

# A Noble Revenge.

A farmer's horse, happening to stray into the road, an ill-natured neighbor, instead of returning the animal to its master, put it into the pound. This is an enclosed place, built especially for stray animals, and a fine has to be paid by their owner before they are liberated. Meeting the farmer soon after, he told him what he had done, and added, " If I ever catch your horse in the road again, I will do just the same." "Neighbor," replied the farmer, "not long ago I looked out of my window in the evening and saw your cows in my field of young clover. I drove them out, and carefully shut them up in your yard. If I ever catch them again, I will do just the same." Struck with this noble reply, the neighbor went to the pound, liberated the horse, and paid the fine himself.—Sel.

# Physical Geography in the Public Schools.

PROFESSOR L. W. BAILEY, LL. D., UNIVERSITY OF N. B.

Should any one interested in educational work look over the numerous catalogues issued by various publishers, especially in the line of nature studies, he could hardly fail to notice the large number of works on Physical Geography now on the market. Six of these are now before me, all published since 1900, and they are by no means all. This would seem to indicate that the subject is attracting more attention than formerly, which perhaps is equivalent to saying that its value in educational work is being more generally recognized and taken advantage of. I also note that nearly every one of the books referred to is stated on title page or in preface to have been prepared for school (rather than university) work, which shows, I take it, that in the opinion of prominent educationists the subject may with advantage be undertaken at an earlier stage than was formerly thought desirable. Again, a comparison of the more modern text-books of this subject with those in use thirty or forty years ago, shows a most remarkable contrast, at once explaining why these great changes have been brought about. Somerville's Physical Geography, published in 1850, is a good illustration of the mode of presentation of that time, and though full of interesting facts, and remarkable as one of the earliest examples of the capacity of the female mind to master and to systematize such facts, scarcely rises from facts to principles. Humboldt's contemporary works were broader and more impressive, as being based on personal observation, but they were largely accounts of personal travel. It is with Guyot, sometimes called the father of Physical Geography, that the subject first begins to assume a truly scientific character, as subordinating facts to principles, showing how facts are linked together, and that every fact or effect necessarily implies a consideration of its causes and its consequences.

Again, the text of Mrs. Somerville's work was accompanied by neither maps nor illustrations. In Guyot's "Earth and Man," though a most fascinating work, there are a few diagrams, but no illustrations direct from nature, nor any maps, though later, such maps, especially mural maps, showing the contour and relief of the continents, the course of ocean currents, etc., were issued by the same author. The methods of representation employed by Guyot were not long in being adopted by the compilers of school geographies, while, later, numerous text-books treating specially of this subject

began to appear. All of these were now more profusely illustrated, but the illustrations were not always well chosen and were poorly executed, while in the accompanying maps facts or contrasts to be represented were emphasized by the employment of the most glaring and strongly contrasted colors often conveying wholly erroneous ideas. At the same time such subjects as oceanic or atmospheric currents, tidal movements, terrestrial magnetism, or weather changes, were represented by maps filled with lines, the number and gyrations of which were as hard to follow as would be those of a fancy skater upon ice. Such complicated representations only produce confusion and disgust in the youthful mind.

But a more serious drawback common to all textbooks of physical geography down to a recent period was that they attempted to pour knowledge into the student instead of leading him to seek such knowledge for himself. It is in this that the recently issued text-books show their great superiority, as especially seen in such works as those of Professor Davis, of Harvard, or of Professor Brigham, of Colgate University. Not only are these made attractive by beautiful typography and wealth of illustrations, the pictures being largely from photographs, and so clearly reproduced by the half-tone process as to be only inferior to the scene or object itself thus represented, but the student is throughout made himself an investigator through realistic exercises, or by questions which thought and observation are needed to answer. And, in order that the continuity of the book may not be thus interrupted (as is too often the ease in modern text-books, where the force of a paragraph is constantly marred by the necessity of trying to solve the conundrums with which it is larded), a small but separate text is provided for the use of the teacher, giving useful hints as to methods, lists of books to be consulted, questions or problems to be solved, or apparatus to be constructed. Especially is the student urged to study attentively his own environment, and to seek out in hill and dale, forest and plain, stream and river, lake and waterfall, the soil and its vegetable output, the causes which have determined these and made each separate locality what

In thinking over the subject, it has occurred to the writer to ask whether in the case of our provincial schools as much attention is being given to this subject as is being given elsewhere, or as much as might be given with advantage. I think not. Of

this, at least, I am certain, as proved by many years' experience in teaching, that very few graduates of our schools have any adequate conception of the physical features of their own province, or of the relation of these to its origin and history. Suppose I were to ask the young matriculant just entering the university a few such questions as the following, how often would I get a correct answer, or, in most instances, any answer at all?

What proportion do the coast lines of New Brunswick and Nova Scotia bear to their consolidated area?

What influence has the extent of coast had upon the occupations and development of the people?

What contrasts are presented between the coast of the Bay of Fundy and that of the so-called North Shore? What is the explanation of this contrast? and to what results does it lead?

Why are fogs so prevalent about the Bay of Fundy, and what effect have they upon its climate?

Why should the tide rise to such different heights on the two sides of the isthmus of Chignecto?

What is the extent of the drainage area of the river St. John? the number of its tributaries navigable by steam or by canoe?

What hill ranges traverse the province? in what direction? and with what height?

Why does the St. John, arising in northern Maine and Quebec, cross all the ranges referred to and empty into the Bay of Fundy?

What is the highest land in New Brunswick? in Nova Scotia? the deepest water?

Why does much of Carleton County constitute a "fertile belt" while the tract traversed by the I. C. R. from Moncton to Bathurst is mostly a useless waste?

What useful minerals are found in New Brunswick? in Nova Scotia? and where?

Upon what causes does the climate of the provinces depend? and how does the climate influence our plant and animal life?

Such questions might be multiplied indefinitely, but what is the use of asking them if the students have no means of obtaining an answer. At present a great want exists in this respect. No single or elementary work dealing with the physical geography of the province exists, and it is difficult to get one published, as a good one would be expensive, and publishers fear to undertake the venture. But there is no reason why the teachers, especially of the higher grades, should not make themselves familiar with facts of this kind, and use them as

opportunity offers. Our provinces, from a physiographic standpoint, are of exceptional interest. The coasts, the lakes, the rivers, the waterfalls, the hill ranges, the forests, the wild plants and animals, all afford endless opportunity for interesting and profitable study, and there is no subject which will so directly repay the efforts of those who enter upon it, or any to which young people will make 3 quicker or more hearty response. The teacher can easily, if he wishes, obtain or get access to the pubileations, such as the Geological Survey reports, the Bulletins of the New Brunswick Natural History Society, and the Proceedings of the Nova Scotia Institute of Science, in which the natural features of the country have found illustration; he can make or get photographs of interesting localities in his neighborhood, and exchange with others from more distant points; he can study thoroughly some good general text-books on physical geography, and then search for local illustrations of the facts and principles therein referred to; with the aid of the same texts he can devise practical exercises illustrative of such subjects as day and night, the seasons, water erosion, curvature of the earth, etc. better, he can attend the sessions of the summer school of science, the very purpose of which is to direct attention to the aspects of nature as actually observed in well chosen localities, changing from year to year, and to explain the methods and results of such observation.

Of course it will be objected that there are already too many subjects in the curriculum, and that there is no time for the pursuit of another. But this idea is based on misapprehension of the facts. The subject is not a new one. It is already in the curriculum under the name of geography. It is only in the method of teaching it that improvement is desired. Drop the memorizing of geographical details, especially of foreign countries; direct the attention of your scholars to the features of your own environment, first those of the school grounds and its immediate surroundings, then those of your village, town or city; finally of your county and pro-Make your pupils understand why the school is where it is; what circumstances determined the location of your town or village; why the county lines were drawn where they are; what circumstances determined the provincial boundaries; and in what particulars New Brunswick and Nova Scotia differ from other provinces, or from other parts of the continent.

These and similar subjects do not need the setting

aside of special periods for their consideration. Much of the work is out-door work, and will make no encroachment on the ordinary school hours. It may be done in time of recess or the holidays, or on the way to and from school. A map of the school grounds may be made, which shall not only be an exercise in drawing, but, if measurements are made, an arithmetical or geometrical exercise as Most young people are fond of exploring the woods and streams of the district where they live, and of making maps of the latter, christening the more interesting features with names of their own devising-thus repeating what was characteristic of the childhood of the race,-and such work only needs encouragement and direction to make it fruitful. Let the teacher organize one or more excursions to points of interest with his pupils. Encourage them to make pictorial representations, or, where possible, clay or plaster models of what they have seen; give them prominent features thus studied as subjects for composition; base mathematical questions upon some of the phenomena observed; and, without in any way interfering with other school work, lessons in drawing, moulding, composition and arithmetic will have been given in a way evoking personal interest, while much useful information will have been gained and habits of careful observation and reasoning acquired, which will be through life a source of profit as well as Let me conclude with the words of pleasure. Professor Davis:

"All this means work, unceasing work; but work is made easy by enthusiasm and delightful by success. Let the teacher, therefore, persevere until the phenomena of the turning earth and the changing seasons are his familiar companions through the year; until the winds and the weather proclaim to him the great system of movements in the atmosphere of which they are but parts; until the waves, the currents and the tides swing freely through the ocean of his imagination; and until the hills and streams commune with him as he walks by them."

# November in Canadlan History.

November 7, 1885, Canadian Pacific railway between Montreal and Pacific Ocean completed.

November 9, 1849, first telegraphic message sent between St. John and Halifax.

November 11, 1813, battle of Chrystler's Farm. November 16, 1885, Riel hanged.

November 19, 1899, death of Sir William Dawson.

November 30, 1812, the U. S. General Dearborn repulsed at Lacolle river.

# Lesson on a Window.

What is its shape?

Of what is it made? Why not have it of paper? Wood? Cloth? Iron?

Why would not a hole in the wall answer just as well as this?

Why is it best to have it in two parts?

Why would it not be as well to have it higher in the wall? Lower?

Name some of the uses of the window.

- "To let the light in."
- " And to let us look out."
- "To let air come in."

We use the word "ventilation" for that, Louise. (Writes the word). This means to toss in the air, and the word is from the Latin ven-ti-la-re. The root word is ventus, wind. But why should we ventilate our rooms?

"The air gets full of dust."

Yes, indeed. And not only that, but it gets full of a deadly poison, carbonic acid gas, which would kill us if taken in large supplies; and which makes us stupid even when we breathe but a little of it.

"Is that why so many people go to sleep in church?" That is one reason, for too many churches are shut right up after the service without being ventilated.

"Sometimes I get a headache even at home, when the windows are closed in the winter."

Our greatest danger from lack of pure air comes in the winter, for we shut ourselves up more closely then than we do when it is comfortable to have windows and doors open. But—who can think of something else about a window?

"If the light is too strong, we need a shade." Even that matter is often overdone, Harry. Many insects love the darkness, and disease lurks in the house that always has its shades drawn. What is the glass fastened in with? What is the man called who does this work? Who makes the woodwork? What is the woodwork called? You may each draw a large window, with lace curtains that are looped back from the centre; and a small one, with a fringed shade on the upper half, and six panes on the lower half.

For the spelling lesson you may use each of these words in a written sentence: glazier, putty, glass, carpenter, sash, frame, pane, ventilation, light, oblong, square, transparent, shade, curtain, shutter, blind, pulley, grating.—The New Education.

It is not enough to speak, but to speak true.

# For Friday Afternoons.

In answer to a request in the October Review, several teachers have sent in selections for school entertainments and for Friday afternoon recitations, etc. We thank the correspondents for these, which will be used as occasion requires. Will correspondents kindly send, when possible, the names of the authors of the selections, so that proper credits may be given?

Mrs. Geralda H. Jenkins, of Canaan, N. S., sends a play for seven children, of the age of seven or eight years. She says: "It is very pretty when nicely acted. The children wear badges marked with the day they represent, which can be made very pretty with colored crayons on white paper, and may or may not carry something to represent the work done,—as needle and thread, a rolling pin, etc. They come to the front one by one and stand in a row.

"I devote an hour every Friday afternoon to recitations, etc., and think it adds life and interest to the school besides cultivating a side of child nature that would otherwise be neglected."

### DAYS OF THE WEEK.

#### Monday-

I am a very busy day,
I just come after Sunday;
But many people slander me
And say, I am "blue Monday."
I play upon the wash-board,
Which if every one would use,
They never would be troubled with the blues.

### Tuesday-

Good evening, sister, here I am,
And I have work to do.
For though the clothes are nicely washed,
They must be ironed, too.
I starch and iron everything,
And lay them all away;
So you will see that I must be
A very busy day.

#### Wednesday-

Dear me! I have so much work to do; For though the clothes are washed and ironed They are not made to eat! I make the bread, the cake, the pies, Doughnuts, and cookies, too, With sugar and spice, and all things nice, I work as well as you,

### Thursday-

There's something left for me to do
Which I will never shirk,
I cut and fit, and sew and knit,
Such is my daily work.
What children wear they often tear,
When other work is through.
With thimble, thread and needle bright,
I make them nice and new.

### Friday-

Some call me an unlucky day, I don't see why they should,
'For oft they turn around and say
That I am "Friday good."
I make the beds, and sweep the floors,
The clothes I overhaul,
To pave the way for Saturday,
The busiest day of all.

### Saturday-

I am the biggest work day,
I make things splash and splatter.
I scour and scrub, and rub and rub,
On plate, and tin, and platter.
For I must make things nice and clean
For our dear sister guest,
The Sabbath day, of all the rest
The sweetest and the best.

### Sunday-

My sisters, dear, you all are here, Each in your proper place, The last shall yet be first you know, And so I take my place.
On Sabbath day nor work nor play Should lure us from our duty Of serving Him who made the earth So full of light and beauty.

The children stand and sing to the tune of Home, Sweet Home:

We come one by one with our duty so plain, And when we are gone, we shall ne'er come again; Improve, then, each moment, each hour, each day, For slowly but surely we're passing away.—Repeat.

(The children start to march out at the beginning of last line and repeat until all are out of room).

Miss Sadie Foster, Upper Rexton, N. B., sends a recitation, "Made in Canada," which is inserted with a few changes from the original. Children should be taught that "while Canada is for the Canadians," we should be on the best of terms with other countries, so far as trade and intercourse are concerned.

# MADE IN CANADA.

What is the creed and the calling that we of the north uphold?

It is not the cry for power, it is not the greed of gold.

Let the east and south and west contend, like wolves for a

mayerick bone;

But Canada for the Canadians is the creed that we call our own.

Beef and bread and a blanket, a pipe, a mug, and a fire, Are the things that we have in Canada; what more can a man desire?

What so good as our home-made cloth, and under the wide blue dome,

Will you tell me where you have tasted bread like the bread that is made at home?

And we are the young and the strong, and who so fit for the work as we?

With our hands of steel and our iron heel, and our hearts like the oaken tree.

For we are the home-bred, home-fed men, the pride of a princely land,

And the things that are made in Canada are the things that her sons demand.

So this is the creed and the calling that we of the north uphold;

It is never the cry for power, it is never the greed of gold.

Let the east and the south and west contend, like wolves for a mayerick bone,

But Canada for the Canadians is the creed that we call our own.

# Games for Primary Grades.

There is no one thing in the primary grade that gives a better return than the playing of games. In no other way is the freedom of speech, the little courtesies, and the spirit of unselfishness so easily taught.

### THE MULTIPLICATION GAME

Is a favorite and is a friend to the teacher who wonders why children cannot learn tables more readily.

Have small cards, either written or printed, with a multiplication combination on each. Turn them, numbers downward, on a desk. A child runs up, takes a card, peeps at it, holds it carefully that no other child can see it. For example, the card has on it 8×6.

The child says: "I am a child from the family of 6's, can you guess my name?"

He then calls on a pupil who says: "Are you 7 6's are 42?"

"No, James." (Calls on another).

" Are you 3 6's are 18?"

"No, Edith," and so on until the correct combination is called. Then he shows the card, and the one who guessed correctly chooses a card and continues in the same way.

If the pupil called on should make a mistake, for instance saying, "7 6's are 45," and the pupil with the card fails to say, "That is incorrect," he is obliged to forfeit his card to some child who noticed the mistake. The improvement in multiplication tables can be noticed in a few weeks after playing the game, for all the pupils are desirous of being called on to guess.

### SPINNING THE PLATTER.

This is another little device for the dreaded multiplication table. Let each pupil have a card

with a multiplication combination on it. Have a granite pie-pan, or like contrivance, that can be placed on edge and spun like a top. The game is started by a child who "spins the platter" and at the same time calls for a combination as "6 9's." The pupil who has the card with the six nines upon it, runs to the platter, saying as he runs, "Six 9's are 54." If he gives the combination correctly and gets there before the platter has stopped spinning, he has the privilege of spinning the platter and calling for a combination. If he fails to give his combination correctly, or to be prompt in reaching the platter, he takes his seat and the first pupil has another turn. The delight the pupils take in having an opportunity to "spin the platter" makes them alert and prompt in answering, and in this way a fine review of tables is given without the pupils knowing that they have been working as well as playing,—Teachers' Magazine.

### THE MISSING PUPIL,

The little diversion of the missing pupil is old, and is variously modified. A small pupil (Anna), in the centre of a group or circle, is blindfolded, while her playmates march around and sing this stanza;

Happy now together,
All our classmates play,
We are ne'er so merry
When there's one away.
But some one is missing—
O, alas, it's true!
Please will some one call her?
Anna, dear, will you?

As they sing, one of their number detaches herself from the others, and hides behind a tree or behind the teacher. The child in the centre removes the bandage from her eyes, and guesses who is gone. If she guesses correctly, the child who is concealed is the next to take the place in the centre.

—School Recreations and Amusements. American Book Company.

Andrew Lang includes "month" in his list of 60 English words that have no rhyme. He apparently never has heard the old verse of the mathematical student:

The Nth term and the (N+1)th

Have troub'ed my mind for many a month.

—New York Tribune.

I have been a subscriber to the Review for nine years, and every number received has been helpful to me in my work. Wishing you still greater success, I remain, yours truly, E. M. F.

### CURRENT EVENTS.

The ninth of November is King Edward's birthday, and one of the days on which the school flag should be flying.

The Emperor Menelik, who has no children, has named his nephew as heir to the throne of Abyssinia. The choice has the approval of Great Britain, France and Italy.

While the proposed tunnel to Prince Edward Island is not yet begun, a British Columbia board of trade is proposing a bridge to connect Vancouver Island with the mainland, at a cost of twenty million dollars.

The British squadron under command of Admiral Prince Louis, of Battenburg, after a long stay in Canada, has left for Annapolis, Md., where it will be received by a United States squadron under Admiral Evans. Leaving there on November 8th, the two fleets will be in New York harbor on the King's birthday. From the latter port, the British squadron will sail direct to Gibraltar at high speed, the cruise being part of the admiralty's plans for testing the new disposition of the Atlantic fleet and its availability in case of need.

The Prince and Princess of Wales have left England on their visit to India, where great preparations have been made for their reception. The departure of Lord Curzon is postponed until after this visit.

In two and a half years' time, at a cost of fifty lives and much money, a British expedition has completed a survey of the boundary line on the Afghan and Persian frontier. It was a work of immense difficulty and danger. Terrible winds were encountered, with intense heat and intense cold. To get the information needed for a military map of the region was, perhaps, the real reason for sending out the expedition.

The international waterways commission has sent geological experts to report upon the receding of the Canadian side of Niagara Falls, where there is said to have been a recession of three hundred feet in the last eighty years.

The Hottentots in German Southwest Africa have again taken the offensive, and have captured an important German post. The Germans are falling back. The Basutos, in British territory, are said to be restless, their enmity being directed towards the Boers rather than the British.

A Russian despatch says negotiations between Great Britain and Russia regarding Asiatic questions are proceeding favorably, and a complete understanding seems to have been reached. This means delimitation of the Russian and British spheres of influence in Asia, and will probably give Russia commercial access to the Persian Gulf.

The Quebec government is taking steps towards the settlement of the boundary line between the province and the narrow strip of Labrador territory controlled by the government of Newfoundland. The rights of all foreign fishermen on the coast of Newfoundland were not finally determined when the French gave up their claims. United States fishermen have certain rights there, under the treaty of 1818. They may take fish in Newfoundland waters, and enter the bays and harbors for certain purposes; but these purposes do not include buying fish, or shipping crews of fishermen, both of which the Gloucester fishing vessels have been doing. The Newfoundland government has determined to put a stop to these practices, thus preventing the Gloucester fishers from sending Newfoundland fish into the United States markets duty free, as their own catch; and making it possible for Newfoundland fish merchants to get some share of the trade.

King Edward has opened a new thoroughfare in London, which has been six years in construction, and has cost thirty million dollars. It is three-quarters of a mile in length, and to make way for it some of the worst slums of the city have been removed.

The Irish language is now taught in more than three thousand schools in Ireland.

The Norwegian Arctic exploring expedition, which has been working along the north coast of Canada, is reported to have made the northwest passage, and may be expected to make its way through Behring Strait next summer.

Norway is now an independent state, the bill repealing the union with Sweden having passed both the Swedish and the Norwegian parliament. Prince Charles, of Denmark, will probably be chosen ruler of Norway, with or without the title of King.

Hong Kong, hitherto spoken of as the third shipping port in the world in respect to the number of vessels entering, is now, according to official returns, the second; London being, of course, the first, and New York the third.

The coming winter promises to be the brightest ever experienced in the coal trade of Nova Scotia. Louisburg, the winter port of shipment for the Dominion Coal Co., will have the busiest season in its history. The time is not far distant, it is said, when Nova Scotia itself will utilize two million tons of coal per year.

The government of Venezuela, having successfully defied the United States, and refused to set aside a decree of its own courts at the dictation of President Roosevelt, is now defying France. F. ance is sending war-ships to the West Indies. The cause of the trouble, in both cases, is the granting of concessions to foreign commercial companies, and the appeal of these companies to their home governments against the rulings of the Venezuelan courts.

"Laugh and grow fat" is the prescription that cannot well be taken seriously; yet it is said that dyspepsia is now to be systematically treated by laughter, and that a Paris physician has established a sanitarium for that purpose. During last year, 117,271 immigrants arrived at Canadian ports, and thousands more came from the United States.

An international congress in Belgium has approved the plan of placing polar exploration under international direction,

It has long been known to geographers that by an inland route from the southern extremity of the Caribbean Sea, running due south up the valley of the Atrato and down that of the San Juan, a small river emptying into the Pacific four degrees north of the equator, it would be possible to dig a canal at sea level from ocean to ocean. The great distance is the objection to this route, for a canal dug here would be not less than five hundred miles in length; but, as there are supposed to be no great engineering difficulties in the way, such a canal is now thought of as a possible rival of the Panama canal.

There is a native insurrection in British East Africa, and tribesmen are threatening the destruction of the Uganda railway.

More coal was exported from the United Kingdom last year than in any previous year, the total reaching something more than sixty-five million tons.

Great Britain and China have agreed on a conference for a new Tibetan treaty, China maintaining that the Tibetans themselves, as vassals of the Chinese Empire, have no treaty making powers. It is learned that the Dalai Lama, who fled from Tibet at the approach of the British forces, is returning.

Work will begin at once on a railway from Peshawar to the Afghan frontier on the Russian side. When this is completed, Russia and Great Britain will be practically in touch in Central Asia.

The new Anglo-Japanese treaty marks a new era in the history of Eastern Asia. English ideas of justice and integrity, as exemplified in the government of India, are to rule in the Far East; Japan is recognized as a power of the first rank, and the leader of the Oriental races; China is to develop in its own way, and be henceforth treated as an equal by the other nations of the world.

A timber famine is threatened in the United States, and it is becoming more than ever clear that Canada is the future source of supply for forest products in North America. A great Canadian forestry convention will be held in Ottawa in January, at the call of Sir Wilfrid Laurier, to discuss among other matters, the increased danger to our forests which the opening up of new railway lines will bring.

The present population of Asia, including the East Indies, is estimated at nine hundred millions; that of Europe at four hundred millions; that of North and South America, with the West Indies included, at about one hundred and fifty millions; and that of Africa, Australia and the Pacific Islands at one hundred and fifty millions.

The German government has decided to equip all lightships along the Baltic and North Sea coasts with a special signalling apparatus, consisting of a submerged bell rung by steam power. By vessels properly equipped with receivers, the sound of the bell can be heard under water for a distance of eight miles or more. There have been more wrecks on the Baltic coast in proportion to the trade than on any other coast in the world, the average being one wreck a day the year round.

Timbuctoo is now considered within the reach of tourists. Eight days by steamer from France will take the traveller to Dakar, on the coast of Africa. One day thence by train to St. Louis, three days by water to Kayes, two to Kilikoro by train, and four days thence to Timbuctoo, by the new steamboat service established this year, will complete the journey.

There is a general opinion that the climate is undergoing a gradual change, in consequence of the irrigation works recently established, and the broader area of cultivated land and greater amount of water evaporation that must follow. It has even been said that the Sphinx and other monuments that have withstood the former climate are crumbling because of the greater moisture. But official reports show that the rumors are untrue. None of the observations indicate any change of climate.

Thousands of settlers who have taken up government lands in Southern California will be driven from their homes as a result of bad engineering in diverting the course of the Colorado river for irrigation purposes. This is the statement of a member of the international waterways commission, who predicts that within twenty years a million acres of the valley will be covered by a new inland sea.

The approach of a presidential election in Cuba is viewed with some degree of alarm by the United States authorities, as serious disturbances are threatened. One of the Cuban party leaders is now in the United States seeking for intervention by President Roosevelt, and an armed uprising to bring about that intervention is among the possibilities.

The wireless telegraph station on Sable Island is a marked specess. The Minister of Marine speaks of it as the most important telegraphic station in the world. From eighty to one hundred messages a day are received.

A lamp which gives neither light nor heat is a new German invention. It is designed to give out the invisible rays of the spectrum, know as the ultra-violet rays. These rays have a powerful chemical effect, and are very destructive to bacteria.

Believing ornamental gardening to be a suitable occupation for woman. Miss Krupp daughter of the celebrated gunmaker, has started a school in Germany where girls are trained for that pursuit.

The population of Russia is increasing more rapidly than that of any other country in Europe, with the exception, perhaps, of Denmark, Sweden and Norway.

The 15th of November is the date fixed for the garrison at Halifax to pass into Canadian hands.

Nearly forty different languages are now spoken in Canada, including those of the various Indian tribes.

Disbanded Russian officer and soldiers of the late war are to be offered free lands for settlement in Siberia, a plan which was adopted in the early settlement of our own country, and which has the double advantage of bringing new lands under cultivation and giving employment to the disbanded men.

Nearly every man in China can read, but very few of the women are educated.

Among new building materials now coming into use are bricks made of clean sand and ground quicklime which are said to be as substantial as granite; and a new material called wood-stone, which is made of sawdust and calcined magnesia, and is said to be water-proof, incombustible, and capable of taking a high polish. Glass bricks have been known for some years, and are used for walls that need to be at once fire-proof and translucent. In some parts of France they are used for street pavement.

Russia is practically cut off from the rest of Europe by a general strike of railway employees. The want of food will soon be felt in the cities, if the sifuation remains long unchanged. In the meantime, there is comparatively little disorder and the government is doing everything possible to keep food supplies moving by military operation of some of the railways.

Count Witte, the successful peace negotiator, has been called upon by the Czar to form a cabinet which may meet the new national assembly when it convenes, and form the first responsible ministry of the empire. If the present industrial disturbances, do not lead to anarchy, next year will probably see Russia, governed by a limited monarchy much like our own.

The partition of Bengal for administrative purposes has given much dissatisfaction to the natives. as it is known to be a measure adopted by Lord Curzon, the retiring viceroy, as a means of lessening the influence of that state in the affairs of the Indian Empire.

Trafalgar Day, the hundredth anniversary of Nelson's victory and death, seems to have been celebrated in a quiet and dignified way throughout the Empire. In Halifax, Prince Louis's flagship, the "Drake." hoisted Lord Nelson's flag, and the old signal for close action, and the other ships of the fleet were dressed with flags. At half-past four, the hour of the death, Nelson's flag and the ensign were lowered to half-mast and minute guns fired. Similar honors were paid to the memory of the hero on all the ships of the navy in English waters, and there were commemorative ceremonics and addresses on land, as well as at sea.

# Teachers' Conventions.

TEACHERS' NORMAL INSTITUTE.

The Teachers' Institute for the six eastern counties of Nova Scotia, held at North Sydney from the 25th to 30th September, was somewhat unique in character. Instead of the usual formal papers, often of little benefit to young teachers, there were in the forenoons of four consecutive days fortyeight model lessons on the subjects most important to the ordinary country school—reading by Miss Dillon, of Guysboro, and Miss Patterson, of Glace Bay; arithmetic by Prof. Connolly, of the normal school, and Miss Edgecombe, of Sydney; language by Miss McKenzie, of Sydney Mines; geography by Miss Macneil, of Sydney; grammar by Principal McLeod, of Whitney Pier; drawing by Principal Smith, of Port Hood; nature by Miss Kelly, of Glace Bay, and Principal McInnis, of Reserve Mines, supplemented by Principals Armstrong and Matheson; and botany by Miss McLeod, of Bridge-

The choice of topics showed that somebody understood exactly what the eastern schools most needed, and the selection of instructors could not have been excelled in any part of Nova Scotia. It might have been thought difficult to give a model lesson to children with whom the instructors were not acquainted, yet it did not seem to be. For the North Sydney children behaved admirably, not only in the classrooms, but also in the hallways and in the streets. The instructors, by their skilful presentation of knowledge just suited to the various stages of child development, and by their charming manner, not only held the attention of the children perfectly, but they also enlightened and inspired the on-looking

In primary reading the phonic method was used to give the pupils a mastery of all regular words and to train them in distinct articulation and nice discernment of sounds. To facilitate their progress anomalous words were disposed of by the "look and say "method-these methods being always held subordinate to interest in the content. Interest was aroused and augmented by preliminary talks carefully prepared and epitomized on the blackboard in such a way as to introduce the more difficult words of the lesson in advance.

In arithmetic the exercises were founded on the transactions of everyday life. The several steps of the unitary method were made very plain in problems of gradually increasing difficulty by which the pupils were trained to analyze and reason system-

Principal Smith, of Port Hood, in one lesson taught a class of thirteen-year-old pupils to construct, with a clear understanding of the principles involved, a diagonal scale, and to use it readily in the measurement of lines. What would not a week or a month of such teaching accomplish?

The nature lessons consisted of a study of speci-

mens in the hands of each pupil—no text-books being used. No mere memorizing of information received from other people's observation will hereafter satisfy those teachers who noted the interest with which the pupils were led to make all the discoveries for themselves—the instructor merely supplying, when necessary, the new technical terms.

After each lesson an opportunity was given for questions and discussions, which for the most part consisted in expressions of appreciation; for adverse criticism was scarcely possible. The Superintendent of Education contributed very much to the interest of this part of the programme. After each lesson, to which he listened, he pointed out the fundamental principles upon which success in the teaching of that subject depended, and how it was that the instructor, amid so many distractions, was able to make such a deep impression upon the pupils He dealt very fully upon the value, methods and possibilities in nature study, and upon the suitability of practical studies for the best kind of mental discipline.

In the schools of North Sydney and Sydney Mines music receives adequate attention under the direction of Professor C. L. Chisholm. These are the only places in Nova Scotia where a special supervisor of music is employed. The results more than justify the time and expense. Less than three half-hours a week enables the pupils to sing correctly and readily any ordinary music at sight from the staff notation. The absolute accuracy with which the pupils could instantly strike any note in any key, and the firmness with which they held their parts in two, three, or four part harmony was little short of marvellous. None of those who were present on Thursday afternoon at the demonstration given by Professor Chisholm, of his splendid system of teaching music, nor of those who heard Dr. MacKav's clear expositions and enthusiastic defense of nature studies will ever hereafter be disposed to place these subjects among the "fads and frills" of education, unless indeed it should be found that, after all, the so-called "fads and frills" are the essentials, while the three r's are the instruments, to be learned incidentally, yet not less thoroughly, on that account, than heretofore,

On Tuesday afternoon the teachers had a delightful sail on the harbour as the guests of the town of North Sydney. In addition to the enjoyment of social pleasures, the teachers gained an appreciable amount of geographical knowledge in a manner which may suggest more rational methods of communicating such information to their pupils. Wednesday afternoon they visited the Dominion Iron and Steel Company's works at Sydney, and wondered at the complicated machinery, which almost seemed to be possessed of intelligence of its own, as it moved about, huge masses of incandescent iron placing them here or there, or turning them over as required, sending them at length on to cars as completed rails, or coiling them up as completed wire. The teachers will return to their schoolrooms with an increased respect for science and for the resources of our country, with enlarged views and a broader outlook.

For all these privileges the teachers are indebted to the Education Department, for recognizing in a practical way the value of this short normal course, to those who did not have the advantages of training at the normal school. They are equally indebted to the executive committee, consisting of Inspectors Macdonald, McKinnon, Macneil and Phelan, assisted by Principals McKenzie, Matheson, Macdonald and Smith, and Mr. Stewart, for the excellent programme so perfectly carried out. Inspector Macdonald as chairman, showed great executive ability. For many years he has rendered such great services to the cause of education that the opinion was freely expressed, that the list of those honored by St. Francis Xavier College at its recent brilliant jubilee, was incomplete without one name more—that of Professor A. G. Macdonald.

# P. E. ISLAND ASSOCIATION.

The Prince Edward Island Teachers' Association met at Charlottetown, September 27, 28, 29. There were nearly 200 teachers in attendance. Vice-president J. E. Gillis gave an excellent opening address, after which Mr. H. B. McLean, of the Macdonald consolidated school, Hillsboro, read a practical paper on manual training. One session was occupied in visiting the consolidated school at Hillsboro, where an inspection was made of the classes at work. Following this a model lesson was given to a class of grade six pupils in the assembly hall of the school by Dr. Brittain, of Fredericton. The subject was buds and leaves, and it was made an excellent example of a nature-study lesson. A paper on the Teaching Process was read by J. A. McPhee, B. A., of Souris, and Dr. Brittain gave an address on nature-study, illustrating the best methods of teaching it.

At Friday's session the school book question was discussed and a number of changes suggested. Among them the substitution of a book on Canadian history, to take the place of Clement's text, and new texts on botany and agriculture were recommended. An interesting paper on Defects in the Curriculum was read by Miss A. S. Clarke, in which she advocated more nature-study, biography and literature The papers and addresses were in the schools. discussed by the members of the convention in an excellent spirit. The convention, by resolution, asked the government to appoint a commission to deal with the whole educational question of the Island, and asked that teachers be represented on the commission. A resolution was adopted placing on record the appreciation of the convention for the services of the late Inspector W. D. McIntyre. The following officers were elected for the ensuing year: President, J. E. Gillis, Charlottetown; vice-presidents, J. W. Jones, Hillsborough, Q. C.; Inspector Matthews, Alberton, P. C.: J. A. McPhee, Souris,

K. C.; secretary-treasurer, James Landrigan, Charlottetown; recording secretary, H. B. McLean, Hillsboro; additional members of executive, Miss S. A. Clarke, Chas. McDuff, Vernon Coffin, P. F. Hughes, J. W. McDonald.

# VICTORIA COUNTY, N. B., INSTITUTE.

The Victoria County teachers, to the number of twenty-five, met at Grand Falls, September 28th and 29th, Inspector Meagher presiding. He gave a very suggestive address, with examples, on the first steps in teaching arithmetic. Papers were read by Principal J. C. Carruthers, of the Grand Falls school, on the Development of the Imagination; a paper on Empire Day from Miss Bessie M. Fraser, now of Chatham, N. B., was read by Miss Curry. Dr. Inch, chief superintendent of cducation, and Dr. Hay, of the Educational Review, attended, took part in the proceedings and addressed the evening meeting, presided over by Inspector Meagher. This was very largely attended and much interest was shown by the people.

Touching reference was made during the proceeding of the institute by members and by Dr. Inch to the death of Thos. Rogers, of Carlingford, a faithful teacher and an active member of the institute. This expression of feeling was conveyed to the family of the deceased in a touching resolution framed by

Principal Carruthers and Miss Goodine.

### NORTHUMBERLAND COUNTY INSTITUTE.

The twenty-ninth annual meeting of the Northumberland County teachers, of whom about eighty were present, was held in the Harkins' Academy, Newcastle, N. B., October 5th and 6th, with President Jas. McIntosh in the chair. Addresses were given at the opening session by Inspector Mersereau and by Dr. Cox. The former stated that pupils in the advanced grades of our schools were unable to attack problems independently. The cause was to be found in the many time-killing devices in the lower grades to make the lessons entertaining and the work easy. Two well taught lessons were given to classes,—one on reading in grade I by Miss Sarah Hogan, and the other on the Personal Pronoun to a more advanced grade by Miss K. L. Troy. These lessons were discussed at length by members Mr. T. B. Kidner, director of of the institute. manual training, gave two addresses on this subject, one before the institute and the other at the public evening meeting, going very fully into methods and the benefits to be derived from its introduction into the schools.

At the second day's sessions papers were read as follows: On Canadian History, by Miss M. J. Dunnet, How to Deal with the Dull Pupil, by Miss Bessie M. Fraser, and a paper on Number by Miss Jennie S. Crammond. The papers brought out fruitful discussions, in which many members of the institute took part. The next meeting will be held at Chatham. The following officers were elected

for the ensuing year: B. P. Steeves, B. A., president; Miss Carroll, vice-president; O. N. Brown, secretary-treasurer; Miss B. M. Fraser and Miss Dunnet, additional members of the executive.

### WESTMORLAND COUNTY INSTITUTE.

The twenty-eighth annual meeting of the Westmorland County teachers took place at Dorchester on Thursday and Friday, October 5th and 6th, the president W. A. Cowperthwaite, A. B., in the chair. About ninety teachers were present. In his opening address, the president stated that the programme had been framed with the object of making the meeting useful and suggestive by having as many lessons as possible taught before the assembled teachers. Miss Doyle, of Port Elgin, taught a lesson in reading to a class of grade II pupils, and Mr. R. B. Masterton, B. A., followed with one on grammar, both of which were commended in the discussion which followed. The public meeting on Thursday evening was very largely attended. Judge Landry presided and made an excellent address, followed by Principal Oulton, Inspector O'Blenes and others.

At Friday's meeting a lesson on the map of Quebec province was given to a grade VI class by Miss Nicolson, of Moncton, followed by an illustration of methods in arithmetic by Inspector O'Blenes. At the afternoon session the institute was divided into a primary and an advanced section. In the latter the question was discussed of a larger allowance of time for the closing examinations for matriculation and for entrance into the high school. A committee consisting of W. A. Cowperthwaite, chairman, T. T. Goodwin and A. D. Jonah were appointed to confer with representatives of other counties in regard to this matter, and then, if the rest approve the idea, to memorialize the government.

The following were elected officers for the next year: A. D. Jonah, president; Miss Lea, vice-president; S. W. Irons, secretary and treasurer; H. B. Steeves, H. Burns, executive.

The institute will meet next year at Shediac.

# ALBERT COUNTY INSTITUTE.

The twenty-eighth annual meeting of the Albert County teachers was held in the new consolidated school at Riverside, N. B., on the 5th and 6th October, the president, Thos. E. Colpitts, A. B., in the chair. The teachers were much interested in visiting the different rooms of the new school building, which occupies a fine position nearly midway between the villages of Albert and Riverside, with plenty of space for playgrounds, school gardens and an aboretum. The manual training, domestic science and science departments have not yet been fitted up. In a short time these will be in running order, and will meet the conditions required by the gift of \$5,000 promised by Ex-Governor McClelan. The school has admirable facilities for work, and

promises, under the principalship of Mr. G. J. Trueman and his excellent staff, to be one of the best equipped educational institutions in these provinces.

The first paper after the opening addresses was read by Miss Glendine Brewster on Talking—Is it a Crime? The opinion of the reader of the paper and those who followed in the discussion was that if the work of the school is carried actively and interestingly along there would be little disposition for trifling. The paper was followed by an interesting summary of educational conditions in the country schools of the Northwest by Miss M. E. Bray; a paper by Rev. A. W. Smithers on Some Psychological Aspects of Teaching, and a naturelesson conducted by Dr. G. U. Hay, after which the institute adjourned for a field excursion under his direction.

Hon, A. R. McClelan was chairman of the public meeting in the evening, held in the assembly hall of the school, and gave an excellent practical address on the requirements of modern education. He was followed by Dr. Hay, Principal Trueman

and others.

During the second day's sessions Mr. Geo. H. Adair, of Hopewell Hill, read a paper on Rural School Districts, showing some of their advantages; Mr. M. R. Tuttle, of Elgin, gave a helpful paper on Teaching English; F. R. Branscombe, of Hopewell Cape, gave an illustrated lesson to a class of little boys on Eclipses of the Sun and Moon,

Elgin was chosen as the next place of meeting. The institute elected officers for the ensuing year as follows: Geo. J. Trueman, president; Miss Winnifred V. Smith, vice-president; Percy A. Fitz-patrick, secretary-treasurer. Additional members of executive, Miss Edna M. Floyd, Miss Jennie Smith, Miss Marion Atkinson. The retiring president, T. E. Colpitts, was tendered a unanimous vote of thanks for his earnest efforts in behalf of the institute for the several years he has filled that office.

# United Institute of St. John and Charlotte Counties.

Nearly three hundred teachers attended the united institute of St. John and Charlotte Counties in the assembly hall of the high school in the City of St. John, October 12th and 13th, Principal J. S. Lord. of Fairville, in the chair. Mr. Lord's decision and energetic ruling, and the admirable and varied programme carried out, made the institute one of the best ever held in this section of the province. The united executive committee who had charge of the arrangements well deserved the thanks of the assembled teachers. After the president's opening address, Miss Etta Barlow gave a comprehensive paper on colour, illustrated by an admirable series of charts. A "Song and Drill" by a class of girls trained by Miss A. M. Hea was very gracefully and effectively given. Reading lessons to a primary class by Miss Lily A. Belyea and to

an advanced class by Miss Ella McAlary gave an opportunity to observe good methods in teaching.

At the evening meeting, presided over by Inspector Carter, addresses were given by Mayor W. W. White and Supt. W. W. Stetson, of Maine.

A trio of papers on nature-study, by Mr. J. Vroom, Miss H. L. Edgecombe and Mrs. J. M. Lawrence, written in beautiful language, breathed a refreshing out-of-door spirit. Two papers on the School from the Standpoint of the Parent, by Mrs. Wm. Kerr and Mr. S. D. Scott, editor of the Sun, were outspoken in generous appreciation of the services of teachers. Miss Eleanor Robinson gave a lesson on Shakespeare's Hamlet, taking the members of the institute as a class. The lesson was a fine example of a keen critical analysis of this great play.

The following is a list of officers for the ensuing year: St. John County—A. L. Dykeman, president; A. E. G. McKenzie, vice-president; Miss A. M. Hea, secretary-treasurer; W. L. McDiarmid, Miss Etta

Barlow, executive.

Charlotte County—Mrs. McGibbon, St. Stephen, president; C. A. Richardson, St. Andrews, vice-president; J. Vroom, St. Stephen, secretary; Mrs. Graham, Milltown, Miss Olivia Maxwell and F. O. Sullivan, executive.

[Further reports of institutes will appear in the December number.]

Teaching how to study is of infinitely greater importance than hearing recitations. If a child can study he will learn without further aid. Good luck may help him out in recitations, even though he knows precious little about studying. A recitation should always be conducted primarily to discover how the child has studied rather than what he knows. The touchstone for good teaching is ability to teach a class how to study, not simply this lesson, but any lesson, not simply one subject, but any subject. The art of studying is the highest art attained in school. — American Primary Teacher.

### To Interest the Parents.

Write on the board an invitation to the parents to visit your school at some particular time. Have each pupil copy it, and then sign your name to it and have it taken home. See that everything about the invitation is correct, as it is also a language lesson. As a souvenir of the occasion, have each pupil prepare a set of papers showing his work. The cover may exhibit his skill in drawing designs. Let all be arranged with care and taste.

Result: Greater interest in work on the part of the pupils; better work done; the parents interested and the teacher encouraged.—School Record.

# Keeping the Children in School.

There are ways of getting hold of the larger boys and girls and inspiring them with enthusiasm for school, if not for knowledge. No one who has seen the persistency with which many grown men frequent the evening schools can doubt this. The chief trouble is that, at the age when children, particularly boys, begin to take an active interest in life outside the school-room, the school fails to respond by pressing these outside interests into service and relating the school-work to the daily lives of the children.

The work in arithmetic at this period should be very practical and appeal to the boy's self-interest by its obvious relations to business needs. The geography should be enlivened by books of travel, the history by historical novels. The school should have either a library of the right kind of books and magazines or the teacher should press the public library into her use. Gardening and agriculture should be presented in a practical way. The teacher should find out the things that most interest big boys outside of school, and if these are worthy interests, encourage them, and appeal to the boy as an authority on that subject in a way that will arouse his pride.

If possible, get up a school excursion now and then to some place of interest. Give the boys some part either in arranging work, caring for the building, keeping order, or helping others, that will make them feel that the success of the school rests in some real and definite way with them.

As regards arousing the right spirit in the community, the problem is more difficult, because the teacher has so little time to give to this side of the matter. Still, if the teacher makes a beginning the parents will usually meet her half way. Parents' clubs and parents' days will generally do much, but, if possible, the teacher should try to know the fathers and mothers personally and make them her friends. If it can be done in no other way, invite them into the school frequently and have some little entertainment planned for them. And have some of these entertainments at hours when the fathers can attend as well as the mothers.

Public sentiment is about the most powerful aid a teacher can have in keeping the children in school. Do not be merely a school teacher, then, but take some active part in the life of the community. If some rich and public spirited men could be induced to endow the public schools, as well as colleges and

private institutions, with books and laboratories and apparatus, and, perhaps, some form of scholarships, it would be a vastly easier matter to keep the children in school and longer out of the shop and factories.—Adapted from Popular Educator.

After several years' experience in teaching fractions, I have adopted a rule given by the instructor of mathematics in a large normal school. Never explain to beginners why you invert the divisor. I am a firm believer in explanation, but I think there are a few cases where a short rule, unexplained, will produce better results than a long discourse explaining the different steps. Children's brains are easily tired, and there is enough in arithmetic that must be explained, without compelling them to fix their attention on ideas which their undeveloped minds grasp with difficulty. The time given to teaching fourth-grade pupils why the divisor is inverted, may be more profitably spent in other ways.—Selected.

Many interesting experiments can be made with soap bubbles blown from a mixture of warm water, castile soap and glue. It is not generally known, however, that bubbles can be frozen, though this is very easily done. Blow a bubble of moderate size, and carry it to the door, or put it out of an open window on a winter day. The bubble will freeze instantly, retaining its shape, but forming most beautiful crystals. If you try this little experiment on a clear day when there is little wind, you will be delighted with the result.— Primary Education.

Devices to teach reading to first year pupils are "cleaning house," and "picking apples." Sketch a house on the board and fill with words which they have studied. Then as they name the words these are erased until the house is clean. When they "pick apples" they must get to the full limit of the tree by means of a ladder, each step of which is a word. When they can climb the ladder they may pick the apples (words).—Selected.

A little seven-year-old, while wrestling with the intricacies of the English grammar, was asked by his teacher: "Hawley, can you give the principal parts of the verh 'to die?'" "Oh, yes," said Hawley, his face lighting with sober intelligence: "present, die; past, dead; perfect participle, buried!"

# A Feeding Place for Birds.

A friend who had no tree in the yard to accommodate bird food had a stout pole about the size and height of a clothes pole erected near a window, where she could watch it. On top of the pole was nailed a square board. This shelf was kept supplied all winter with scraps of meat, suet, bread crumbs, corn and oats.

There never was a day when this table was not well patronized by several different kinds of birds. The chickadees, woodpeckers and blue jays were daily visitors, and in extremely cold weather, especially after a severe snowstorm, snow-buntings and grosbeaks were seen feeding there.

The birds came singly at first, but it soon got noised about in Birdland where food could be obtained in great variety, and then they came in flocks so large that the shelf would not accommodate them all, and some would have to wait on the ground, very impatiently, for their turn at the feast.

One day a flock of hungry juncoes came just as the table had been replenished. All could not dine at once, however; but as if by mutual understanding, as many alighted on the shelf as could conveniently feed together, and began a systematic scratching which quickly scattered a portion of the food upon the ground beneath, where the rest of the birds found enough and to spare.

One such feeding place in every yard would be the means of saving hundreds of birds that annually perish during the cold winter months.

If one is fortunate enough to have a tree in the yard, several suet bones dangling from the limbs would soon entice the little wanderers, who are always on the lookout for some such sign. A suet bone is as suggestive to the feathered tribe as was ever a swinging sign over a tavern door to weary wayfarers in "ye olden time."

The birds will not forget your kindness, be assured; and your yard will be the auditorium for many open-air concerts when the trees don their spring attire and Mother Nature opens her storehouse for our little feathered friends.—Selected.

"I seek no thorns," said Goethe's wise mother to a sentimental maiden, "and I catch the small joys. If the door is low, I stoop down. If I can remove the stone out of my way, I do so. If it is too heavy, I go around it. And thus every day I find something which gladdens me."

# Treasures of a Country School.

When I began school last September there was not a picture on the walls of my school-room. The room had been newly boarded on the inside, and a few pictures which my predecessor had left were destroyed during the summer. I wanted to make my school-room look as nice as possible, and though I had plenty of pictures, I did not feel able to afford mounting board for so many, so I looked around for a substitute. I found that twelve-inch sheets of bristol-board were just what I wanted, being inexpensive and adapted to my needs. On these I pasted my pictures, from one to eight on each sheet, according to the size of the pictures, and as nearly related to the same subject as possible.

The pictures had been gathered from many sources, from old magazines, railroad folders, advertisements, etc. Besides these I had some Perry Pictures and some large colored pictures cut from old magazines bought at half price. I used forty of the bristol-board sheets, on which I pasted some hundred and twenty pictures, and although it was no small undertaking to cut out and mount all those pictures, the result fully repaid me. I have one set of sheets devoted to authors, one to historical pictures, one to views of fine scenery, another to children's pictures, etc.—A Teacher—Selected.

In teaching literature, usually there is too much analyzing and diagramming; too much talk about literature, and too little of the thing itself. Many can talk glibly of books, their titles and authors, but know nothing of the life-giving thoughts on the pages. Outlines, classifications and "characterizations" are necessary, but it should be remembered that they are the mechanical and subordinate parts of the work. If at the close of a course, literature has not become bone of one's bone and flesh of one's flesh, the teaching has been profitless, and the student has toiled in vain.—Exchange.

What we need in life is some one to make us do the best we can.

There is always a best way of doing everything, if it be but to boil an egg,

Every day is a fresh beginning,
Every morn is the world made new,
Only the new days are our own,
To-day is ours, and to-day alone.
—Susan Coolidge.

### N. B. Teachers' Association.

The executive of the N. B. T. A. desire to call the attention of teachers to the following resolution passed at the annual convention in Fredericton, April 24th last:

"All members of this Association changing schools shall notify the secretaries of their subordinate associations; they shall report when they have secured schools; and county secretaries shall make lists of all unfilled schools and furnish information, when possible, to members of Association. No information concerning vacancies shall be given to those not members of the Association."

When the address of County Secretary is not known, the report should be sent to H. H. Stuart, Secretary-treasurer N. B. T. A., Harcourt, N. B. This resolution is being very successfully carried out in Northumberland County, and to a less extent elsewhere.

The Teachers' Association of France, numbering 115,000 members, voted very recently, to adopt the position of a trade union in its activity, and to affiliate with the unions in other trades employed by the government.

The Teachers' Association of Great Britain is also a powerful union, and since organizing on a union basis, has secured great reform in text-books, in school facilities and increased salaries. N. B. teachers may do the same.

A strong subordinate association was organized October 20th, ult., at Restigouche institute, with L. D. Jones, Dalhousic, president; Miss Eliza Richards, Campbellton, secretary-treasurer; Principal Lewis and others on executive. Restigouche County has hitherto been unorganized. The Northern teachers are becoming fully awake to the benefits of the association.

H. H. S.

An ill-natured teacher who was in a perfunctory way conducting a development lesson was seeking to lead the class up to the word "breathing." "What did I do the moment I came into the world?" she asked. "What have I kept doing ever since? What can I not stop doing without ceasing to be myself?"

The class was listless and nobody tried to answer for a while. Finally one surly-looking boy raised his hand.

"What is it?" asked the teacher.

"Finding fault," was the reply, and all the class showed signs of animation.—School Bulletin,

Short lessons on common words and much repetition for poor spellers is the only remedy for bad spelling. And there are many kinds of love, as many kinds of light,

And every kind of love makes a glory in the night, There is love that stirs the heart, and love that gives it rest,

But the love that leads life upward is the noblest and the best. —Henry van Dyke.

The day it breaks, though it never falls—
The reason I'm sure I can't see;
The night it falls, but it does not break—
It's very perplexing to me!
—Charlotte Sedgwick, in St. Nicholas.

We are waking up to the fact that there must be better pay for the average man or woman engaged in the work of education.—*Theodore Roosevelt*.

"I could almost dislike the man who refuses to plant walnut trees because they do not bear fruit until the second generation."—Sir Walter Scott.

# SCHOOL AND COLLEGE.

The Charlottetown school board has asked the city council to make an increase in the salary of teachers, not to exceed fifteen per cent of the present rate.

The school trustees of Bathurst village have increased Principal Girdwood's salary by \$50, and that of his associate teacher, Miss Agnes Nicol, by \$25: and "they deserve it," says our correspondent, who knows. Principal R. D. Hanson, B. A., and the teachers of the town of Bathurst have also had a substantial increase in their salaries. We hope other boards of trustees will hasten thus to acknowledge the services of deserving teachers. Our correspondent says: "The convent departments of Bathurst village are being refurnished with Rhodes, Curry & Co.'s latest desks—double, with individual seats. The sisters deserve the best equipment to be had; they are doing excellent work."

John W. Crowell, of Malden, Mass., has been appointed professor of civil engineering in the McClelan School of Applied Science, Mt. Allison.

Mt. Allison University opened the first week in October with fifty new students in attendance. The prospects for

a successful year are very encouraging.

The University of New Brunswick resumed its work October 2nd with twenty-seven pupils in the Freshman class and over twelve senior matriculants, and with indications for a prosperous year. Professor Perrott, in civil engineering, and Professor Geoghegan, in English literature, are the only changes in the faculty.

The Yarmouth, N. S., academy graduation exercises took place on the 29th September and it was an occasion of great interest to the citizens of that town. The thirteen members who formed the "B" class, had all been successful in passing the government examination in July. A generous allotment of prizes was awarded successful competitors in the various branches of school work, and the

large audience showed their appreciation of the efforts of Principal Kempton and his associate teachers.

The Review extends its congratulations to Miss M. Miriam Kyle, recently a successful teacher in Vancouver, B. C., and formerly in Fredericton, Bathurst and Harcourt, on her marriage to Mr. Alex. J. Kent, a member of the mercantile firm of Kent, Brown & Company, Moosejaw, Alberta.

The institutions of Acadia University this year have opened with large numbers of students and with brighter prospects of success than any preceding year. The staff of Acadia Seminary now numbers eighteen teachers, and the lady principal, Miss Carrie E. Small, M. A., is every day demonstrating her special fitness for the position to which she was recently appointed. The large and capable staffs of the Seminary and Academy give Principals De-Wolfe and Sawyer the opportunity to teach in the college, the former taking logic and the latter the junior classics—an excellent arrangement, which serves to bind more closely the work of the three institutions.

The Misses Bessie and Clara Bridges, who obtained in April last a nine months' leave of absence from their educational duties in South Africa, have returned by way of Boston, New York and Philadelphia, after spending several months inspecting educational methods in England and on the continent, and in visiting friends in New Brunswick.

The friends of Miss Susan E. Cameron, M. A., will be pleased to learn of her appointment to the principalship of the Royal Victoria College, in affiliation with McGill University, Montreal. Miss Cameron's brilliant course at the St. John high school and later at McGill University, her excellent work in English literature, her enthusiasm and aptitude for teaching, have won for her deserved promotion.

# RECENT BOOKS.

Nova Scotia Readers. Books I-III. G. N. Morang & Company (Limited), Toronto; Books IV - VI, Thomas Nelson & Sons, Edinburg.

The Review has received through the courtesy of Messrs. A. & W. Mackinlay, of Halifax, copies of the above named books, which are to replace the Royal readers which have for so many years been in use in Nova Scotia. It would be difficult to conceive a more attractive series of readers than the first three in contents, illustrations and hinding. The picture of the maple leaf on the covers is suggestive of the material inside, which is made up largely of nature subjects, such as are supposed to be familiar to the child in his surroundings. Colored illustrations and full page pictures from the best artists adorn the pages, which will be a veritable delight to the younger generation of Nova Scotians. The selections have been made with the greatest care and judgment, and the result must be a delight indeed to children, and to those who would make them happy.

The advanced readers, books 4, 5, and 6, are perhaps less attractive in illustrations, type and paper, but the literary contents are all that could be desired. Selections have been made from over sixty of the best known authors in the English-speaking world, and in addition there are nearly a dozen who are distinctively Canadian, such as Howe, Haliburton, DeMi'le, Lampman, Roberts, McLeod and others. They serve admirably to introduce to school

children the writings of those authors who are attractive to the young.

A MIDDLE ENGLISH READER. By Oliver Farrar Emerson, A. M., Ph. D. Cloth. Pages 475. New York: The Macmillan Company. Toronto: G. N. Morang & Company.

This reader serves as an introduction to the language and literature of the middle English period, between 1100 and 1500, A. D. It is provided with an ample grammatical introduction, based on the needs of students taking up this period; selections with explanatory notes on the great dialectal divisions of the period; and a glossary which, in addition to the meanings of words used in the text, accounts for their origin and forms.

FIFTY ENGLISH CLASSICS BRIEFLY OUTLINED. By Melvin Hix. Cloth. Pages 288. Price \$1.25. Hinds, Noble and Eldredge, New York.

This book contains a simple logical analysis of fifty masterpieces of English literature, including the best of the dramas, fiction, narrative and lyric poems, as well as essays and addresses. It is invaluable to those who would study a good piece of literature systematically,—to the teacher who has overcrowded classes and little time for preparation; to the student who has to depend on his own resources and is remote from libraries; to all who would do literary work on a systematic plan. The great merit of the book is its usefulness.

In Macmillan's Picture Arithmetic (Book III), price 3d, teachers will find not only profitable material for number lessons, but subjects for language, history and geography in the suggestive pictures that embellish the text.

DER ARME SPIELMAAN. A story by Franz Grillparzer Edited with notes and vocabulary by William Guild Howard, Harvard University. Cloth. Pages 143. D. C. Heath & Co., Boston.

This simple story of a poor minstrel has three aims,—to interest the reader by introducing him to one of the most famous short stories of German literature, to teach him something about the German language, and to give him practice in the use of common words and phrases.

THE DIARY OF SAMUEL PEPYS. With an introduction and notes by G. Gregory Smith. Cloth. Pages 800. Price 3s. 6d. Maemillan & Company, London.

The Diary of Samuel Pepys (a note to this volume says the favoured pronunciation is peeps rather than peps, or pep-is, or papes, or pips), "is incomparable for its revel of small talk, for its intimacy, its confessions, its amusing impenitence." Nor is it less in favour because it is full of charming details of the customs of our ancestors and of bits of history, notably the stories of the Plague and the Great Fire of London. Although not a literary production, its every page is entertaining, and the frankness of the author amuses us not less than his inordinate vanity.

A Course of Exercises in Quantitative Chemistry. By Harmon Northrop Morse, Professor of Analytic Chemistry in Johns Hopkins University. Cloth. 556 pages. Illustrated. Mailing price, \$2.20. Ginn & Company, Boston.

Beginners in quantitative chemistry will find Professor Morse's book a helpful guide. The work includes those exercises required of students in chemistry at Johns Hopkins University, and is at once authoritative and practical. It is designed to familiarize the pupil with as great a variety of quantitative operations as is practicable in a limited amount of time, and to bring the student to that state of proficiency which will enable him to proceed further with but little guidance from the instructor. Special attention has been given to all those points which contribute to accuracy. The last chapter is devoted to a description of certain new devices for heating by electricity, and to a new electrical method for the combustion of organic compounds. These processes have been recently developed in the author's own laboratory.

"Tales Easy and Small for the Youngest of All," "In Holiday Time and Other Stories," "Maud's Doll and Her Walk in Picture and Talk," "Old Dick Grey and Aunt Katie's Way." These are bright stories for very small children, prettily illustrated and full of interest. One looks in vain for a word of more than one syllable. They are good specimens of simple every day English, and the subject matter is just what children enjoy—stories of things and people about home. In paper covers, price 2d. each. Blackie & Son, London. "The Butterfly's Party," (from the Russian) is a pretty conceit, designed for readers a little more advanced. In Blackie's "Story Book Readers," price 1d.

School Recitations. Book I (for juniors). Books 2 and 3 (for seniors), paper covers, price 1d. each. Blackie & Son, London. A capital series and the price within the reach of everybody. The recitations are well chosen, and make good subjects for a Friday afternoon programme.

Blackie's "Model Arithmetics, book 1, price 1½d., and book 3, price 2d. There is an abundance of examples for junior and senior grades.

Blackie's "Little French Classics" series provides students with low priced selections from great French writers, a great boon to teachers and taught. Numbers received are Vigny's "Glimpses of Napoleon," Masson's "Les Enfants Célèbres," and "Longer Poems for Recitation." All with notes. Price 6d. each. Blackie & Son, London.

THE SOLDIER'S HISTORICAL GEOGRAPHY OF THE BRITISH EMPIRE. By J. C. Ellis, Linen. Pages 96. Price 8d. Blackie & Son, London.

A very concise and interesting account of the various portions of the British Isles and colonies. The part relating to Canada is up to date, in that the two provinces of Alberta and Saskatchewan are included, but among the important seaports St. John is not included.

Webster's Modern Dictionary. Adapted for intermediate classes. Compiled by E. T. Roe. Cloth. Pages 458. Price 30 cents. Laird & Lee, Chicago.

This dictionary for children promises more than it fulfils in claiming to be standard and up-to-date. Its cheapness and good binding are in its favour.

In Blackie's Latin Texts, Book V, Livy, price 18 pence has a brief introduction dealing with the author's life and works, his style, and the subject of the book. A new and important feature in the introduction is a brief note on the MSS, and the principles of textual criticism, which are illustrated by a few selected critical notes at the foot of the text. No other notes are given.

THE PICTURE SHAKESPEARE—THE TWELFTH NIGHT. Cloth.
Pages 144. Price is. Blackie & Son, London.
This beautiful little release and it.

This beautiful little volume, which is the sixth of the

series, will prove a delight, like its predecessors, to all lovers of Shakespeare. It is tastefully bound, and the illustrations and text attractive. The introduction and notes are concise and to the point.

A GERMAN READER. Compiled by W. Scholle, Ph. D., and G. Smith, M. A. Cloth. Price 2s. 6d. Blackie & Son, London.

This book is illustrated, is excellent in textual features, the reading material compiled from the works of leading authors, has notes and vocabulary, and a fine selection of German songs with music.

DER GEISSBUB VON ENGELBURG. VON JULIUS LOHMEYER. Edited with notes, vocabulary, and material for conversational exercises in German. Cloth. Pages 182. D. C. Heath & Co., Boston.

The scene of this little story—"The Goatherd of Engelberg"—is laid in Switzerland, near the lake of Lucerne, with the fascinating panorama of snow-capped mountain peaks and glittering glaciers, and in the midst of places connected with historic scenes of Wilhelm Tell. It is written in sympathy with boys, as the frontispiece, representing a boy botanist helped up the side of a nearly precipitous cliff by companions may show, and is a combination of travel, adventure and nature-study.

### RECENT MAGAZINES.

The Atlantic Monthly for October is particularly rich both in the incisive and well-considered discussion of important public topics and in literary papers, essays, stories and poems, of the most attractive quality. Among the most thoughtful and suggestive articles is that by Col. Thomas Wentworth Higginson on the Cowardice of Culture, written with an earnestness that will furnish food for reflection.

The October Canadian Magazine celebrates the completion of its 25th volume with a special anniversary number. This fine record marks a quarter of a century's literary progress, in the development of which this magazine has taken a prominent and useful part. The October Canadian, which is a finely illustrated number, gives promise of greater fulfilment in the future. Canadian literature, public questions, poetry and fiction, to which twenty-five well-known writers contribute, make up a noteworthy issue.

The Chautauquan for October continues its valuable series of studies on the life and customs of eastern peoples—Indians, Chinese, Japanese—interesting to general readers and students.

Recent numbers of Littell's Living Age contain some of the best articles from the leading English magazines on literature, art, public questions, education. Its weekly visits are appreciated by its many readers who wish to keep informed on literature and current topics. Consult the advertisement on another page of this number of the Review.

The November *Delineator* presents a most attractive appearance. The table of contents contains, among its many features of interest, an article, the second of two, by Dr. William H. Maxwell, superintendent of schools, New York City, on Education for Life through Living, which describes the routine of a great public school.

# Educational Review Supplement,—December, 1905.



CHRISTMAS CHIMES.

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# The Educational Review.

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G. U. HAY, Editor for New Brunswick

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THE Chief Superintendent of Education for New Brunswick, Dr. J. R. Inch, requests the Review to announce that teachers who may find it necessary to close their schools on Thursday, December 21st. in order to enable them to reach their homes before the following Sunday, have permission to teach on a preceding Saturday, as a substitute for Friday, the 22nd December, which is according to law the last teaching day of the term.

The schools will re-open after the Christmas holidays on Monday, January 8th, 1906.

Dr. J. L. Hughes, inspector of schools, Toronto, recently delivered three addresses in St. John on kindergarten training. Dr. Hughes is a man of ideas, has a fine presence and great personal magnetism. His addresses dealt with the broader aspects of education, and produced a marked impression.

Hay's History of Canada, including a sketch of the history of Prince Edward Island by Miss H. M. Anderson, has been authorized for use in the schools of that province.

The Summer School announcement in another column presents attractions for next mid-summer vacation. Cape Breton is unsurpassed in these provinces for beauty of natural scenery, and the course of study in the forthcoming calendar promises to be of even greater excellence than usual.

In the November Review a paragraph of a dozen lines on "Teaching Literature" should have been credited to the Western School Journal, instead of to "Exchange." The omission occurred in neglecting to credit the clipping at the time it was cut from the pages of our esteemed western contemporary.

The art picture in this number is a beautiful and appropriate souvenir of Christmas. The notes by Mr. Boyd and Mr. Kidner's excellent plans for framing this and other pictures of the series will be appreciated by readers. If our subscribers will make use of these art pictures for decoration and lessons the purpose of the Review will be served. They add materially to the expenses, both for printing and postage, and subscribers can show their appreciation by paying promptly and in advance for their paper.

There is a matter that has aroused considerable bitter comment concerning one of our higher institutions of Tearning and its estimable principal. The Review has avoided taking part in an unseemly controversy, but candour compels it to say that the discussion seems out of place and contrary to the spirit which should animate lay and clerical teachers, or a community which has been especially liberal towards education. Principal Soloan has already done much good work in Nova Scotia, in spite of disadvantageous circumstances. He is capable of doing much more, if people who should be helpers, not detractors, join in helping him to greater accomplishment.

It is a pleasure to comment upon the conservative methods employed by the G. & C. Merriam Company in the publication of the Webster's International Dictionary. Not every little slang word or phrase is put into the book regardless of its scholastic or linguistic qualities. It is this conservatism backed by the scholarship of the editor-in-chief William T. Harris, Ph.D., LL.D., United States Commissioner of Education, and hundreds of others of the greatest educators of this and other nations which has made the International a standard in the United States Supreme Court and in all the courts of the nation, as well as in colleges and public schools.

An educational journal, or any journal for that matter, may be judged to a certain extent by the class of advertisements in its columns. To parade quack medicines, some of them filthy, complexion "beautifiers," fakes that promise something for nothing, prominently in columns where the subscriber expects his usual reading matter, is hardly treating him with respect, for if he is a discriminating reader he is quick to resent an intrusion that is on a par with a tramp unceremoniously entering a privileged family circle. If such advertisements are to be admitted to papers, let them be put in the columns where they belong.

People who are temperate in eating and drinking, get as much pure air and exercise as possible, and avoid anxiety, have no need of patent medicines or "beautifiers." If they require medical assistance let them consult a reputable physician.

### The Affairs of King's College.

It is scarcely two years since that the announcement was made and hailed with widespread satisfaction that King's College was to enter upon a new era of usefulness under the presidency of Dr. I. C. Hannah, an able scholar and administrator. His energy and engaging personality attracted to him many warm friends wherever he went and addressed audiences; and it seemed indeed that the object of the many friends of that ancient institution, to establish it as an independent university, was about to be realized. With this aim in view it was decided to raise \$100,000—not a large sum when we think of the wealth of the church of England compared with that of other denominations who have given much more for like

purposes in recent years. It was also decided to move the engineering school to Sydney, to secure a really important part of the higher educational work of the Province. It is now recognized, however, that no large sum can be raised, money being urgently needed by the Church of England for other purposes. On hearing this, Dr. Hannah proposed either to restrict the scope of the institution to divinity in Windsor, engineering in Cape Breton and law in St. John, or preferably to seek federation with some other university for the sake of greater efficiency and to enable the divinity school to be put on a really up-to-date footing. So far the governors have not seen their way to take any definite step,—a course of action which, if persisted in, must obviously entail the president's early resignation, a result which would be little less than a calamity to King's at the present time. The questions naturally arise—do the people of the Church of England appreciate sufficiently their ancient denominational college? Have they educated themselves sufficiently in educational giving?

# Writing in the Public Schools.

The report of Supervisor McKay, Halifax, on the teaching of writing in the public schools is a very complete survey of the whole subject, and additional interest is given to it by the mass of expert testimony which he quotes. Mr. McKay has taken such pains to go into the details of this important subject that every teacher would be benefited by careful study of his report, which is published in pamphlet form, and the practical conclusions at which he arrives. Teachers and all reasonable business men will give their adhesion to the sensible opinion, that "The interests of the great majority of the public will be fully served if the writing of the schools is legible, uniform and of moderate speed. Anything more than that would deprive the pupil of the necessary drill in other subjects of more general use. If he desires to become a specialist in business writing he should take a special course in a business college, or serve for some time in an office where he will soon acquire the necessary speed, dexterity and technical skill." If teachers on their part devoted themselves to secure results, which are undoubtedly within their power, and business men accepted the results as all that can reasonably be expected from the public schools, we should have few complaints about illegible, careless penmanship.

# Only of Interest to a Few.

A specialist in one of our schools writes to say that he must give up the Review because he does not find much in it about his own particular subject. Perhaps if he were more of the teacher and less of the specialist the Review might help him.

A teacher who left these parts some years ago without sending any notice of change of address or her desire to discontinue (may their shadows ever grow less!) writes to the Review as follows from a distant home: "Please find enclosed postal notes for \$3.75 in payment for three and three-quarter years' subscription. It is almost a shame for me to have been so neglectful in forwarding this amount, for I must say the Review is a paper every teacher should read"—(and pay for). "I am now way off here. My teaching days are over, and I now devote my time to a Sweet Baby Boy, and to helping my husband."

Subscribers sometimes wish their papers discontinued. It is only a slight trouble in such cases to drop a card to the publisher, stating the fact. This is pleasanter and more satisfactory than to refuse the paper at the post office, which is rather rarely done. We are always sorry to lose a subscriber, but we do not wish to force the paper on any one. Just now we are happy to say the prospects of the Review, just entering on the last half of its twentieth year, are brighter than ever before, and its subscription list is growing encouragingly.

Now that is all, dear reader. We have referred to some disadvantages, but we could not begin to tell of the happiness that thousands of grateful teachers during the past score of years have brought to us by their sincere and hearty appreciation of what the Review has been to them. They are not merely "our readers": many of them have been and are now warm personal friends, whether we have seen their faces or not. To all the Review extends its hearty congratulations, wishing them a Happy Christmas and New Year, and the joy that comes from work conscientiously and faithfully performed.

A subscriber to the Review who has recently settled in the West writes from Regina as follows: "I cannot too warmly express my appreciation of the Review and its unfailing interest and helpfulness during the several years I have used it in my work,"

# Animal Stories.

RED FOX, by Chas. G. D. Roberts; NORTHERN TRAILS, by Wm. J. Long. The Copp Clark Company, Toronto.

The interest in animal stories apparently shows no sign of waning, and one realizes why it does not as he turns the pages of the books named above, so charmingly illustrated and so full are they of the atmosphere of the woods. There is the fictitious element in all these stories just as there is in the stories about men and women; but who will say that the observer of animals in their wilderness haunts cannot successfully analyze some of the common experiences of these creatures—their joys, fears, hates, the sometimes more than human cunning and skill that they show in providing for the safety of their young, in procuring food, and avoiding or overcoming their enemies?

Mr. Roberts tells us in his introduction to the biography of a "Red Fox" that in a litter of young foxes there is usually one that is larger and stronger, more sagacious than his fellows. Such a one he makes the hero of his story. He does not pretend that all that happens to this fox, all the scrapes that he so cunningly gets out of, happened to any one animal, but he is confident that "Every one of these experiences has befallen some red fox in the past, and may befall other red foxes in the future." There does not appear to be anything improbable in all the situations and vicissitudes of Red Fox's life and adventures, and Mr. Roberts has presented us with a most interesting story of what, in woods' life, might be termed a "character." The beautiful illustrations by Charles Livingston Bull add greatly to the attractiveness of the book

The scenes of Mr. Long's "Northern Trails" are the wilds of Newfoundland and Labrador, and he pictures life in the family of Wayeeses the White Wolf, Kopseep the Salmon, Matwock the Polar Bear, and other people of the woods and waters. The illustrations, covering almost every page, are admirable, and show so many phases of wood life and nature that the book is a treasure house in this respect. The descriptions are picturesque and appeal to the nature-lover. It is well known that Mr. Long has many sharp critics who have accused him of describing as seeing what he does not see in his wilderness journeys. We do not wish to enter into this discussion at present. In this book, perhaps, he is a little more careful of his statements, and tells us he has taken "the

facts from first-hand and accurate observers," and has "sifted them carefully."

There remains, after one has read these two books, a fuller sense of the delights of the woods and a greater respect for the life of animals. And these are some things that add immeasurably to the pleasure of life.

### A Lover of Scott.

I cannot help taking fire at anything said in disparagement of Walter Scott. I feel that I have got from his writings, not only immense pleasure, but some good. He was a truly noble-hearted gentleman, a model of that class, and his character is impressed on all the works of his pen. A type, he seems to me, of social chivalry. In all his writings, too, there is the buoyancy of perfect health. In reading them you breathe the air of the Scotch hills. I can conceive no better mental febrifuge, no better antidote to depression, no more sovereign remedy for dull care. . . .

Scott, like Homer, Virgil, Tasso, and Milton, is a narrative poet, and must be judged by the interest of his story and by his poetic skill in telling it. Is not the story of Marmion interesting? Is not great poetic skill shown in telling it? Is not the character of Marmion one that you never forget? Is not the judgment scene in Holy Isle supremely tragical? Can anything be much brighter than the picture of Edinburgh and the Scottish camp? Has anything in English literature more of Homeric spirit than the battle scene of Flodden? Are we not carried along through the whole poem, as it were by a sea breeze fresh and strong? Are there not ever and anon charming little touches, such as the lines at the end of Marmion, telling us how the woodman took the place of the Baron in the Baron's sumptuous tomb?

One must, no doubt, have something of the boy left in one to read Marmion again with delight. But he who reads Marmion wholly without delight cannot have much left in him of the boy. . . .

However, one might almost as well try to argue a man into or out of love for a woman as into or out of taste for a poet. Boys will be boys, and will persist in venerating Browning and loving Scott.

GOLDWIN SMITH, in the Atlantic Monthly.

THE EDUCATIONAL REVIEW and Canadian Magazine (subscription price \$2.50 a year), both for \$2.50—a rare offer.

# Nature-Study.

HINTS FOR OCCASIONAL DECEMBER TALKS.

We have been so busy, perhaps, in our own preparation for winter that we have not observed how Nature has done her work. How did trees and shrubs get ready for winter? Most of them have lost their leaves, and the food material is stored in roots, trunks, branches and buds waiting for the warm rains and the sun of another spring. A great many plants have died, but sufficient of their seeds are stored away in some safe place to reproduce their kind for the next season. Under the snow the seeds, buds and roots are protected, but there is no growth. Nature seems now to be taking a rest.

Most of the animals have crawled into warm places to sleep away the winter. The chipmunk, with its store of fruits, is snugly living in its underground burrow. The red squirrel from its secure nest in some lofty tree will take long naps, to go forth at intervals, when hunger drives him, to the nuts he has hoarded up in the places that he remembers so well. Most of the birds have gone south. Is it because of the cold or because of scarcity of food? Many insects are waiting in their cocoons for the early days of spring; animals that are exposed to the cold have put on a warmer coat.—their fur or other covering has been made thicker. Nature has provided for all her numerous children, and they are as comfortable as boys and girls in their warm houses.

Have your pupils keep a weather record if they are not now doing it. Note from the thermometer the degrees of cold at nine, twelve and four o'clock, and make up the average for the school day; afterwards for the month. Keep the record of the winds and their direction, the sunny and cloudy days, snow and rain storms. This does not take up much time, and will help to keep up the interest in out-of-door study during the winter. The sports—skating, snow-shoeing, coasting—may be trusted to look after themselves.

Note the position of the sun, at rising, midday and setting. Soon we shall have the shortest days of the year.

The stars are every night becoming more interesting. Jupiter now rises in the east about five o'clock, with the Pleiades above and the Hyades below, and splendid Orion in full view a few hours later. Have readers of the Review been following the course of Jupiter between the two groups of stars named above during November? To which

group is it drawing near? Notice its movements this month, and continue the drawings at intervals during the month.

# Our Native Trees - The Evergreens.

BY G. U. HAY.

"Above all, I glory in my evergreens. What winter garden can compare for them with mine? True, I have but four kinds—Scotch fir, holly, furze, and the heath; and by way of relief to them, only brows of brown fern, sheets of yellow boggrass, and here and there a leafless birch, whose purple tresses are even more lovely to my eyes than those fragrant green ones which she puts on in spring. Well, in painting as in music, what effects are more grand than those produced by the scientific combination, in endless new variety, of a few simple elements? Enough for me is the one purple birch; the bright hollies round its stem sparkling with scarlet beads; the furze-patch, rich with its lacework of interwoven light and shade, tipped here and there with a golden bud; the deep soft heather carpet, which invites you to lie down and dream for hours; and behind all, the wall of red fir stems and the dark fir roof with its jagged edges a mile long, against the soft gray sky.

"An ugly, straight-edged, monotonous fir plantation? Well, I like it, outside and inside. I need no saw-edge of mountain peaks to stir up my imagination with the sense of the sublime, while I can watch the saw-edge of those fir peaks against the red sunset. They are my Alps."—From My Win-

TER GARDEN-Charles Kingsley.

### Firs and Spruces.

What better time to begin the study of Evergreens than in December, when their fresh green tints are in such marked contrast to the white of the first snows? And as the firs and spruces are centres of the children's interest at Christmas, let us begin with these.

In searching out in the woods a symmetrical cone-shaped fir tree, notice that the stem, thickest at the base, continues in an unbroken line to the top. Is this true of all evergreens? Of deciduous trees? Of all deciduous trees? Bend down one of the horizontal branches of a fir or spruce tree. Notice how it flies back to its place. Examine the firm polished surface of the leaves, their small size. Note how these cone-shaped trees, with pendent branches and polished leaves, are fitted to withstand winter storms and free themselves from a weight of ice and snow.

The balsam or balm of Gilead fir (Abies balsamea) is a slender, graceful forest tree, growing in damp woods or mountain swamps. Not unusually it attains a height of from sixty to eighty

feet in localities where it flourishes best. Sometimes it occurs as a low shrub. It bears some resemblance to the black and red spruces, but the surest way to tell it from these is to examine the bark which is smooth and swollen into "blisters" containing resin or balsam. This resin is found on the bark, buds and cones, and is familiar to all who have sticky fingers from handling fir trees. Other characteristics of the fir are,-the fragrance from its leaves when bruised or dried, recalling "fir-pillows" and camping-out on fir boughs; its upright cones, two to four inches long, arranged in rows on the upper side of the branches, and violet-purple when young; its leaves flat, differing from the narrower somewhat four-sided leaves of spruce, dark green above, lighter beneath, with a prominent mid rib. Its wood is soft, weak, whiter than any other wood, close grained; weight of a cubic foot, twenty-four pounds. It is pretty wood for interior finishings, but does not stand exposure to the weather. Owing to the fact that it imparts no flavor, fir is used in the manufacture of butter tubs and boxes. The balsam obtained from the blisters, known as Canada balsam, is the chief product of this tree. It is used in medicines, for varnishes, mounting microscopic objects, etc.

There are three kinds of spruce in these provinces. They differ from the fir in having bark more or less rough and without balsam blisters. The wood of spruces is more valuable than that of the fir.

The white spruce (Picea alba) is a northern tree and is more common near the seacoast. It has a strong odor, and from this it is often called the skunk spruce. Its young twigs are smooth, that is, without small hairs; the leaves slender and of a pale, light green colour; its cones are smaller than those of the fir, nodding, not upright, and do not stay on the tree from year to year as do those of the red spruce. The wood is soft, light yellow in colour, and a cubic foot weighs twenty-five pounds. It is used for the masts of smaller vessels, flooring and other purposes, and though commercially less valuable than red spruce, it is often sold with the latter. Commonly seen, it is a somewhat small tree, though in many places it attains to large dimensions. The pale colour of its bark and leaves separate it from other spruces.

The red spruce (Picea rubra) is the common spruce of our forests, and is usually known among lumbermen as the black spruce. Its young twigs are pubescent or hairy, its cones somewhat the size of a robin's egg, but longer, curved, and staying

on the trees for more than one season. It grows from fifty to one hundred feet in height, and one and a half to four feet in diameter. The wood is soft, pale red or nearly white. A cubic foot weighs twenty-eight pounds. It is largely used for building timber and for clapboards and shingles. It is exported in great quantities and is used for interior furnishings of houses, sheathing, dry goods boxes and for many other purposes. Great quantities are consumed in the pulp mills, and it is the favorite wood for the manufacture of paper. It is a tree of slow growth, large specimens in the primitive forests being often two or three centuries old. Notice the thin circles which show each year's growth at the ends of a spruce log. Try to count them. When growing in open fields the red spruce often forms a conical head, with the branches, especially of the younger trees, brushing the ground. In the more typical development, especially when in crowded forests, the lower branches soon perish, leaving the long naked trunks which the lumberman prizes. Why is the trunk branched in one instance and naked in the other? It is the most abundant of all our trees, and is now the greatest source of the forest wealth of New Brunswick and Nova Scotia. The vast evergreen expanse of our forests is made up chiefly of this spruce.

The black spruce of our swamps is a slender tree with a jagged irregular top. When found on wind-swept hills or mountain tops it is little more than a shrub.

# December Birthdays.

Eli Whitney, inventor of the cotton-gin, born December 8, 1765; John Milton, the great poet, December 9, 1608; Edward Eggleston, author, December 10, 1837; William Lloyd Garrison, antislavery leader, December 12, 1804; Sir Humphrey Davy, December 17, 1778; Ludwig Beethoven, musician, December 17, 1770; Kepler, the noted astronomer, December 27, 1571; Gladstone, the great British statesman, December 29, 1809; Cartier, the noted French explorer, December 31, 1494.

Gather all the facts you can about these, and write notes on each. It is of interest to know that the grandfather of William Lloyd Garrison, Joseph Garrison, was in New Brunswick as early as 1773. A son, Abijah, father of William Lloyd Garrison, was born that year; Fanny Lloyd, his mother, was born on Deer I-land, N.B., in 1776 The family returned to Newburyport, Mass., where William Lloyd Garrison was born in 1805.

# The Old Year and the New.

Reading.—"The Old Year and the New." (For several Children.)

A cold gust of wind blew, and a fresh-faced boy with roguish eyes tripped through the door of space to the earth.

"Happy New Year, January," said a low, dreary voice.

January turned his head and looked at a bent, feeble old man, with a long beard, clothed in a wrapper of gray.

"Why, who are you?" said January, surprised. "I am 1905," replied the Old Year; "and you are 1906, are you not?"

"Yes; I am the first part of 1906; but I have eleven brothers and sisters, who are coming later."

"Since you are a little boy, I will give you some advice," said the Old Year. "You must try to make as many good things as you can happen in your year."

"All right; go on," said January, seating himself on a snow-bank, and looking up at the stars.

"Be as pleasant as you can. Bring plenty of snow for the boys and girls, and sunshine, too. When you bring a snow-storm, bring one, and make a fine one of it."

So he went on, giving the boy plenty of good advice.

Presently he jumped a little, and said, "I am going now. Good-by."

With that he faded into mist and was gone.

January was sober for a few minutes, but then he set about making a fine snow-storm.

The next day he heard some children, who were skating to and fro, say, "Isn't it fine! The New Year has begun well."

And January was pleased.

-St. Nicholas (adapted).

When the first whisper is heard in the room, sit down and have a talk with the children. Ask them if they like to be disturbed by noises when they are busily at work. Let them understand that whispering is no crime; it is only when it becomes annoying to others that it is troublesome. Now if any child wishes to talk with his neighbor, let him raise his hand and ask to do so, then no one will mind the sound.

There may be several requests at first, but it is noticed that when a child knows he may whisper by simply getting permission, he very soon ceases to care for the privilege.—Primary Education.

# Washington Irving, 1783-1859.

PRINCIPAL G. K. BUTLER, M. A., HALIFAX, N. S.

[Washington Irving's father, at one time in the English navy, settled in New York previous to the American Revolution. Here Irving was horn. He went to school at the age of four and left at the age of sixteen. His elder brothers attended Columbia College, but he did not.

He studied law, but never practised to any extent. In 1804 he went to Europe for the benefit of his health, visiting Italy and France. In 1806 he returned to America. His first important work, "The History of New York," was published in 1809. This was a success, both literary and financial.

In 1815 he again went to Europe, this time to England. While there he met Scott, of which meeting an account can be found in Lockhart's "Life of Scott." In 1819 appeared the first number of the "Sketch Book," containing "Rip Van Winkle." In 1826 he went to Spain; while there he collected material for his "Conquest of Granada" and his "Alhambra." In 1832 he returned to America, where he lived until 1842, when he was appointed Minister to Spain. After four years in Spain he returned to New York, where he lived until his death.

He is considered the most popular of American writers down to the present time. During his lifetime about 600,000 copies of his works were sold, and since that time the average annual sale has been about 30,000.]

# The Legend of Sleepy Hollow.

If the hints as to word study, given in other papers of this series, have been taken, it will be needless from this on to specify particular words. Consult the dictionary as to all words not perfectly plain to children. Have them express unusual ones in their own vocabulary.

Page 36.—l. t\*—Why apply adj. "Sabbath" to "stillness"? Is his time for especial quietness true to nature? 1, 16. What Indian tribes dwelt here? 1, 17. What more do we know of Hudson and his discoveries? 1, 25. For the meaning of "starsshooting," etc., compare—

"When beggars die there are no comets seen,

The heavens themselves blaze forth the death of princes."

Page 38.—1. 2. The best known character in our own literature from the State of Connecticut is Sam Slick. Many of the early settlers of western Nova Scotia came from that State. 1. 16. What is meant by a "genius of famine"? 1. 37. Why apply "golden" to the maxim? Compare "speech is silvern but silence is golden." In 1. 35 what figure of speech in "the flowery path of knowledge."

Page 39 contains a reference to the okl custom, probably now extinct of "boarding the teacher round."

Page 41.—1. 14. What is meant by his powers of "digesting" the marvellous? What New England town was especially famed for its witches? 1. 24. Why is the hour of twilight called the "witching hour," and why at that time are strange forms seen? 1. 33. Compare the use of the word "varlet" with the same word in Macaulay's "Virginia." 1. 36. Compare the singing of psalm tunes to banish "evil spirits" with a similar custom in the middle ages when the belief in them was so much more firmly fixed.

Page 42.—1. 1. "In linked," etc., consult Milton's Shorter Poems. 1. 15. When Capt. Slocum, who went around the world alone in the "Spray," visited President Kruger, he most deeply offended him by saying he was sailing around the world, which Kruger believed to be flat.

Page 43.—l. 35. Many of your pupils may have seen a similar "little well formed of a barrel."

Page 44.—l. 2. The "flail" like the sickle is now largely a thing of the past in harvest operations.

Page 45.—l. 13. Kentucky and Tennessee are no longer the remote frontier states they were 120 years since. l. 17. Compare the house with the house of Benedict in "Evangeline." l. 34. How many of the present-day school children, or teachers either, ever saw "andirons" actually in use? What is meant by "their covert of Asparagus tops"?

Page 46.—l. I. Compare "Deserted Village," page 7, l. Io, "broken tea-cups wisely kept for show." l. 7. "Knight-errant" is quite different from the kind of knight Roderick is inclined to call James in the "Lady of the Lake." Find the place and compare the two. l. 16. Daedalus, who built the original labyrinth, was lost in it himself, and escaped by making himself wings of wax and feathers.

Page 49.—l. 18. Smoking out a teacher is one of the pleasures that probably none of the present generation has enjoyed.

Page 52—l. 8. Monteiro is a Spanish soldier's cap. 1. 31. Study word "goodliest." Quite different from "good."

Page 53.—l. 4. Inland pupils might be troubled as to the meaning of the word "sloop."

Page 54.—ls. 2, 3. The dough-nut, cruller, oly-koek, are forms of one and the same, a cake fried in lard. In richness they vary as arranged above. Baltus Van Tassel's reception of his guests will call to mind that of Basil in "Evangeline," when she visits him in his southern home. [The old

<sup>\*</sup> Pages of N. S. School Series.

gray-haired negro who officiated on the "fiddle" may recall a similar quite famous one in the eastern part of Nova Scotia, much in demand at country dances a few years since.]

Page 57.—Sing-Sing is famous for its—?

Page 58.—By a misprint on this page we have "demagogue" for "pedagogue." What is the difference in meaning?

Page 59.—The story of "André" might be worth looking into.

Page 61.—l. 1. Does hair stand on end through fear, and if not why do we say so?

What are the two ways of concluding the story, the one natural, the other supernatural? Which is the most likely to be true?

### Mama's Christmas Gift.

"Mama," said Billy, "what do you want for Christmas?"

"Dear me," said Billy's mama, "I don't know of a single thing that I want."

"But you must say you want things," said Billy. "You must—it's a sort of game. It doesn't matter whether you really want the things or not."

"Oh, I didn't understand," said mama, entering into the game. "Well, then, let me see. I should like a diamond pin."

"And what else?" said Billy. "You must want more."

"I want a long sealskin ulster."

"Say something else-say lots of things."

"I want a new carriage and a lace collar and some curtains for baby's room."

"Mama," said Billy, coming close to her side and speaking earnestly, "don't you want a card like that one 1 painted this morning?"

"Oh, dear yes," said mama, quickly, "I should love to have a beautiful card like those you paint."

Billy went to the window and looked out at the snow, and the sparrows hopping on the walk that ran down to the street.

After a minute or two he came to mama's side again. "Mama," he said very solemnly, "I won't say which, 'cause I don't want to spoil your surprise; but one of those things you told me you want you're surely to get for Christmas."

Mama leaned over and kissed his bright little face, and said softly: "I do wonder which it will be."—St. Nicholas.

The time for sending in the essays for competition in the League of Empire Prizes has been extended. See advertisement on page 175.

### ART NOTES -- No. II.

BY HUNTER BOYD, WAWEIG, N. B.

### Christmas Chimes.

Painted by Edwin Howland Blashfield, 1848.
"I heard the bells on Christmas day,
Their old, familiar carols play,
And wild and sweet
The words repeat,
Of peace on earth, good-will to men."

-H. W. L.

The picture selected for reproduction this month is as beautiful as it is seasonable. There is a sense in which its meaning is so obvious that some persons may think it undesirable to make it the subject of a picture study. Teachers who are in such a mood require only an opportunity for introducing the print to the class, and the evident pleasure afforded to such a teacher will soon be shared by sympathetic scholars. Possibly such persons will be satisfied to know that the artist is still living, and that though born in New York he not only studied in Paris, but actually produced this picture in Paris. It has since been exhibited at the World's Fair in Chicago, and helped to make the reputation which Mr. Blashfield bears as one of America's best figure painters. He certainly was filled with the Christmas spirit when he conceived this work of art, and his execution worthily embodies the beautiful idea. Not only are the faces of the angels all that can be desired; we note that the wings are graceful, and the folds of their garments are admirably arranged. The suggestion of movement is so powerful that we feel the heavenly bell-ringers are not only enthusiastic in their work,—they positively exult in doing it. The great bells swing in the tower which is illuminated by an unearthly light, and whilst the massive beams to which they are attached suggest their great weight, there is an entire absence of effort or strain on the part of the ringers. The happy birds that fly in and out of the belfry suggest that nature is in sympathy with the glad morn, and we do not contemplate this scene very long without imagining we can detect the harmony of voices celestial, blending with that produced by the tongues of earthly bells. When this result is achieved we have learned the secret of the picture, and only harm may follow if a teacher attempts to discuss "Christmas chimes" without aiming to secure or strengthen similar effects upon the scholars. The artist had a message, and he has told it in form

and colour, has told it so intelligibly that it loses little by reproduction in a small black and white print, and our hearty response is his reward.

In some respects the Poet Whittier has given a similar message in his poem, "A Christmas Carmen."

Sing the bridal of nations! with corals of love, Sing out the war-vulture and sing in the dove, Till the hearts of the peoples keep time in accord, And the voice of the world is the voice of the Lord!

Clasp hands of the nations In strong gratulations:

The dark night is ending and dawn has begun; Rise, hope of the ages, arise like the sun, All speech flow to music, all hearts beat as one!

Already we have several times used the word suggestion, and that is the function of this picture. It is suggestive. It appeals to the imaginative faculties, directly to the visual, and indirectly to the auditory. In this respect it may be compared with the "Angelus," by J. F. Millet, where we note the effect of the evening bell upon the peasants in the potato field, although only the spire of the church is indicated in the background. Also as in that picture we have here a study in emotional expression. Other pictures that depend for their clue upon some supposed sound, are "Listening to the Fairies," by Bodenhauser, "The Song of the Lark," and Joan of Arc listening to her fatal message. With this contrast "The Balloon," where there is no appeal to the sense of hearing, and other pictures may be selected and grouped under these several heads.

But not all teachers are sufficiently acquainted with pictures to pursue immediately such exercises and not all are engaged in teaching the higher grades. Let us suppose the case of one who is bravely trying to make life interesting in an ungraded school in a remote country district. Little children in rural schools are as familiar with angels as those in the city schools, possibly more so, as many children of tender years, brought up in cities, are not wholly unaffected by the prevalence of materialistic notions, and the rush and bustle of a home life which leaves no time for reverie. But not every rural scholar has seen or heard bells of the dimensions shown in our picture, and in these cases patience is needed if the teacher is to build up an adequate concept from limited ideas. In this case, probably in most cases, it would be well for the class to discuss the subject of Bells in general before the picture is displayed, so that the artist's work may have more varied auditory images to appeal to. The teacher can ask for word exercises from each scholar, preferably in writing, so that the exercises can be examined at leisure, and to avoid any ridicule of dull scholars by so-called smart ones. It must be remembered that in this study places may be reversed. In arithmetic, exact answers must be required, and in grammar a word is in a certain gender or it is not. But in picture study no serious answer is without some value, and the most backward children should be encouraged to express their ideas. If a scholar attempts an explanation of a picture, do not pay much regard to writing, spelling or grammar, at first,-vou are seeking an opportunity to know the child's range of ideas in order to proceed from the known to the unknown. Thus we might ask questions concerning Bells-door-, cow-, sleigh-, school,- fogsignal-, railway-engine. Ask for particulars concerning the way in which Bells are rung for a wedding, funeral, fire, church service, etc. Ask for any notable occasions on which the bells have been rung-coronation, Mafeking Day, and so on. Make enquiry concerning the following: Bellhammer, tongue, clapper. Compare ringing and tolling, dirge and knell, tinkle and jingle, dong and "ding-dong," and words like curfew and chimes. All this must be done with a view to securing distinctness of auditory images, and if possible to secure an idea of a great volume of sound produced by large melodious bells in a tower. Encourage the children to search for a picture of "The Liberty Bell" or "The great Bell of Moscow," or others, and note any material concerning famous bell towers. Until this is done it is of little use to say that the studies for the bells in our picture were made in Florence in Giotto's Tower, and from St. Nicholas in Blois. After such an exercise the children will be stimulated to note the difference in ornamentation of the two bells in "Christmas Chimes," the position of the "clapper" in the upper one, and some details of the beam and fixtures, and the ropes. But let everything contribute to increasing the imaginary volume of sound. Here and there a child may be found who will observe and inquire concerning the strange figure in the right hand corner. Let some of the older scholars hunt up the meaning of the word gargovle, and then determine if this is an instance.

Much could be said concerning the angels, but for scholars, angels are not to be analysed but enjoyed. A volume like "Angels in Art," by C. E. Clement, published by L. C. Page & Co., Boston, will prove interesting, but it must be borne in mind that our object is to increase the appreciation of the beautiful, to ennoble the emotions, to cultivate taste, afford enjoyment, and make all hear "The Christmas Chimes."

# Picture Study Queries.

In this column only the substance of questions will be printed in order to afford more space for the replies. Most of the questions this month are based on the subject dealt with in the November number of the EDUCATIONAL REVIEW.—H. B.

E. L. W. asks how pathos is manifest in manifested in the picture of the "Old Téméraire?" Because it represents the setting of the sun, the end of the career of a vessel, of the wooden navy indeed, and the decline of Turner's power. The delicacy of touch, c. g. in treatment of the spars of the ship, was not surpassed in any subsequent work.

H. T. B.—The dark object in the right hand corner is a buoy. Probably the buoy was used for securing barges at night. Yes, it helps to suggest distance, by comparative size, and its angle helps the unity of the picture as it is parallel with the south bank of the Thames. The chimneys are possibly on buildings at Greenwich.

G. A. S.—You are quite right. Turner not only thought much of the sun, and frequently painted it, he almost worshipped it. "The sun is God," were almost his last words, and "the window of his death-chamber was turned towards the west, and the sun shone upon his face in its setting, and rested there as he expired."

HECLA.—Téméraire means "He who dares," "the one that dares." There were two ships of that name: the first taken from the French in 1759. This one was built at Chatham, at Trafalgar, 1805; a prison-ship at Piymouth, 1812; a receiving-ship at Sheerness, 1819, sold at Sheerness 1838, for \$25,000, and broken up at Deptford.

F. E. B.—There is some danger of over analysis. Some children will merely enumerate the items, and you will help them to understand the *relation* of these items, and the synthesis will be valuable to yourself and the scholars.

MADGE.—An excellent example. The "Constitution" or "Old Ironsides" was contemporary with "The Téméraire." Its centenary was celebrated in 1897. It was recently in Boston harbour.

RALPH—See preceding answer, and read O. W. Holmes's poem, "Old Ironsides." Any life of Turner will give further particulars. James R. Lowell has written on the picture. In the original, the chief grandeur is Turner's treatment of the glory of the sun and clouds, but the picture grows on you as you gather particulars.

R. F. H.—Quite so. If you will consult EDUCATIONAL REVIEW. April, 1904. p. 278, you will find some hints on the character of subjects suitable for rural schools.

Max.—The picture in the "H. B." set to which you allude is called "a neighbourly chat." It is by Van Leemputten.

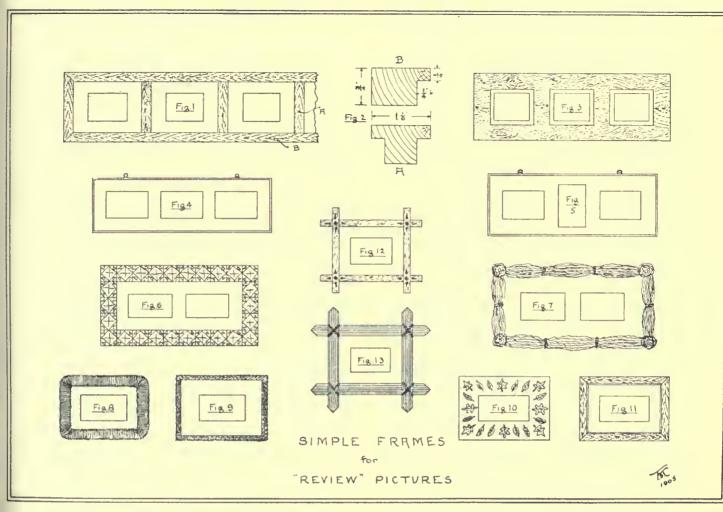
G. D.—Certainly it will give pleasure to receive some of the compositions by your scholars. See address at the head of Art Notes in this number.

# How the Mistletoe Grows.

The mistletoe for centuries has been one of the most important factors in Yuletide decorations, its use dating back as far as the Druids. The hanging of the mistletoe on Christmas Eve, between 11 and 12 o'clock, in many homes is the beginning of the season's merrymaking. The bough is hung in a place where there will be no obstacle in passing under it, and the penalty for being caught beneath its branches all know.

The story of how the mistletoe gets on the trees is a most interesting one, writes Prof. S. C. Schnicker, in the Ladies' Home Journal. Covering the mistletoe twigs are pearly white berries. These come in the winter season, when food is comparatively scarce, and hence some of our birds eat them freely. Now when a robin eats a cherry he swallows simply the meat and flips the stone away. The seed of the mistletoe the bird cannot flip. It is sticky and holds to his bill. His only resource is to wipe it off, and he does so, leaving it sticking to the branches of the tree on which he is sitting at the time. This seed sprouts after a time, and not finding earth-which indeed its ancestral habit has made it cease wanting-it sinks its roots into the bark of the tree and hunts there for the pipes that carry the sap. Now the sap in the bark is the very richest in the tree, far richer than that in the wood, and the mistletoe gets from its host the choicest of food. With a strange foresight it does not throw its leaves away, as do most parasites, but keeps them to use in winter when the tree is leafless.

When my school has often been restless I have asked them to lay aside all work and be ready to do as I told them. I would then stand before the pupils and say, "I am thinking of a name of an object in this room, beginning with 'w' and having six letters." (Window.) When the pupils thought it out they would raise their hands and then some one would give the word. Often we would find many words answering the same description. This is good for geography work. Names of rivers, cities, mountains, flowers, animals, etc., all furnish good material. The pupils thoroughly enjoy it and I believe that good results are obtained.—Popular Educator.



# Framing the "Review" Pictures.

T. B. KIDNER, DIRECTOR OF MANUAL TRAINING.

The educational value of a well decorated room cannot be over-estimated. Some of the simple frames suggested above may help teachers and pupils towards more helpful surroundings—more inspiring thoughts.

If your school has a regular manual training department, where wood and tools are available, several sorts of frames are possible. At the Kingston Consolidated school, a continuous frame (Fig. 1) was fixed along the tops of the blackboards and inclined forward slightly. The frames are of whitewood, stained a dark brown, the section of the mouldings being shewn at Fig. 2. The pictures are not fastened in, and thus may be taken out for closer study or exchanged with other rooms. A better plan still is to put these continuous frames over the dado in the school hall; this being at a more convenient height for the children.

Another good plan is to frame the pictures in groups of three as in Fig. 3. Openings of suitable size are cut in a plain board, one quarter of an inch thick; small strips being tacked to the back to form the places for the pictures and glass.

"Oxford" frames (Fig. 12) and plain mitted frames (Fig. 11) are also easily constructed in the manual training room.

If wood be not available, cardboard will prove a satisfactory and suitable substitute. A piece of grey "mounting board," 22x28 inches, costs 15 cents, and will cut into four mats or mounts. The pictures should be trimmed so as to have a white margin of three-quarters of an inch in width and then pasted carefully upon the grey cardboard. Thus mounted, several methods of framing are possible.

The popular "passe-partout" binding may be used with good effect, the binding serving to hold the glass and cardboard together. Various arrangements of the picture may be made (see Figs.

4 and 5), such as grouping them according to artist, subject or shape, as the case may be.

Another simple plan is to take stout straws—rye preferably—and to sew them side by side as in Fig. 13. Very effective frames can be made in this way, as the straw can be dyed in pleasing colours and the corners of the frame embellished with ribbons.

Recently while visiting a primary department where the handwork is a specialty, the writer saw a pleasing frame formed by pasting a number of the small folded paper frames (stage 4 [b] in the New Brunswick manual training schedule) round the edges of the cardboard mount (Fig. 6). Another simple but good frame was made by using white cardboard for a mat and pasting leaves cut out of coloured paper all round the borders (Fig. 10).

A good edging for the card mounts can be made by sewing the folded paper "cat's ladder" round the edges (Fig. 9). Such a finish would be quite suitable outside the leaves of Fig. 10.

Raffia, that useful and charming material, offers many possibilities for simple frames. Many of our teachers are already familiar with it and its manifold uses, but those who are not can easily obtain some from the nearest florist. It is sold in one pound hanks, and in its natural state is a pale golden yellow, but can be obtained from certain school supply houses dyed in several colours. Woven or braided into suitable widths it can be sewn to the cardboard mount of a picture with good effect. A more simple method is to use common "straw" board—the yellow material used in making milliners' boxes, etc.-in which to cut an opening of suitable size for the picture, a margin being left, say, two inches in width. Round this margin the strands of raffia are wound as shewn in Fig. 8. By rounding the outer corners, the difficulty occasioned by the slipping of the raffia at the angles can be obviated.

A substitute for raffia in the last method may he found in the leaves of the common "cat-tail," which are readily obtainable in most districts. They should be gathered in the autumn and dried, but must be dampened slightly before winding on the cardboard frame. A few crimson maple leaves glued to the face of the frame after the cat-tail leaves are in place, will complete a very attractive frame at a trifling cost.

THE EDUCATIONAL REVIEW and the Scientific American (subscription price \$3 a year) both for one year for \$3.50.

### Christmas Recitations.

The following selections are sent to the REVIEW by Miss G. F. Crawford of Nictau, N. B.]

#### A TELEPHONE MESSAGE.

"Ah! here's the little round thing my papa talks into
To tell the folks down-town what he wants to have
them do.

I'm going to try myself,—now let me get a chair, And then I'll stand on tip-toe so I can reach up there.

"Hallo?—(that's what they all say)—you dear old Santa Claus.

I'm going to have a little bit of talk with you, because I want to tell you all about a little girl I know Who never had a Christmas in her life—she told me so!

"I hardly could believe it, but she says 'tis really true.
I'm sure you're always kind, but I'm surprised at you,
That you should have forgotten such a little one! but
still

You have, perhaps, already all the stockings you can fill.

"But could you go to her house instead of coming here?
For mamma says that Christmas is the time of all the

For children to remember poor little girls and boys
Who never hang their stockings up for picture-books
and toys.

"I want you, please, to carry her a doll with shiny curls, And eyes that shut and open—that's the kind for little girls—

And a muff to warm her fingers, and a cunning little

And a book with pretty verses—how she'll laugh, the little thing!

"And give her lots of goodies, too, because she's poor,

And ought to have more sugar-plums than you could bring to me.

Now tell it on your fingers, and remember as you go— Just pack her stockings to the very, very toe.

"That's all —only. Santa Claus, I just would like to say,
If you should have more presents than you need on
Christmas day,

And would leave me just a few as you pass the chimney —why,

Of course—I would be very glad indeed. Good-bye! Good-bye!

-Selected.

### A REAL SANTA CLAUS.

Santa Claus, I hang for you By the mantel, stockings two; One for me, and one to go To another boy I know. There's a chimney in the town You have never travelled down. Should you chance to enter there, You would find a room all bare; Not a stocking could you spy, Matters not how you may try; And the shoes are such

As no boy would care for much. In a broken bed you'd see
Some one just about like me,
Dreaming of the pretty toys
Which you bring to other boys.
And to him a Christmas seems
Merry only in his dreams.
Ali the dreams, then, Santa Claus,
Stuff the stockings with, because
When they're filled up to the brim
I'll be Santa Claus to him!

-Frank Dempster Sherman.

### BELLS ACROSS THE SNOW.

O Christmas, merry Christmas! is it really come again? With its memories and its greetings, with its joys and with its pain.

There's a minor in the carol, and a shadow in the light, And a spray of cypress twining with the holly-wreath to-night;

And the hush is never broken by laughter, light and low, As we listen in the starlight to the bells across the snow.

O Christmas, merry Christmas! 'tis not so very long Since other voices blended with the carol and the song. If we could but hear them singing as they are singing now; If we could but see the radiance of the crown on each dear brow—

There would be no sight to smother, no hidden tear to flow as we listen in the starlight to the bells across the snow.

O Christmas, merry Christmas! this nevermore can be: We cannot bring again the days of our unshadowed glee; But Christmas—happy Christmas, sweet herald of goodwill—

With holy songs of gladness, brings holy gladness still; For peace and hope may brighten and patient love may glow,

As we listen in the starlight to the bells across the snow.

—Frances Ridley Havergal.

### GOD'S BIRD.

[Sent by Miss Mary L. Weston, Yarmouth County.]
All night long the snow had fallen,
Wild the wind and fierce the cold;
Morning saw the world white-crowned.
Like a pilgrim, hoar and old.
Down the lane came dancing footsteps,
Merry voices laughed agay;

"Brother, see, a dear ded robin!" Cried in pity little May.

Then the little girl stooped gently, Took the robin, and whispering low,—

"Tis one of God's birds, brother, And He saw it fall, you know."

"Well it is dead,—and we can't help it,"
Said the boy, and hurried past;
But the little maiden lingered,
To her breast the dead bird clasped.

As she stroked its soft, brown feathers—
"Did it really?—was it true?"
Yes, it fluttered softly, feebly,
Faintly gasped!—what should she do?

With the bird pressed to her bosom, Swiftly sped she through the storm; Paused not till she stood by mother At the fireside, bright and warm.

Tenderly she warmed and fed it.

Till it opened wide its eyes;

Hopping about with its small head turning, with a look so bright and wise.

"Mama, do you think God sent me?"

Softly spoke the little maid,
"Did He tell His bird about me?

Is that why it's not afraid?"

### THE FIRST CHRISTMAS SONG.

(Sung to the tune of "Auld Lang Syne")
The twinkling stars shone clear and bright,
Above a little town,
And calmly through the quiet night,
The silver moon looked down.
The little lambs upon the bill

The little lambs upon the hill Were sleeping safely there, While shepherds "seated on the ground" Watched over them with care.

Then suddenly the angels came
On flashing wings of white;
Their happy chorus echoed wide
Across the silent night.
Oh! sweet and clear the angels sang,
The sweetest song we know,
The story of a little Child
Within a manger low.

'Twas long and long and long ago—
Oh! very long ago,
But still we sing the song they sang,
With music soft and low;
For Jesus was the little Child
Who in the manger lay,
And Jesus is the children's Friend
Who loves them every day.

-Primary Education.

# Shakespeare to His Mirror.

Within thy crystal depths 1 see
A figure semblable of me,
But no more me than 1 am one
With the brute rock 1 rest upon;
For how may brow or eye reveal
The infinities wherewith 1 deal?

Nay, I will break thee, mirror mine!
The unseen inward is divine,
The outward body but a bowl
That covers in the mounting soul.
If any one would truly know
What manner of man I come and go,
Not flesh alone, but blood and breath,
Lo, Lear, Lord Hamlet and Macbeth!

Poor munmer, I must shatter thee,
Since thou dost bear false tales of me!

—Richard Burton, in the November Atlantic.

### Mental Mathematics.

F. H. SPINNEY, OXFORD, N. S. Factoring.

I have found from experience that greater progress can be made in one hour in teaching factoring by mental drill, than in many hours by other methods.

After multiplication is well learned, send the class to the board, and dictate questions as the following:

$$(x+3)(x+4)=?$$

The pupils must write out the products from inspection as fast as the questions are dictated. When the pupils have a column of questions completed, ask them to erase all the terms contained in brackets. For this purpose each pupil should have an eraser in hand, to prevent waste of time. The questions will now stand thus:

Now ask the pupils to replace all the terms in brackets as they were. There will be too many for them to remember, so they will observe the relation existing between the factors and the products. To make sure that they have observed that relation, tell them that the process just completed is called factoring, and ask them to factor some easy ones similar to those just worked. Such as—

$$x^{2} + 9x + 20 = ?$$

$$x^{2} - 9x + 20 = ?$$

$$a^{2} - 16 = ?$$

$$(x + y)^{2} - 16 = ?$$

This much may not all be accomplished at one lesson. It is better to dwell on the questions involving only the plus sign until that is thoroughly mastered. Each day increase the difficulty of the problems until the most difficult questions of this nature can be worked mentally by every pupil.

From factoring, I proceed directly to quadratic equations:

If 
$$a = 5$$
 then  $a - 5 = ?$   
If  $a = 6$  then  $a - 6 = ?$   
 $\therefore (a - 5)(a - 6) = ? \therefore a^2 - 11a + 30 = ?$ 

Give several more of a similar kind. Ask the pupils to substitute 5 for a, then 6 for a, in the equations

$$a^2 - 11a + 30 = 0$$

They will find that either will suffice. Then reverse the process, asking them to write down from inspection the values of r in such questions as follows:

$$x^2 - 10x + 21 = 0$$
  
 $x^2 - 12x + 35 = 0$ 

If there has been sufficient drill on the preceding exercises these will be very readily solved.

Other kinds of quadratics are easily taught as follows:

$$a = 3$$

$$a + 7 = ?$$

$$(a + 7)^2 = ?$$

When they have many questions on the board such as the following:

$$a^2 + 14a + 49 = 100$$
$$a^2 + 6a + 9 = 64$$

Ask them to erase the last terms on the lefthand side of the equation, and subtract that much from the other side. Then the questions will stand thus—

$$a^{2} + 14a + ( ) = 51$$
  
 $a^{2} + 6a + ( ) = 55$ 

Then ask to have the last terms replaced and the proper amount added to the right side of the equation. Then add more of a similar kind—

$$a^2 + 12a + 1$$
 is a perfect square.  
 $a^2 + 18a + 1$  is a perfect square.

Then gradually add others more difficult.

The great advantage of this method is that hundreds of problems can be solved mentally in a few moments; and all under the inspection of the teacher. If any of the pupils are observed copying results obtained by others, allow those to remain at the board after the rest have taken their seats, giving them further drill, so that they will afterwards depend on themselves.

The problems for seat work can be made much more difficult than those solved mentally at the board.

### The Review's Question Box.

R. A. C.—Please give me the name of the secretary of the Comrades Corresponding Branch, as stated in the REVIEW, or any information concerning it, as my pupils wish to correspond with others of the Empire.

The Secretary's name is Mrs. Fetherstonhaugh, Lake Shore Road, Mimico, Ontario, who has full charge in Canada for that part of the work.

M. G.—Will you kindly recommend the best elementary book on nature lessons?

For an ungraded school, such as you teach, we know of no better book than Brittain's Manual of Nature Lessons; price 50 cents; published by J. & A. McMillan, St. John.

THE EDUCATIONAL REVIEW and Littell's Living Age (subscription price \$6.00 a year), both for \$6.40. The Living Age is a weekly magazine and contains the cream of what is published in the English magazines.

### Practical Problems for Grade VIII.

- 1. The cost price is \$60; the marked price 30% more; the discount 10%. Find selling price and gain %.
- 2. The selling price is \$80, the loss 20%. Find the gain % if it had sold for \$115.
- 3. A house is worth \$4000; it is insured for 3/4 its value at 11/2%. Find premium paid.
- 4. An agent sells 600 bbls. of flour at \$4.50 on 2% commission. Find proceeds.
- 5. Find interest on \$360 from March 10th, 1901, to October 15th, 1905, at  $6\frac{1}{4}\%$ .
- 6. The interest is \$49.50, the time 4 years, the rate 4½%. Find the principal.
- 7. Find the area and base of a right angled triangle whose length is 75 feet and side 50 feet.
- 8. Find height of cylinder holding 20 gallons and having a basal radius of 10 inches.
- 9. Find area of ring between two circumferences when the radii are 20 inches and 25 inches respectively.
- 10. Find area of walls of a room 15 feet long, 12 feet wide and 10 feet high. How much will it cost to plaster walls and ceiling of this room at 10c a square yard?
- at 4% a certain sum of money; he now has in all \$291.76. What had he then?
- 12. Find compound interest on \$300 for two years at 4% a year payable half yearly.
- 13. If 3000 liters be bought at 10c a liter, and after paying 40% duty sell at 70c a gallon, find gain.
- 14. A note of \$400, dated Aug. 27th, @ three months, was discounted same day at 6%. Find proceeds.

Answers.—(1) \$70.20; 17%. (2) 15%. (3) \$45. (4) \$2646. (5) \$103.50. (6) \$275. (7) 1397.5. (8) 17.65. (9) 706.86. (10) 540 sq. ft.; \$8.00. (11) \$260.50. (12) \$24.7296. (13) \$462 21. -\$420=\$42 21 (14) \$400 - \$6 25=\$393.75

At the beginning of the year we had a chinney corner devoid of ornament. A beautiful calendar-brought by one of the pupils, gave us an idea that transformed this bare spot into a thing of beauty for bright eyes to feast on the remainder of the year. We requested all who could to bring a pretty calendar. Many gladly responded. The best subjects were selected and carefully arranged as to design and coloring; the result was highly gratifying, and our "Calendar Corner" received much praise from visitors.—Popular Educator.

### Let the Sunshine In.

Several Decembers since a little boy in a Boston kindergarten—a child who was accompanied by his nurse every morning—toiled long and patiently on a Christmas present for his mother. After the holiday had passed the kindergartner asked the children what the recipients had said about the gifts prepared with so much care. It was Robbie's turn to answer. The child's lips trembled as he whispered in shame and sorrow, "Mamma didn't want my stamp box, she said I might keep it myself."

A darling eight-year-old girl asked her father for money with which to buy Christmas gifts. She was told that she might have money for materials but that it was better for her to make the presents than to buy them outright. "But papa," said the child, "I don't know what to make myself, and mamma won't help me, she says she can't stop."

There are memories in many of our own hearts of Christmas saddened and almost lost, because parents failed to see the necessity of troubling to make the blessed day a season of joy. Listen to the words of the Great Teacher: "Inasmuch as ye have done it unto one of the least of these, ye have done it unto Me."—School Journal.

The lengthening of the one-hour examinations to two hours without materially increasing the length or the difficulty of the examination is a change that will have beneficial results, says the Chicago School Review, in its notes on the fifth annual report of the College Entrance Examination Board. Judging from the number of failures, the examinations were more difficult this year. The greatest failure was in English b, where only one-third the candidates gained a rating of 60 or higher. The results in English history were disappointing. Out of 258 candidates in plane and solid geometry only 32 reached the above mark; and so with other branches. Sight translations of Latin and Greek authors will be established for the future.

Everywhere, everywhere, Christmas to-night;
Christmas in lands of the fir tree and pine,
Christmas in lands of the palm tree and vine,
Christmas where snow peaks stand solemn and white,
Christmas where cornfields lie sunny and bright;
Christmas where children are hopeful and gay,
Christmas where old men are patient and gray,
Christmas where peace like a dove in his flight,
Broods o'er brave men in the thick of the fight;
Everywhere, everywhere, Christmas to-night!
For the Christ-Child who comes is the Master of all;
No palace too great and no cottage too small,
—Phillips Brooks.

introduce it.

### Teachers' Conventions.

RESTIGOUCHE COUNTY INSTITUTE.

The Restigouche County Teachers' Institute met October 19 and 20, in the Campbellton Grammar School. Thursday morning the Campbellton schools were in session till II a. m., to give the members of the institute an opportunity to observe the work. The institute then met to organize in the Principal's room, the President, E. W. Lewis, in the chair. The President welcomed the members of the institute and spoke on some phases of educational progress. Dr. Inch, the chief superintendent, who followed, criticized the prevailing fashion of expecting the younger pupils to be able to give all the reasoning for the various processes in arithmetic, e. g., why we carry to the next column in addition and why we borrow in subtraction. The teachers' and pupils' time would be much better spent in drilling with numerous examples, and in thus acquiring quickness and accuracy. He also agreed with the president that the reaction against memorizing had gone too far. Memory was one of the most valuable properties of the mind, and the habit of memorizing passages of good literature was an excellent one.

Thursday afternoon was devoted exclusively to manual work. Miss Marjory Mair, teacher of manual training in the Campbellton schools, gave an interesting lesson on paper folding, taking the institute for a class. Prof. Kidner, of the Normal School, complimented Miss Mair highly on the lesson, and gave an instructive address to the teachers, showing how a beginning in manual training could be made with little expense, even in the poorest schools, and urged the teachers to

Friday morning, Miss Linda Ultican, of Jacquet River, taught a lesson on transitive and intransitive verbs. Although handicapped by having a young class, who were strangers to her, Miss Ultican skilfully brought out the distinction between the two classes of verbs, and showed how by constant drill along such lines pupils could be made to understand the difference between them.

The rest of the morning session was taken up with criticisms of lessons taught at the institute. The discussions were animated and interesting, and many valuable points were brought out.

A trip to the woods Friday afternoon with a lesson on cone-bearing trees by one of the Campbellton teachers, Miss Minnie Colpitts, B. A., late of Guelph Agricultural College, brought to an end one of the most interesting institutes ever held in Restigouche County.

Thursday evening a public meeting was held in the grammar school hall. Addresses were made by Dr. Inch, Prof. Kidner, and Dr. Murray, chairman of the Campbellton School Board.

The following are the officers for the present year: President, E. W. Lewis, B. A., Campbellton; Vice-President, Miss Minnie Colpitts, B. A., Campbellton; Secretary-Treasurer, Miss Dickson,

Tide Head. Additional members of Executive Mrs. L. D. Jones, Dalhousie; Miss McTaggart, Campbellton.

### GLOUCESTER COUNTY INSTITUTE.

The twenty-fourth meeting of the Gloucester County Teachers' Institute was held at Caraquet, N. B., on the 19th and 20th October. In the absence of the president, Mr. Jerome Boudreau, Inspector J. F. Doucet very successfully conducted the affairs of the institute. A warm address of welcome by Principal Witzell, of Caraquet, was extended to the teachers, over thirty in number, to which Principal Girdwood, of Bathurst, and others replied.

The papers and addresses at the institute were given, as seemed best to the speakers, in English or French, in both of which languages several of the members were equally proficient. The French teachers, however, seemed to have greater facility in expressing themselves in English than the English teachers had in their use of the French language.

A paper on Fractions was read by Miss Emma C. A. Stout, of Bathurst, and was very helpful to teachers of primary grades. A lesson on Canadian history was given to a class of French pupils by Miss Bernadette Cormier. The bright and ready answers won favorable opinions from the audience. Dr. G. U. Hay followed with an address on the teaching of history, pointing out that the surroundings, the imagination, and the resources which children make use of in their play should be brought into requisition in teaching geography and history. An animated discussion followed on the best ways and means of doing this.

Principal Girdwood gave a very clear address on School Management, in which he illustrated practical and common sense methods of dealing with pupils in school. This was followed by an interesting paper by Mr. C. C. Poirier, showing his method of teaching primary geography. Dr. G. U. Hay gave an address illustrating practical methods of nature study. These addresses were very generally discussed, and the following, among others, took part: Inspector Doucet, Messrs. A. J. Witzell, Edw. De Grace, C. C. Poirier, P. Girdwood, Jos. F. Godin, and Misses Lauza Cormier, Loretta Mullins, Josephine Dumas.

,The next institute will be held at Bathurst. The following officers were elected for the ensuing year: P. Girdwood, president; Lauza Cormier, vice-president; A. J. Witzell, secretary; R. D. Hanson, B. A., Josephine Dumas, additional members of the executive.

A very well attended public meeting was held in Mechanics' Hall, Caraquet, on the evening of the 19th, at which addresses were given by Mr. P. J. Veniot, M. P. P., of Bathurst, and others. Mr. Veniot took the ground that in the French textbooks which are to be prepared for the children of Acadian primary schools, the language should be simple and adapted to the understanding of

children similar to what is used in primary schools in France, not translations of English text-books, many parts of which had to be translated into French words of two or three syllables. Dr. Hay said that if French primary texts were considered necessary in our schools for Acadian children they should be natural in style and entirely suited to the needs of the children for whom they are to be prepared. After the institute had adjourned, the teachers adopted a resolution asking the board of education to give favorable consideration to the plan of text-book outlined above.

### The Christmas Gift.

Around the Christmas-tree we stood, And watched the children's faces, As they their little gifts received With childish airs and graces. We grown folks had our share of fun In making wee ones merry, And laughed to see the juveniles Kiss 'neath the holly berry, Beside me sat sweet Bessie Moore, A lovely dark-eyed maiden, While near her stood our little Eve, Her arms with love gifts laden, Until around the room she went, The blue-eyed baby, shyly, And blushing red, into each lap Her offerings dropped slyly.

But when to me the darling came All empty-handed was she, And when I asked, "Why slight me thus?" She answered, "Oh, because we -She dinna know you tumming here!" And then with blue eyes shining, To Bessie's side she went, her arms Her sister's neck entwining. "But something I must have," said I, "My Christmas night to gladden." A shade of thought the baby face Seemed presently to sadden, Till all at once, with gleeful laugh-"Oh! I know what I do, sir! I've only sister Bessie left, But I'll div her to you, sir!"

Amid the laugh that came from all
I drew my new gift to me,
While with flushed cheeks her eyes met mine
And sent a thrill all through me.

"Oh! blessed little Eve!" cried I:

"Your gift I welcome gladly!"
The little one looked up at me
Half wonderingly, half sadly.
Then to her father straight I turned,
And humbly asked his blessing
Upon my Christmas gift, the while
My long-stored hopes confessing.
And as his aged hands were raised
Above our heads howed lowly.
The blessed time of Christmas ne'er

Had seemed to me so holy.

-Selected.

### CURRENT EVENTS.

The first section of the British garrison at Halifax has left for Liverpool. The Dominion authorities have not as yet taken over the fortress, but will do so before the close of the year.

In ten years, it is predicted, Canada will outstrip all other countries in the production of iron ore, as well as in wheat raising. This prediction is made by a French expert in metallurgy, who has been visiting Canada to report upon the electrical method of smelting ores.

The body of Sir George Williams, founder of the Young Men's Christian Association, who died November 6, was buried beneath the dome of St. Paul's Cathedral, in the presence of nearly a thousand British and foreign delegates of the association.

An enthusiastic reception was given to the Prince and Princess of Wales at Bombay, where they arrived on the King's birthday.

A number of Boers who went to other parts of the world at the close of the war in South Africa are now returning to live under British rule. The United States colony was not a success, the South American colony was also a failure, and those who went across the dividing line into German African territory are glad to return to their old homes to escape from the hardships of German rule, and the dangers of the native insurrection in German Southwest Africa.

A very charming and amiable person is the Dowager Empress of China, according to a writer in the Century Magazine, who has had access to her court for the purpose of painting her portrait. There is no doubt that the fearful tales we have been told of her and her cruelties are much exaggerated, if not entirely without foundation.

By a vote of about four to one, the people of Norway have decided upon a kingdom instead of a republic as their future form of government; and by a unanimous vote the storthing has chosen Prince Charles of Denmark as King of Norway. He has accepted the position, and will adopt the name of Haakon VII. First united with Sweden, by the marriage of a Norwegian princess to a Swedish king, later in union with Denmark, and again with Sweden, it has been nearly seven hundred years since Norway has had a king of its own who was not also ruler of one of the other Scandinavian kingdoms. The union with Denmark, which lasted from 1397 to 1814, was more intimate than that with Sweden, which has just been dissolved by one of the most peaceful revolutions in history; but the Norwegians always considered themselves a separate people. Dr. Fridtjof Nansen, the famous Arctic explorer, comes as the first Norwegian minister to Great Britain; and a daughter of King Edward VII., as wife of Prince Carl, becomes Queen of Norway.

Finland, where Swedish is the official language, may be called the fourth Scandinavian land, in view of the fact that it was long under Swedish rule, though in race and language the Finns are a separate people. In Finland, too, a revolution has taken place, the Emperor of Russia as Grand Duke of Finland, granting to Finland responsible government, and a parliament elected by universal suffrage. This, also, was a bloodless revolution.

The flag of Sweden, heretofore of very dark blue with a yellow cross extending through it and the symbol of the union with Norway in the staffhead corner, now flies without the union mark. In its new form it was raised for the first time on all school houses and public buildings on the first day of November, and hailed as the new ensign of Sweden.

Practically all the powers have accepted the invitation of the Emperor of Russia to be represented at the second peace conference, which will probably assemble in May next.

Mrs. Hubbard, who following up the work in which her husband perished, has been exploring the interior of Labrador, found no great difficulties in crossing from Northwest River to the Hudson Bay Company's post at George River, a distance of more than five hundred miles. The other Labrador expedition, under Dillon Wallace, has also been heard from, and is probably by this time safe at Ungava.

Prince Nicholas of Montenegro, following the example of the Russian Emperor, has announced that he will give his people representative government, and the elections for a popular assembly were to take place November 27.

A society for the protection of Canadian beauty spots from disfigurement by advertising signs has been organized in Ontario. Local improvement work will be taken up in addition to the abatement of the advertising sign nuisance. It is intended to organize branches of the league in all the important cities and towns of Canada.

Korea, as an independent country, has ceased to exist, the Korean authorities having formally accepted a Japanese protectorate. The acceptance was, perhaps, only nominally a matter of choice; for the occupation of the country by Japan was a military necessity. A new railway, which opens up the centre of Korea to trade, has been built since the Japanese came; but has hardly reconciled the Koreans to the presence of the Japanese soldiers that garrison the chief towns along its route.

One hundred and twenty-eight new stations are named on the latest edition of the Canadian Pacific Railway map. The map is revised quarterly, and this may be taken as an index to the growth of their business within the preceding three months.

The new cave recently discovered in Kentucky promises to equal or surpass in interest the famous Mammoth Cave. One arm of it has been explored for a distance of seven miles.

Buenos Ayres, the capital of the Argentine Republic, still continues its rapid growth, and has now over a million inhabitants.

The governor of German Africa has made his first official visit to Lake Victoria Nyanza, the southern shores of which are German territory. Travelling only in the day time, he reached the lake from the Indian Ocean by railway in two days. Thirty years ago it took Stanley months to make the same journey with native porters to carry his baggage through the jungle. Stanley made his way around the lake with small boats rowed by his men. The German governor had a steamer at his disposal. While the former required more than nine months to reach Uganda, the latter, following nearly the same route, had reached that place, now the capital of a British colony, and returned to his own capital on the Indian Ocean in just three weeks' time.

The British government has raised the grade of its representative at the Japanese court from that of minister to that of ambassador, thus recognizing Japan's position as a first-class nation.

The Chinese government has sent out able statesmen as commissioners to travel through the principal countries of the world and observe the workings of their several forms of government, with the object of drafting a constitution for the empire that shall embrace the best features of those of the Western World.

The British government is about to establish a new port on the shores of the Red Sea, to be known as Port Soudan. It will take the place of the port of Suakin, which is to be abandoned. Besides being an important coaling station, it will serve as an outlet for the cotton of the Soudan, where cotton is now an important industry.

A fleet of Austrian, British, French and Italian vessels, under command of the Austrian admiral, has been ordered to Turkish waters to enforce the demands of the allied powers for reforms in Macedonia.

There is a crisis in Hungarian affairs. Austria and Hungary are united, as Sweden and Norway recently were, by having one crowned head over the dual monarchy, while in other respects the two countries are more or less independent of each other. Hungary, however, is, as Norway was, jealous of the weightier influence of the sister state in the common affairs of the two nations. Perhaps it is more correct to say that the Hungarians, or Magyars, are jealous; for they number less than half the population of Hungary. The others are made up of Germans, Roumanians, Croats, Serbs and Slovaks; none of whom, with the possible exception of the Croats, are in very strong sympathy with the Magyars. But, under the present suffrage, the Magyars have full control of the Hungarian parliament, their representatives outnumbering all the others about ten to one. The Emperor of Austria, as King of Hun-

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gary, has refused the demands of the Hungarian leaders, chief of which are a separate tariff for Hungary and the use of the Hungarian language in the army. To settle the matter, the Emperor-King may dissolve the present parliament and call a new popular assembly to be elected by universal suffrage, thus putting his Magyar subjects in the minority and depriving them of their power.

Serious disorders continue in many parts of Russia. The most threatening of these are in Poland, where the people have never forgotten their history, and still seem to hope for independence. Autonomy, with a viceroy and a representative assembly they might obtain; though, according to Russian ideas, they have not the same right to it as the Finns. By official title, the Emperor Nicholas is Emperor of All the Russias and Czar of Poland; but repeated insurrections led to the abolition of the Polish constitution and the complete union of the ancient kingdom with the Russian Empire. Poland is now under martial law, and is specially excluded by the Czar's proclamation from participation in the new liberties granted to his other subjects.

The statement of last month to the effect that irrigation had not made any marked difference in climate, as might be understood from the context, though not very clearly expressed, referred to the climate of Egypt. It is a satisfaction to learn that the great increase in the area of land under cultivation has been obtained without injury to the monuments of the ancient civilization, the preservation of which has been due to the dryness of the atmosphere. The Egyptian monolith brought to New York some years ago soon began to crutible in the moister climate of the North Atlantic coast.

### SCHOOL AND COLLEGE.

A concert and social was held in the schoolhouse, Perry district, Sussex, N. B. A good sum was realized, which will go towards school purposes. A great effort was made by the teacher, Miss Agnes E. Reynolds, and people to make it a success.

Professor Lishman, to whom has been given the task of establishing a new mining school at Glace Bay, is an arts graduate of Durham University, and has had much practical experience in coal mining.—Kings College Record.

Mr. Osburn N. Brown, of Newcastle, N. B., Harkins Academy, intends to take a course at Fredericton after the holidays to qualify as a teacher of manual training.

Miss Ida A. Northrup, of Kingston, N. B., has begun a two years' course in domestic science at the Macdonald Hall, Guelph, Ont.

Professor Arup has entered on his duties in the chair of chemistry as successor to Dr. Kennedy, of Kings College, Windsor, and the Rev. C. A. Brodie Brockwell, B. A., is the first to fill the New Alexandra professorship of divinity in the same college. Both are men of scholarship, and their attainments will no doubt add much to the prestige of Kings.

It is proposed at the next session of the New Brunswick legislature to amend the school law so that in the refusal of a district to consolidate with others, the board of education shall have the right to affect such a change without the votes of the ratepayers. It is also proposed to have the law relating to vaccination of school pupils changed so as to throw the responsibility on trustees and parents rather than on the teacher.

The second forward movement for Acadia College is now approaching successful completion. Of the amount to be raised, \$100,000, the sum of \$02,000 has already been collected or pledged, and Dr. Trotter confidently looks forward to seeing the total amount secured at an early date. This will bring an equal sum from John D. Rockefeller, which will place the institutions at Wolfville on a firm financial basis.

In the Dominion Fair recently held at New Westminster, British Columbia, the schools of that province gave a fine exhibition of their work, which attracted universal attention and many warm commendations.

The Halifax school board has adopted a new scale of salaries for teachers, which during the next three years will add from \$5,000 to \$6,000, or an increase of seven per cent over present salaries. The proposed plan of increase will treat all teachers fairly, but necessarily the largest increase will be to those of approved experience and scholarship

## New Books

### The History of Canada.

By G. U. Hay, D.Sc.
added a sketch of the History of Prince
Edward Island.

By Helen M. Anderson.

### Entrance Grammar Notes.

By Chas. G. Fraser, Principal Crawford Street School, Toronto.
For Third and Fourth Classes,
Entrance Grammar Notes is an ideal little text-book of English
Grammar, presenting, in convenient form and striking type, the
essentials of the science of language which an entrance pupil
should know as a preparation for definite work in composition.
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of a language—and then deals with the parts of which a sentence
is composed, before taking up the classification and inflection of
the different parts of speech.

## Introductory Physiology and Hygiene for Public Schools.

By A. P. Knight, M.A., M.D., Professor of Physiology, Queen's University.

This book consists of a series of graded lessons, most of which were taught to pupils of the Kingston Public Schools during the autumn of 1904. They were taught in presence of the teachers-in-training of the Kingston Model School, and as such were intended to be model lessons

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### The Nature Study Course.

With suggestions for teaching it.

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Based on Lectures given at Teachers' Institutes, Summer Schools, and at the London Normal School.
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### Practical and Theoretical Geometry - Part I.

For Continuation Classes in Public Schools and Lower School Classes in Secondary Schools. By A. H. McDougall, B.A., Principal Ottawa Collegiate Institute. Price 50cts.

### Introductory Chemistry.

For High School and Continuation Classes. By W. S. Ellis, B.A., B.Sc., Principal Collegiate Institute, Kingston Price 30cts.

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Miss Ida McLeod, daughter of Rev. Dr. McLeod, of Fredericton, is to be married this month to Mr. Maurice White, superintendent of schools for the Western Transvaal. Miss McLeod is a very estimable young lady whose large circle of friends join in wishing her a great measure

of happiness and prosperity.

Mr. David Wilson, B. A., recently inspector of schools in the Kootenay district, British Columbia, has now charge of the schools on Vancouver Island, with headquarters at the capital city, Victoria. Mr. Wilson is well known in the East. He is a graduate in arts of the University of New Brunswick, and for the last twenty years has occupied a leading position in the educational affairs of British

The number of new students entering Dalhousie this fall is 122. These are distributed as follows: 96 in arts and in pure and applied science; 11 in medicine and 15 in law. While the total number of new students may have been equalled in former years, the number of new students in arts and science this year is the largest in the history of the college. Twenty-five of them have entered the courses in engineering. The homes of the new students are thus located: Halifax city and county, 47; the island of Cape Breton, 17; Pictou County, 14; Colchester County, 11; New Brunswick, 9; Lunenburg County, 7; two outside the Maritime Provinces and the remainder in Prince Edward Island and the Counties of Shelburne, Carmouth, Annapolis, Kings, Hants, Cumberland and Antigonish.

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NORTHLAND HEROES. By Florence Holbrook, principal of the Forestville school, Chicago. Cloth. Illustrated. Pages 112. Price 35 cents, post-paid. Houghton, Mifflin & Company, Boston.

The stories of the Northland Heroes, Fridthjof and Beowulf, are healthy and manly, and such as will appeal to Anglo-Saxon children. Miss Holbrook has succeeded well in bringing out the qualities of strength, courage, truth and endurance of these ancestors of our race.

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LABORATORY AND FIELD EXERCISES IN PHYSICAL GEOGRAPHY. A Manual for Secondary Schools. By Gilbert Haven Tration, Instructor in Science, Passaic, N. J., High School. Ginn & Company, Boston.

Designed to guide pupils in their field work and to furnish definite outlines for the exercises in the laboratory, this manual provides a basis for the text-book work. It is planned to occupy the same place in the study of physical geography that the laboratory manual holds in the study of physics or chemistry.

THE CHERRY RIBBAND: A Novel. By S. R. Crockett. author of "The Lilac Sunbonet," etc. Cloth. Price 410. Price \$1.50. The Copp Clark Co., Toronto.

A very pretty story; and if it does not arouse the same interest as the author's earlier work, it has a charm of its own which will abide with the reader.

THE STORIES OF LITTLE FISHES. By Lenore Elizabeth Mulets. Cloth. Pages 288. Price \$1.00. The Copp Clark Co., Toronto.

These are more or less didactic. Mingled with the descriptions and pleasant anecdotes for children, we find many curious illustrations of the lives and curious habits of many of the finny tribe.

EASY MATHEMATICS. Vol. I., chiefly arithmetic. By Sir Oliver Lodge, F.R.S., Principal of the University of Birmingham, Cloth. Pages 436. Price 4s. 6d. Macmillan & Company, London.

The well known reputation of the author of this book is a guarantee that we have here something worth reading and pondering over. It is "a collection of hints to teachers, parents, self-taught students and adults," presenting "a summary or indication of most things in elementary mathematics useful to be known." Whether it is a problem in pedagogy or cube root, the author is equally clear and direct: "Teaching which is not fresh and lively is harmful;" "Wearisome over-practice and iteration and needlessly long sums should be avoided;" "Even influential persons occasionally speak of mathematics as 'that study which knows nothing of observation, nothing of induction, nothing of experiment,"—a ghastly but prevalent error which has ruined more teaching than perhaps any other misconception of that kind." The book is brimful of clearly expressed thought and tangible suggestions.

THE POETRY OF LIFE. By Bliss Carman. Cloth. Pages 258. The Copp Clark Co., Toronto.

This is a beautifully bound volume, appropriate to the Christmas season, made up of sixteen prose essays of Mr. Carman. The subject of the greater number of these is poetry—The Poetry of Life, The Purpose of Poetry, How to Judge Poetry, The Defence of Poetry, The Permanence of Poetry, The Poet in Modern Life, The Poet in the Commonwealth, etc. Written in Mr. Carman's vigorous and healthy English, they furnish a choice collection of the best specimens of his prose writings.

### Recent Magazines.

The Atlantic Monthly for November is a notable number both in the importance and interest of its papers. Among these are several dealing with prominent subjects in literature and topics now engaging the attention of the public. Other attractive features are short stories and poems, a charming essay upon The Country in November, by Henry Child's Merwin and Reverend Mother's Feast, the concluding instalment in Agnes Repplier's series of engaging sketches of a girl's life in a convent school. The Atlantic is the literary magazine of America, and is every month increasingly interesting in the variety and excellence of its contents. The Atlantic for December is a notable Christmas number. There are seasonable articles, fine stories, and distinctively Christmas poems.

The November Canadian Magazine is largely a sportsman's number. There are sporting sketches and illustrations, stories of animals by Chas. G. D. Roberts and W. A. Fraser, and a history of Golf in Canada. The article on the New High School, by W. L. Richardson, should wake up Canadian schoolmen to the importance of manual training. The excellence of the articles and illustrations and the superior make-up of this number show that the Canadian is successfully meeting the wants of its readers. The Christmas number of the Canadian Magazine is quite worthy of the season. The contents show a great variety, ranging from articles on art and special book reviews to stories and interesting comment on the passing phases of our existence.

For colorwork, presswork and general beauty and usefulness, the December *Delineator* is conspicuous among the Christmas magazines. Eight paintings by J. C. Leyendecker, illustrating and interpreting the Twenty-third Psalm, is the most extensive color feature of the number. The short fiction of the number comprises stories by Hamlin Garland, John Luther Long, Sir Gilbert Parker, and there are many attractive articles on topics of interest.

The pastimes for children are filled with the spirit of the season, and there is an abundance of matter of housewifely interest.

Littell's Living Age occupies a field peculiarly its own. It gives sixty-four pages every Saturday of selections from the best and most popular English periodicals, and is almost indispensable to any one who wishes to keep informed upon public affairs and current discussion. Fiction, essays, travel sketches, poetry, critical and biographical papers, literary and art articles, and much else besides will be found in the magazine. The subscription price is six dollars a year, but a trial subscription of three months, thirteen numbers, may be had for one dollar. The Living Age Company, 6 Beacon Street, Boston, Mass.

Early, while I'm still asleep,
The sun arranges things for me;
It takes the chill all off the air,
And lights the day so I can see.

It beams upon me all day long,
And when at last it sinks away,
It hustles round the other side,
To be in time for me next day.

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THE EDUCATIONAL REVIEW. St. John, N. B.

Our best wishes to the readers of the REVIEW for A Happy and Prosperous New Year.

AMHERST, N. S., has placed itself in the front by increasing the salaries of its women teachers. The Review has been able to record instances of salaries increased for several months past. What cities, towns and country districts will be heard from next?

It is conceded that the very best people should be secured for the work of teaching. Their services cannot be retained at unremunerative salaries. Although salary may be a secondary consideration with many teachers, it is nevertheless a measure of appreciation on the part of those who give it.

The N. B. Educational Institute will meet at Chatham in June.

During the month of December the Sydney C. B. Post began an evening paper as an addition to the large and flourishing morning edition which it has been publishing. The Post has shown a marked improvement of late, and is a vigorous example of the growth of an enterprising and progressive community.

This month we present our readers with a picture and autograph epitaph of Benjamin Franklin instead of the usual general art picture, which will appear in the February number. There are many incidents in the early struggles of the life of this eminent philosopher which will stimulate the average bov.

Reflect on the opening of the new year whether you gained more by your successes or by your failures last year.

THE REVIEW would like to hear more about the schools. One teacher is doing something different from others,—a way of presenting a lesson that has secured attention, interest and good results; a device that has been successful in promoting good order and punctuality; another that has improved the deportment of the school. Let us have these for publication that hundreds of others may share in the benefits. Send them on or before the fifteenth of each month.

THE personality of a teacher is what wise emplovers wish to secure above all else and it is largely capable of cultivation. In the first place a teacher should have good food, avoid worry and anxiety, and have a comfortable room in which to be quiet. In the long run these are half the battle. To keep up a strong personality the teacher must not waste nervous energy. He must say no to social and other calls good in themselves, but which would waste his energies if he tried to attend to them all. The problem is what to select and what to leave out of the many demands on his time and abilities, Teachers should study what is best for themselves and their pupils, do what is best, and then never mind what people say.

### The Old and the New.

How often do we hear it stated, "The schools of today are not what they were when we were young, especially in the three R's—reading, writing and arithmetic." The men who talk that way know nothing whatever by experience of the interior working of our schools. They are busy men—mechanics, merchants, professional men. They compare their own well-earned acquirements with the acquirements of children leaving the schools, forgetting the education of the years of experience that have elapsed since they left school.

An interesting comparison of the schools of sixty years ago with our own has recently been made by Principal Riley of Springfield, Mass., who discovered lately in that city a bound volume containing the questions and answers of an examination test given in 1846 to 250 pupils of grade nine of the high school.

The tests in spelling and arithmetic which were given to 250 ninth grade pupils during the last year by Principal Riley on the questions used in 1846 showed 51 per cent of correct spelling, as compared with 41 per cent for 85 pupils of the high school in 1846, and 65 per cent as compared with 29 per cent in arithmetic. The comparison in geography is equally unfavorable to the old schools.

The average age at which pupils entered the high school was as high as it is today. This gives evidence that the schools half a century ago were weak in the pet subjects on which they spent their strength.

We give below the spelling and arithmetic tests so that our teachers may institute a comparison if they choose with their own schools.

Spelling.—Accidental, accessible, baptism, chirography, characteristic, deceitfully, descendant, eccentric, evanescent, fierceness, feignedly, ghastliness, gnawed, heiress, hysterics, imbecility, inconceivable, inconvenience, inefficient, irresistible.— 20 words.

ARITHMETIC.—I. Add together the following numbers: Three thousand and nine, twenty-nine, one, three hundred and one, sixty-one, sixteen, seven hundred, two, nine thousand, nineteen and a half, one and a half.

- 2. Multiply 10008 by 8009.
- 3. In a town five miles wide and six miles long, how many acres?
- 4. How many steps of two and half feet each will a person take in walking one mile?
  - 5. What is one-third of 1751/2?

- 6. A boy bought three dozen of oranges for  $37\frac{1}{2}$  cents and sold them for  $1\frac{1}{2}$  cents apiece; what would he have gained if he had sold them for  $2\frac{1}{2}$  cents apiece?
- 7. There is a certain number, one-third of which exceeds one-fourth of it by two; what is the number?
- 8. What is the simple interest of \$1200 for 12 years, 11 months, and 29 days?

### History of the River St. John.

A series of articles, published in the Saturday edition of the St. John Daily Telegraph for the past year or more, by Rev. W. O. Raymond, LL. D., has just been issued in book form. The result is a volume of 376 pages, largely documentary in character, but a mine of historic information on the St. John River valley from the time of its discovery by Champlain in 1604 to the coming of the Loyalists in 1784. The book is illustrated by several full page portraits and engravings, with plans, maps, fac-similies of signatures, etc. Dr. Raymond in his numerous citations has quoted the exact language of the writers, giving us a series of glimpses of the past as they appeared to the eyes of the principal actors of Acadian story—de Monts and Champlain, Biard, Biencourt, La Tour, Charnisay, the Sieur de Soulanges, Governor Villebon, Membertou the Micmac, and Secondon the Maliseet. The Indians and their mode of life is accurately described and we are enabled to see them as they appeared to the eyes of the first explorers of the Acadian wilderness. Next we have the tragic tales of Indian wars and massacres, the touching story of John Gyles the little English captive, the record of the feeble attempts of the French at colonization, the narrative of the struggle for mastery of the rich river valley between the French and the English, all woven together with the skill and patience of a historian and the love of one passionately devoted to his story.

Dr. Raymond has won the gratitude of the students of our history in laying before them in this acceptable form the narrative of early French exploration in this country. The book is a mine of information to present and future readers. Especially valuable is it to teachers in supplementing the somewhat meagre records in the text-books of our early history. Teachers may obtain the book from Dr. Raymond for one dollar.

## Nature-Study. Hints for January Talks.

For the younger grades a series of talks illustrated by pictures of birds and other animals will prove interesting and beget in the children an appreciation of animal life,—how animals prepare for winter, where the birds have gone, which remain for us for the winter, such as the English sparrow, chickadees, nuthatch, pine grosbeak, etc. What do they find to eat, what are the different things you have seen them doing? How are they protected from the cold?

The winter is a good season for studying the common domestic animals, such as the cat, dog. horse, cow and others. The cat belongs to a large family, the members of which can only be illustrated by pictures—the wild cat, lynx, tiger, panther and others, but they have the same characteristic as the domestic cat.: They are flesh-eating; they approach their prey stealthily and spring quickly upon it; they have sharp claws which can be drawn into and out of sheaths; they have soft cushions on the bottom of their paws which enable them to tread noiselessly, they have sharp teeth for cutting and biting their prey; they have long sensitive whiskers which help them to feel their way in the dark; their cool moist noses help them to scent keenly; their erect ears enable them to hear the slightest noise.

Pictures will help to distinguish the various breeds of dogs and their relatives the fox and the wolf. Has the dog claws that can be drawn into sheaths? Does he spring on his prey like the eat? Does he hunt at night? Has he the same quick scent and hearing? Is his tongue rough like that of the cat? Name some of the common breeds of dogs. Illustrate their faithfulness and other traits by stories—of Eskino dogs, St. Bernard, shepherd, Newfoundland, and others.

How do grass-eating animals get their food? How do their teeth differ from those of the cat and dog? Their feet? What animal feeds on either flesh or vegetables? (The bear). What is chewing the cud? Name some animals that are relatives of the cow and horse. (The sheep, goat, deer, moose, etc.)

Get the children to tell you what they can about their home animals; their tameness, uses, fitness for their surroundings, and to give stories about them.

Get the children to tell you what they can about the air, the winds and their direction, water, ice. Continue the weather records for this month. Keep up the observations on the stars and their movements in the sky. What is the planet Jupiter's position compared with that when you began to observe it in November or December?

Did you notice the two stars quite close to each other, like a pair of bright eyes, in the early hours of Christmas Eve in the south-west sky? These were the planets Saturn and Mars in conjunction, the latter a little the brighter, and reddish. They set about nine o'clock on the first of the new year. They both shine by the reflected light of the sun. Why is it then that Saturn, which according to its larger area should be about fifteen times as bright as Mars is not quite so bright? Watch these planets in the early evening sky as they draw apart during the month.

The magnificent group of constellations which adorns the winter sky is now fairly visible in the east and south-east. Orion, the finest of them all, is also the best one to use as a pointer to help us to find the others. At 8.30 o'clock in the evening about the first of January, it is almost due southeast, and about one-third of the way from the horizon to the zenith. Its two brightest stars, Betelgeuse and Rigel, lie to the left and right of the line of three which form Orion's belt. Two others, not quite so bright, Bellatrix and Saiph, complete a quadrilateral which incloses the belt and also the smaller group on the right, known as the sword. The middle one of these last three stars is perhaps the most remarkable object in the heavens. A fieldglass will show it double, and a small telescope resolves the brighter of the three stars seen with the field-glass into four components, to which a powerful instrument adds two more.

The line of Orion's belt points downward to Sirius, which even at its present low altitude is easily the brightest star in the sky, and upward to Aldebaran, and beyond it to Jupiter, near which to the northward are the Pleiades.

The very bright star in the Milky Way, north of Aldebaran, is Capella, in the constellation Auriga. Below this is Gemini, marked by the twin stars

Castor and Pollux, from each of which a line of finer stars runs toward Orion. Below these again is Canis Minor, with the bright star Procyon.

The great square of Pegasus is well up in the west. Aquarius is below it. Cygnus is low in the northwest, and Lyra is still lower, Vega being near setting. Cepheus, Cassiopeia, and Perseus lie in the Milky Way between Cygnus and Auriga, and Andromeda and Aries are south of them, almost overhead. Ursa Major, Ursa Minor, and Draco lie below the Pole, and so are not conspicuous.

### January Birthdays.

January 1, 1728. Edmund Burke born in Dublin; orator, statesman, philanthropist; as M. P. he recommended measures which, had they been adopted, would have averted the Revolutionary War in America; his essay on the "Sublime and Beautiful" is an English classic.

January 3, 106 B. C. Marcus Tullius Cicero, a great orator and writer and an illustrious Roman; rose from a humble station to the highest office in the Roman Republic. Catiline conspired to kill him and others and burn Rome, but Cicero drove him from the city by his eloquence. Of literary labors he says: "They nourish our youth and delight our old age. They adorn our prosperity and give a refuge and solace to our troubles."

January 6, 1811. Charles Summer, born in Boston; a great orator; opposed to slavery.

January 15, 1726. General James Wolfe, born in Kent county, England; was distinguished in the army when but twenty years old; his success at Louisburg placed him at the head of the army; at twenty-three years of age he took Quebec, dying from wounds in the moment of victory.

January 17, 1706. Benjamin Franklin born in Boston, of English parents (see sketch, p. 190.)

January 18, 1782. Daniel Webster born in New Hampshire; great statesman and orator.

January 19, 1807. General Robert E. Lee; chief Confederate general in the United States Civil War.

January 22, 1561. Francis Bacon born in London; one of the greatest philosophers of modern times; a great orator, statesman and author; his essays are literary masterpieces. When sixteen he wrote: "They learn nothing at the universities but to believe; they are like a becalmed ship, they never move but by the wind of other men's breath."

January 24, 1712. Frederick the Great, King of Prussia; was brought up and educated with great severity, and made to endure many hardships as a

lad; was a great warrior; was involved in the Seven Years' War with but one ally—England; had varied successes and ill-fortune.

January 25, 1759. Robert Burns the national poet of Scotland, born near Ayr; his father a poor farmer; suffered many hardships in early life, and was intemperate in his later years; died at the early age of thirty-seven. His most famous poems are: "Tam O'Shanter," "Cotter's Saturday Night," "To a Mountain Daisy." Scott, then a very young man, met the poet at Edinburg, and has left a very interesting account of his appearance.

January 31, 1574(?) Ben Jonson, great poet and dramatist, born at Westminster; wrote "Every Man in His Humour," "The Alchemist," and many other plays. His tombstone in Westminster Abbey bears the inscription, "O rare Ben Jonson!"

[These birthdays may be made the occasions of recitations from the authors' works, and these and other additional notes expanded into short compositions.]

### Our Native Trees.

BY G. U. HAY.

### The Pines.

"This is the forest primeval. The murmuring pines and the hemlocks,

Bearded with moss and with garments green, indistinct in the twilight,

Stand like Druids of eld, with voices sad and prophetic, Stand like harpers hoar with beards that rest on their

Those who have camped out in a pine forest will recognize the appropriateness of the poet's word "murmuring." But not so with the rest of'the description. One seldom sees a living pine tree covered with the "old man's beard," which the poet in his license describes as a "moss." Rather commend us to the description of Lowell, who says:

"Spite of winter, thou keepest thy green glory, Lusty father of Titans past number! The snowflakes alone make thee hoary, Nestling close to thy branches in slumber, And thee mantling with silence."

The white pine is here meant, the monarch, the loftiest and largest of girth of all our eastern Canadian trees. Most of these "Titans past number" have fallen by the axe of the lumberman, and the younger and smaller trees only remain, except in the depths of a remote forest where the ground is covered with the accumulated leaf mould of centuries. The white pine (Pinus Strobus) takes its

name from the color of its wood, which is light, nearly white, soft, compact, and one of the most valuable of timbers. A cubic foot weighs twenty-four pounds. It has probably been put to more uses than any other tree in America. In the early years after these provinces were discovered, the pine trees were cut and taken across the Atlantic to make masts and spars for Old World navies. Its timber has been carried over to the Old Country for inside house finishings. For building purposes it is unexcelled, as it is easily worked and stands the weather. For furniture and cabinet work it takes a fine polish, and is esteemed for its durability and beauty.

The pines may be told from the other evergreens by having their leaves in a sheath at the base. In the white pine there are five very slender, pale green leaves, from three to five inches long. The pines, like the spruce and fir, produce their seeds in cones, but the pine cones require two years to mature. The pollen-bearing and seed-bearing clusters are found on the same tree, hence they are monoecious plants. The pollen is scattered in May, borne far and wide by the winds. Most of the seed-bearing cones are developed on the upper branches, and the nut-like seeds, two being borne at the base inside of each bract or scale, are ripe in the second autumn. The empty cones, with open bracts, cling to the tree for some time, or soon fall. The white pine cones are large-from four to six inches long, and one inch thick when the bracts are closed.

The leaves of all evergreens fall off after two or more years. Those of the white pine stay on the trees three or four years.

The red pine (Pinus resinosa) has rather smooth, reddish bark, flaky when old, with two leaves in each sheath. Its wood is compact, light red, and rather heavier than that of the white pine,—a cubic foot weighing thirty pounds. It is used for bridge and building timber. It is not resinous as its Latin name seems to imply. Its cones are much smaller than those of the white pine. This tree is much less common than the white pine in these provinces. The red pine is a beautiful shade tree, its tall, straight trunk and heavy clusters of foliage make it easily distinguished from other pines and evergreens.

The Jack, or Labrador pine (Pinus divaricata), is the smallest of our pines, with spreading branches; leaves two in a cluster like the red pine, but short, an inch, or an inch and a half, in length, with numerous small cones, curved upwards. The wood is weak, light red, and a cubic foot weighs

twenty-seven pounds. Its chief use is for railway ties. It covers large areas in light sandy soil from the Atlantic to the Pacific, and extends far north.

It is a good exercise to learn to distinguish the pines, not only by their needle-like leaves, but also at a distance, by their form, and by their clusters of foliage.

### The Distinctive Features of Acadia.

PROFESSOR L. W. BAILEY, LL.D.

Every separate region of the earth's surface has its peculiar features which are not exactly repeated in any other, and connected with these features are the equally distinctive characteristics of the peoples who inhabit them, their history, their language, their occupations and their development. A journey across the American continent by either of the great trans-continental lines of travel would, to a stranger, suggest these contrasts in a most forcible way. Near the sea coast the influence of the ocean tends to determine maritime pursuits, to fix the termini of the great arteries of commerce, to determine peculiarities of climate and productions, unlike in many features to those of the interior, to give to these again, as the parts first discovered and settled, a more lengthy history, and generally a more advanced degree of culture and refinement than are to be found elsewhere. The prairie region suggests an ocean, but it is an ocean of waving grain, where agriculture is the predominating factor in the life and development of its possessors. In the mountain region, on the other hand, agriculture is impossible, and among lofty hills, narrow defiles, swift torrents and possibly glaciers, profit is sought below rather than upon the surface, and mining is the controlling factor, the source of wealth and growth. There the scenery, the soil, the forest, the rivers and the lakes of any one tract are wholly unlike those of any other, and give it a character not to be mistaken.

Acadia (originally termed Arcadia) is one of the natural divisions of America, distinct in its situation, its physical features, its climate, its human and its geological history; and with these features and their relations every inhabitant of the country ought to be, in some degree at least, familiar. Let me enumerate those which are most obvious, leaving for later consideration the details of each and the causes to which they are to be ascribed.

Our Situation.—The region to which the name Acadia is here applied embraces the so called maritime provinces, New Brunswick, Nova Scotia and Prince Edward Island. If Newfoundland be added, they represent that portion of the continent attaining the most easterly meridian, and therefore approaching most nearly to Europe. fact alone is of the utmost significance, because it gives us the shortest line of ferriage to that continent, as it was also, probably, the first portion of America to be reached by Europeans. latter fact helped to give prominence to its early history; the former is now becoming of increasing importance in connection with the construction of the great trans-continental lines of travel and the shortening of inter-communication between the west and the east. It is this which gives prominence to the port of Halifax; it may in time give even greater importance to the still more easterly port of Sydney.

Acadia is also situated in a comparatively northern latitude. This is an important factor in its climate, but that it is not the only one is indicated by the fact that the parallel of latitude which passes through southern New Brunswick and Nova Scotia is also that which passes through the sunny climes of southern France. We need not just now consider the cause of the contrasts between the two-the one characterized by the length and severity of its winters, the other constituting a region to which, in the winter season, flock so many thousands of those who would seek mild and equable climatic conditions—but, in passing, may note the fact that while our winters are undoubtedly long and cold, they are also very invigorating, while the delightful summer climate is each year attracting in ever increasing numbers those who would escape the heated cities of the States farther south.

The two great factors referred to, our northerly and casterly position, bring us into such relations with the great occanic currents that our coastal waters remain cool throughout the year, and thus help to make our fisheries the finest in the world.

If now, with the aid of an atlas, we consider the relations of the Provinces enumerated above to each other, we find them, except P. E. Island, distributed around the sides of the Gulf of St. Lawrence, and, in a general way, sloping towards the latter. Then, with the Gulf of St. Lawrence they constitute one of the great depressions of the continent, a depression which may be termed the

Acadian Basin, comparable with the great Mississippi basin, and though much of this is now submerged, the submergence is only to very shallow depths, while in Prince Edward and some other islands the bottom rises to the surface. Moreover, while New Brunswick constitutes a portion of the mainland, Nova Scotia is almost, and Prince Edward Island and Cape Breton are wholly, surrounded with water,, so that the one may be conveniently termed Continental Acadia and the others Insular Acadia. We shall hereafter see that these relations, too, are not without most important consequences.

THE CONFIGURATION OF ACADIA.—The Province of New Brunswick, or Continental Acadia, lying in a general way between the meridians of 64° and 67° west longitude and the parallels of 45° and 48° north latitude, has the general form of a parallelogram, the longest diagonal, which is also the shortest direct line of railway from the Province of Quebec to the boundary of Nova Scotia, being 246 miles. The total area has been computed as embracing 17,677,360 acres, or 27,260 square miles. The Province of Nova Scotia, lying south and southeast of New Brunswick, has, in general, a triangular form, the apex being at the isthmus of Chignecto, while the base, excluding Cape Breton island, is two hundred and fifty miles long, the extreme breadth being about one hundred miles. New Brunswick and Nova Scotia, together with Cape Breton and Newfoundland, surround the St. Lawrence basin, along the western side of which lies Prince Edward Island, curving like a crescent, parallel to the adjacent shores. Between New Brunswick and Nova Scotia lies the funnel like trough of the Bay of Fundy, separated at its head from the waters of the Gulf by an isthmus only sixteen miles in breadth. All these features, together with their minor details, such as are depicted in any good atlas, are, as will later appear, most intimately connected with the history of Acadia, both past and present.

Another important element in the physiography of Acadia is that of its *Relief*, i. e., the inequalities of its surface. Without presenting any extremes, it shows the usual geographical contrasts of highlands and lowlands, plains, plateaus and hills, a few of which rise to the dignity of mountains. Thus a great variety of scenery is introduced, while "divides" or water sheds are formed, and these, besides acting in many instances as the chief con-

densers of moisture, determine the number, direction and character of numerous water-courses, give origin to lake basins, control the distribution of population, the position of county boundaries, the position of railways and other channels of communication, and, to a large extent, the natural products and the industries of different sections of the country.

The drainage system of Acadia, determined as above, presents many special features worthy of study. Few areas of similar extent are to be found which are so well watered, few have streams presenting greater attractions and variety in the way of beauty, few there are in which are such stores of energy to be hereafter drawn upon for purposes of industrial development. With these streams and lakes are linked many important events in the early settlement of the country; they are now, and must ever remain, controlling factors in the location of towns and cities; for they afford the easiest and cheapest means of bringing to the sea-board the products of the interior. No two of these streams are exactly alike, and the differences at once raise, in an inquiring mind, a desire to know their cause.

The *climate* of Acadia has already been referred to in a general way; but obviously in a country presenting so many and such marked contrasts in other physical features, there must also be many local peculiarities of temperature and humidity, and it is interesting to trace the causes to which these differences are due.

Dependent upon all the above causes, and varying with them, we have next to notice the peculiarities in the *flora* and *fauna* of Acadia, embracing the distribution and character of our forests, with their native inhabitants; similar facts as to the denizens of our inland and coastal waters; and the best methods of preventing serious injury to both. In the same connection all economic products, of the mine as well as of the forest and the fisheries, are of importance to those who take an interest in the welfare and development of the land they inhabit.

Finally, behind all the features as exhibited by the Acadia of to-day, lies its carlier history, not merely that which is contained in human records since the time of the first European occupation of our shores, but that also of which the events are only to be found in the pages of the great Stone Book—events which, occurring, it may be, many

millions of years ago, afford the only intelligible explanation of how things came to be as we now find them.

In future chapters it shall be our aim to consider, in a simple way, the physiographic features briefly enumerated above, with their relations to present human interests; and, in the sequel, to trace, in an equally simple way, if possible, the main facts of our geological history.

### Notes On English Literature.

By G. K. Butler, M.A., Halifax.

Rip Van Winkle.

Posthumous: is a word which will draw from some pupils very amusing explanations. I have been told that it means a work written by a man after he was dead.

Woden: what other Saxon gods have given names to our days? From what source do we get the names of the months? How does it happen that September (septem, Latin, seven), is so-called? It is our ninth month.

P. 68, l. 1.—Parse "remember" in this line. What verbs beside "must" have the same power? What are such verbs called? What is subject of "must?" l. 10.—What is meant by "print their outlines on the sky?" Are Irving's weather notes true for Nova Scotia or New Brunswick? l. 16—Meaning of "fairy mountains?" They or their frequenters seem to have had magic power or this story couldn't be told. It might be interesting to see if any of the children actually believe it. l. 21.—Why "Dutch colonists?" When and by whom was New Amsterdam taken? It seems almost retributive that his successor on the English throne was a Dutchman.

P. 69, l. 2.—Parse "may he rest." ls. 5 and 6.—Meaning of "latticed windows," "gable fronts?" l. 10.—Up to what date was the State a colony of Great Britain? By comparing the historical dates and the length of Rip's sleep it is possible to limit the time within which the story is supposed to have happened. ls. 18 and 19.—Is it true that a "henpecked husband" is meek abroad? The general opinion now prevailing is, I think, quite the reverse. l. 23.—Ask for meaning of "curtain lecture" before giving any explanation. I was told by a seventh grade pupil that it was a lecture on curtain hanging given by a wife to her husband. l. 25.—Termagant is synonymous with what word just used? l. 27.—How was Rip "thrice blessed?"

P. 70, l. 1.—It is said that no man who can attract children and dogs can be bad at heart. The paragraph beginning with line 3 needs a considerable amount of dictionary study. l. 8.—What do we call a "fowling-piece?" Macaulay in Horatius speaks of the "fowler." l. 37.—Meaning of "ado?"

P. 71, l. 2.—"Well-oiled" is sometimes expressed by the phrase "easy going." 1. 3.—Of what would Rip's "brown" bread likely be made? Of what is ours? 1. 10.—"Household eloquence" is another way of expressing what he earlier called by what name? 1. 13.—"A quiet answer" is said to turn away wrath. What about no answer at all? 1, 21.—In what way could Rip be said to "go astray?" Is Wolf true to dog nature? 1. 32. Does a "tart" temper become more tart? And is his statement about the tongue true? If so, there is a warning to us teachers in his words. 1. 36. et seq.—Compare the Deserted Village and its inn "Where village statesman talked with look profound." 1. 38.— Meaning of "rubicund?" Any who have read the Spectator will remember Sir Roger's tenant the innkeeper who wished to have Sir Roger's portrait on his sign.

P. 72, 1. 8 et seq.—This is our third schoolmaster this year. Which one was the superior? Are any of them true pictures of the present state of affairs? 1. 13.—Meaning of "junto?" 1. 20.—"Adherents" means what? Give in other words. What is political term in use? 1. 32.—Meaning of "call the members all to naught?" Parse "all." 1. 34. Another word here for "termagant."

P. 73, l. 3.—Modern word for "wallet?" l. 22—Meaning of "bark" in this line? l. 27.—Meaning of "impending?" Here it is used in its literal sense, generally it is not. l. 37.—"Fancy" means what?

P. 74, ls. 3 and 4.—Does Wolf behave naturally? l. 10.—Is Rip true to his nature here? l. 31.—How does an amphitheatre differ from a theatre? To whom do we owe the theatre? Who made use of the amphitheatre and for what purpose? Where are the most famous ruins found?

P. 75, l. 1.—Parse "unknown." What part of speech is "that?" l. 6.—"Outlandish" has much the same meaning as what word on preceding page? l. 32.—Generally a person's knees aet how under fear?

P. 76, 1. 33.—What does Rip mean by "blessed?" Compare French "sacre."

P. 77, l. 20.—Why should he shave his head?

P. 78, 1. 6.—What figure of speech is "the silver Hudson?" 1. 17.—Parse "very." What part of speech is it usually? 1. 34.—How many stars and stripes would there be in the flag as Rip saw it? How many now, and why the change? 1. 37.—"Metamorphosed" is a long word for our word? This word is Greek in origin. From what other languages does English derive words? How do other languages form new words? English generally goes to some other language for them.

P. 79, ls. 5 and 6.—"Disputatious" and "phlegm" may be looked up in the dictionary. l. 14.—"Bunker's Hill," "Seventy-six," will bear comment. l. 18.—"Uncouth;" it may be remembered in what words the writer speaks of the dress of the old men on the mountain. l. 25.—What are the two great political parties in the States now, and which one is in power?

P. 80, 1. I.—By what name do we speak of those whom the rabble at the tavern would have called "tories?" 1. I5.—Rip must have been on the mountain at least how long? 1. 35.—"Precise counterpart" means what?

P. 81.—On this page we are told that he had been away how long?

This piece, which is probably the best known of all Irving's works, has been dramatized and the part of Rip Van Winkle for many years was taken by the late Joseph Jefferson, who made it famous.

"An all-important function," says Dr. Eliot, "of the teacher, seldom to be seen in our public schools, is the helping forward of the brightest children. Our schools tend too much to become machines with an average product; the bright are held back, the dull are pressed forward, the pace must be a medium one. What a hideous injury to bright children—almost as bad as as the injury which a labor union works on the brightest members of the craft, the compelling them never to do their best. You can hardly do a greater injury to a human mind than that."

When a great singer was told that another prima donna was in the field, she said, "Ah, that is good; we can never have too much good singing in the world." When a teacher hears of another's success, instead of feeling a pang of jealousy, she will say, "That is good; we never can have too much good teaching in the world."



Spitaph worther 1728.

The Body of

Resident Printer.

(Like the lover of an old Book

The Contents torn out.

And stript of its. Lettering & Gildeng)

Lies here, Tood for Worms.

But the Work shall not be lost.

Tor it will, (as he believed) appear once more,

In a new and more elegant Edition,

Resifed and corrected,

By the Author.

BENJAMIN FRANKLIN, WITH COPY OF HIS EPITAPIL

## Digitized by Microsoft®

### Benjamin Franklin.

(Born January 17, 1706; died April 17, 1790).

The life of Benjamin Franklin, the second centennial of whose birth occurs on the 17th of this month, is so full of interest to boys and girls on account of his early struggles that we devote a little space to it. He was the youngest, except two daughters, of a family of seventeen children. He was sent to school at the age of eight, and showed great aptitude for study. The poverty of his parents, however, led to his being taken from school at the age of ten to "help in the shop," and he was afterwards apprenticed to his brother James to learn the trade of a printer. He was a great reader, wrote ballads, mastered arithmetic and studied navigation at the age of sixteen. He adopted a vegetable diet that he might save money to buy books.

At the age of seventeen he went to Philadelphia, having quarreled with his brother. He arrived there with one dollar in his pocket. He bought three rolls of bread and ate one as he walked up street with the others under his arms, and his pockets stuffed with stockings and shirts. A girl stood in a doorway and commented on the funny appearance he presented. This girl afterwards became his wife. The governor of the province became interested in him and promised to set him up in business, a promise which he failed to keep. Franklin spent eighteen months in London, perfecting himself in his trade of printer, reading and writing much; committed follies of which his strong common sense made him afterwards much ashamed. Returned to Philadelphia where he established the Pennsylvania Gazette and soon became a man of mark. His great intelligence and industry gained for him a prominent place in education, in municipal affairs, and afterwards in the councils of the united colonies. He studied diligently the ancient and modern languages, and was honored later with degrees from St. Andrew's, Edinburg and Oxford universities, and also from Harvard and Yale.

The invention of the lightning rod was a result of his studies in electricity. He proposed a plan of union for the American colonies which was rejected in England as too democratic. After the disastrous defeat of Braddock he organized a volunteer militia and took the field as their commander. Later he proposed a plan for the conquest of Canada. When the project of taxing the colonies came up Franklin was an uncompromising opponent. On

the eve of the Revolution, "he was," says Bancroft, "twice venerable, from genius, fame in the world of science, and age, being already nearly threescore and ten." In his voyages across the Atlantic he made observations on the Gulf Stream, and his chart of it forms the basis of charts now in use.

Shortly after the Peace of 1783, he retired to private life, after having served his country for fifty-three years. "His venerable age, his plain deportment, his fame as a philosopher and statesman, the charm of his conversation, his wit, his vast information, his varied aptitudes and discoveries, all secured for him the enthusiastic admiration of a circle of ardent friends embracing the very widest range of human characters."

His epitaph, written by himself many years before his death, has become famous.

### The Disciplinary Value of Grammar.

For the REVIEW.

John Stuart Mill, the great apostle of the Utilitarians, has this to say about the teaching of grammar and analysis:

Consider for a moment what grammar is. It is the most elementary part of logic. It is the beginning of the analysis of the thinking process. The principles and rules of grammar are the means by which the forms of language are made to correspond with the universal forms of thought. The distinctions between the various parts of speech, between the cases of nouns, the moods and tenses of verbs, the functions of particles, are distinctions in thought, not merely in words. Single nouns and verbs express objects and events, many of which can be cognized by the senses: but the modes of putting nouns and verbs together express the relations of objects and events which can be cognized only by the intellect: and each different mode corresponds to a different relation. The structure of every sentence is a lesson in logic. The various rules of syntax oblige us to distinguish between the subject and predicate of a proposition, between the agent, the action, and the thing acted upon: to mark when an idea is intended to modify or qualify or merely to unite with some other idea: what assertions are categorical, what only conditional: whether the intention is to express similarity or contrast, to make a plurality of assertions conjunctively or disjunctively; what portions of a sentence, though grammatically complete within themselves, are mere members or subordinate parts of the assertion made by the entire sentence.

Can it not be said that school instruction when employed upon the materials of grammar is both better from an intellectual point of view and also more practical than when engaged in changing centigrade degrees to Fahrenheit, metric weights and measures to English weights and measures, or even in explaining the action of the common pump? Can any discipline be better adapted than the severe discipline of grammatical study to check the illiteracy of the rank and file of our coming citizens, and thereby to ensure the stability of our Canadian democracy?

Teacher.

### Mental Arithmetic.

F. H. SPINNEY, Oxford, N. S. PROPORTION.

The variety of problems capable of solution by proportion is practically unlimited. For that reason I have, in mental mathematics, introduced this principle at an earlier stage than that assigned in the curriculum. In dealing with lower grades it is made very plain in the following way:

(a) 2 is the same relation to 4 that 5 is to?
(b) 12 " " 3 that 15 is to?

Every member of the class after a short drill will give these answers very readily. Now, let us see if we cannot express the above in a shorter form:

(a) 2 is to 4 in the relation that 5 is to?

That is somewhat shorter; but it takes up a great deal of our valuable time to write all those words for every question. "How does the telegrapher talk over the wires?" "By dots and dashes." Well, let us talk by dots only. Let one dot stand for each word; and place one above another to save space:

(a) 2 is to 4 in the relation that 5 is to?

Now let us try a very simple question by this method:

If 8 apples cost 20 cents, how much will 16 apples cost?

If a man can pick 16 bbls. apples in 10 hours, in what time can he pick 48 bbls.?

Advancing now to more difficult forms we have: If 2 men in 3 days earn \$10, how much can 3 men earn in 8 days?

The wages depends on what? The pupils can be led to see that the wages depends on the product of the number of men and number of days. Then:

Unitary problems will furnish abundant practice in mental drill for the lower grades. In the higher grades proportion can be used for the solution of all kinds of per cent problems. A coat cost \$40; it was sold for \$50; find the gain per cent? It is at once inferred that \$10 is the gain. Then:

A merchant sent his agent \$618 to be invested in goods after deducting his commission for buying at 3 per cent; find value of goods bought?

\$103 : \$618 :: \$100 : (?)

A bankrupt has \$6000; his debts amount to \$8000. How many cents can he pay on the dollar?

\$8000 : \$6000 :: \$1 : (?)

The thoughtful teacher can apply this principle to many other kinds of problems. Its conciseness is very pleasing to the pupil after he has learned the longer methods usually adopted. The form is also very attractive, and it will be observed that pupils who formerly took little, or no interest, in arithmetic, become quite enthusiastic over this very interesting method.

### Arithmetical Problems-Grade VIII.

- 1. Find area in acres, etc., of a triangle whose base is 600 yds. and height 250 yds.
- 2. How high is a cylinder of 20 in. in basal diameter and holding 30 gals.?
- 3. Find volume of a cone 10 in, in basal radius and 30 in, high.
- 4. Find area of ring between the circumferences of two circles whose radii are 30 in. and 36 in. respectively
- 5. If the cost price is 2-3 of marked price and the discount 10 per cent, find gain per cent.
- 6. A note of \$300, dated May 10, at 3 mos., with interest at 4 per cent, was discounted May 30th at 7 per cent?
- 7. Find compound interest on \$450 for 1 yr. 6 mo. at 4 per cent, payable half yearly.
- 8. Divide \$60 among A, B and C, so that A may have half as much as B, and one-third as much as C.
- 9. Find area of the larger of two concentric circles when the radius of inner is 10 ft. and radius of outer 15 ft.
- 10. A room 12 ft. by 18 ft. is 10 ft. high, has 3 windows, 3 ft. by 8 ft., 4 doors 3 ft. by 7 ft., to be papered with paper 18 in., 8 yds. to roll, at 15c. a roll, covered with carpet 27 in. wide at \$3 a yd; find cost of each.
- 11. A house worth \$4500 is insured for three-fourths its value at  $1\frac{1}{2}\%$ ; find net cost if it burns.
- 12. A ceiling 5.6 in. long, 4.8 in. wide, is plastered at 25c. a sq. yd.; find cost.

Answers—1, 15 ac. 79 rds. 10 yds. 2 ft. 36 in. 2, 26.47 inches. 3, 3141.6. 4, 1244.0736. 5, 35%. 6, \$303.12, \$298.76. 7, \$27.54. 8, \$10, \$20, \$30. 9, 706.86. 10, \$1.85, \$96. 11, \$1175.62½. 12, \$8.04.

### Literature in the Primary Grades.

Many of our primary teachers know of the delights that good wholesome children's literature inspires. These teachers have sympathy with childhood; they love what the children love; they know how to tell—not read—a good wholesome story. These stories, if properly selected and well told, are a stepping-stone to the love of good literature—and what more precious possession can any child take away from school than that.

There are many things that go to make up a good story. It should be childlike, and suited to the understanding of children. It should be simple, straightforward, pure. It should be full of fancy. To make a child love good reading, give him something that appeals to his love of the beautiful. Introduce him to thoughts that are worthy of being remembered. He is an active little being, hence the story must have strong healthy action.

Mrs. Nora Archibald Smith tells us that "we must beware of giving a one-sided development by confining ourselves too much to one branch of literature; we must include in our repertory some well selected myths, fairy stories which are pure and spiritual in tone, and a fable now and then. Nature stories, hero tales, animal anecdotes, occasional anecdotes about good, wholesome children, neither prigs nor infant villains, plenty of fine poetry, and for the older ones legends, allegories, and historic happenings."

Dr. G. Stanley Hall says: "Many boys enter college who have never read a book through except cheap novels. On the other hand, no one commends a bookish child. But worse than either is the child whose brain is saturated with low or cheap reading, and is altogether illiterate for all in print that makes the ability to read desirable. In the selection of school reading the children's votes should be carefully taken though not always as final. Of one hundred and twenty-four Boston school-boys of thirteen years old, who were asked what book first fascinated them, "Robinson Crusoe," "Mother Goose," Jack the Giant Killer," were mentioned in that order of preference by the great majority, and might more readily be allowed young children than most others named. "Cinderella," "Jack and the Beanstalk," "Tom Thumb," "Gulliver," "Aesop," "Red Riding Hood," "Arabian Nights," which came next, are unexceptionable, and should be told every child who has not heard them before coming to school."

Miss Sarah Louise Arnold writes: "Learn what the children like and begin with these likes. The field of literature is well suited to the children. The best of literature is that which was written for the children of the world. It should not be forgotten that if we would teach the child to like that which is good in reading we must establish the liking in early years. It is not enough that we should tell him in later days that certain books are good and bid him to read them. When he is grown up he will choose that which he likes, and our work is to lead him to like good things. We cannot, then, begin too early. The very cradle songs should be wisely chosen. The nursery tales should be those which have fed the children of many an age and clime."

In the next number we shall begin a series of articles in the literature suited to the different grades of the primary schools.

Dr. Clifford contributes to the Baptist Times a letter on the settlement of the education controversy in England. He says:

"We are encouraged to hope that the people of England will obtain these three things: (1) popular control of State education; (2) the abolition of theological and ecclesiastical tests in the State teaching profession; (3) the exclusion of sectarianism of every type from the curriculum of the schools. "Let us," he adds, "municipalize education on the broadest and most democratic lines. Abolish secresy of management; bring the administration to the light of day. Let the people not only rule themselves through their freely and directly elected representatives, but also let them know all their representatives do, and how they do it."—Educational Times.

An "Old Subscriber," on taking leave of the RE-VIEW, says:

"Your journal keeps improving. Every number is filled with useful hints. I wish to thank all the contributors for the help and pleasure received from the different subjects explained and discussed. I consider the Review of infinite value to the practical teacher. A Happy and Prosperous New Year to you all!

A good reading lesson always furnishes something worth talking about. The teacher must remember, however, that it is the pupil who needs the practice in talking. The teacher should keep as still as possible. A great talker is seldom a good teacher. Let the pupil do his full share of the talking.—Selected.

## Recitations for the Primary Grades.

The Leaves and the Wind.

"Come little leaves," said the wind one day,—
"Come o'er the meadows with me and play;
Put on your dresses of red and gold,—
Summer is gone, and the days grow cold."

Soon as the leaves heard the wind's loud call, Down they came fluttering, one and all; Over the brown fields they danced and flew, Singing the short little songs that they knew:

"Cricket, good-bye, we've been friends so long! Little brook, sing us your parting song,—
Say you are sorry to see us go;
Ah, you will miss us, right well we know!

"Dear little lambs, in your fleecy fold, Mother will keep you from harm and cold; Fondly we've watched you in vale and glade; Say, will you dream of our loving shade?"

Dancing and whirling the little leaves went; Winter had called them, and they were content. Soon fast asleep in their earthy beds,

The snow laid a coverlet over their heads.

-George Cocper.

### Gems (Selected.)

Suppose we think about number one,
Suppose we all help someone to have fun;
Suppose we ne'er speak of the faults of a friend,;
Suppose we are ready our own to amend,
Suppose we laugh with and not of other folk,
And never hurt anyone "just for a joke;"
Suppose we hide trouble and show only clieer,
'Tis likely we'll have quite a "Happy New Year."

### Puzzles.

- 1. Feet have they, but they walk not.—Stoves
- 2. Eyes have they, but they see net.—Petatoes.
- 3. Teeth have they, but they chew nct.—Saws.
- 4. Noses have they, but they smell nct.-Teapots.
- 5. Mouths have they, but they taste not -Rivers.
- 6. Hands have they, but they handle not.—Clocks,
- 7. Ears have they, but they hear not.-Cornstalks.
- 8. Tongues have they, but they ta'k not.—Wagons,

Golden Days.

Chick-chick-a-dee-dee! Saucy note
Out of a sound heart and a merry throat.
As if it said, "Good-day, good sir!
Fine afternoon, old passenger!
Happy to meet you in these places
Where January brings few faces."
—Ralph Waldo Emerson.

### Receipt for a Happy New Year.

Recitation for four little children.

First\_

Take each of the three hundred and sixty-five days, Now coming to us along sunshiny ways.

Second-

And put into it just as much as you may Of cheery hard work and of jolly good play.

Third-

And every once or twice in a while Just tuck in a corner a glad little smile.

Fourth\_

Then fill all the spaces below and above, As full as can be of kindness and love.

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Just follow this rule—you'll have, it is clear, The happiest kind of a happy New Year.

-Selected.

### The Silly Young Cricket.

A silly young cricket accustomed to sing Through the warm sunny months of summer and spring, Began to complain when he found that at home His cupboard was empty and winter had come.

Not a crumb to be found On the snow-covered ground, Not a flower could he see, Not a leaf on a tree;

"Oh! What will become," said the cricket, "of me?"

At last by starvation and famine made Fold,
All dripping with wet, and trembling with cold,
Away he set off to a miserly ant,
To see if, to keep him alive, he would grant
A shelter from rain,

A shelter from rain, And a mouthful of grain He wished only to borrow, And repay it tomorrow;

If not, he must die of starvation and sorrow.

Said the ant to the cricket, "I'm your servant and friend; But we ants never borrow, we ants never lend. But tell me, dear sir, did you lay nothing by When the weather was warm?" Said the cricket, "Not I.

My heart was so light That I sang day and night, For all Nature looked gay!" "You sang, sir, you say?

Go then," said the ant, "and dance winter away." Thus ending he hastily opened the wicket And out of the house turned the poor little cricket.

### A Laugh in Church.

She sat on the sliding cushion
The dear wee woman of four;
Her feet, in their shining slippers,
Hung daugling over the floor.

She meant to be good—she had promised; And so with her big brown eyes, She stared at the meeting-house windows, And counted the crawling flies.

She looked far up at the preacher;
But she thought of the honey-bees,
Droning away in the blossoms
That whitened the cherry-trees.
She thought of the broken basket,
Where, curled in a dusty heap,
Three sleek, round puppies, with fringy ears,
Lay snuggled and fast asleep.

Such soft, warm bodies to cuddle,
Such queer little hearts to beat
Such swift, round tongues to kiss you,
Such sprawling, cushiony feet!
She could feel in her clasping fingers
The touch of the satiny skin,
And a cold, wet nose exploring
The dimples under her chin.

Then a sudden ripple of laughter
Ran over the parted lips,
So quick that she could not catch it
With her rosy finger-tips.
The people whispered, "Bless the child!"
As each one waked from a nap;
But the dear, wee woman hid her face
For shame in her mother's lap.

Speaking about nature study, reminds us of a certain boy well known to us in the remote past. Before he was twelve he knew the name of every fish in the inlet of the Atlantic, on the coast of which he lived; knew not only the name, but the ways of it in the deep; when it came and went its value for food or market; its anatomy, coloring; its favorite bait, etc. Of birds he knew the names and they were many; could accurately describe the structure of each nest, and the materials out of which it was built; the number of eggs; their size and color; the location of the nest on the ground, in tree, under or on rocks. All other animals, wild and tame, he knew the ways and the names of; likewise the names of all the flowers, plants, shrubs, trees, wild or cultivated. All this and much else he learned from no schoolmaster, but from Mother Nature herself. In the large city, the child must learn these things in a second-hand way, from the formal lesson in the book, but the country boy or girl, more happily situated, absorbs knowledge from every bank and brae, rock, rill, mountain, sea, and lake.—Western School Journal.

### A Well Conducted Recitation.

The subject of the lesson was Siberia, and the whole class was transported thither in imagination before the lesson had proceeded far. The pupils were led to formulate statements by questions that made them think what must be if certain known facts were taken into account. For instance, when there had been a little talk about the three great rivers, the teacher asked what must be the state of things near the mouth of these. All were very ready to tell of the frozen, inaccessible water. But when she asked what must happen when the spring sun thawed the upper or southern portions of these rivers, all were not so ready to reply. So she asked for the name of a river near by whose rise and course were familiar to the class. She said, "Let us imagine some things about this river." Then she graphically pictured a state like that common to these Arctic rivers, readily securing the statement, "When the southern portions of these rivers melt, the water, unable to follow the course of the riverchannel, must spread out over the land." Then they were ready to understand the heavy floods of the tundras.

When they spoke of the fossil elephants found in the ice of the Arctic slope, so well preserved that dogs would eat the thousand-year-old meat after it was taken from its natural refrigerator, the question was asked, "What is meant by the word fossil?"

It was very interesting to note the readiness with which the boys and girls told what they knew. "I have seen a fossil shell." "I have seen a fossil plant." "Coal has sometimes the print of a fossil fern." Gradually the statement was secured that a fossil was an object that had become petrified, or turned to stone, and that the elephants were like fossils, in their cold-storage state. The teacher talked about the Don Cossacks and gave some excellent word-pictures of the life led by the nomadic tribes of the north. Each point discussed seemed to lead naturally to the next. There was perfect freedom, yet perfect order. No reply, however unexpected or wide of the mark, failed of a pleasant reception and apt word of comment that precluded all possibility of disturbance. Preparation was the keynote of the recitation.—Selected.

The Review and Canadian Magazine for one year \$1.80 (not \$1.50 as stated in the December number).

### Questioned no More.

Take a child for a cute answer. Wednesday three teachers from Morgan Park visited our schools for the purpose of looking into Prof. Hall's method of teaching arithmetic. The professor took them into the fourth grade room to witness a recitation. The questions were answered so readily that one of the teachers expressed her doubts, intimating the children had been crammed beforehand.

"Ask some questions yourself," said the professor.

This question was propounded to little Leslie George by one of the Chicago teachers:

Divide seven by two-thirds.

Leslie readily solved the problem and then, as is customary, applied the example to some practical question. Said Leslie: "I had seven pies which I divided among some children, giving two-thirds of a pie to each child. How many children were there?"

Leslie began: "Reducing the seven pies to thirds gives twenty-one thirds. Each child received two-thirds of a pie, so there would be as many child-ren as two is contained in twenty-one, which is—"

Leslie stopped, knit his brows, looked perplexed, thought deeply for a moment, then a light came over his face, and, looking up, he shouted: "Ten children and a baby!"

"How much pie would that give the baby?" asked Prof. Hall.

"One-third," promptly answered Leslie.

The hand of a little girl went up.

"What is it?" asked the professor, turning to Rev. Greene's little girl. .

"Please, sir, that is too much pie for the baby." The Chicago teachers asked no more questions. They were fully satisfied.—Waukegan Daily Register.

A little maid with a social nature was anxious to come into the parlor when her mother's friends arrived. Finally, mamma said, "You may come in when the ladies are here if you can be quiet, and remember that little girls should be seen, not heard." The little one pondered for a moment, and then asked, "But, mamma, what shall I do with the mouthful of words I've got?"

Market and The

### Too Many Distractions.

I cannot help thinking that too many distracting matters are allowed to find a place in connection with our public schools at the present day. Many things that are well enough in moderation, yea, thoroughly commendable, become mischievous distractions through excess. Among these I would name athletics, class and school "contests," dancing and other social amusements now becoming so common in connection with school and class "functions." To me, it is very clear that pupils' minds must be drawn away from their legitimate school-work by these things, in a great many cases. By this means, the pupils are robbed of the benefits the schools should confer upon them, and the money of the taxpayers, who support our schools, is wasted to a great extent. The evil is growing rapidly, as it seems to me; and, if it is not checked by the action of the pupils, teachers and school authorities, there will be a justifiable explosion, by and by, when the people come to have a "realizing sense" of the evil. -School and Home Education.

"My school," said a teacher, "is the world in miniature. If I can teach these boys to study and play together, freely and with fairness to one another, I shall make men fit to live and work together in society. What they learn matters less than how they learn it. The great thing is the bringing out of individual character so that it will find its place in social harmony."

A writer tells how a little child once preached a sermon to him.

"Is your father at home?" I asked a small child at our village doctor's door-step.

"No," she said, "he's away."

"Where do you think I could find him?"

"Well," she said, with a considering air, "you've got to look for some place where people are sick or hurt, or something like that. I don't know where he is, but he's helping somewhere."

Let the class choose sides as for an old-fashioned spelling match. The teacher may then write upon the board various numbers, the more difficult to read the better. Then proceed as in a spelling match, each side reading in turn, and see who will "stand up the longest."

### Carleton County Teachers' Institute.

The annual session of the Carleton County (N. B.), Teachers' Institute met at Woodstock, on the 21st. and 22nd. December, H. F. Perkins, Ph.B., presiding. About ninety teachers were present, representing nearly every school section in the county, and the proceedings were marked with great interest. Opening addresses were made by President Perkins, Inspector Meagher, and Mr. T. B. Kidner, A paper was read by Mr. R. E. Estabrooks on Professional Etiquette. After a spirited discussion a committee consisting of Messrs. Estabrooks, Draper and Meagher, was appointed to draw up a set of rules to govern the professional conduct of teachers. In the afternoon a paper on the Teaching of History was read by Mr. James O. Steeves. After a discussion on this the institute adjourned to the Woodstock manual training rooms where an interesting lesson was given by Miss Louise Wetmore, the teacher. Inspector Meagher presided at the public educational meeting held in the evening, where addresses were given and a fine musical programme carried out.

During the second day's session Miss Louise Wetmore gave a lesson on cardboard work and a paper was read by Dr. Brittain on the Consolidated School vs. The Little Red Schoolhouse. Miss Nellie Bearisto read a paper on the Muscular Movement in Writing, illustrating methods by blackboard examples. The following officers were elected: H. F. Perkins, president; Jas. O. Steeves, vice-president; R. E. Estabrooks, secretary; W. M. Crawford and Miss Nellie Bearisto, additional members of executive. A meeting of the county teachers' association was held before the close of the institute. Mr. Haviland was elected president and Mr. Estabrooks, secretary. Mr. Draper was appointed a delegate to the provincial convention.

THE REVIEW seems to get better each month and I would find it very hard to do without it, as we have been inseparable friends ever since I began teaching. Its helpful hints pay the subscription price many times over in the course of a year.—M. E. T.

### Picture Study Queries.

C. G.—No! The famous Campanile that fell down in 1897 was St. Mark's, Venice. It is being rebuilt.

R. McK.—It would be excellent if the teachers in a large school would compare results of exercises on these pictures, or teachers in a parish could confer together. I should appreciate packages of matter of that kind.

Gertrude.—The nimbi over the heads of the angels are painted as transparent discs. These symbols are very ancient, earlier than Christianity, in fact, and probably signified *power*. Wings are also symbols, e. g., of swift flight.

COUNTRY TEACHER.—I cannot tell you of any other descriptions of Blashfield's picture. You may be interested in H. W. Longfellow's "The Belfry of Bruges." Let the scholars recall Canadian boatsong,—"Ah, I remember with what profound emotion I listened once more to those tuneful village chimes," etc.

R. S. T.—True, the sentiment of "Liberty Bell" is not British, but a picture of it helps the children to understand how one of such dimensions is fixed to a beam.

Belle.—Chaucer wrote chimbe; Latin campana; French scampanare.. Bell-ringers are sometimes called campanologists.

H. B.

S. E. C.—The picture, "Christmas Chimes," in this month's Review, is just what I needed to frame for a Christmas picture for our school. The Review is very helpful to me. I always find something bearing on my work each month. I am teacher of Grades VII, VIII, IX, and X, and principal of a superior school of 125 pupils.

### How to Make my New Year Happy.

Tell me all the good you can about the people that you know. Tell me only the good about the people of whom you speak. Tell me the things that will make me think well of people and of life. Tell me the things that will make my sun shine, my heart glad, and my soul to rejoice. Tell me the things which will straighten up my thinking, and give me the right principles of work and of play and of thought. Tell me the things which will make me ashamed of compromise and pretense.—Edward Franklin Reimer.

### CURRENT EVENTS.

A new inland sea has been formed in Southern California, by the inflow of the waters of the Gulf of California into the Salton basin. The flooded district is said to be a hundred miles in length, and twenty-five miles in width. Underground fissures caused by earthquake shocks are supposed to admit the water from the gulf into what has hitherto been a dry basin below sea level.

Fossil bones of a gigantic animal of the dinosaur tribe have been found in Montana. The great saurian was thirty-nine feet long; and, unlike most of the huge animals of that period, was a flesh-eater.

A new paving material, elastic, tough and durable, is now being tried in England. It is made of tar mixed with iron slag, and is called asphaltine.

The oxy-acctylene blowpipe is now employed in welding. It gives a temperature much higher than that of the oxy-hydrogen flame.

A British explorer has visited a part of Abyssinia until now unvisited by white men, and has found there a very rich gold region, and thousands of the natives engaged in washing gold.

The flagship of Prince Louis made the voyage from New York to Gibraltar in seven days, seven hours and ten minutes, the average speed being something over 18.5 knots an hour. This is the highest recorded speed for warships, for such a distance.

The withdrawal of the British troops from the West Indies, which is about completed, is in accordance with the new policy of concentration of the forces. Coaling stations will be maintained at Jamaica and St. Lucia. The strong defences at the latter place, from which the garrison was withdrawn on the fifteenth of last month, will be kept in a state of efficiency; and troops can be quickly sent to occupy them if occasion requires.

It is understood that the dockyards at Halifax and Esquimault will be transferred to Canada, and become the headquarters of Canadian naval militia for the Atlantic and Pacific coasts respectively.

The resignation of the Balfour government, and the appointment of Sir Henry Campbell-Bannerman as leader of the new government is the occasion for a change in court ceremonies which recognizes for the first time the position of prime minister in the British government. Hitherto, in all state ceremonies, the premier took rank only as a Privy Councillor. It is now ordered that he shall in future "have place and precedence next after the Archbishop of York." The only persons who rank above the Archbishop of York, excepting members of the royal family, are the Archbishop of Canterbury and the Lord High Chancellor.

Captain Amundsen, a Norwegian explorer who, for the past two years and a half has been working all ng the northern coast of Canada in search of the mignetic pole, has, as before announced, succeeded in making the northwest passage. His little vessel, a 47-ton sloop named Gioa.

in which he left Norway in June, 1903, is now wintering near the mouth of the Mackenzie River, and may easily continue her voyage next summer through Bering Strait to the Pacific Ocean. All the waters through which Captain Amundsen has sailed have been reached by earlier explorers; but his vessel will be the first to enter the Arctic Sea from one great ocean and come out into the other after sailing around the northern end of this continent.

Another explorer intends leaving the mouth of the Mackenzic River next summer in search of unknown lands. His name is Mikelsen, and his purpose is to go northward along the western shores of Banks Land, in the expectation of finding land still further north. If his plans can be carried out, he will return to the mainland for next winter; and make his final effort in the spring of 1907.

Halfway between Sydney and Louisburg, the Cape Breton Coal and Iron Company will build their new town of Broughton, which they will make the headquarters of their business in the development of the great coal beds in that part of Nova Scotia.

Immense deposits of magnetic iron ore have been discovered at the mouth of the Columbia River, and others farther north and in Canadian territory. It is thought that British Columbia will yet have steel works to rival those of Cape Breton and Ontario.

The reassembling of the Hague Conferensee may be indefinitely postponed, because of the invitation issued some time ago by the government of Switzerland for an international conference at Berne to consider amendments to the Red Cross convention. Until this matter is disposed of, the date of the Hague Conference cannot be fixed.

Turkey has yielded to the demands of the powers in respect to the government of Macedonia,

Encouraged by Japan's success, China seems about to resist foreign influence, and maintain her right to govern her own lands and her own people in her own way. No further concessions, it is said, will be granted to foreigners in Chinese teritory; and efforts will be made to cancel those already granted. The Boxer movement was a popular uprising against foreigners as individuals. The new movement is an organized movement for the protection of Chinese sovereign rights against foreign aggression.

Sea gulls have been brought into use as ocean carriers, and may prove as useful in that way as carrier pigeons are on land. Experiments recently made in France have lead to this conclusion.

The premier has summoned a forestry convention to meet at Ottawa on the 10th, 11th and 12th of this month, under the auspices of the Canadian Forestry Association. The preservation of our existing forests, as the most important source of the world's timber supply of the future and the need of tree planting on our western prairies, are among the subjects that will come up for discussion.

Mutual hatred of the United States is credited with restoring friendly relations between Columbia and Venezuela

It has been decided that the best route for the new Transcontinental Railway lies north of Lake Abitibi. The location of the route through New Brunswick has not yet been determined.

Both in the Baltic Provinces of Russia and in the Caucasus region, serious disorders still prevail, amounting almost to organized rebellion. Several towns in the Baltic Provinces have fallen into the hands of the insurgents. The people of these provinces are not Russian, but Lithunian, and formerly had a government of their own; but Lithunia was united with Poland in the fourteenth century, and has since had no independent existence.

The Czar has definitely refused to grant universal suffrage at the demand of the socialists and others. The new representative assembly, if the disturbing elements do not prevent its election, will be chosen under a restricted franchise.

All the horrors of civil war are filling the crowded cities of Russia, where striking and riotous workmen are coming into conflict with police and soldiers; and in smaller towns, particularly in the southern provinces, where the people who suffer from the strike have in some instances turned upon the strike leaders for revenge. Anarchists who have long laid their plans for the overthrow of the monarchy, are unwilling to let it pass into the new form of a constitutional monarchy without a final struggle. What they now fear is not the continued rule of the Czar, but a popular government that will indefinitely postpone their plans. The most terrible scenes of bloodshed have occurred in the southwest provinces of Russia, where thousands of Jews have been killed by Christians, not because they were Jews, but because they were social-democrats, who threatened the very existence of Russia, as their avowed purpose is to overthrow the Russian government and all other governments and abolish national lines. They openly advocate killing every ruler or official, whether elected or appointed, so that none shall dare attempt to rule. The people who were responsible for the recent masssacres assumed that all Jews were social democrats, which may not have been far wrong as a general assumption, and believed it necessary to kill them all or drive them out of Russia. The same political reasons account in part for the disturbed state of the Caucasus, where, however, the social-democrats are not Jews, but nominally Christians. Here, in one region, where the central government is unable to maintain its authority, the theories of the social-democrats and anarchists are being practically tried. If a man is guilty of stealing, or of any similar offence, he is not tried and punished. His neighbors avoid his company and show amends. If, in the meantime, he is thought to be their disapproval until such time as he repents and makes dangerous to the community, some one is secretly detailed to shoot him down in the street. This is the sort of rule the people have to fear if the anarchists get the upper hand; and bad as was the old form of absolute monarchy, they think it better than this.

### SCHOOL AND COLLEGE.

There were eighty-six applicants for third class license at the N. B. Normal school examinations in December—sixty-three from the English department, and twenty-three from the French.

Mr. F. A. Dixon, M. A., of Sackville, N. B., has been appointed to succeed Inspector Mersereau, M. A., who has obtained a year's leave of absence which will be spent in the West. Mr. Mersereau is the senior inspector of New Brunswick, and during his long term of service has won many friends by his impartial and vigorous administration. Mr. Dixon, his successor, has had large experience as a teacher and his scholarship and knowledge of the schools makes the appointment a very fitting one.

At an interprovincial convention held at Moncton on the 28th November, arrangements were made to issue four primary readers for French schools in the Maritime Provinces. The books will be ready at the end of this year.

Mr. G. H. Harrison, B. A., for many years principal of the Carleton County Grammar School at Woodstock, N. B., has resigned his position to enter into a general insurance business in that town. He will be succeeded by Mr. Chas. D. Richards, B. A.

Mr. Herbert Rose, of Hamilton, Ont., Rhodes scholar from McGill, has won both the Ireland and the Craven scholarships at Oxford University. Mr. Rose graduated with highest honors from McGill and his success at Oxford has been phenomenal. He has won the Craven scholarship at the beginning of his second year, and this is not usually attempted until the third year. Winning the Ireland at the same time makes the achievement an exceedingly rare one. Among those who have succeeded in winning both scholarships are such men as the Right Hon. Herbert Asquith, a member of the new Campbell-Bannerman cabinet; Goldwin Smith and William Gladstone.

Mr. S. Kerr, of the St. John Business College has just completed the thirty-eighth year of his management of that institution. Mr. Kerr's influence as a teacher of business methods and practice has steadily increased with the years, and there are many men scattered over the continent who owe much of their success to the sound and thorough training received from him.

The Maritime Business College, Halifax, Messrs. Kaulback & Schurman, principals, send to the Review their New Year's cheque as usual, good for the payment of "One Thousand Good Wishes. The cheque is cordially accepted, and the Review extends its best wishes in return for a year of increasing prosperity to this excellent institution.

The name printed Mrs. L. D. Jones in the report of the Restigonche County Institute in the December REVIEW should read Mr. L. D. Jones.

Allow a boy to neglect his studies, you allow him to neglect his duties; teach him to "skim over" his lessons, and he will learn to "skim" through life But teach him to be truthful, conscientious, and thorough in his school work, and he will be the same forever.—Herbert L. Wilbur.

## The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

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G: U. HAY. Editor for New Brunswick

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THE EDUCATIONAL REVIEW.

St. John, N. B.

Do readers of the Review scan its pages and articles closely to see what there is bearing on their work, not only of this but of future months? Do they preserve the paper for future reference? How much there is in this number, for instance, worthy of study: A university professor who has made the natural features of these provinces a life long study gives a geography lesson of absorbing interest; A student of art shows how teachers can make the best use of the picture "Saved," while a former teacher in one of our schools, now studying in a distant city, begins a series of sketches on the history of art; there are helpful articles on naturestudy on the teaching of English, current events, how to make Friday afternoons interesting-all of which and more should be of the greatest use to readers if they study the Review.

The REVIEW and Canadian Magazine, both for \$2.80.

Are you forming any plans for a school garden. large or small, next spring?

The Summer School of Science will meet at North Sydney, July 3rd to 20th.

The Provincial Educational Institute of New Brunswick will meet at Chatham on the last three days of June.

Dr. Hannay's history of New Brunswick will be published some time during this year. It will deal with events and persons from the earliest times down to the present. One of the contributors is Supt. Dr. Inch who will write on educational topics Dr. Hannay has been engaged on the work for some years, and its early appearance will be looked for with much interest,

Acadiensis for January begins its sixth year. making a record in Acadian literature, as no magazine hitherto published in the Maritime Provinces has reached that limit of existence. The magazine under the management of Mr. D. R. Jack bids fair to see many years more of usefulness with a more generous support than in the past. The contents of this month's number embrace several valuable articles among which is Heraldry in Brief, a very readable and interesting account of that art.

The government of New Brunswick will shortly introduce a bill into the legislature to so amend the Education law as to provide for compulsory attendance of children at schools. While attendance in many parts of the province is fairly satisfactory, it is not so in others; and there are good grounds for belief that even in this age of free schools many children are getting but very slight advantages from them. The Review has held that if the government undertakes to establish free public schools and arranges for their support it should also see that parents be compelled to send their children for a given number of days in the year.

The next meeting of the National Educational Association of the United States will be held at San Francisco, July 9 to 13.

Note the official announcement of Superintendent Dr. A. H. Mackay, on another page. It is of special interest to the teachers of Nova Scotia.

Rev. Hunter Boyd, of Waweig, N. B., has kindly offered two booklets on the life and work of Landseer as prizes for the two best sets of class questions and suggestions on the picture, "Saved," in this number,—the papers to reach him by the 18th February.

The scarcity of desirable teachers is a serious matter in many parts of the country. A better recognition of the teacher's work, better salaries, and better preparation on the part of the teacher, will improve this condition of things.

Dr. William Rainey Harper, president of Chicago University, died of cancer on the tenth of January, in the fiftieth year of his age. During the fifteen years of his presidency his brilliant executive talents and energy have been devoted to spending wisely the immense sums of money which have been given to that university which is now one of the leading institutions of learning in America. When Dr. Harper found that his disease was incurable he bravely kept on with his duties, calmly awaiting death.

The treatment of consumptives is properly engaging the attention of leading men and physicians throughout the Dominion. On the 28th March the sixth annual meeting of the Canadian Association for the prevention of consumption and other forms of tuberculosis will be held in Ottawa. His Excellency Earl Grey will preside at the evening meeting at which Dr. Arthur J. Richer of Montreal will deliver an illustrated lecture on consumption and the appliances now in use to check its progress.

One of the most beneficent institutions of Canada is the free hospital for consumptives near Gravenhurst, Ontario. This is largely maintained by the subscriptions of henevolent people, and has been the means of restoring to health many hundreds of patients since the work began. Contributions for this praiseworthy object will be received by Mr. W. J. Gage, Toronto.

### Nature-Study for February.

The lesson on snow in another column can be used for several interesting lessons at times during the month when there are falls of snow. Flakes of snow caught on the nap of a piece of black cloth, can be observed and sketched quickly. The six rays of the crystals are always plain, but there may be an almost infinite variety of ornamentation. The same forms may be looked for in frost on the window panes, on grass or in shell ice. The frost on window panes will be well worth studying and sketching.

The records of temperature for the month of January will be worthy of preservation, for it was the warmest mid-winter month for many years. Continue the observations on the weather for this month and make daily averages of the temperature. Keep a record of stormy, fine and cloudy days. Have we had much snow this winter? Much rain? Show what a little difference in temperature will bring rain instead of snow. Contrast the bare uneven roads and the rumble of wagons with the snow-covered roads and the merry sleigh bells. Why do children like snow? Why lumbermen? Farmers? Why people in other occupations? What animals like snow? Do dogs? Cats? What kind of snow storms are pleasant to be out in? What makes some snow storms unpleasant? How does crust form?

The sun's apparent course during the day may be noted by watching its progress across the room. Note where it is at twelve o'clock; in what part of the sky it is at sunrise and sunset. How many hours is the sun above the horizon on the fifth of February? On the fifteenth? and on the twenty-eighth? The weather will very likely be colder in February than in January. In which month do we have more sunlight?

Notice the planets and stars during this month. Jupiter still leads them all in brightness, and keeps his position near the Pleiades, with Orion and Sirius following after. Farther to the east is the constellation of the Sickle, with the bright star Regulus in the end of the handle. Notice the position of the Great Dipper with the handle pointing to the horizon. Try to follow its course from night to night with a view to understanding the motion of those stars in the heavens round the pole. Do they go below the horizon? Notice the rising of Arcturus in the north-east about 10 o'clock. It can always be found by continuing the curve of the handle of the Dipper.

# Our Native Trees. By G U. HAY. The American Larch,

The American larch (Larix Americana), or tamarack, or hacmatack, for it is known by all these names, is our only cone-bearing tree which sheds its leaves in autumn. A swamp forest such as one sees in the north-eastern part of New Brunswick is a beautiful sight in early November when the greenish-yellow leaves of the tamarack are ready to fall. It is then that this attractive and graceful tree receives most attention, its full clusters of slender delicate leaves, with the hue of death already upon them, forming a striking contrast with the dark green leaves of the surrounding evergreens. Why is the larch the only cone-bearing tree which sheds its leaves in autumn? Why, indeed! It is not because its leaves are large enough to collect the snows and ice of winter. They are really smaller than the pine leaves which they resemble somewhat by being gathered in bunches. Small evergreen leaf forms are supposed to be a modern contrivance, as the geologist would say, adopted for the purpose of protecting these trees from the ice and snows of an arctic winter. One of them has put on the fashion of a deciduous tree by disrobing in autumn and clothing itself with a fresh garment of green foliage every spring. Will the other evergreen trees follow the fashion set by this graceful beauty —the tamarack? We do not know. If one knew more about the nature of trees and their life-history he might attempt an answer.

Watch the tamarack put out its sprays of delicite green leaves in late May; but before that mark its crimson little flowers as they appear, the fertile ones, in catkins, to swell into red fleshy cones in June. The habit of flowering in very early spring, which most trees have, is unknown to very many people. If they wish to see beautiful flowers they should visit the larches in April and May.

The wood is light colored, resinous, coarse grained, very strong, and remarkably durable in contact with the soil. This quality makes it valuable for fence posts, telegraph and telephone poles and railway ties. It is much used for ships' knees and planks. It is adapted for door and window frames, and it does not shrink or warp. Shingles made of it are even more durable than those of pine or cedar. It stands the effects of water for centuries. It is so strong that joints and rafters made of it

support incredibly heavy weights. A cubic foot of larch wood weighs 39 pounds. Although it is most common in swamps it grows freely in uplands and meadows where it attains its greatest size—from 60 to 80 feet in height, with a trunk diameter of two to three feet.

### The White Cedar.

The white cedar (Thuja occidentalis) attains its greatest size in swamps or wet grounds, but those symmetrical cone-shaped trees, so valued for their beauty, grow in high rocky situations, reaching their greatest perfection in limestone regions, especially about the lower St. John and Kennebecasis rivers. The cedar is abundant in New Brunswick, somewhat scarce throughout Nova Scotia, and is said to be rare in Prince Edward Island. It attains its greatest size in northern New Brunswick, where it is frequently seen of a height of fifty to sixty feet and with a trunk diameter of three feet or more. It has a fibrous stringy bark. Its wood is soft, light in color, fine grained and very durable. It splits easily and is largely used for posts, shingles, fencing and railway ties. It will stand the weather for a great number of years without showing the slightest taint of decay. It is much used for making pails, tubs and for a variety of purposes where lightness is required. A cubic foot weighs only 20 pounds. Its small scale-like leaves grow in four ranks or rows on the branchlets, forming fan-like sprays. This with the pyramidal habit of growth of the cedar makes it very desirable for lawns and hedges. It is the only member of the Cypress family found in this latitude.

The flowers of the cedar are not conspicuous. They grow on the ends of the branchlets, both kinds, sterile and fertile, on the same tree—the latter producing the broadly winged seeds in dry spreading cones.

In schools where there may be objections to general readings from the Bible or repeating the Lord's prayer, this plan may be adopted for the morning exercises: One morning alternate readings of the Beatitudes (Blessed are the poor in Spirit); on another concerning Charity (Though I speak with the tongues of men and of angels); on another concerning God's care(The Lord is my Shepherd); and so on. Then a favorite hymn may be sung; followed by a memory gem that may be helpful for the day's work.

### Our Coasts. I .- Their Character.

PROFESSOR L. W. BAILEY, LL. D.

Who is there who does not wish at times to go to the seashore? and who, once there, is not impressed by the conditions which distinguish it? The coolness of the atmosphere, so different from the prostrating heats of the interior; the refreshing breezes, with their peculiar odour of iodine; the character of the scenery, with alternations of headland and bay, rocky bluff or sandy beach; the inrolling of the waves, followed by their rhythmical but inevitable retreat; the submergence by the in-

easy reach of it have a source of enjoyment of which those who are debarred from such scenes can have no real appreciation.

But the interest of the sea coast by no means ends with the mere affording of pleasure to those who visit it. It is a most important factor in determining the characteristics of the country which possesses it. Its presence and extent greatly influence the character and climate of the adjoining region; from it are derived the supplies of moisture necessary for the maintenance of its drainage system; through its indentations harbors are determined; by these harbors are fixed the location of its ports



SOUTHERN CROSS, GRAND MANAN, N, B.

flowing tide of all objects within its reach, and the laying bare of extensive flats as the waters recede; the waving to and fro of the green and purple seaweeds as the currents sweep around the rocks to which they are attached; the sight of sea-urchins and star-fishes clinging to or crawling over these same rocks; or, where tidal pools remain, of sea-anemones expanding their feelers, in form and color recalling the petals of a chrysanthemum; the gathering of brilliantly colored pebbles or of equally brilliantly tinted shells upon the beach—all of these are attractions which few can resist and to most persons are a source of the keenest delight. Poets, painters, litterateurs, all find inspiration on the shores of old ocean, and those who live within

of entry and export; it determines the occupation and characteristics of a considerable percentage of the population; with it in short are linked nearly all the phases of a country's history, the extent and rapidity of its development, its relations to other nations and its position in the scale of civilization. One has only to refer to such countries as Greece in classical times or England and Japan in their modern days, and to contrast the latter with Russia, to see how vast are the consequences depending upon the extent and nature of a country's sea-board. Let us now see how far such connections find illustration in the Maritime Provinces of Canada.

Bounded upon two of its sides almost wholly, and upon a third partially, by bays or arms of the sea,



From a Painting by Sir Edwin Landseer,

"SAVED"

the extent of the New Brunswick coast is, for the size of the province, very large, there being, except for the break at Chignecto a continuous coast line of over seven hundred miles, or about one mile of coast to every thirty-eight square miles of surface. Nova Scotia upon the other hand, except for the same break, is everywhere surrounded with water, the length of coast in comparison with the consolidated area being further increased by the great indentations of Minas Basin, Annapolis Basin and St Mary's Bay, as well as by the extreme irregularity of the southern sea-board, and the occurrences of such transverse gaps as those of Digby Gut, the Grande and Petite Passages and the Gut of Canso. The number of islands adjacent to the coast, comparatively few in New Brunswick and almost countless in Nova Scotia, help to make numerical comparisons between the two very difficult.

With such an extent of coast line possessed by Acadia it would reasonably be expected that in the special features of the sea-board, considerable diversity should be manifested. And this is actually the case. Thus in New Brunswick we have a natural division into two sections, that of the Bay of Fundy and that commonly known as the "North Shore"; and between them the contrast is very marked. The latter is for the most part low, the adjacent waters are shallow and often shut in by sand bars, but possessing nevertheless many fair harbors, usually expansions of large streams, like the Miramichi and Nepisiquit, which here debouche to the eastward. Owing to the lowness of the shores the scenery of the North coast is usually tame and monotonous, though occasionally the carving action



ISLAND OFF EAST COAST, N. B.

of the sea upon exposed bluffs may lead, as shown in the above cut, to interesting and picturesque results. The shallowness of the water, together with the slight amount of tidal movement, makes the waters in the summer season comparatively warm and to be sought for bathing purposes at many summer resorts, while, for the same reason, during much of the winter, the shore is much en-



CLIFF, MAHOGANY ISLAND, NEAR ST. JOHN.

cumbered with ice, and navigation becomes impossible. The Bay of Fundy shore, upon the other hand, is generally bold and abrupt, bordered along much of its length by walls of rock, broken by but few indentations, while the neighboring waters, in addition to rapid descent in depth, are marked by the exceptional height and rapidity of their tidal flow. This shore has, however, the advantage over the other sea coasts of the Province in being free from ice, the principal harbors, such as those of St. Andrews, L'Etang, Musquash and St. John, being open at all seasons and in the most severe weather. Upon this same coast is to be found scenery which is always picturesque, and, especially to the eastward of St. John, embracing elements of grandeur. This is partly due to the height and steepness of the adjacent hills, which in eastern St. John county rise abruptly to elevations of eight hundred or nine hundred feet, and partly to sea sculpture, the result of the wearing action of the sea upon rocks of different degrees of hardness and variously disposed.

In Grand Manan we have a combination of both features, the western and northern sides of the island presenting almost continuous and precipitous bluffs, about four hundred feet high, while in places, as about the Southern Head, they have been carved by the sea into most curious and fantastic forms.

Passing to Nova Scotia contrasts equally remark-

able attract attention. Along the Gulf coast, a continuation of that of the New Brunswick "north shore," the features are much the same, the shores of the mainland being generally low, the waters shallow, and the harbors, of which Pictou is the most important, apt to be closed for some months by ice. Upon the Bay of Fundy coast the distinctive features are a rock-bound shore, overlooked by steep and sometimes, as at Cape Split and Blomidon, by lofty and precipitous bluffs; few indentations ex-



ROCKS AT HOPEWELL CAPE, N. B.

cept at its head; deep water which is permanently open; few islands; and extraordinary tidal flow. Finally, upon the Atlantic seaboard the features are markedly different from either of the above, the shore having a general direction which is quite uniform and parallel to that of the Bay of Fundy, but in detail exhibiting the greatest possible irregularity, partly due to innumerable long and narrow indentations at right angles to the general trend of

the shore, and partly to innumerable islands. Through the former, as in the case of Halifax and Shelburne, are determined deep and commodious harbors; through the latter coastal navigation is made more difficult and dangerous, but at the same time fishing operations are enlarged and facilitated. Cape Breton, as an island, has distinctive features of its own, the most important, in the present connection, being the narrowness of the passage, the Gut of Canso, by which it is separated from the rest of the province, the character and position of Sydney Harbor in relation to the great coal and iron industries, and the almost complete division of the island into two by the chain of the Bras d'Or Lakes now so famous for the beauty and grandeur of their scenery.

In the next chapter we shall consider some of the processes in operation upon our coasts and thus pave the way for a better understanding of the causes which have determined their distinctive characteristics.

[Several of the illustrations used above were kindly loaned by the New Brunswick Tourist Association].

A young business man of New York, who has not long been married, was fondly greeted by his wife one evening with the joyful announcement that she had that afternoon received a diploma from the cooking school at which she had been an assiduous student.

Evidently the husband did not exhibit that degree of enthusiasm in the matter that she expected for the young wife said, in a disappointed tone: "Aren't you glad that I have been enrolled as a competent cook? Just see, I've prepared this whole dinner! I gave especial attention to this dish here Guess what it is!" As she spoke the husband had endeavored to masticate a particularly tough piece of the contents of the dish referred to. Seeing his look of wonder, the young wife again playfully said, "Guess what it is?"

"I don't know," responded the husband, uncertainly. Is it the diploma?"—Harper's Weekly.

King Christian IX, of Denmark, father of Queen Alexandra, is dead after a reign of 43 years, and his successor, Frederick VIII., has quietly ascended the throne.

# Notes on English Literature. By G. K. Butler, M. A., Halifax. Washington Irving's "Christmas Eve."

P. 86, l. 2.—What is the word commonly used bus equivalent to "chaise"? "Postboy," what place did he occupy, as a seat? The custom is still kept up in royal processions etc. l. 6.—"Goo! cheer" is a common phrase in poetry, etc. What is its meaning?

In Horatius Macaulay writes: "What noble Lucumo comes next to taste our Roman cheer." 1. 7.—What is the meaning of a "bigoted devotee"? Also of "the old school"? 1. 9.—What does "tolerable" mean in this line? What is its usual meaning? 1. 10.—The old English country gentieman of an earlier date is pictured in Sir Roger de Coverley. Those who have not read about him have missed a fine piece of word painting: 1. 11. ct. seq.—What the writer says here is even more true of the present time.

P. 87. 1. 3.—Chesterfield the noted criterion of good manners, etc., lived during the 18th century The encounters between him and Samuel Johnson are famous in the history of the latter. What is the meaning of the expression "took honest Peacham for his text book"? 1. 9.—Meaning of phrase "deeply read"? I. 11.—To what time would the writers of "two centuries since" belong? Name some of the more famous of them, 1, 14,—"The golden age" is always some time ago with those who are not exact in their knowledge of present and past conditions. 1. 17.—Meaning of "gentry"? Give another word in more common use. l. 19.— "Indulging the bent of his humour" means what? What is meaning of "bent"? I. 20.—What is meaning of "old" as applied to a family? 1, 24. -"Immemorial" means what? In or im at the beginning of a word has what force usually? 1, 26. — Look up the derivation of eccentricities." 1, 32.— "What is meant by the "family crest?"

P. 88. 1. 7 et, seq.—How about the wife left belind alone while the husband goes merrymaking? Why didn't she go too? What kind of trees was the avenue formed of? 1. 19.—Would there be vapour on such a night in our climate? What figure of speech in the word "shroud"? 1. 20—Look up derivation of "transport." Is it used here in its literal sense or otherwise? 1. 22.—Evidently his companion had attended one of what are called in

England the "public schools." What would we call them here? 1, 24.—Find derivation of filial. 1. 25.—"Scrupulous" means what? 1. 32—Find meaning of "pedant". How does it differ from "scholar"?

P. 89. l. 18.—How came the taste of Charles II.'s time to have a French tinge? What was the date of the Restoration? What other historical event is spelled with R. l. 25.—Find meaning of "obsolete." l. 28.—"Old family style"; with which word does "old" go as an adj. "family or "style"? l. 30.—What is the difference between "republican" and "monarchical" form of government? l. 31—When did the party called "Levellers" exist?

P. 90. 1. 2.—The yew-tree wood was formerly used for a certain purpose. What was it? Is, 9 and 10.—In England the Christmas festivities extend over twelve days finishing with "Twelfth night" celebrations. I. 15.—Explain the custom of "hanging the mistletoe." What kind of a plant is the mistletoe; i. e. how does it grow? 1. 26.—Meaning of "whim." Find derivation of "benevolence."1. 34.—What is a "superannuated spinster?" And a "half-fledged stripling"?

P. 91, 1, 10.—Meaning and derivation of primitive? ls. 12 to 20. The hall of Abbotsford gave Scott a great deal of pleasure in its furnishing as may be seen in his "Life". 1, 17.—11 the furniture was "cumbrous" it at least possessed one merit. What was it? 1, 26.—"Ynle clog" is more commonly known as "Yule log" 1 30—" Hereditary" may have its derivation found. 1, 32.—What part of speech is "very" here?

P. 92, l. 2.—"Cavalier" may here have a political meaning. If so what is it? l. 4.—What is the meaning of word "supper" here? What do we understand by it? After the supper the writer had eaten we would not have been astonished had he seen visions or at least dreamed dreams. l. 21.—Those who have read Addison may remember a person who somewhat resembles Master Simon. l. 30.—Meaning of "harping?"

P. 93. I. 2.—Meaning of "caricature"? I. 3.—What figure of speech in "were ready to die with laughing"? I. 7.—Why apply "vagraut" to comet? I. 15.—Look up "chronicle". I. 24.—"Factotum". Meaning of "jumping with his humour"?

P. 94. I. 4.—"Home-brewed" what? I. 15.—Look up "antiquated" and "antique". I. 22.—Meaning of "prone?" Derivation? I. 35.—The officer being still young and having been wounded at Waterloo.

this piece must have been written not later than? When was Waterloo?

l'. 95.—Herrick, a clergyman, lived from 1591-1674.

P. 96.—Study the following words:—Nosegav, ponderous, panelled, cornice, grotesque, tester, niche, casement, aerial.

## The School from the Standpoint of a Parent.

S. D. Scott, Editor of the "Sun," St. John.
(Read before the St John and Charlotte Counties United Teachers'
Institute, October, 1905.)

One feels with such a theme assigned him, as if he appeared, to speak for the great body of parents in the jurisdiction of this Institute. I do not speak for more than two at the most. In fact it would be safer to say that only one is represented in the few well chosen words that may come from me.

And in the first place let me testify to the faithfulness, patience, capacity, and efficiency of the teachers as I have come to know of them and their work through my own relation to the school. Any person living in a house with about half a dozen normal, healthy children, whose goodness does not make them unfit for earth, may dimly realize what fine selfcontrol, what skilful generalship, what gifts of heart and mind and body are required to keep in fair working order three or four dozen such children in different dispositions, of various capacities of divers home habits and miscellaneous at ainments; to carry them along together in some regular organized course of training up to another plane of intellectual development. Such knowledge and skill is too wonderful for me; I cannot attain to it. My own experience as a pub is teacher is limited to the instruction of some ten independent feeling lads for half an hour a day in a Sunday school. If I had imagination sufficient to picture what it would be like to have charge of three or four times as many such boys, five or six hours a day, five days in the week, I would undertake to rival Dante-at least as to two thirds of his Divine Comedy. Once in a rash moment when asked what I would take and teach school I made the hasty and inconsiderate reply that I would take a school within my capacity for \$200 a day. If Mark Twain will allow, it is one of my life long regrets that I did not make it \$450.

Well there is before me a more heroic breed.—

"Languor is not in your heart, Weakne's is not in your word Weariness not on your brow". Personally I know a few of you who seem when we meet to have no hero's crown, or martyr's halo incommoding your brows. But thinking of you all day long with two or three score children in a room, trying to keep them all interested, and serenely going about it the next day, and the next, I know that the true teacher is born not made. There are doubtless some who teach for revenue only. But these, I should think, must be of all men and women most miscrable; and all people who do things for revenue only are miscrable enough.

The city has many advantages over the country in the matter of schools. But in some respects we of the town are losers. We hardly know the teachers of our own children. The visible relation between parent and teacher is not such as one would expect. whether we regard the teacher as a partner with the parents in the task of training the child, or as a professional person retained to perform a service, or even as an employee engaged by the year with a regular task. It would not surprise me to learn of some father who consults less with the instructor of his boys, than he does with the man who makes his coats; or that some mothers spend more hours with their dressmakers than with the teachers of their girls, and show more anxiety about the quality of their milliner's work than they do about the school training of their family. I am sure that the work of the hired man on the farm, and the cook in the kitchen is studied more closely by the men and women who pay for it than the work of the teachers who have control of half the active hours of the young members of the family during the eight or ten years in which their characters are under construction. Perhaps it may be claimed that the teacher is no. a hired help requiring supervision, but a professional man or woman, performing technical work, thoroughly qualified to do it, and inspected by other and better experts. We know that this witness is true. Teachers belong to the learned professions if any one does. But when the doctor is in attendance on our families we usually seem to be quite interested in his proceedings, and talk over the situation with a certain seriousness. The pastor is not supposed to be in right relations with his flock if he and they do not confer on matters in his field of operations. Those citizens who employ a lawver take some care to go over the case with him. But how is it between parents and teachers? Speaking for city parents I might make some sort of general confession. But what's the good. Everybody knows.

In the country schools the teacher is brought into

much closer relation with the families whose interest she serves. Ten to twenty households comprise the whole community concerned, and that is an easy field for a young and active person to conquer. She is able to talk over with every father and mother the capabilities, attainments and progress of each child. It calls for taet and judgment, patience and good humor, and sometimes for disagreeable frankness. It is often hard for the teachers to keep clear of the local and family controversies and jealousies. But I am sure that the more intimate relationship that grows up between teachers and households in the country is, in the case of a true teacher, of great advantage on both sides.

But the city teacher has usually twice, and often three or four times as many pupils as the one in the country. They belong to five or ten times as many families, since the system of grading divides the same family among many rooms. A group of five like my own, brought up in the country in an ungraded school, would perhaps at their present age have known four or five teachers. In some happy hamlets they would have known but one. Living here, I believe they have already been under the care of thirty-seven different men and women, and the number will probably reach sixty before they are through. That complicates the problem.

In the more scattered and poorer country districts the teacher is the only public functionary. She comes in from high school, normal school, or college, "trailing clouds of glory" and she may be the strongest influence for culture there is in the place. Most of the teachers of this city are working in the community where they were born and grew up. They certainly form a part of the intellectual life of the whole place. But if the head of the family knows a few of these one hundred and fifty teachers, the chances are that they will not be the ones in charge of his own children. \* \* \* \* \* As regards some, at least, of the trustees, who are supposed to represent the parents in the control of the schools, they consider their work at an end where it really begins, that is when the hou e is boil and the teacher engage I, and the machine viset in motion. In their way they are like the deity of some far eastern ereeds, who makes his world and sets it in motion and then betakes himself to a solitary throne and lets it go.

\* \* \* One school trustee I knew, who served in an incorporated town. He was a busy lawyer, and once told me that he found his work as trustee rather exacting. He felt that he ought to visit each department in the school every week, and to stay long enough to go over the lessons with the classes. In the higher and lower grades alike he followed all the text book work, and he casually remarked that it took more time than one would suppose to read carefully all the Greek, Latin and French lessons and exercises of the higher classes, and to work out algebra and geometry so that he would know exactly what they were doing, and be able to examine and criticize the work of any class as it came up. Now this man did not think that he was doing more than was in his contract when he accepted office from those parents whom he represented. He did not think that a school trustee was a mere hewer of wood and payer of water taxes.

I seem to have made quite an excursion from the subject, to show that the teacher has not the direct responsibility of the parent, which an ordinary employee has to the person for whom he works, and that he does not have the in imate personal relation with the heads of the families which exists between lawyer and client, doctor and patient, or preacher and parishioner, whereby the value of the work of each of these professional men is tested; and finally that there is little or no representative influence or supervision exercised by the parents through the school board. It remains that the teacher can hardly look for approval, or criticism, or condemnation of his work to the people of the community where he lives. He knows the inspector and superintendent ot schools as the authority to whom his work must be commended. The only authority as to the courses of study is a provincial board from which also comes the authority to teach, and a certain proportion of the salary. If these are satisfied there is no one else to deal with. If they condemn, it would not avail though the parents of all the children in the class found the teacher an angel from heaven.

Societies used to debate whether hope of reward or fear of punishment counted for most in regulating the life. But the community of parents can offer neither inducement to the teachers. His work is little recognized by those for whom it is done, for the children do not understand, the parents do not know, and the trustees are concerned with other things. It must be difficult for a subordinate teacher in these schools, even though she be a genius, to get herself discovered and to obtain her fair meed of praise. Yet she has a right to expect this much, in view of the limited material rewards.

"Fame is the spur which the clear spirit do harrise (That last infirmity of noble minds), To scorn delights and live laboriou, days," Some few great souls among teachers have been known, one or two I have myself seen, whose work so absorbed them that they cared, or seemed to care, little for recognition. It was enough for them to do the *thing*. If they spoke of themselves they might give in other terms the explanation of that State governor who said: "I seen my duty and I done it."

"These demand not that the things without them Yield them love, amusement, sympathy. "Bounded by themselves and unregardful In what state God's other works may be, In their own task all their powers pouring, These attain the mighty life you see."

(Concluded in next number.);

### ART NOTES -- No. III.

BY HUNTER BOYD, WAWEIG, N. B.

The topic chosen for the month will appeal readily to all grades of scholars, and not least to those in the primary departments. Most children enjoy pictures of children, and also of animals, and particularly when these elements are so combined as to tell a story. For this reason one often meets reproductions of the well known picture by G. A. Holmes, called "Can't You Talk?" or another by C. Burton Barber "In Disgrace." Hardly less enjoyment is derived from scenes where only animals are introduced, provided "something is going on," and it may be well to recall the picture by H. Sperling. of Berlin, which bears a title "Saved" identical with that of Landseer's which is reproduced this month. It will be remembered that in the Berlin picture a kitten, attacked by two dogs has found a place of refuge at the breast of a larger dog. These two pictures may be compared chiefly for the purpose of noting the emotional expression of the two rescuers, and it would be well to gather other specimens of pictures where Newfoundland or St. Bernard dogs have effected rescues.

The meaning, or message of Landseer's 'Saved' is so obvious that we can afford to use this picture as a basis for classification of artists and their work, at any rate so far as such a summary will enable us to place 'Landseer,' and to know precisely what we are entitled to look for in his work. We all know the saying, "the eye sees only that which it brings with it the power of seeing," and it is true of artists just as it is true of the public who examine their work. A person who knows Landseer's specialty will not examine too closely his treatment of the clouds, the appearance of the ocean, nor even the

treatment of the little child. The strong point in the composition is the head of the dog, and if any question remains to be asked it is "What is the dog saying?" or more exactly "What emotion is expressed by the dog?" This is not the same as the quality of character or conduct displayed by the dog. We should all reply doubtless that we see faithfulness, kindness, humaneness and so on. But our business is rather to discover what were the feelings imputed by Landseer, or observed by Landseer, in this dog at the moment selected for his picture. If he actually witnessed a dog in this condition has he succeeded in making us sharers of his own emotion experienced when he reached that scene? What is the nature of the appeal which the animal makes upon ourselves as we contemplate this reproduction in black and white? Can we hear the dog, and if so what is the nature of the sound emitted. When we are thus led into the actual life of the dog all questions as to time of day or year and the location of the wharf or even the identity of the child are seen to be comparatively unimportant.

Many persons who are not conversant with the characteristics of various artists are frequently provoked to be told that such and such pictures are "good." They fail to discern that there are many kinds of "good" and not many artists achieve success in more than two or three special lines. It would be well for the scholars to be encouraged to form collections of pictures by animal painters. They can be classified according to nationality or according to the nature of the animal preferred. Let us take the French artists to begin with and we have Madame Rosa Bonheur who painted all animals but excelled with horses and oxen. Then we have Constant Trovon one of the greatest of French painters of landscape and animals. He made provision for a l'arisian scholarship for young painters of animals. Next we take E. Van Marcke, Charles Jacque, Braseassat, and Madame Henriette Ronner so famous with her cat studies.

For those who can afford to procure works for their school, or who have access to public libraries we commend "Animal Painters of England" from the year 1650, by Sir Walter Gilbey, Bart., and they will there find nearly 60 illustrations by W. Barrand, J. F. Herring, and pictures by the Coopers, although not including the beautiful work of the recently deceased T. Sidney Cooper, R. A. Any of the great artist series of publications will include a life of Sir Edwin Landseer, and illustrations of his chief works. Sets of pictures can easily be obtain-

ed from the Brown, Perry, or Cosmos Picture Companies.

It may suffice to add that Landseer lived 1802-1873. He enjoyed the friendship of Prince Albert and Sir Walter Scott. He belonged to an artistic family and was unusually precocious. He was not a great colorist and thus the reproduction here presented does not greatly depart from the value of the original. Richard Muther says of him "He paints the human temperament beneath the animal mask."

This plan is useful for one hour's entertainment Friday evening as well as for an exercise in geography. One week I write fifty or more names on the blackboard of the most prominent cities, capes, bays, etc., of the world. Have pupils copy into their exercise books. Then during their spare time, either in school or at home, they locate their places, writing the location neatly opposite each name. When I have spare time, if there be any trouble in finding places, I help them out, making constant use of maps, thus showing my interest in the subject.

On Friday evening we appoint captains who choose sides. I give out the names as in a spelling match. When one is missed the seat is taken. (Pupils point out place on map.) The side that remains longer on the floor or which has the greater number standing when names are all called out, is pronounced victorious. To vary the exercise, I have pupils tell some interesting fact in connection with each place. The names written are chosen according to the capacity of the pupils, and thus a pleasant as well as useful exercise is given. The pupils become very much interested and are made familiar with the maps, also are made familiar with the names of places and their location, so that in ordinary conversation and reading they are much benefited.—Popular Educator.

Miss Ella Crandall, of Wolfville, one of the first contingent of Canadian teachers to go to South Africa, has arrived at the home of her father, Rev. D. W. Crandall, to spend a few weeks' vacation after which she will return to Winburg, where she has a position in the large 'government school of twelve teachers. Nearly all the other Canadian teachers who went out at that time are either married or have returned home.—Yarmouth Telegram.

If you strike a pupil be exceedingly careful how, when, and why you do it. The public is too sensitive for a teacher to take chances.—Ex.

Dear Editor.—Those who had the pleasure of reading in the November number of the Review Rev. Mr. Boyd's interesting note on Turner's painting, "The Old Téméraire," may find an added pleasure in Henry Newbolt's lines entitled, "The Fighting Téméraire." A copy of the poem is subjoined.

Yours sincerely,

Dalhousie College, November 3. D. A. MURRAY.

### The Fighting Temeraire.

It was eight bells ringing,
For the morning watch was done,
And the gunner's lads were singing,
As they polished every gun.
It was eight bells ringing,
And the gunner's lads were singing,
For the ship she rode a-swinging,
As they polished every gun.

Oh! to see the linstock lighting,
Téméraire! Téméraire!
Oh! to hear the round-shot biting,
Téméraire! Téméraire!
Oh! to see the linstock lighting,
And to hear the round-shot biting,
For we're all in love with fighting
On the fighting Téméraire.

It was noontide ringing,
And the hattle just begun,
When the ship her way was winging
As they loaded every gun.
It was noontide ringing,
When the ship her way was winging,
And the gunner's lads were singing,
As they loaded every gun.

There'll be many grim and gory.
Téméraire! Téméraire!
There'll be few to tell the story,
Téméraire! Téméraire!
There'll be many grim and gery,
There'll be few to tell the story,
But we'll all be one in glory
With the fighting Téméraire.

There's a far bell ringing
At the setting of the sun,
And a phantom voi e singing,
Of the great days done.
There's a far bell ringing,
And a phantom voice is singing
Of renown forever clinging
To the great days done.

Now the sunset breezes shiver, Téméraire! Téméraire! And she's fading down the river, Téméraire! Téméraire! Now the sunset breezes shiver, And she's fading down the river, But in England's song forever She's the fighting Téméraire.

# A Hint Regarding the Provincial Examinations in Nova Scotia.

The Editor of The Educational Review:

Sir-Last summer while reading answers the questions in of science the provincial examinations in Nova Scotia discouraged because so few was frequently of the teachers had apparently profited by articles which I had written for their special benefit. had endeavored to make plain some important principles and had given hints as to how they might be impressed upon the pupils who contemplated undergoing examination. I had hoped that these hints might be found useful, but the same old mistakes were repeated to such an extent as to indicate that the teachers had either not read my articles or had simply not thought it worth while to modify their teaching. This would seem a short sighted policy, even if the articles were not really of educative value, when the hints were given by the provincial examiner.

It has long been the aim of the Educational Department to improve the character of the science teaching in the schools, and examination papers are thoughtfully prepared with that object in view, and I have tried to further these efforts by occasional articles to your journal. I propose in this letter to make one more attempt to arouse the teachers. I have arranged that one of the questions on the papers in chemistry last July will be repeated, in substance at least, next July. Surely teachers reading this letter, who have pupils preparing for examination in chemistry, will take pains that they, at all events, thoroughly understand all the questions asked last July.

This warning having been given, it will be but fair that answers to this particular question should be more strictly marked than would otherwise be the case.

John Waddell.

Do the following passages bear any traces of the latitude, season, or country in which they were written?

"Twilight and evening bell,

And soon after the dark !"

"The sun's rim dips; the stars rush out:

At one stride comes the dark."

"The night cometh, when no man can work."

"The long gray fields at night."

"The dawn comes up like thunder."

Introduction to Practical Geography.

### Barbizon.

MISS A. MACLEAN.

To the public school teachers in my native land, who know no more about art than I used to know. I should like to write of art. There are hundreds such. Bright, educated, clever teachers there are to whom the lives of the heroes of the battle field, of the giant souls who struggled for civil and political freedom, of the God loved ones who lived and suffered and died for the right to serve God as they thought best, are well known, but how many know the lives and works of the heroes, the conquerors, the martyrs of the art life, or realize that they are as worthy of thought and study as the people of any other field of the world's activity? We have no knowledge of a sixth sense, but if we could become possessed of a sixth sense, we would surely say regretfully, "what we have missed in the years that are past!" I know how much it would have meant to me had someone talked to me in school as I would like now to talk to the pupils 1 have known. I can not do that, but if I can help teachers to interest their pupils in art and the lives and works of artists, I shall feel that I have made some atonement for what my pupils missed because I did not know.

Once I was employed to give a young lady, whose education had been neglected, instruction in history and literature. The first day I called I was shown into a finely furnished library, where sat a graceful young lady by a table on which were two huge volumes, the leaves of one of which she was disconsolately turning over. When we were left alone, she turned to me and said, "How in the world do they ever suppose I can learn all that!" I took up the book at which she pointed, and found its title to be "Twenty Centuries of History." The other book. I found to be an equally ponderous and alarming dissertation on literature. I was not surprised that the poor girl was frightened. Well, she had no lessons out of either book with me. I had my own methods and they succeeded. We have more than twenty centuries of art history—art is as old as the existence of man upon the earth. I do not purpose going back now to the Cave Dwellers or the River Drift Men, the Kitchen Middens or Stonehenge. I wish to journey now with the teachers and by them with their pupils in sunnier times ar l with people nearer to us in time and interest. later they should wish to journey back through the

long ago, I shall be glad to go with them. We will begin with Barbizon.

What was Barbizon? Far away in sunny France, in the early part of last century, on the edge of a vast plain, close to the side of a forest, was a village of a single street. The houses or homesteads which formed the street were built around courts. Into these courts was thrown the refuse from the stables, there the cows were milked and the poultry fed, there pigeons cooed and little children played There was no access to this one street town except by travelling across the fields from the post town of Chailley, a mile away, or by a path through the forest in another direction. This little hamlet, or day's walk from Paris, was Barbizon, and the forest, up to which it seemed to nestle, was Fontainebleau, to whose Renaissance Chateau came often Kings of France and their courts, and among whose lovely, similt glades and shady paths men and women whose names are linked with history joyously rambled. There were many hamlets and villages on the plain, vineclad homes of men and women who sowed and reaped, and gleaned and drove their sheep and cattle to pasture and watched them by day and by night. Many of those villages were fairer than Barbizon; then why is it that litle Barbizon is known all over the civilized world today? It is because in that little hamlet, between 1830 and 1845 there gathered the largest number of men powerful in art creation that has ever gathered anywhere since the days of Michael Angelo, the days of the Renaissance. What men those men of the Barbizon school were!-Millet, Corot, Barvé, Rousseau, Gerome, Delacroix, Diaz, Dupré, Troyon, and many others. Strange that there should be long years when the world's eves ache with looking for its art lights, and then suddenly there is flung out against the blue a whole galaxy of brilliant stars.

It is said that Barbizon became known to the art world through Claud Aligny and Philippe Le Dieu. They had gone to Fontainebleau to visit a friend, and while there went into the forest looking for something to paint. By night-fall they had lost themselves, but by following the tinkling of a bell they came upon a cowherd who guided them out to the village of Barbizon and to the house of a peasant named Ganne. Ganne could provide food but not lodging, so the cowherd let them pass the night on the straw with his cattle. Next morning they explored the forest near the hamlet and were

so amazed and delighted that they insisted that Game should take them as lodgers. He and his wife decided that money was not to be despised, so they gave up their bedroom to the artists, and shared the barn with the cattle in the pleasant summer time.

Le Dieu and Aligny spread the news of their discovery of a bit of unspoiled nature so near to Paris, and next summer the place was overrun by artists. Finally Ganne bought a large barn and fitted it up as a two-storey hotel with studios on the north side. On the ground floor was an immense dining-hall, a cate and billiard table. Most of the artists gathered into Ganne's hotel and often it was so full that some slept on the tables and others in the barn. Between 1830 and 1860 nearly every French artist and representative artist from every other civilized nation visited Barbizon.

A merry "vie de Boheme" the men of the earlier Barbizon days led. Each season one was chosen as leader, and times were grave or gay according to the temperament of the leader. They were earnest workers. The law of the place was to rise early, and the most diligent were off to the forest by five. After dinner they relaxed. Then they smoked, they talked, they sang, they decorated the panels of the dining-room, they went masquerading to the other villages or danced the bottle dance on festive occasions in a barn lit up by candles in tin lanterns and decorated with ivy. The graver ones of Millet's type did the decorating, while the gayer ones of Corot's type led the bottle dance. Bottles were placed at equal distances from each other and the dancers, moving slowly at first, then fast and faster, passed out and in between the bottles-he who tipped over a bottle was out of the dance.

Most of the artists came and went, but, during the last twenty-seven years of his life, Barbizon was home to Millet all the year round, and with Millet I shall begin sketches of the lives and works of some of the most important of the Barbizon school of artists.

The purely educational value of nature study is in its power to add to our capacity of appreciation—our love and enjoyment of all open-air objects. I should not try directly to teach young people to love nature so much as I should aim to bring nature and them together, and let an understanding and intimacy spring up between them.—John Burroughs.

### February Birthdays.

February 3, 1811. Horace Greeley born; took an active part in the labour of the New Hampshire farm where he was brought up. He early learned to read and before he was ten had read every book that he could borrow in the neighborhood. Established the New York Morning Post, the first penny daily ever published, afterwards founded the New York Tribune, which he edited till his death.

February 6, 1664. Queen Anne of England, the last sovereign of the Stuart line, born in London. She was the second daughter of James II. She was the mother of seventeen children all of whom died in infancy before she became queen. Her reign was distinguished by successful wars fought under the great Duke of Marlborough, and is also called the Augustan period of English literature, from the famous writers who lived in her reign.

February 7, 1812. Charles Dickens, one of England's greatest novelists, born near Portsmouth. Began to study law but disliked it and entered upon newspaper work. His "Posthumous Papers of the Pickwick Club," unequalled in their particular vein of humour, won him great popularity. His masterpiece is "David Copperfield," which is said to be the history of his own life. His "Child's History of England," "Christmas Carols" and parts of his movels are delightful reading for the young.

February 11, 1847. Thomas Alva Edison, great inventor, born in Ohio. His mother, a Scotch woman of intellectual attainments, taught him to read. He began life as a trainboy on the Grand Trunk Railway; learned telegraphy and soon began a series of inventions, which made his name famous chiefly telegraphic and electric instruments, the telephone, phonograph, electric light and electric engine.

February 12, 1809. Abraham Lincoln, the sixteenth president of the United States, born in a cabin in Kentucky, a grand-nephew of Daniel Boone. Had one year's schooling, was a farm laborer, "rail-splitter" and trader by turns as he grew up. He was famous for his height and strength of body, his inexhaustible fund of anecdotes, and for his eleverness in speech-making. On a voyage to New Orieans he saw slaves chained, maltreated and whipped, which led to his deep-rooted dislike of slavery. Studied law, was elected to Congress in 1846, and became president of the United States in 1860. He was assassinated by John Wilkes Booth, an actor, in 1865.

February 15, 1564. Galileo (accent on the e) was born in Italy. A noted mathematician and philoso-

pher. Invented the microscope and telescope. With the latter he detected the mountainous character of the moon, the phases of the planet Venus, discovered the moons of Jupiter, the rings of Saturn, the rotation of the sum on its axis by means of the spots on its disk. He was denounced as a heretic for teaching that the earth moves; was imprisoned and renounced what he had taught; but added an aside—"Still, it does move."

February 19, 1473. Nicolas Copernicus, an astronomer, born in Poland. He was the first to teach that the planets revolve round the sun, a theory that was rejected in his time.

February 22, 1819. James Russell Lowell, a distinguished poet and critic, born at Cambridge, Massachusetts.

February 22, 1732. George Washington, soldier and statesman, the leader of the forces of the American Colonies in the war of the Revolution. First president of the United States.

February 23, 1685. George Frederick Handel, great musical composer, born in Saxony, composed sonatas at the age of ten, devoted himself to sacred music. Composed the oratorios of "Saul" and the "Messiah."

February 26, 1802. Victor Hugo, a celebrated lyric poet and novelist, also a great political orator and leader, born at Besancon. His greatest novels are "Les Miserables" and "The Toilers of the Sea"

February 27, 1807. Henry Wadsworth Long-fellow was born at Portland, Maine; an eminent American poet; was professor of modern languages and literature in Harvard University. Among his best poems are "Hyperion," "Voices of the Night," "Evangeline."

February 28, 1533. Michael Montaigne, celebrated philosopher and essayist, born in Perigorde, in France; studied and practised law. His famous essays, which have passed through nearly one hundred editions, have greatly influenced taste and opinion in Europe.

February 29, 1792. Gioacchino Rossini, a famous composer, born in Italy; at 14 years of age he could sing any piece of music at sight; at 18 he wrote the operetta "Tancredi" which within three years was played in every musical theatre in Europe and America. His master-piece is "William Tell."

The population of Canada is now over six millions. The immigration figures for the year 1905 were somewhere near 145,000, or about ten thousand more than in the preceding year.

### Problems in Arithmetic, Grade VIII.

G. K. BUTLER, M.A.

- 1. If the gain on an article is 20 per cent, and the discount 20 per cent, and the S. P. \$40. Find cost and marked price. Ans.—Cost, \$33 1-3; M. P., \$50.
- 2. Bought 12 dozen pairs of boots at \$25 a dozen. pay 30 per cent duty and gain 10 1-3 per cent, Find S. P. each. Ans.—\$3.
- 3. Find simple interest on \$375.60 from May 10. 1900, to Oct. 12, 1905, at 6 1-2 per cent. Ans.— \$131.84.
- 4. 800m. bought at \$1.25 a meter, duty 20 per cent, gain 20 per cent. Find selling price per vard. Ans.—\$1.645.
- 5. A can do a piece of work in 9 days. B in 12 days; A works for 6 days. How long will it take B to finish it? Ans.—4 days.
- 6. An agent sells 400 bbls, apples at \$2,50 Commission 5 per cent. Invests proceeds at 5 per cent commission. How much does he invest? Ans.—\$904.76.
- 7. The weight of iron is 7.15 times as great as water. Find in lbs. and a decimal the weight of a bar of iron 3 ft. long. 4 in. wide and 3 in. thick? Ans.—111,718 lbs. or 111 lbs. 11.5 oz.
- 8. Find the value of a pile of wood 50 ft, long, 12 ft. wide and 8 ft, high, at \$3 a cord. Ans.-\$112.50,
- 9. In 4 months the interest on \$275 is \$5.50. Find the rate per cent. Ans.—6 per cent.
- to. Divide \$250 among 3 persons so that the third has 1-3 of what the first two have, and the first 1-2 of what the second has. Ans. -\$62.50. \$125, \$62.50.
- 11. A room 12 ft. x 15 ft, and 10 ft. is to be papered with paper 18 in, wide, 8 yards to roll and 25 cents a roll. There are three windows each 4x6 and 2 doors 3x8. Find cost. Ans. \$2.19 2-3.
- 12. A cylinder is 10 in, in diameter, and 15 in. high. How many gallons will it hold? Ans.— 4.24 gallons.
- 13. A cylinder is 20 decimeters in diameter, and 10 decimeters high. How many gallons will it hold? Ans.—601.466 gallons.
- 14. Find volume of a cone 20 in, high, and 15 in. in diameter? Ans.—1178.1 cubic inches.
- 15. Find in acres etc. the area of a triangle whose base is 300 yards, and height 600 yards? Ans.—6 acres, 95 rods, 6 yards, 2 feet and 36 inches.

(In Question 12. January problems, "inches" should be "meters.")

### Literature in the Primary Grades.—II.

A little girl of ten years of age has made the following list of favorite books, unaided, says St. Nicholas Magazine. Our readers will find it hard to make any improvements.-

"Tanglewood Tales," Nathaniel Hawthorne.

"Household Book of Poetry," Dana,

"Uncle Remus," Joel Chandler Harris,

"The Jungle Book," Kipling.

"Scottish and English Ballads," Nimmo.

"History of Hannibal," Abbott.

"History of Romulus," Abbott.

"The Pilgrim's Progress."

"Heroic Ballads," Montgomery,

"The Blue Poetry Book," Lang.

"Stories from Homer," Church. "Stories from Virgil," Church.

"Hans Andersen's Fairy Tales."

"A Child's History of England," Dickens,

"Tales of a Grandfather," Scott.

"Greek Heroes," Kingsley.

"Wonder Book," Hawthorne,-

To these may be added others, not selected by a child, but which every child will delight in:

Alice's Adventures in Wonderland, Robinson Crusoe. Swiss Family Rebinson. Kingsley's Water Babies. Lanier's Boy's King Arthur, Lamb's Tales from Shakespeare, Ruskin's King of the Golden River. Scudder's Book of Folk Stories. Fairy Tales and Fables.\* Stories from English History.\*

It may be said that those children of the first four grades in our schools who read these twenty books, or half of them, will have a possession that will last through life. It will not be difficult to obtain them. They are everywhere; and are among the world's best literature for children. Let a child read one or two of them, and there will be an eager desire to read the others; they will go in quest of such, as did many of those famous men, mentioned in "February Birthdays" of this number, when they were child-

When and where may such books as these be read? During the first three or four grades of the primary course, when children are becoming familiar with the printed page, their ambition to read something outside their school readers—something well worth reading-may be easily roused

<sup>\*</sup>The two last are small and low priced paper covered volumes, which may be obtained from A. & W. Mackinlay, Halifax,

and directed. In the earlier grades, while drilling on many senseless short sentences, the teacher may supply deficiencies and read, or tell, the fairy stories and myths always delightful to children. If these are not read or told to the children before the enthusiasm for the marvellous has abated, they will not be enjoyed later. "There is no one form of literary art so elementary as the fable, and no book so emphatically a child's first book in literature as one which gathers the fables most familiar to the ears of English-speaking people."

Moral instruction and character building may proceed insensibly with the use of fables. Truthfulness, patience, reverence, obedience, may all be taught vividly and in a wholesome manner from them; and when once put on the scent, young minds are eager to follow out and discover for themselves the purpose of the fables. Æsop's Fables, Andersen's Fairy Tales, Hawthorne's Wonder Book, Kingsley's Water Babies always delight children if handled in the proper way. Of course only the simplest fables should be read or told to very young children. The first two books named above should be read in the third and fourth grades and the last two in the fourth and fifth grades.

Many short poems from our best writers for children should be used in all primary grades both for committing to memory and in the language exercises. The memory should have plenty to do in the early grades, when things learned are most easily retained, and when good wholesome literature stored up in the memory will form a reserve fund that may be drawn upon later in life.

Keep on the blackboard some selection from the poets to be looked over every day until it is thoroughly learned. It may be descriptive of the month, or some bird, or flower, or other natural phenomenon, such as is found in this or other numbers of the Review.

A father fearing an earthquake in the region of his home, sent two boys to a distant friend until the peril should be over. A few weeks after, the father received this letter from his friend:

"Please take your boys home, and send down the earthquake."

In Massachusetts 299 cities and towns pay for the transportation of school children and only 54 do not. Is not this a good argument for consolidation of schools?

# Recitations for Primary Grades. Shut the Door.

Godfrey Gordon Gustavus Gore— No doubt you have heard the name before— Was a boy who would never shut the door.

The wind might whistle, the wind might roar, And teeth be aching and throats be sore; But still he never would shut the door.

His father would beg, his mother implore, "Godfrey Gordon Gustavus Gore, We really wish you would shut the door!"

When he walked forth, the folks would roar, "Godfrey Gordon Gustavus Gore, Can't you remember to shut the door?"

They rigged out a shutter with sail and oar, And threatened to pack off Gustavus Gore On a voyage of penance to Singapore.

But he begged for mercy, and said, "No more! Pray do not send me to Singapore On a shutter, and then I will shut the door!"

"You will?" said his parents. Then keep on shore! But mind you do! for the plague is sore Of a fellow that would never shut the door, Godfrey Gordon Gustavus Gore."

### The Coming Man,

A pair of very chubby legs,
Encased in scarlet hose;
A pair of litt'e stubby boots,
With rather doubtful toes;
A little kilt, a little coat—
Cut as a mother can—
And lo! before us stands in state
The future's "coming man".

His eyes perchance will read the stars,
And search their unknown ways;
Perchance the human heart and soul
Will open to their gaze;
Perchance their keen and flashing glance
Will be a nation's light—
Those eyes that now are wistful bent.
On some "big fellow's" kite.

Those hands—those little busy hands—So sticky small and brown;
Those hands whose only mission seems
To pull all order down—
Who knows what hidden strength may be
Within their tiny clasp,
Though now 'tis but a sugar-stick
In sturdy hold they grasp?"

Ah! blessings on those little hands,
Whose work is yet undone;
And blessings on those little feet.
Whose race is yet unrun!
And blessings on the little brain
That has not learned to plan!
Whate'er the future holds in store,
God bless the "coming man."

-Selected from Blackie's School Recitations.

### The Key to the Box.

"What would you do," said the little key To the teak-wood box, "except for me?"

The teak-wood box gave a gentle creak To the little key; but it did not speak.

"I believe," said the key, "that I will hide In the crack, down there by the chimney side,

"So this proud old box may see How little it's worth except for me."

It was long, long afterwards, in the crack They found the key, and they brought it back.

And it said, as it chuckled and laughed to itself, "Now I'll be good to the box on the shelf."

But the little key stopped with a shiver and shock, For there was a bright new key in the lock.

And the old box said: "I am sorry, you see; But the place is filled, my poor little key."

### The Child and the Snowflakes,

[The "snowflakes", from three to six little girls, should be dressed in white, with gralands of ravelled white cotton or cotton batting continued to the hands. The hair should be concealed under white caps and the eye-brows powdered whit. They should stand in a row, the smallest in front, diagonally facing the audience, and should recite and sing in concert, very softly and clearly.]

### Child:-

Pretty white flakes of falling snow, Whence do you come and whither go?

#### Snowflake:-

From our cloudland home we have come to-day,

### Child:

Pretty white flakes, you have run away.

#### Snowflakes:-

That is true little girl,—beyond a doubt
The cloud door opened, and we slipped out.
Then, lest the sun should carry us back,
Swiftly we ran o'er the wonderful track,
That leads from the sky straight down to earth,
Where in days gone by we had our birth.

#### Child:-

Were you born on earth, little flakes of snow? You have no wings to fly—then how could you go Way up to the clouds that seem so far, And come back again—each a pretty white star?

### Snowflakes:-

A part of the sea's blue waves were we, Rolling about so wild and free, Till the sun bent down and dipped us up, And carried us off in his shining cup; Then each drop floated now low, now high, Till together we made a cloud in the sky.

And larger and stronger we grew till today We found the door open and ran away. Swiftly we came from the sky's blue dome, Till we passed Jack Frost in his frozen home, And we touched the mist as it hurried by. Till it seemed white stars from an icy sky.

Now here we are back on the earth once more. A pretty white quilt to cover it o'er, And to keep it warm till the airs of spring Shall once more the grass and the blossoms bring

### Sing. (Tune: "Lightly Row.")

Flutt'ring down! flutt'ring down! On the branches bare and brown, Over all, over all, See the snowflakes fall.
Light as feathers in the air, Dancing, dancing, here and there; Winter's bees, winter's bees, Swarm upon the trees,

Stars of snow! stars of snow! Dropping to the earth below, From the sky, from the sky, See the snow-stars fly. Light as feathers in the air. Dancing, dancing here and there; Winter's bees, winter's bees, Swarm upon the trees.

-Adapted from Kellogg's "Mid Winter Exercise,"

#### Lesson on Snow.

A lesson on snow should precede the above. Snowflakes are gatherings of minute particles of water vapour frozen in the upper regions of the atmosphere where the temperature is 32° Fahrenheit, or below that. The particles arrange themselves in geometrical shapes around a centre, assuming a six-sided shape. This may be represented by taking three needles or splints of equal lengths and arranging them so that they will cross in the

centre with the points equidistant from each other. Very perfect snowflakes that fall in still air will resemble these six radiating lines. To make this likeness complete put the lines upon the blackboard and feather them in artistic shapes making the tracings proceed from each line outward, nearly at right angles.

The lightness and regularity of snow crystals depend on the height of the atmosphere from which they descend as well as from the stillness of it. These conditions prevail in high latitudes. In temperate climates the winds and moister portions of the atmosphere through which the snowflakes fall tend to melt them or break them up, so that they are very seldom found in regular six-sided figures.

Very fine, lightly fallen snow occupies from ten to twenty times as much space as rain water. Gather up a tumbler or tin dipper full of this snow and let it melt in a warm room, and measure.

The boys and girls of British Columbia, the Pacific maritime province of the Dominion, are rarely out of sight of snow all the year round. Accumulated on the mountain tops it serves to feed, by its gradual melting, streams of running water which flow down the mountain sides through gorges or valleys. The city of Vancouver gets a fine supply of cool, delicious water all the year round through the Catalano Gorge, the upper extremity of which is in contact with the eternal snows of one of the high mountains north of that city. But in winter little or no snow falls in either of the cities of Vancouver or Victoria, where perpetual summer reigns and flowers bloom for nearly ten months of the year. But it is doubtful if the boys and girls there have as good a time as ours during the winters along the Atlantic coast where there is usually plenty of snow and ice for coasting skating, sleighing and other winter sports. is this when the cities of Vancouver and Victoria lie several degrees farther north than St. John and Halifax?

In severe climates the snow fall protects the plants from the severe frost. Last summer in Yarmouth a lady pointed to her beautiful flower garden and said to the writer: "A few months ago there was six feet of snow lying upon those treasures of mine protecting them from the cold winds and frost." And more—the particles of snow as they fall through the air and lay upon the ground gathered the particles of dust, and when the snow melted they washed all the dust into the soil to fertilize it.

### English Foik-Lore for February.

February fill dyke, he it black or be it white, But if it be white it's the better to like.

All the months of the year curse a fair Februeer.

A February Spring is not worth a pin.

If Candlemas Day (Fcb. 2) be fair and bright, Winter will have another flight; But if Candlemas Day be clouds and rain, Winter is gone and will not come again.

If February brings no rain, 'Tis neither good for grass nor grain.

### Jack Frost.

Jack Frost is the jolliest Jack that I know; He hails from the place where the icicles grow,

We can ride in a sleigh

Or go skating all day (Saturday) When, with nippers and freezers, he cometh our way.

Though he tingles my fingers and pinches my nose. And makes funny cramps in the ends of my toes,

I say, "Jack, come ahead;

I have skates and a sled,

And though you may sting me, my sports you have led."

-Selected and Adapted.

"I am at a loss to discover why trustees and teachers cannot and do not unite to beautify the school grounds, and to make the school premises as attractive as any in the section. Why should not the pupils and teacher unite to make the schoolroom beautiful, homelike, and cheerful? The influence of surroundings is a factor not to be neglected in education. The softening of manners, the humanising of affections, the curbing of destructive propensities, the self-respect engendered by congenial and pleasant environment, are all permanent in their effects and follow the pupil throughout his career."—Inspector Allan Embury, Pecl, Ont.

[The winter is the time for trustees and teachers to unite and make their plans for cheerful and tidy school surroundings.—*Editor*.]

Stop means to cease from action. It does not mean to remain, to stay. We should not say He, stops at the hotel, but He stays (or lives) at the hotel,

Fill the blanks with stop, stay, or stayed.

- I. We——at the spring to drink, but did not——long.
- 2. She——at my house two days.

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- 3. ——when you reach the corner.
- 4. I will——with you as long as you need me.
  - 5. Do not——away long.

### The Three Nine's Puzzle.

According to the London Tit-Bits there was a cranky arithmetician in Athens who worried the philosopher Plato by his propositions. But, Plato devised a way of getting rid of him. When the crank one day proposed to inflict on him a lengthy oration, the philosopher cut him short with the remark (fide Tit-Bits): "Look here old chappie" (that is the nearest translation of the original Greek term of familiarity), "when you can bring me the solution of this little mystery of the three nines I shall be happy to listen to your treatise, and, in fact, record it on my phonograph for the benefit of posterity."

Plato then showed that 3 nines may be arranged so as to represent the number 11, by putting them in the form of a fraction thus:

$$\frac{9x9}{9} = 11$$

The puzzle he then propounded was, to so arrange the three nines that they would represent the number 20. It is said that the crank worked 9 years at it and then gave up the ghost. But it is easy enough provided you know how. Can any reader of the REVIEW find the solution and send it to us for the next number?

The province of the Dominion of Canada with their area and population are:—

	Area	Population.
Ontario	260,862	2,182,947
Quebec	351,873	1,648,898
Nova Scotia		459.574
New Brunswick	27,985	331,120
Manitoba	73,732	255,211
British Columbia	372,630	178,657
P. E. Island		103,259
Saskatchewan		91,460
Alberta	253,540	72,841

The total population of the Dominion is now estimated at over 6,000,000.

### Anatomy in Rhyme.

How many bones in the human face? Fourteen, when they are all in place. How many bones in the cranium? Eight, unless you've mislaid some. How many bones in the ear are found? Three in each, to catch the sound. How many bones are in the spine? Twenty-four, like a clustering vine. How many hones in the chest are found? Twenty-four ribs, to the sternum bound. How many bones in the shoulder bind? Two in each—one before, one behind.

How many bones are in the arm? The top has one; two in the forearm. How many bones are in the wrist? Eight, if none of them is missed. How many bones in the palm of the hand? Five in the palm, pray understand. How many bones in the fingers, then? Twelve bones, plus two and repeat again. How many bones are in the hip? One in each, where the femurs slip. With sacrum and cocyx, too, to brace And keep the pelvis all in place. How many bones are in the thigh? One in each, and deep they lie. How many bones are in the knee? One, the patella, plain to see. How many bones are in the shin? Two in each, and well bound in. How wary bones in the ankle strong? Seven in each, but none is long. How many bones in the ball of the foot? Five in each, as the palms were put. How many bones in the toes, all told? Just twenty-eight, like the fingers hold, There's a bone at the root of the tongue to add, And sesamoids eight, to what you have. Now adding them all, 'tis plainly seen That the total number is 214: And in the mouth we clearly view Teeth, upper and under, thirty-two.

-Chicago Record.

### Current Events

The sudden death of the Hon. Raymond Prefortaine, Minister of Marine and Fisheries, which occurred in Paris on Christmas day, has been made the occasion of remarkable demonstrations of sympathy and friendship. Representatives of the French, British and Canadian governments were present at the funeral ceremonies in Paris; and fifteen thousand French troops under arms took part in the ceremonies. At Cherbourg, the remains of the late minister were received on board the British battleship Dominion, sent by the British government to bring them to Canada. The selection of the Dominion, one of the newest and largest ships of the British navy, for this service, probably suggested by the fact that she was named in honor of Canada, was in itself a great honor. On her arrival at Halifax, a funeral train was waiting to convey the dead to Montreal, where the interment took place on the 25th, with full military honors.

The elections to parliament in the United Kingdom are going strongly in favor of the new government, Mr. Balfour, the late Prime Minister, being among the defeated candidates.

In connection with the present visit of the Prince of Wales to India, an event of much importance has been the reception of the Lama of Tibet in audience. When the Dalai Lama fled last year, at the approach of the British mission, and refused to take part in the negotiations, he was deposed by the Chinese government, his temporal power given to a regent in council, and his spiritual authority transferred to another Grand Lama, the Pashi Lama. It is the latter who has been received by the Prince of Wales; and the significance of the event is in the fact that Tibet has thus thrown off its seclusion, and for the first time sought friendly intercourse with the outer world.

Much anxiety is felt as to the outcome of the Moroccan conference now in session at Algeciras, Spain. The nations chiefly interested are France and Germany; and both are said to be preparing for war over their conflicting claims, if the conference fails to find any peaceful solution of the difficulties.

Portugal will use two steerable airships in warfare against the revolted tribes in West Africa.

Missionaries in some parts of China have asked for protection, owing to the increasing activity of anti-foreign societies.

The national assembly of France has elected a new president of the republic, M. Fallieres, who will assume power on the 18th of this month.

The Canadian Forestry Convention, recently assembled at Ottawa, urged the importance of a general forestry policy to be adopted by the Dominion and Provincial governments, and especially the preservation of forests on watersheds, so as to conserve through the year the equable and constant flow of streams. The Dominion government will introduce legislation in harmony with these recommendations.

It is reported that the Emir of Afghanistan will remove his capital to a more northern site, because of the scarcity of wood around Kabul, where the forests have been cut away to furnish fuel for manufacturing purposes.

Russia is still in a disturbed condition, with more or less threatening rebellions in progress in different parts of the empire; but the elections for the new representative assembly are in progress, and it will be called together as soon as half its members are elected. Finland has been pacified by the restoration of its ancient privileges.

A revolution has begun and ended in Santo Domingo. The president of the stormy little republic has fled, and the vice-president has succeeded him in office, with much less than the usual disturbance which such a change of government entails in that part of America.

An agreement has been concluded with the Sultan of Brunei for the appointment of a Bri ish Resident with power to control the general administration of the state. This arrangement, which went into effect on the first day of January, practically adds Brunei to the British possessions in Borneo.

The settled Indian population of this country now numbers 108,000. The Superintendent of Indian Affairs reports a gain in numbers in two years of about one and a half per cent.; and believes the country may well congratulate itself upon a

policy which has transformed its aboriginal population into a law-respecting, prosperous and contented section of the community, which contributes in many ways to its welfare.

A definite breach of friendly relations between France and Venezuela has followed the renowed discourtesy of the president of the latter country to the

French representative at Caracas.

It is expected that the battleship Dominion, which brought the body of the late Minister of Marine and Fisheries to Halifax, will return to Canada next August. She is the largest war vessel ever seen in Halifax.

A number of Kansas towns are offering prizes to the people who have the best lawns about their houses.

A revolution in Equador has so far succeeded that two provinces support the insurgent leader in his efforts to assume the presidency.

The King of Siam has published a decree abolish-

ing slavery in his dominions.

A serious famine prevails in the three northern provinces of Japan, owing to the failure of the rice crop.

Persia declines to accept the boundary line between that country and Afghanistan as approved by the British authorities. As Great Britain and Russia are both indirectly interested, this adds another to the many causes that seem to endanger the peace of Europe.

### Teachers' Bureaus.

Four Teachers' Bureaus were established last term:—At Woodstock, by R. Ernest Estabrooks; Chatham, by H. Burton Logie; Harcourt, by H. H. Stuart; and in Elgin, Albert Co., by M. R. Tuttle, M. A., The Bureaus were successful in placing all teachers who applied, the only trouble being that there were by far too few teachers in need of schools to fill all the vacancies reported to the Bureaus. In many cases where teachers resigned because of not getting schedule salary and applied to the Bureaus for new positions, the Bureaus were successful in getting the salaries raised so that the teachers could withdraw their resignations and remain.

Below are the Resolutions on Professional Etiquette adopted by Carleton County Teachers' Institute, Dec. 21., 1905:—

I. That we will not directly or indirectly underbid another teacher.

2. That we will not apply for a school prior to the date at which a teacher may be legally discharged, unless we are sure the teacher is not going to remain.

3. That we will make an honest endeavor to learn what salary is being paid in the district, and not teach for less.

4. That under no circumstances will we teach for less than the minimum schedule of the New Brunswick Teachers' Association.

5. That we will not apply for any school unless

we are willing to accept it if offered.

6. That having accepted a school we will immediately cancel all outstanding applications.

7. That we will at all times endeavor to guard

the reputations of other teachers.

8. That we will not permit the discussion of our predecessors in our presence by outsiders.

9. That we will not seek to establish a reputa-

tion at the expense of others.

10. That we will be especially careful to sustain the reputation of our co-teachers and in no way undermine them in the esteem of the public.

11. That we will instruct those preparing for Normal School in the principles of professional

etiquette.

12. That we will use our influence at all times to increase the salaries and to educate the public to be just to teachers.

13. That we will stand by one another as far as

we can honorably do so.

14. That we will at all times treat one another as we wish to be treated,

### School and College.

Mr. Aaron Perry, headmaster of the Kamloops, B. C., high school, has been appointed to take charge of the commercial department of the Victoria high school.

Mr. Ralph St. John Freeze, of Sussex, has been chosen Rhodes Scholar for the University of New Brunswick for this year. Mr. Freeze graduated from the University in 1903, after a brilliant course, and since graduation has taught in the Rothesay College, at the same time attending the law lectures in St. John Mr. Freeze will take the course in law at Oxford. He was a close competitor with Mr. Chester Martin the last time the University had to choose a scholar, and in the present contest was unanimously chosen from among ten competitors. Mr. Freeze is a brilliant scholar, a hard worker, a good all-round athlete, and has a bright future ahead of him.

Mr. Arthur G. Cameron is the Rhodes' scholar this year for Prince Edward Island, He graduated with honors from Prince of Wales College in 1900, and after teaching a short time entered Queen's University, Kingston, and is now in his senior year. He has made a fine record as a scholar

and an athlete.

The first and second forward movements at Acadia University have resulted in the raising of \$275,000 of which \$150,000 have been contributed by the Baptists of the maritime provinces, and the remainder, including Mr. John D. Rockefeller's contribution of \$115,000, from outside sources. This is a handsome addition to the funds of the University, due to the generosity of friends and the exertions of its president, Rev. Dr. Trotter.

Miss Antoinette Forbes, B. A., vice-principal of the Windsor, N. S. Academy, has been granted a three months' leave of absence, and Miss Jean Gordon of River John,

N. S., a graduate in arts of Dalhousie University, has been appointed to the position for that period.

Mr. Theodore Ross, B. A., principal of the Macdonald Consolidated School of P. E. Island recently delivered a series of lectures in Charlottetown on educational development. Mr. Ross's training and methods of work fit him admirably to address teachers on this subject.

Chipman, Queen's County, N. B., has a fine new school building, which was opened at the beginning of the January term, and may do for a consolidated school in the future. The architect was Mr. F. Neil Brodie, of St. John. It is finished with hardwood floors and ceilings and has a complete heating system. A large room is to be devoted to the purposes of manual training and domestic science.

Mr. Horace L. Brittain, who spent last year at Clark University, Worcester, Mass., has accepted the principal-ship of the Salisbury, N. B. school. Mr. Brittain has recovered from a severe illness, and it is gratifying to his friends to hear that the is again in harness.

Mr. Abram Cronkhite, lately principal of the school at Bristol, Carleton County, has taken charge of the Gibson, York County school, in succession to Mr. C. D. Richards, who has assumed the principalship of the Woodstock Grammar School.

Miss Vega L. Creed, daughter of Dr. H. C. Creed of the N. B. Normal school has taken charge of the model school department, at Fredericton, lately taught by Miss Nicholson, who has obtained a three months' leave of attached.

The teachers from New Brunswick who took the course in Nature-study in the fall term of 1905, at Macdonald Hall, Guelph, are as follows:—Miss Annetta A. Bradley, Pioneer; Miss Melissa M. Cook, Campbellton; Miss Estella M. Hartt, Kingsclear; Mr. C. Gordon Lawrence, Lower Dumfries; Miss Gertrude T. Morrell, Springfield; Mr. Fletcher Peacock, Murray Corner; Miss M. Eloise Steeves, Sussex; Miss Jennie R. Smith, Blissville; Mr. W. R. Shanklin, Shanklin,

Mr. E. J. Lay, principal of the Amherst, N. S. Academy, was recently presented with a handsome gold watch accompanied by an address in recognition of his efficient management of the town library. This library was founded partly by the efforts of Mr. Lay in 1889, and he has had sole charge of it since 1901, giving his services as librarian free. It now contains nearly 2300 books and is supported in part by private subscription and in part by an annual contribution from the town council. This shows what many teachers may do in towns and country districts, for improving the conditions of a community.

In New Brunswick the University of New Brunswick will appoint, the Rhodes Scholar for 1906, 1909, 1911; Mt. Allison for 1907, 1910, 1912, and St. Joseph's for 1908. In Nova Scotia; Dalhousic has the appointment in 1906, 1908, 1910; Acadia in 1907, 1912; King's in 1909 and St. Francis Xavier in 1911.

A fine two-storeyed school building was recently opened at Port Elgin, Westmorland County, with good facilities for lighting and heating, and room enough for pupils from surrounding districts. The teaching staff consists of R. B. Masterton, principal, Miss Glenna Trenholm, intermediate, and Miss Birdie Doyle, primary.

### RECENT BOOKS.

An Introduction to Practical Geography. By A. T. Simmons, B. Sc., and Hugh Richardson, M. A. Cloth. Pages 380. Price 3s. 6d. Macmillan & Co., London.

This is an attempt to teach geography scientifically by experiments and exercises. The plan has led to the exclusion of ordinary descriptive matter, and laboratory work as in all modern scientific instruction takes its place. This forms a habit of mind, leading the pupil to take a keen interest in his surroundings. Maps, the Globe, Climate, on Land and Sea, are the four sections in which the work is divided.

THE LANGUAGE-SPELLER By Elizabeth H. Spalding and Frank R. Moore. Cloth. Pages 144. Price 50 cents. The Macmillan Company, New York; Morang & Company, Limited, Toronto.

This is a very successful attempt to correlate language work with spelling, which by the presentation of stems, prefixes and suffixes, fixes the meaning of the word spelled on the pupil's memory. Groups of synonyms occur in nearly every lesson. There is a regular course in composition, from easy stages, such as letters of application and business, to themes more ambitious. The book presents an excellent method of teaching language and its related subjects.

THE HISTORY OF VIRGINIA and THE BLACK HOLE OF CAL-CUTTA AND THE BATTLE OF PLASSEY. Edited by W. H. D. Rouse, D. Litt. Cloth. 128 pages each. Price 5d. each. Blackie & Son, London.

The History of Virginia is a part of the adventures of the famous Capt. John Smith, whose travels by sea and land cover a period of thirty-six years. He advocated the planting of colonies in America, and it was chiefly through this instrumentality that the Pilgrim Fathers established themselves in New England, where Smith spent two or three years of his life. The Black Hole of Calcutta is a story of absorbing interest, marking one of the most important epochs of British rule in India.

Macmillan's New Geography Readers. Book IV.
Illustrated. Cloth. Pages 216. Price 1s. 4d.
Macmillan & Company, London.

An admirable selection of good readings embracing history, fables, adventure, poetry and stories, all written by well-known authors. No better books can be found for school libraries.

BLACKIE'S MODEL READERS, Book III. Cloth. Pages 209. Price 1s. Blackie & Son, London.

A fine array of good readings suitable for little people, with beautiful illustrations. The picture stories at the end are excellent for reproduction, and the songs in the book are suitable for schools.

Bruyere's Les Caracteres, Adapted and Edited by Eugene Pellissier. Cloth. Pages 180. Price 2s. 6d. Macmillan & Company, London.

This book is the first of a series dealing with the classical French authors of the seventeenth and eighteenth centuries. It contains many excellent features, in addition

to a critical introduction and notes, such as subjects for Free Compositions, with a moderate amount of guidance, summary of grammatical peculiarities, ctc. The book is a fine model for classical instructors and readers.

WAR INCONSISTENT WITH THE RELIGION of Jesus Christ. By David Low Dodge. Cloth. Pages 192. Price 30 cents. Ginn & Co., Boston.

This book, written by a man whose life has been earnestly devoted to the cause of peace, has the sincerity of conviction about it. Under the three divisions: War is Inhuman, War is Unwise, and War is Criminal, he presents the views of thoughtful men everywhere upon this subjects, and answers possible objections, from his point of view, with equal sincerity and conviction.

A TALE OF TWO CITIES. By Charles Dickens. With Introduction and Notes by A. A. Barter. School Edition. Cloth. Pages 368. Price 2s. 6d. Adam and Charles Black, London.

The introduction to this book forms a good piece of literary criticism. It gives a short sketch of the history of the novel, an appreciative summary of the life and writings of Dickens, the style, treatment and character in the book, with a note on the historical period. Of the story itself Richard Grant White has said: "Its portrayal of a noble natured castaway makes it almost a peerless book in modern literature, and gives it a place amongst the highest examples of literary art."

Blackie's Gems of School Songs, (Blackie & Son London), contain a selection of the popular melodies of England, Scotland, Ireland, Wales, arranged on the tonic-sol-fa notation. Price 2d.

Blackie's Model Arithmetics contain a multitude of examples arranged for the first three grades. Price 2d. Blackie & Son, London.

The "Council" Arithmetics for schools. Parts 7 and 8, by T. B. Ellery, F. R. G. S. contain a series of practical examples for higher grades, adapted for English schools. Adam and Charles Black, Soho Square, London, W.

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The Education of Girls in Switzerland and Bavaria, is the title of a little book of 71 pages, by Isabel L. Rhys, of the Training College, Cambridge, and head mistress of the Liverpool high school. It is an interesting and instructive report of the methods in vogue in those countries for training girls. Price 18, Blackie & Sons, London.

### Recent Magazines.

The Atlantic Monthly begins the year 1906 with an uncommonly striking number in both the importance and the freshness of interest of its articles. These embrace subjects of political and social interest, an entertaining survey of the literature of the past year, a clear account of Esperanto the new proposed universal language and a study of recent American biography. There are also very readable poems and stories, which keep up the traditions and literary flavor of the Atlantic.

The Atlantic Aonthly for February has a varied and interesting table of contents, embracing articles on exploration, politics, literary and social subjects, biography, story, poetry.

The February Delineator, with its display of spring styles, is a most attractive number. Besides the fashions there is much of interest for the general reader. For the children there is a delightful girl's serial, Sunlight and Shadow, one of Alice Brown's Gradual Fairy Tales, and amusing games by Lina Beard, Mothers will find Dr. Murray's paper on Exercise and Physical Culture particularly helpful.

The Chautauquan for January continues its sketches of Eastern lands—In China's Ancient Holy Land, up the Yangtse to Thibet and Chinese Classics are among the articles in this number.

The January Canadian Magazine has an article on the Indians of Canada, which shows that there are 108,000 in the Dominion within treaty limits. Besides other vocations they cultivate 50,000 acres of land, the annual value of the products being \$1,000,000. There are 298 schools devoted especially to the education of the Indian.

The leading article in a recent number of Littell's Living Age, is a lucid and forceful discussion of The Revolution in Russia, by Prince Kropotkin. Its tone is calm but carnest, and its review of the situation as it has developed since the 1st of January, 1905, is the most intelligent contribution which has yet been made to the understanding of existing conditions in Russia.

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# **OMISSION**

In the Journal of Education of Nova Scotia, October, 1905, page 187, Prescription. for Grade XI.

By the printer's mistake there has been omitted from the prescriptions for Grade XI. in the October, JOURNAL OF EDUCATION for 1905, on page 187, the following prescription which is correct as published in the April edition preceding.

"PHYSICS .-- 11: As in Gage's Introduction to Physical Science.'

Practical Mathematics should be numbered respectively 12 and 13.

A. H. MACKAY, Supt. of Education. Education Office, Halifax, N. S., Jao. 27, '06.

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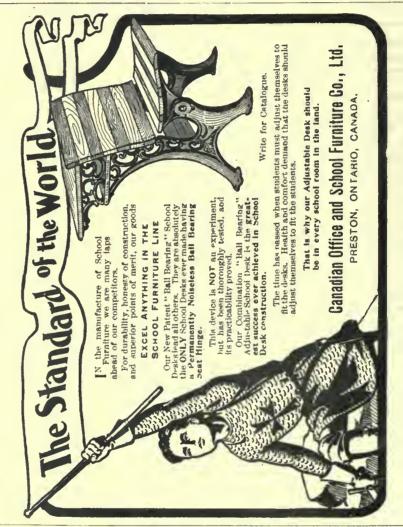
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THE EDUCATIONAL REVIEW, St. John, N. B.

A reprint of Breton's beautiful picture, "The Song of the Lark," goes out with this number of the REVIEW.

Our readers who have sent in queries to be solved, and correspondents whose contributions do not appear in this number, will kindly exercise a little patience. They will be attended to next month,

A preliminary announcement is made on another page by Dr. Brittain, Secretary of the Provincial Educational Institute of New Brunswick, of the meeting at Chatham, in June next. This will be followed by a fuller statement and programme in a coming number.

The two prizes of booklets, offered by Rev. Mr. Boyd, on the best sets of questions on the picture. "Saved," in the February Review, have been won by the schools of Miss Maud A. Williams, Harvey, York Co., and Miss Harriet S. Comben, St. John. For the benefit of other schools selections from these questions will be published in our next number.

The announcement is made of a summer school in French at McGill University, Montreal, during the approaching summer. Students who have attended this course since its establishment some years ago are very enthusiastic as to what can be accomplished in a few weeks, where "everybody talks and thinks, eats and drinks, dreams and sleeps in French."

The attractive courses of the Yale University Summer School are set forth on another page. Our readers would do well to consider the benefits of an advanced summer school such as at Yale or Harvard, or the more popular course at the Atlantic Provinces Summer School at Sydney. There are hundreds of our teachers who would be greatly benefitted if they got near enough to a summer school to feel the throbs of its fresh intellectual life.

The legislatures of Nova Scotia and New Brunswick are now in session, and several important amendments to the School Act of each province are before these bodies. In Nova Scotia a liberal grant is promised by the government to create a pension fund for teachers. In New Brunswick, Premier Tweedie has introduced a measure providing for compulsory education which, however, is to be optional in its working.

The New Brunswick Teachers' Association has petitioned the government, asking for compulsory education, the cessation of local and third-class licenses, the establishment of central graded schools with parish school boards, a system of pensions for teachers, and additions to teachers' incomes from

enlarged county funds and increased provincial grants. These requests are reasonable, and are in keeping with progressive educational legislation. One proposal requires careful consideration—the climination of third-class licenses. Would it not be better to retain these and gradually increase the requirements? Others, such as the establishment of parish school boards, centralized schools, and larger county grants have already received the support of the Chief Superintendent.

Mr. Scott's views on courses of study and grading, as given on another page, are those of advanced educationists everywhere today. To make our grading system effective, there should be introduced into it a generous leaven of electives. The bright boy in a good ungraded school in the country has a tremendous advantage over many city boys. From the beginning his ambition is roused and his thoughts widened by the recitations of the larger scholars around him. The school course never becomes monotonous, and his interest is constantly quickened by the new things he hears, the fresh discoveries made day after day. When he gets into smaller advanced classes, where he receives but a small share of the teacher's attention, he is forced to rely upon himself and the stock of ideas he has been accumulating in the lower grades. That is why the lad trained in a good country school, has often a keener observation, a greater interest in books and a better preparation for life generally, than the lad trained in the hard and fast grades that Mr. Scott would like to reform.

It gives one a feeling of hope in a better future for education, when a man like Mr. Scott, finds time amid the duties of an absorbing profession, to study as closely as he appears to have done, the educational work of the community in which he lives. If more men and women could reason publicly about these things, in an amicable spirit, how many vexed problems would be happily solved? Mr. Scott has set a good pace. He is too much of a tactician to give advice. He has only unstinted praise for the teacher and school official who are doing faithful service, but he would overlook no educational waste, or the lack of common-sense methods. Throughout he is frank and yet judicial; and his ready humour invokes much kindly sympathy on behalf of the reader.

### Report of N. B. Schools.

The report of Dr. J. R. Inch, Chief Superintendent of Schools for New Brunswick, is a detailed statement of the educational progress of the province for the year ending, June 30, 1905. He notes a decided increase, not only in the number of schools and pupils, but also in the percentage of attendance, over the figures of the two preceding years, although during these years the enrolment was less than in any year since 1893.

The number of schools in the first term of 1904-5 was 1,784, an increase of 37; the number of teachers was 1,851, an increase of 36; the number of pupils was 57,906, an increase of 1,708. In the term ending June, 1905, there was an increase, compared with the previous year, of 28 schools, 50 teachers, and 1,641 pupils. The proportion of population at school was 1 in 5.71 in the first term, and 1 in 5.48 in the second term.

The percentage of attendance has also improved; for the first term it was 66.27, where it was 65.60 for the year before; for the second term it was 59.60 with 58.50 for the year before.

Of the teachers, only 16 per cent. are men, less than 25 per cent. hold licenses above Class II, about 50 per cent. hold licenses of Class II, and about 25 per cent. hold the lowest class of licenses, which class has increased from 21 to 62 since 1900. The percentage of male teachers is annually becoming smaller. The average salary in Grammar schools is \$979.52; in superior schools, \$587.54; first class male, \$577.67, female, \$339.72; second class, male, \$316.09, female, \$248.23; third class, male, \$234.90, female, \$194.90. There has been a slight increase in the average, the largest being \$35 for first class male teachers, and the smallest \$2.73 for third class male. This small increase is encouraging, a sign of what is hoped for on a larger scale. The Superintendent, Principal Crocket of the Normal School, and others, have several important suggestions to offer in the matter of improved salaries.

Commendable progress has been made in consolidated schools in many districts of the province; in manual training, the report of which by Supervisor Kidner is very instructive reading, as is that of Dr. John Brittain, the supervisor of school gardens and nature study. The inspectors' reports are also very interesting reading, giving much detailed information on local aspects of education.

### Our Coasts. II.—Their Character.

PROFESSOR L. W. BAILEY, LL.D.

What are the lessons of the sea-coast? They are many and most interesting. To appreciate them, all that one needs is to observe and to think.

The most important lesson to be thus derived is, I fancy, the fact of change. Everywhere this feature is pressed upon one's attention, though more obviously of course at some points than at others. Let a student stand upon a seashore, such for instance as almost any part of the Bay of Fundy coasts, and after satisfying his sense of beauty or of grandeur, ask himself what fact forces itself most strongly upon his attention? Is it not the fact of waste and wear? If the coast be bold, like that of Hopewell Cape, illustrated in the last chapter, or that near Alma, N. B., of which a



CLIFF NEAR ALMA, N. B.

photograph is here given, he will find that all the striking and often grotesque details of the picture are the evident results of a carving process, whereby the sea is eating, or attempting to eat, its way into the land. Here there is a great battlemented wall of which, as in the photograph, the top overhangs the base, and below which the visitor treads with fear, as he sees great masses already disjointed and liable at any moment to fall, hanging threateningly above his head; here he sees great angular blocks, often many tons in weight, which have al-

ready fallen; at one point he sees a huge cave, sheltering perhaps some picnic party, but evidently owing its origin to the excavating action of the waves; at still another point he sees some huge mass of rock, wholly disconnected from the mainland of which it once formed a part, and now, though possibly eighty or a hundred feet in height, resting on so narrow and frail a base that one wonders how it can stand at all. Sometimes, with that tendency which Nature so often exhibits towards the ludicrous, the details of the sculpture suggests fanciful resemblances to familiar objects, or to the human form or countenance, and these explain the names they bear, such as Anvil Rock near Quaco, the Friar's Head on Campobello, the Southern Cross on Grand Manan, the Owl's Head on the coast of Albert county, N. B., the Devil's Dodging Hole, and the like.

Evidently to produce such results a large amount of material must have been removed, and we are led to ask at what rate does the removal take place? How much has been removed, and how long a time was required for its accomplishment? Is the removal uniform at all times and places and is there any limit to its continuance? Finally what has become of the material removed? Some of these questions we must now attempt to solve.

In the case of the "Hopewell rocks," where for nearly half a mile there is a succession of bluffs and outstanding masses, carved with a degree of variety and grandeur probably not approached elsewhere along the whole Atlantic seaboard of America, the visitor must choose his time, for at high water passage along the base of the bluffs, except by boat, becomes impossible. The waters not only reach but sweep the face of the bluffs, being endlessly moved by wind and tide, while in periods of storm the waves are driven with fury against the rocks, reaching far above their ordinary level, and striking with a force which even the hardest materials cannot altogether resist. Water then is the tool by which all this work is being accomplished, and that work never ceases. Ever since there have been sea coasts upon which the restless waters of the sea could act, the wear of the shores, their waste and removal, have been continually in progress, and the results which we witness are at once the proof and the measure of the changes thus effected.

But obviously not all portions of the coast are equally susceptible to wear. Rocks are of various

degrees of hardness and compactness, and while some, like granite, are but slowly affected, others, like freestone or slate or shale, crumble easily and are therefore rapidly removed. In granite again there are few divisional planes. The rock is massive; and hence the waves are spread over broad surfaces and lose much of their power. In stratified rocks on the other hand, i. e., in those in which the materials are arranged in beds or strata, there are numerous alternations of hard and soft material, or lines of bedding, joints and the like, which are like fissures in the rock and give the turbulent Yet again, in stratified waters a chance to act. rocks the strata may be horizontal or inclined, they may be tilted at high or low angles, they may slope towards or away from the point of attack, or they may stand, end on, as it were, to the fury of the sea. And all these differences tend to introduce variety into the results of sea sculpture. A few illustra-



CAPE BLOMIDON, N.S.

tions will serve to make the matter more intelligible. In an earlier chapter reference has been made to the contrasts exhibited by the different shores of New Brunswick and Nova Scotia. these characters in the light of what has been said above. Why is the "north shore" of New Brunswick generally low, with the adjacent waters shallow? Simply because the rocks which form it are soft and easily disintegrated, filled with planes which enable the waters easily to undermine them, and lying in nearly flat beds, which if not wholly worn down to fill up the adjacent waters, remain only here and there in the form of low bluffs. The character of the Bay of Fundy shores on the other hand, leaving out of view for the present the dyked marshes at its head, are bold and high, because the rocks of this coast are either hard and crystalline. or else form vertical or steeply sloping walls of rock, against which the waves may dash themselves with comparatively little result. So the Nova Scotia

side of the Bay, like the northern side of Grand Manan, composed in each case of volcanic rock, hard and crystalline, presents to the sea an almost unbroken front as from Blomidon to Briar Island—or from the Northern to the Southern Head of Grand Manan, while the shores east and west of Pictou, like those bordering the Gulf in New Brunswick are, like the latter, low, and for a like reason. The shores of the Southern or Atlantic sea-board are determined in a similar but more special way, which will presently be noticed.

We have now to observe that as the general character of a sea-coast is determined by the general nature of the rocks which form it, so all the minor details are to be explained as the result of similarly acting causes. Hard rocks, resisting wear, stand out as headlands or promontories-such as Point Lepreau, Cape Spencer, Martin's Head, Point Wolf and Cape Enrage, in New Brunswick; Cape St. Mary, Point Fourcher near Yarmouth, Aspotogan in Chester Basin and many others in Nova Scotia; soft rocks yield readily and their removal determines bays and indentations, of which it would be easy to cite numerous examples. So at any one point alternations of hard and soft beds, as illustrated in the picture on next page of the Nova Scotia coast near Lockeport, leads to the removal of the soft strata, leaving the hard to form long parallel reefs running out to sea. If again, as at "the Ovens" near Lunenburg, where all these effects may be admirably studied, steeply inclined strata are turned end on to the sea, the divisional planes between the beds are rapidly widened, long but very narrow and lofty caves, sometimes a hundred feet in length, are produced, and into these the sea, driven with irresistible force and gradually uplifted to the roof, sometimes excavates an outlet for itself, and issues in the form of a jet or fountain known as a "Spouting-Horn." The well known "Churn" at Yarmouth and "The Cream-pots" near the same place are other good illustrations of the incessant conflict between sea and land.

But now we have to notice a second evidence of change, and with it to recognize a second lesson afforded by the study of the coast. It is this, viz., that destructive operations in Nature are always associated with and followed by constructive ones. If the action of the sea upon the coast is one of wear and removal, the material removed must be disposed of. As the sculptor in the carving of his statue is

necessarily surrounded by his chips of marble, so in coast-sculpture chips accummulate, and the assemblage of these chips constitutes our beaches. One has only to examine the latter to see that this is the case. At any one point it is easy to see that the pebbles of the shore are largely made up of fragments, evidently derived from the bluffs near by; and if with these there are others that cannot be so identified, one must remember that the same agencies, waves, tides and currents, which are attacking the coast, are like the legions of an army, movable factors, and may not only loosen but transport the matter brought under their influence. Moreover, as the power to transport varies with the velocity of the moving water, fine material will be

a very good one occurs at Port Maitland near Yarmouth, and a still finer one a little west of the mouth of the La Have river in Queen's county. Of muddy deposits the most remarkable are those about the head of the Bay of Fundy, adjacent to the dyked marshes, the latter being themselves deposits of similar origin, now only kept from daily tidal submergence by artificial embankments.

The space at our command permits only of slight reference to some of the other "lessons of the coast." Another one of these is that natural changes are none the less real because they are slow. As we cannot recognize by the eye the movement of the hour hand of a clock, or the growth of a tree, yet after a certain interval, become aware that a change



REEF AND BLUFF NEAR LUCKEPURI, N. S.

readily removed and be carried to a distance, while heavier and coarser materials will be more easily dropped. Thus, whether waves, tides or currents be the transporting agency, the materials of the beach will be coarse or fine, just as the action of these agencies is powerful or weak. Thus, about exposed headlands and in exposed situations we commonly find the shore made up of large well rounded fragments, often too heavy for a man to lift, and making what are known as sea walls. In intervening bays the shore is more apt to be sandy or gravelly, forming "beaches" in a more restricted sense, while about the mouths of rivers or in offshore shallow soundings the material is more commonly a fine mud. True "beaches," suitable for bathing, are found at many points around the shores of the Gulf of St. Lawrence, but are rare on those of the Bay of Fundy. So they are not common upon the Atlantic seaboard of Nova Scotia, though

has occurred, so upon a coast we may be able to observe very little alteration from one month or even one season to another, yet, by careful observation or measurement, extended over a period of years, we are led to recognize the fact that not only has there been a change, but that this may be very considerable. All coasts under the unceasing attacks of waves, and tides and currents are wearing away, and contributing of their substance to the Ocean floor.

The last lesson to be noted here is derived from a comparison between the materials of the beach and those of the shore from which they were derived. The beach deposits are pebble beds, sand beds or mid beds, according as the agents producing them have been powerful or weak, swift or slow; an examination of the cliffs near by will show that they are also composed of pebble-beds, sand-beds or claybeds, only the latter are hardened into rock. Thus

they too represent old beach deposits, and must once have been at or below the sea-level. The land has not always been as it is to-day. How they became hardened into rock and were lifted to their present position, perhaps several hundred feet above the sea, we shall have to enquire in a later chapter.

### March Birthdays.

March 10, 1452.—Ferdinand King of Castile and Arragon, at seventeen, married Isabella, heir to the throne of Castile; conquered the Moors of Grenada which he annexed to his dominions; fitted out a fleet of three vessels, by which Columbus was enabled to discover America; conquered Naples and Navarre.

March 11, 1544.—Torquato Tasso, an epic poet, born at Sorrento, Italy. His greatest poem was "Jerusalem Delivered." His mind became unhinged in later life, and he was confined for periods in a lunatic asylum. He was invited to Rome to be crowned for his works by the Pope, but died before the ceremony could take place.

March 12, 1684.—Geo. Berkeley (bishop) born at Killerin, Ireland; a philosopher and writer of great merit, wrote the "Analyst" and "A Word to the Wise", came to America and preached two years at Newport, he was a great friend of Dean Swift.

March 16, 1751.—James Madison, was fourth president of the United States, and one of the framers of its constitution. Contrary to the views of the people of New England, he declared war against Great Britain, in 1812.

March 19, 1813.—Dr. David Livingstone, a famous missionary and explorer was born near Glasgow, Scotland; his parents were poor; he worked in the cotton mills while a boy, attending night school; studied with a view of becoming a missionary in Africa; explored the interior of that country, and discovered some of the sources of the Nile; died near Lake Tanganyika (1873) where he was found by Henry M. Stanley, in 1871. His books on Africa are accurate and of great value.

March 20, B. C. 43.—Ovid (Publius Ovidius Naso) a great Latin poet, was born at Sulmo, ninety miles from Rome. He received an elegant education, travelled, then spent his life at court, until he was banished. He died in exile. He wrote chiefly love elegies.

March 21, 1763.—Jean Paul Richter was born at Wunsiedel, Bavaria; a popular quaint and original German author and humorist; "Titan" was his masterpiece; "Quintus Fixlein," his principal novel.

March 22, 1797.—Emperor William I., born at Berlin; ascended the throne in 1861; appointed Bismarck minister of foreign affairs; united the German people into a nation.

March 28, 1592—John Amos Comenius, an educational reformer and writer, born at Nivnitz in Moravia. Lost all his property on account of the Spanish wars; taught school in Poland; was invited to several foreign countries to reform methods of instruction; he may be rightly considered as the founder of method; his personality was noble; his life inspiring.

March 31, 1732.—Franz Joseph Haydn, born near Vienna, of humble parents. He was a distinguished musical composer, but his early life was a life of hardship; his masterpieces were the oratorios "The Seasons" and "The Creation."

### Winter.

Orphan Hours, the year is dead!
Come and sigh! Come and weep!
Merry Hours, smile instead
For the year is but asleep.
See! it smiles as it is sleeping,
Mocking your untimely weeping.

As an earthquake rocks a corse
In its coffin in the clay,
So white Winter, that rough nurse,
Rocks the dead-cold year to-day.
Solemn Hours, wail aloud
For your mother in her shroud.

As the mild air stirs and sways
The tree-swung cradle of a child,
So the breath of these rude Days
Rocks the Year. Be calm and mild,
Trembling Hours; she will arise
With new love within her eyes.

The enswer to the 3 nines' puzzle in the February Review is:

$$\frac{9+9}{.9} = 20$$

Correct solutions have been received from A. E. Barton, Moneton; C. E. Lund. Sackville; and by A. E. G., Belle Isle, Annapolis county. A.P. G., of the latter place, sends an ingenious solution, which, however, does not exactly meet the conditions.

### The School From a Parent's Standpoint.

S. D. Scott, Editor of the "Sun," St. John.

But here comes in another element which again presses more upon the city teacher and pupil than upon the teacher and pupil in the country school. No doubt there is an advantage in scientific grading. It must be a great saving of labor, and an escape from confusion. Doubtless the course of study is well devised and adapted to the powers of the average child. But I think there are many teachers in the town who would like to shake themselves free from the restraint and be in an ungraded country school, where they could have greater freedom to deal with the actual boy and girl according to their needs. It is possible that Procrustes took technical advice when he made his beds. He may have measured a hundred or a thousand prisoners, ascertained their average length, and reasoned that an individual adjustment to this standard would be a scientific proceeding. To stretch some individuals a few inches, to cut a fraction from the extremities of others might be a personal hardship but it would simplify the work of bed making and tend to discourage abnormal types, producing in the end a well graded and symmetrical corps of graduates, even though some should be crippled and some dead. A general course of study seems to be necessary for all schools, and grading is needful in schools of many teachers. But it seems to me that with us the system is too much and the individual too little.

There are marked differences of opinion in this town, and throughout the country, on the subject of the school course. Some of the parents complain that the schools try to teach too many things. Others would like to see manual training, household economy, type writing and commercial classes. Some contend that the schools cost too much, and that the free classes should close when the high school is reached. A few would like to see German added to the languages taught, as English would be in a high school in Germany. Ghastly stories are told of girls whose health has been broken by hard study in the common schools. Yet every June Dr. Bridges meets these accusations with a row of girl graduates in a shockingly robust condition. Many of us observe that boys and girls of average ability manage to cover the work of the year, in some sort of way, without altogether neglecting their amusements. The truth seems to be that the course of study offers work enough for the average child to make a creditable record with moderate diligence. To a dull child, or one with exacting outside duties and discouraging home surroundings, or feeble health, the full course may give hard work or more than can be done. Those who suffer most are probably the clever competitors for prizes and honors, who could pass the examination and take a fair place with half the study. This extra work is voluntary. The same amount of extra toil could be expended on three studies or on one, as is given to ten or twelve. It is certainly not fair to attribute to the number of studies any collapse from over work on the part of the competitors for medals.

But while I do not believe that the number of studies at present prescribed, even with manual training and domestic silence added, is too large to have in the curriculum, it seems to me to be unwise to compel every pupil to take them all, or to take a particular list of them in one year. There is surely too little adaptation in our schools to the capacity, the requirement, and the time available for school work of the various students.

Here in St. John we have, say, 1200 children entering school every year. Of these one-half or less pass beyond the seventh grade. Their school training is completed at the grade which they are supposed to reach when they are twelve years old. Of the survivors, four-fifths fall out before they reach high school, and of those who go into the high school hardly more than one in four remains to graduate. That is to say out of a hundred St. John pupils who enter the schools, fifty have dropped out at the end of the seventh grade, fifteen are left to enter the high school and only five are in at the graduation.

Now this is a case where the authorities should not leave the ninety and five who fall out, and seek only after the five who go not astray. These fifty who stop at the halfway house, are as dear to themselves and as important to their families as the fifty who go farther. In the first place we parents ask that it be made easy for them to continue in school, and secondly that those who cannot continue should get as much as possible out of the years they stay. The less time they have at school the more precious that time is.

But, at this stage, speaking strictly as a parent, I object strongly to the contention that the high

school is here for the rich, that the poor are unfairly taxed to maintain it, and that in the interest of the oppressed working man free classes should stop where the high school begins. The exact opposite is the case. The high school is the poor man's college. It is the most democratic institution in the town. Any one who looks over the names will find that a large proportion, especially of the girls, are from families who could not afford a private school. Don't we know boys and girls in the honor list whose widowed mother supports them by manual labor? Have we not seen the sons of mechanics take the highest prizes these schools offer? Opulent citizens take their choice between sending their sons and daughters to boarding schools and making use of those free classes. They maintain Netherwood, Rothesav, Mt. Allison, Edgehill, Acadia, and schools in the upper provinces and the old country. For the poor there is one place where the youth can take advanced school work, and that is the high school of the place where his people live. My observation is that the people who complain most of the cost of this school are not the poor but the large taxpayers, some of whom are sending their children away. I am sure that the most of us parents appreciate the high school and the work that it does, and that those who desire their children to have some glimpse of the world of scholarship and cannot afford them a college training are glad to know that they can be carried to the sophomore year in a free school at our doors.

As to the courses of study, let me say again as one parent, I would like to see them all continued, and more attention paid to nature-study, manual training, domestic science, and commercial classes. At the same time it seems to me that all the children have sufficient work cut out for them, and a large proportion of them too much. I would go in for more electives and begin them much earlier. There are now scarcely any. It is allowed in the high school to choose between French and Greek, and I believe between botany and something else. But practically everything in the bill of fare is compulsory until the high school is reached. The pupil or his parents are not permitted to follow the example of the unaccustomed hotel guest who showed the menu to the waiter and asked whether he might "skip from here down to there." Not only is the child required to do all the classes, but he must make a certain progress in each one every year. With some small reservation, it is, I believe, true that a child who fails in one or more subjects out of a lot cannot follow on with those subjects in which he succeeds, but must go back and take this familiar work over again, because there was something else assigned to him the same year that he could not do.

Now I speak with due deference that this seems to me to be stupid. I know that the teachers and the superintendent try their best to mitigate the evil, and that in the lower grades they do not stand wholly on technical markings, but grade the child who seems able to do the work of the next room. As the children grow older the system becomes more rigid, and many cases of hardship, even of cruelty, arise. For I take it that it is simply cruelty to take a boy who is under sentence to quit school at thirteen, and make him go again over work that he knows, shutting out from him forever all the advantages of one year of higher training. In such cases the child becomes listless, having no stimulus of euriosity and no charm of novelty, and as a student he is liable to be greatly demoralized through all the rest of his school days if he does not fall out altogether.

On the other hand if a point is strained and the child is advanced to a higher grade, while he does not understand some of the subjects below, he is liable to lose touch altogether with these subjects, and to waste the time he is compelled to give to them. It would seem possible to me to arrange a system which would grade a child in some subjects and to leave him to take the others over again with his old class. The grading might be to some extent, by subjects, and not by a level standard, covering the whole range. That is exactly what would happen in an ungraded country school, where a pupil is carried along in each subject as fast as he can get ahead in it. And it is the same thing that would be done with an undergraduate or a postgraduate student in the University of Chicago or the greatest German universities. There is no educational reason why a child should be reading Cæsar at exactly the same time that he is working a particular book of Euclid, and there are many reasons why he should not be made to work over again the geometry that he knows because he does not know his Latin verbs. If we read two books and do not understand one, we do not read over the one we do understand. If we plant several apple trees, and one or two die we do not on that account replant the ones that grow.

It is not for me to say how the thing should be done, but since the school is for the child and not the child for the school I should say that the child should try again the work that he failed to accomplish and go on in that part in which he has succeeded.

There should be more accommodation to the powers of the child. It does not seem to be good economy that one who can do in eight years the work of the eleven grades, as now arranged, should be compelled to waste eleven years on it. You shorten the time by allowing him to take two years in one, but that may be too much. Why not have an adjustment by which he can take four years in three, fairly distributing the task? If this cannot be done these extra manual training, domestic science, commercial classes, and nature studies come in well as supplementaries.

But I am more concerned about the dull child, or the one who is handicapped and cannot do all the work in one year. It seems to me that instead of compelling that one to do one year's work in two, and then perhaps the next year in two, until the unfortunate is so much taller and older than his classmates that he falls out altogether, he might repeat one-third or one-fourth of his work, taking two years in three or three in four, and in the end getting along a great deal farther than he can now.

In every community there are feeble minded children, whose powers are small but capable of some slow development. Under our system they soon became hopelessly derelict. have a school on purpose for these. But for that much larger number of children of less than average intelligence, who cannot quite keep the pace, something better should be done than now seems possible in the city school. They might have a course selected for them, dropping out some of the work which seems beyond them, leaving them to go on with studies within their capacity, or with their prospective requirements. A child who can not learn mathematics may learn reading and writing, the elements of grammar, and be able to take a good course in history, geography, and nature studies. Manual training, or scientific training, or household economy or some of the fads might be the thing this child needs to introduce him to the world for which he was born. At all events I see in these studies something on which the brilliant book student and the child with certain other natural gifts

of eye, and hand, and mind, may meet on a level; where false and one-sided estimates of their relative values may be corrected, and where the child who has been almost a derelict in the school, may get back the proper respect that he had for himself when he was a baby.

In making the appeal against some features of the system that seem to me too severe I do not forget that the chief superintendent and the other authorities, must have surveyed carefully, as experts, the ground over which as an amateur I rush with the recklessness of those who go ahead of the angels. Dr. Inch has been a teacher, and a good one, from the common school to the head of a university. He knows his business and is sympathetic in his administration. Inspector Carter is progressive and somewhat radical. Superintendent Bridges is a thorough workman and a cause of thoroughness in others. I have hope in them all, that they have not done the last thing and said the last word in the regulation of studies. One does not like to think of a school course as of supernatural origin "which neither listlessness nor mad endeavor, nor man nor boy can utterly abolish or destroy."

I prefer to think that it is capable of modification and improvement, that the way may be adjusted to enable our children to pursue to the limit of their time and opportunity the studies suited to them,—not compelling them, for instance, to take up the study of a language in the last few months of school life, with no hope of progress in it, while they are shut out from advancement in the line of their aptitudes. It has been found possible in Halifax, where the schools cost about the same per head as here, to carry on manual training classes, and to give a three years' high school commercial course. This last is a modification of the regular high school work, dropping classics and perhaps some of the natural science subjects, adding the usual commercial studies, with more advanced and practical work in French and history and economy. With the exception of shorthand and typewriting, nearly all the work is done by regular members of the academic staff. We also can do these things in the high school, and to a certain extent in the lower classes, without reducing the value of the schools as a place of general training and discipline,

Yet, lastly, let me say I certainly would wish to guard well the part of the school work that makes in culture, and manhood, and womanhood, and not

entirely give over the schools to bread and butter studies. When a great number of people are wasting their good time trying to make millions, and a greater number of people are wasting their time scolding about them, it would be a good thing to try to bring up one generation to give attention to things that last longer.

### Lamb's The Adventures of Ulysses.

NOTES BY G. K. BUTLER, M. A.

Under his Greek name of Odysseus one of Homer's great epics the "Odyssey" tells at greater length this same story. There are many English translations of which that by Butcher and Lang is one of the best. Ulysses was a Greek who joined in the siege of Troy with the other famous heroes. The Trojan whose wanderings ended in Italy and who was regarded by the Romans as their progenitor was Æneas. Of him, too, and his wanderings, another famous poem was written, the "Æneid."

P. 97. 5. Ithaca was an island on the west coast of Greece. Is. 9, 10. Compare Howe's lines on his approach to the shores of Nova Scotia in winter, "Mantled in snow," etc. I 11. Meaning of phrases "partake of her immortality"? and of "enchantments" in I. 13. I. 15. Troy was on the northwest of Asia Minor not far from the Hellespont. It was known by the Greeks as Ilium, hence the title of Homer's other yet more famous poem the "Iliad." I. 16. The Cicous were a people who lived in what is now called Turkey, just north of the Ægean or Archipelago, a little to the east of the famous town of Philippi. I. 20. Study the word "store." How is it commonly mis-applied at the present time.

P. 98, 1. 4. Meaning of "make good" as found in this line? 1. 5. What part of speech is "something?" What is it usually? 1. 6. Meaning of 'having odds against them?" 1. 9. "The third day," parse the word "day". 1. 10. Malea the most eastern of the three capes in the extreme south of Greece; modern name St. Angelo. 1. 12. Cythera is an island just southeast from Cape Malea.

From this point in the story on we are in the regions of myth, which like "Fairyland" are not found on the map. 1. 16.

In the afternoon they came unto a land In which it seemed always afternoon,

These lines and the rest of Tennyson's "Lotos-Eaters" would interest the children. 1, 20, Meaning

of "pernicious." 1. 24. What part of speech is "needs"? Parse "eat" in the following line. 1. 29. Give another word with the same meaning as "betwitched."

P. 99, 1. 4. Meaning of "governed by his own caprice?" 1.7. What is our more common word for "artificers"? Look up derivation of each and find a further proof of the composite character of the language. I. II. Look derivation of "hospitable" and also of "hospital" and see if there is any connection between them. 1. 20. Meaning of word "artless?" Is it the opposite in meaning to "artful" as one might expect? 1. 21. Is "tenant" here used in its more modern common meaning? 1. 26. Here we have "store" again. Compare it with same word previously used. 1. 27. et seq. The Greeks regarded as utter barbarians those who drank wine undiluted with water. Perhaps, too, in these lines we may get a hint of Lamb's own special weakness. 1. 31. "A goat-skin flagon" may help those who don't already know to understand the saying about putting "new wine in old bottles." 1. 35. Some people use goats' milk altogether, regarding cows' milk as unclean, and not fit for human food.

P. 100, 1, 2. Meaning of "feeding his flock"? Why go to the mountains? Why not leave them out at night as we do here? 1. 5. Meaning of "against" here? Of "uncouth" in 1. 7? 1. 9. Neptune, known to the Greeks as Poseidon (pron. Po-si'-don), was one of the three gods who divided the universe between them. The other two were Zeus (pron. Zus) and Pluto or Hades. Neptune is generally spoken of as the god of the sea. 1. 10. Meaning of "to a brutish body" etc.? 1. 13. Instead of "massy" what word do we generally use? How heavy a stone could twenty oxen draw? 1. 27. The name "Agamemnon" applied to a ship was made famous in later times by one of England's heroes. Who was he? 1. 32. "Jove" was called by the Greeks "Zeus." It will be seen that Lamb takes the Latinized form of all the words when there are different forms. 1. 36. Look up the story of Zeus in a classical dictionary if you can find one. It is too long to put in here. 1. 37. Parse "bid."

P. 101. 1. 2. "Wise caution" is characteristic of Ulysses who was the most crafty of all the heroes, and in later time his character was represented as being even worse than merely crafty. He is pictured by Sophocles as saying, in effect, "The end justifies the means." 1. 10. What word means "man-



"THE SONG OF THE LARK"
From Painting by Jules Adolphe Breton.



eaters"? Where are they found at the present day? 1. 15. Look up derivation of the word "distracted."

P. 102. l. 5. Which one of the gods in particular took an interest in Ulysses? The answer can be found in the story, l. 10. Meaning of "waxed;" what is its opposite? 1. 24. Study the word "plied". 1. 34. "Heartening"? 1. 36. Meaning of phrase "were used to heave": do we use the word "used" as here?

P. 103, l. 3. Difference in meaning between "auger" and "augur." 1. 30. Meaning of the word "ambiguous;" look up its derivation, l. 31. Meaning of "gross wit"? and of "palpable" in the next line? 1, 35. Instead of "knots" we would more likely use some other word. What?

P. 104, 1. 6. Is there anything appropriate in the term "fools" as applied to sheep. 1, 13, Meaning of "rout" in this line. 1.32. Meaning of "ebb"? 1.36. Homer's epithet applied to Odysseus was "muchenduring." 4, 37. Meaning of "beat the old sea"?

P. 105. ls. 6, 7. In what part of the Mediterranean are they now, judging by the wind which is to carry them home? 1. 21. The word "store" again.

P. 106. 1. 10. Study "have;" is it the auxiliary "have" or another word? 1. 32. Express "surpassing human" as one word.

P. 108. 1. 1. Meaning of "cast lots." How was it done: One way among the ancients was by drawing from an earthenware jar. 1. 20. "Prudentest" is scarcely formed as the grammars would have us do it. How would they? 1. 24. meaning of "train"?

P. 109, 1, 10, Embracing the knees was among the people of that time the favorable mode of making a supplication. We find it many times in classical literature. 1. 24. Mercury was the messenger of Zeus, called by the Greeks Hermes. 1, 20, Parse "thou," in "thou most erring," etc. 1. 36. Meaning of "sovereign" here. How is it connected with usual meaning of word?

P. III. Styx was one of the rivers of Hades, 1. 20. "Massy" here again. 1. 21. "Regale" is commonly a verb. Here it is a noun, with what meaning?

P. 112 Teiresias, the seer, is one of the characters in the most famous of Greek plays. "(Edipus Tyrannus.

To be continued

The Canadian Forestry Association meets at Ottawa, March 8.

### Art Notes .- No. IV.

BY HUNTER BOYD, WAWEIG, N. B.

### The Song of the Lark.

The picture selected for this month, is a wellknown work, by Jules Adolphe Breton (born 1827 -- ).

One would like to know what title it would be likely to receive if, the label being concealed, it were examined by persons, who had not previously met with it, in any form of reproduction. Such persons are happily now, more seldom met with in any walk of life, and yet we note that the lark occupies small space in the whole picture. Again let us suppose that the label is displayed, but the little bird concealed, and many persons will probably be of opinion that the singer is the peasant girl, who because she is an early riser, or for some other reason is called a lark. In order to justify the title given by Breton, that little speck in the heavens ought to dominate the whole picture, and we are confident it does. It is very singular that we have been introduced to three pictures in succession, that depend upon the suggestion of sound for their enjoyment, but unless the Barbizon artist can make us hear the lark as it soars, we shall fail to share the feelings of the girl, and her sympathetic painter. Most of us are at a disadvantage in one respect, for there are few in these provinces, who have either seen or heard the true skylark. Hence the study of this picture is a particularly good one for the strengthening of the imagination, not alone the visual, but largely the formation of vocal imagery. We have not only to follow up the hints here given of rural life in France, and particularly of Barbizon, from the aspect of the landscape, the dress of the girl, the prevalence of hard labor, but we have to reproduce the lark and its merry song, and by noting its effect upon this peasant we stand at the side of Breton and are enriched by his experience.

If our admiration of the picture presented with this copy of the Review; leads to the purchase of others, by the same artist we shall soon become acquainted with his types, and learn how he regarded them. For this purpose, we specially commend his pictures, of Gleaners,—two pictures, quite unlike Millet's work of same title—also "A Sifter of Colza" and "The Reapers"?

We note the dress in the former, the head covering, and the bare-feet, and in the latter the sabots

worn by the girls, and the recurrence of the sickle. It is said Breton's peasants have more poetry and less realism than those of Millet. That would be a good point to discuss in a picture study club, such as could easily be formed in grades above the seventh or eighth, and certainly a fruitful exercise in a teachers' association.

The features of the land are not important in our picture, but the artist shows his skill by passing over all elements which might otherwise destroy the unity of his picture. We have the round conical hay-stacks on the left, a portion of a house-roof is seen behind some trees, and the sun is not allowed to dominate the scene. Let the scholars discuss whether it is sun-rise or sun-set,—discuss not guess. Ask questions as to the shadows in the picture, the aspect of the sky, and chiefly in relation to the determination of the season agriculturally. For older scholars it may be permissible to enquire if Breton was as successful in treatment of landscape, clouds, etc., as persons.

To lovers of birds there is a good opportunity for a nature-study on larks-the sky-lark, hornedlark, and meadow-lark Where possible procure pictures of the various kinds, and their nests, and eggs, and note the peculiarities of habits. It is said there are two kinds of meadow-lark in Canada. The typical form is found in more or less abundance in Ontario east of Manitoba, and the western meadow lark is abundant on the prairies. The western is the larger, somewhat lighter in colour, and a beter songster. The sky lark some may have seen and heard in cages but otherwise we have chiefly to depend upon the accounts given in books upon birds, and upon allusions in the poets. Wordsworth gives two poems "To a Sky-lark." These may be learned by the scholars, and contrast what he says in his poem and sonnet "To the Cuckoo," only it must be borne in mind that cuckoos have been seen. The sky-lark is one of the best known British birds, and is a general favorite on account of its song. It rarely sings on the ground, but prefers to pour forth its music as it floats on the air.

Shakespeare in Romeo and Juliet, III, 5, says.

"The lark, whose notes do bent The vaulty beaven so high above our heads,"

In "Birds and All Nature" magazine for March, 1900, page 101, there is a poem by Ada M.

Griggs, probably based on our picture, and entitled "The Song of the Lark."

Those scholars who have the good fortune to be acquainted with musicians may induce them to play "Little Birds" by Edward Grieg, and in some of the musical and other magazines there are articles on "Voices of Nature."

In a musical party, it would be possible to have one of the number play over the bird-notes, and then invite the company to name the bird.

But for the less fortunate teacher or scholar there is still the possibility of recalling the most cheerful notes, or songs yet heard, and observation for fuller acquaintance may be promoted.

In the N. B. school readers there is a story of a man who heard the lark sing in Australia, and his feelings are described; and Alfred East has told us how he felt under a similar experience in Japan.

Breton's Peasant hears the song and it thrills her. She desires no pity because of her arduous lot. She marches forth with her sickle like a conqueror, and one could imagine her exclaiming with Emerson; "Give me health and a day, and I will make the pomp of emperors ridiculous."

### Picture-Study Queries.

S, McF.—I cannot say what has become of the Revolutionary battleship Constitution. Some British battleships have been preserved as relics but "The Old Temeraire" was not.

R. G.—Send for a copy of "Our Dumb Animals," a 16 page magazine. Teachers can have it for 25c. published by Geo. T. Angell, 19 Milk St., Boston.

Julia S.—The fullest illustrated account of Landseer is published by Houghton, Mifflin Co., Cambridge, Mass., in the Riverside Art Series.

Beginner.—Blashfield's work has been chiefly decorative. Christmas Chimes is his best known oil painting.

Primary Teacher.—A true picture is something more than form and color. It is representation plus the individuality of the artist.

Violet.— It is not well to set pictures of anguish before young scholars. Do you think the expression of the dog in "Saved" is too painful?

Riverside.—There is an excellent illustrated account of J. M. W. Turner, R. A., in "The Canadian Magazine." August, 1905. It is brief but contains four good pictures.

W. E. R.—Always try to get pictures similar in conception. It calls for close observation and discrimination.

Lexicon.—See The Educational Review, July-Aug., 1905, for treatment of "The Function of Art in Public Schools." and as to choice of subjects for Rural Schools see p. 278 in April, 1904.

Waweig, N. B.

H. B.

### The Lark by Lake Bewa, Japan.

ALFRED EAST.

(His first published poem.)
The motive of this little story
Told in the land of the rising sun
Is a tribute from me,—and a feeling
Of thanks for a sentiment won
Back from the scenes of my childhood,
A reflection of earliest days,
A rush over time and distance
Through the cranks of life's rough ways.
A vision of home and my mother
Flaches out like a light in the dark
As I hear on this sweet May morning
In Japan, the voice of the lark!

The breeze brings songs of the boatmen Which ebbs with the rustle of the weeds. The water is laughing and flashing To the mill through its bamboo leads, While the hills across the water Are changing from gold to dun As the fitful shadows wander O'er the land of the rising sun. But beyond the changing hills, To my English home and birthplace, I am borne by those wild thrills, And the road and the wild green rice fields And the grey roofed cottages there, Melt into an English meadow And an English homestead fair, I lie again 'mid the daisies, Which bend in the soft-toned breeze That wasts the scent of the rich ripe flowers Through the branches of blooming trees,

That's my dream while the lark was singing But his song was, alas, soon done Yet the dream was fair and pleasant In the land of the rising sun.

January grey is here.

Like a sexton by a g ave;
February hears the hier;

March with grief doth howl and rave;

And April weeps; but, O! ye Hours!

Follow with Mry's fairest flowers.

—Percy Bysshe Shelley.

### Reproduction of Stories.

MIRIAM L. DYZART, Kent County, N. B.

The object of training pupils to reproduce stories is to help them understand what they read, and express what they understand. Simple stories should be used first.

What is the central idea, what are the attendant circumstances of the leading features, and how these bear upon the former, should be clearly seen by the pupil before any attempt is made at reproduction. If necessary, a system of questions should be proposed by the teacher—which will—urge the children along the lines—of—comprehension; which will, by the subtle suggestions, expose the secrets concealed in the language employed in the story before them. Well planned questioning has, in this manner, produced results quite wonderful—opening up new vistas to the view of the pupils, enlarging the use of their powers, and engaging these young minds in what is to them a novel and interesting work.

The questioning method should be continued only until the child can see clearly into the substance of the story and can distinguish main from subsidiary features. When he has arrived at this stage of development he can probably think with some system and arrange his ideas and thoughts into fairly intelligible order. He is now able to interweave his own thoughts into the thread of the story as he reproduces it, and so is in a fair way to begin to criticize, to approve or to condemn.

All this while, of course, our young friend has been exercising his powers of expression, has been turning into his own words ideas collected from the stories. Facility follows exercise.

Progress is at first slow, but assiduous practice begets ease of accomplishment, avoidance of tautology necessitates variety of expression and thus is acquired the invaluable quality of style.

The good results of reproduction will early be seen in letter-writing. Here the child may have early opportunity to express original ideas—ideas prompted and suggested by association of friends, family and familiar topics. Letter-writing is a large part of the writing of most people, and the only writing of many. Next to correct speaking, children should be taught letter-writing, and no better preparation can be made for this than reproduction.

Almost equally important with the paraphrasing of printed stories, is the reproduction of picture

stories. These stories of pictures may be reproduced in the same manner as other stories. Give the child a picture and by the questioning method, help him to interpret the drawing, and to describe it and discuss it,—in other words have him translate a picture into a letter.

All this training makes the pupil more observant of what passes under his notice, teaches him to look into the heart of things, to get at the gist of matters. It will, if resolutely adhered to, bring pupils to such a stage of excellence in composition, in the art of grasping, grouping and displaying of ideas, as will brighten the material prospects of every young person who goes out into the world.

### Problems in Arithmetic-Grade VIII.

G. K. BUTLER, M. A.

- If 500 lbs. avoirdupois be bought at 75c., a
   and 20 per cent duty be paid, and if they sell at 8c. an oz. apothecary's; find gain.
- 2 1,000 kilograms cost 20 cts. a kilogram and after paying 20 per cent duty sell for 15 cts. a lb. apothecary's; find gain.
- 3. How long a rope will allow a horse to feed off half an acre if he be tied in the centre of a large field?
- 4. If 500 gallons cost 10 cts. a gallon, and if the freight is 5 cts. a gallon, the duty 30 per cent, the gain 25 per cent, find selling price per liter.
- 5. How many gallons will a cylinder hold if it is 40 inches in diameter and 15 inches high?
- 6. Find area of the larger of two concentric circles when the radius of the inner is 25 feet and the width of the ring between 5 feet.
- 7 Find the area of a right-angled triangle whose base is 17 feet and hypotenuse 25 feet.
- 8. If a book is sold for \$2.50 at a gain of 20 per cent, what would have been the gain per cent had it sold for \$2.25?
- 9. Slates cost 50 cts. a dozen and after paying 20 per cent duty, are marked at such a price that the gain is 75 per cent. after giving 121-2 per cent. discount; find marked price of each.
- 10. Find in ac. sq. rds. sq. yds. sq. ft. sq. in. the area of a trapezoid whose parallel sides are 300 yards and 400 yards each and whose altitude is 125 yards.
- II. In what time will the interest on any sum of money amount to 2-3 of that sum at 4 per cent per year?

- 12. \$800 is divided among A, B, and C, so that A. gets as much as B and C together and C one third as much as B; find what each gets.
- 13. An agent buys flour for a retailer at \$5 a bbl. on 2 per cent commission. The freight is 25 cts. a bbl. and the gain 12 per cent; find selling price per bbl.

Answers: (I.) \$133 1-3; (2.) \$161.87 1-2; (3.) 83.26 feet; (4.) \$.049; (5.) 67.98 gallons; (6.) 2827.44 sq. feet; (7.) 155.8 sq. feet; (8.) 8 per cent; (9.) 10 cents each; (10.) 9 ac.; 6 sq. rds; 8 sq. yds.; 4 sq. ft.; 72 sq. in.; (11.) 16 2-3 years; (12.) A. gets \$400; B. \$300, and C. \$100; (13.) \$5.99 per bbl.

### Mental Arithmetic.

F. H. SPINNEY, OXFORD, N. S.

#### Areas.

Problems relating to areas are very suitable for mental arithmetic, and are appropriate for children of nearly every grade.

The first lesson in the lower grades should be accompanied by drawings on the board to represent the practical application of the principle involved. Let the teacher draw an oblong 8 inches by 6 inches, and divide it into square inches. Then draw another one 4 inches by 3 inches, and divide it in the same way. Now ask the pupils to count the little squares and give them a name. They are square (?)

After counting the little squares contained in several rectangles, ask the pupils to tell how many there are without actually counting them.

Now they are ready for some questions like the following:

Length.	Width.	Areas.
10 in.	6 in.	?
30 ft.	12 ft.	?
20 in.	?	100 sq. in.
?	o ft.	108 sq. ft.

A great number of such questions can be done in a few moments. Ask for "hands up" to answer each question as it is put down. After 12 or more questions are down, erase all the numbers under length or width and have them replaced as quickly as possible.

The next step is to ask the pupils how many of the smaller oblongs will exactly cover the large one. This some of them will readily observe. Then make some more small ones of different sizes until all in the class clearly see how such a problem is solved. Then ask what large oblongs can be represented by figures like those on the board. The answer will quickly come,—black-boards, ceilings, floors, etc. Now if our large oblong is a floor, what is the smaller one? Of course, a mat.

Now we are ready for more advanced work:

Floor.	Mats.	Number of Mats.
12×10	4×3	?
20x15	5x2	?
360 sq. ft.	5	30 mats
?	12 sq. ft.	20 mats
40x(?)	10x8	10 mats

From such problems as these the teacher can proceed to carpeting floors, papering, etc. In carpeting questions it is well at first to consider pieces of carpet 3 feet long and of various widths:

Floor.	Pieces of Carpet.	No. of Picces.
30x20	3x2	?
21XI2	3X3	?

After twelve or more such questions are placed on the board any one of the above columns can be erased, and the numbers supplied.

Thus:

Floor.	Pieces of Carpet.	No. of Pieces
30 x 20	3 x (?)	100 pieces.
21 x ?	3 x 3	28 pieces.

Pupils from grade IV to grade VIII will profit by a long drill in such problems as the above. They prove far more interesting to pupils of grade IV than such problems as to find the divisor when the dividend, quotient and remainder are given, which questions, by the way, are about as useless and monotonous as anything that could be imagined. In the above problems it is often required to find the divisor in a much more practical and interesting way.

A writer in the Springfield Republican recommends the following parts of the Bible as specially fitted for reading when one is in a pessimistic mood:

### Boyle's Law

John Waddell, Ph.D., School of Mining, Kingston Last summer by far the greater number of the papers at the examination in Physics of Grade XI. in Nova Scotia contained an answer to the question on Boyle's Law and I think I am within the mark in saying that in fully ninety per cent there were two errors. For one of these errors the textbook might be held responsible because the textbook is not perfectly clear; for the other error the textbook was in no way to blame. I shall consider the latter error first.

The proof of the law usually given consists in showing that when the pressure on a quantity of air is doubled the volume of the air is halved. The air is enclosed in the short arm of a bent tube the long arm of which is open to the atmosphere. Mercury is poured in at the open end and is adjusted so that the level is the same in both arms, thus ensuring that the pressure on the air in the short arm is exactly that of the atmosphere. If mercury be now poured into the open end its weight will exert a pressure and compress the air in the short arm; hence the mercury will rise in the short arm but not so rapidly as in the long arm because of the resisting air. If sufficient mercury be poured in a time will arrive when the mercury in the long arm is thirty inches higher than in the short arm. The pressure in the short arm is now greater than it was before by a pressure due to a height of thirty inches of mercury. But the pressure of thirty inches of mercury is the pressure exerted by the atmosphere; hence the enclosed air now has the pressure due to the atmosphere and the pressure of the mercury which is equal to the atmospheric pressure, therefore the pressure is equal to two atmospheres. It will be noted that the level in the long arm is thirty inches higher than in the short arm but as the level in the short arm is higher than it was at the beginning the level in the long arm will be, by the same amount, more than thirty inches higher than it was at the beginning.

Now this is just where the error came in. By far the greater number of examinees after making the first adjustment said to pour in thirty inches of mercury, or to pour in mercury till the level is 30 inches higher than before not realizing that it is the difference of height in the two arms that must be thirty inches.

The textbook after giving the proof correctly as

If you have the "blues," read the 27th psolm.

If your pocket-book is empty, read the 37th psalm.

If people seem unkind, read the 15th chapter of John.

If you are discouraged about your work, read the 126th psalm.

If you are all out of sorts, read the 12th chapter of Hebrews.

If you are losing confidence in men, read the 13th chapter of I Corinthians.

If you can't have your own way in everything, keep silent, and read the third chap'er of James.

regards pressure says: "From this experiment we learn that at twice the pressure there is half the volume while the density and elastic force are doubled. Hence the law:-The volume of a body of gas at a constant temperature varies inversely as the pressure, density, and elastic force." In the proof nothing was said about destiny and elastic force; doubtless their relation to pressure is discussed elsewhere in the book. Of course what is meant is, that the volume varies inversely as the pressure; or, what is the same thing, it varies inversely as the elastic force. The almost universal opinion among the examinees was, however, that the volume varied as each of these factors, and those whose knowledge of mathematics was rather more extended than usual made the natural deduction that the volume varied as the product of the three factors and wrote an equation.

### Why Some Birds Hop and Others Walk.

(Sent by Miss G. F. Crawford, Riley Brook, N. B) A little bird sat on a twig of a tree, A swinging and singing as glad as could be, And shaking his tail, and smoothing his dress, And having such fun as you never could guess. And when he had finished his gay little song He flew down in the street and went hopping along, This way and that way with both little feet, While his sharp little eyes looked for something to eat. A little boy said to him: "Little bird, stop, And tell me the reason you go with a hop, Why don't you walk, as boys do and men, One foot at a time, like a dove or a hen?" And the little bird went with a hop, hop, hop; And he laughed and he laughed as he never would stop, And he said: "Little boy, there are some birds that talk And some birds that hop and some birds that walk. Use your eyes, little boy; watch closely and see What little birds hop, both feet just like me, And what little birds walk like the duck and the hen, And when you know you'll know more than some men. Every bird that can soratch in the dirt can walk; Every bird that can wade in the water can walk; Every bird that has claws to catch prey can walk; One foot at a time—that is why they can walk. "But most little hirds who can sing you a song Are so small that their legs are not very strong To scratch with or wade with, or catch things—that's why They hop with both feet. Little boy, good by."

[The exceptions to this rule are rare. The rule is generally correct, and so simple as easily to be remembered.]

—Selected.

Reputation is what usen and women think of us; character is what God and the angels know of us.—Paine.

### Old-Fashioned Things.

(Sent by Miss Glendine Brewster, Albert Co., N. B. Old-fashioned things! How tenderly we love them! Old-fashioned hannts, so distant and so near! How gently, fondly, Memory speaks of them;

How wholesome, sweet and restful they appear. Within this age of bustle, fret and hurry,
How grateful it would be if we had wings
To fly to boyhood and forget our worry
Amid old-fashioned things.

Old-fashioned, from modern sins untainted;
Old-fashioned chambers, roomy, cool and high;
Old-fashioned paintings with their faces sainted;
Old-fashioned downy beds on which to lie;
Old-fashioned wares, with no cheap imitations;
Old-fashioned folks that practise what they preach;
And, free from all our slangy innovations,
Old-fashioned forms of speech.

Old-fashioned love that knows no turn or changing,
But to its plighted word is ever true;
That does not over all the world go ranging
In search of victims and sensations new.
Old-fashioned brides with roses in their faces;
Old-fashioned modesty in womanhood;
Old-fashioned firesides that are sacred places;
Old-fashioned love of good.

Old-fashioned honesty, forever spurving
What bears the stigma of unhallowed gain;
Old-fashioned justice that will brook no turning
And on whose robe there can exist no stain;
Old-fashioned frugal, plain and simple living.
And, though they seem just now a tr.fle odd.
Old-fashioned prayer and worship and thanksgiving—
Old-fashioned faith in God.

I welcome progress. Let the world move onward Until the human cycle is complete,
But while we keep our minds and faces dawnward,
Let us not lose the wholesome and the sweet.
There is so much of loyalty to duty
Within the past, that all my spirit sings
The sterling worth, simplicity and beauty
Of good, old-fashioned things.

Constable—And the prisoner said, washup, as how somebody had blown the gaff. His Worship—What does that mean? Constable—Why, given him away, your washup. His Worship—And what may that mean. Constable—Why, rounded on him sir. His Worship—I am still ignorant of your meaning, my man. Constable—Why, yer washup, he meant as how somebody had peached on him; squealed, yer washup. His Worship—What language are you speaking, constable? Constable—Brixton 'Ill., your washup."—London Telegraph.

### The Tale of Twelve.

We are twelve sisters gay!

Our number isn't small,

But in our ample home

There's room enough for all!

In temper and in taste,

We do not all agree,

So we have been arranged

In companies of three.

D., J. and F. lead off,
In wild and merry sport;
They skate and slide and coast,
And build the snowy fort!
Two Ms. and A. come next,
They scold and sulk and smile!
And when they've done their work
They play a little while!

Then come two Js. and A.—
A sunny happy crew!

Warm-tempered to be sure,
But loving, kind and true!

Then S. and O. and N.—
Most favored ones of all!
They play when nuts are ripe,
And when the apples fall!

Now, children, who are we?
Can anybody say?
We've danced and played with you
Full many a happy day.

-Selected.

### Punctuality.

The most obvious method of teaching Punctuality is sometimes ignored. That is, let the teacher set the example by being punctual herself. We do not mean that she should come to school at the proper time-of course, she does that-but that every recitation begins exactly on time, that change of classes be managed quickly and promptly, that time from one recitation be not stolen for another When the programme for the day has once been arranged, see that the work begins promptly, not five or six minutes after the schedule time. Let each recitation begin on the minute, insist upon instant obedience to signals, and do not take time from the intermission for recitations or reproving the class. You will son find that your pupils are unconsciously growing more prompt and attentive, and also that there is time for everything to the teacher who knows how to economize the minutes.—Exchange.

### A Birthday Party.

Jean lived in the country near some big woods. She was the only child in the house. And there were no other little girls for miles around.

When Jean was seven years old she had a birthday party. She had so many guests she couldn't count them. She set the table out of doors on the crust. There were fresh bread-crumbs, from her big birthday cake. The guests came and helped themselves. They were very noisy. They chattered and scolded. Can you guess who they were?

First came some blackbirds. Then up hopped a dozen hungry chick-a-dees. Next, down flew five pretty bluebirds just back from the south. When she saw her last guest, Jean clapped her hands. He was a round, bright-eyed Robin Redbreast—the very first one she had seen that spring!

The birds ate up every single crumb. Then they chirped their gay little "Thank you" and flew away. Jean said it had been the best birthday party anyone ever had.—Primary Education.

Probably a great hymn never had a more humble origin than Onward Christian Soldiers, which is one of the most popular of our modern hymns. In the Delineator Allan Sutherland writes: "A great school festival was to be held in a Yorkshire village on Whit-Monday, 1865, and the scholars of Torbury Bridge school over which the Rev. Sabine Baring-Gould was curate, were invited to attend. As the place of the celebration was some distance away the minister thought it would be an excellent plan to have his scholars march to the singing of an appropriate and stirring hymn. Fortunately for our hymnology, he could find nothing in his song books suitable for such an occasion, so from sheer necessity he sat down the Saturday evening preceding the celebration and composed the great processional hymn, little dreaming that he had produced that which would be world-wide in its usefulness and make his name a household word. Baring-Gould is an authority on many subjects, and is a volummous writer, having published nearly one hundred volumes. The few lines hurriedly composed on a Saturday evening as a marching song for a hand of little children will doubtless give to his name greater fame than all the books he has ever written.

### The Way to be Happy.

A hermit there was, and he lived in a grot, And the way to be happy, folks said, he had got; As I wanted to learn it, I went to his cell, And when I came there, the old hermit said: "Well, Young man, by your looks you want something, I see; Now tell me the business that brings you to me." "The way to be happy, folks say, you have got; And wishing to learn it, I've come to your grot. Now, I beg and entreat, if you have such a plan, That you write it me down as plain as you can.' Upon which the old hermit, he went to his pen, And brought this note when he came back again: "'Tis being and doing and having that make All the pleasures and pains of which mankind partake; To be what God pleases, to do a man's best, And to have a good heart, is the way to be blest." -Lord Byron.

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### The Purpose of Manual Training.

Manual Training should be rational from beginning to the end, like the theorems in geometry. In geometry the main end sought is not a collection of mathematical facts, no matter how important these facts are; the most valuable thing for the student is an absolute comprehension of the methods of geometrical reasoning. It is so in educational toolwork. The form of model to be executed does not represent the value of the training; the valuable thing remains in the boy's head and hand; the exercise and tools are indispensable means by which that valuable training is secured.

The object of manual training is mastery—mastery of the external world, mastery of tools, mastery of materials, mastery of processes. Many mistakes have been made, arising from the wrong notion of the object of manual training. Hence in one locality manual training has a strong tendency to run into trade training; in another it runs into art work; in another it runs into the factory idea and aims at production rather than education. Some people fancy that manual labor is the same as manual training.

The teacher of manual training should be expert. Not merely an expert carpenter, or machinist, or a finished draughtsman, but he must be well educated and an accomplished teacher, and he must be skilful in the use of his tools; above all he must understand exactly what he is there for, what manual training is, and what he is expected to accomplish. If possible he ought to have had a thorough course in a first-class manual training school supplemented by a college or technical course. In this way, by the selection of a good teacher, by the

payment of a good salary, and by due recognition of the work of the programme of the school, manual training will have the same dignity that other subjects have and the school will succeed.—Calvin M. Woodward in N. Y. Outlook.

### Lines in Season.

To lay up lasting treasure
Of perfect service rendered, duties done
In charity, soft speech, and stainless days:
These riches shall not fade away in life,
Nor any death dispraise.

-Edwin Arnold.

A laugh is worth a thousand groans in any market.

—Charles Lamb.

But words are things, and a small drop of ink,
Falling like dew upon a thought, produces
That which makes thousands, perhaps millions, think.

—Byron.

The Golden Rule is not always the rule of gold. It is better to trust and be cheated than never to trust.

> That I spent, that I had; That I kept, that I lost; That I gave that I have.

One today is worth two tomorrows.

Talk and tattle make blows and battle.

Big things are done by help of little things.

Remember, three things come not back: the sped arrow, the spoken word, and the lost opportunity.

The year's at the spring
And day's at the morn;
Morning's at seven;
The hillside's dew-pearled;
The lark's on the wing;
The snail's on the throne
God's in His heaven—
All's right with the world!
—Browning, Pippa Passes.

Better pat an animal than slap it.

The workshop of character is everyday life.—Babcock.

It is not what stays in our memories, but what has passed into our characters that is the possession of our lives.—Phillips Brooks.

Good character is property. It is the noblest of all possessions.—Samuel Smiles,

If a man empties his purse into his head, no man can take it away from him. An investment in knowledge always pays the best interest.—Benjamin Franklin.

A good name is rather to be chosen than great riches, and loving favor than silver and gold.—Bible.

#### Who Loves the Trees Best?

Who loves the trees best? "I," said the Spring. "Their leaves so beautiful To them I bring." Who loves the trees best? "I," Summer said. "I give them blossoms, White, yellow, red." Who loves the trees best? "I," said the Fall. "I give luscious fruits, Bright tints to all." Who loves the trees best? "I love them best," Harsh Winter answered, "I give them rest."

#### National Hymn.

The report that Switzerland has decided to change her national anthem, owing to the identity of its melody with that of the national anthems of Prussia and of Great Britain, reminds me that, although the words of the French national anthem, "La Marseillaise." are by Rouget de l'Isle, very few people are aware that the melody is German, and that, as shown by the late Castil Blaze, the most eminent musical critic of the nineteenth century, the air was borrowed by Rouget de l'Isle from a collection of German religious melodies. The Austrian national hymn was composed toward the latter end of the eighteenth century by Francis Joseph Haydn, though whether on his own initiative or by imperial order is not quite certain. These national anthems, contrary to general belief, are a relatively modern institution, for until the eighteenth century no country possessed a national anthem of any kind. One of the first nations to adopt a national anthem was Great Britain, and considerable pains were taken to emphasize the fact that it was King George I., and not the Jacobite Pretender who was meant. A preposterous attempt has been made to prove that the melody of "God Save the King" was a composition of Lord Halifax's illegitimate son, Henry Carey, but the air is a very much older one, of a religious order, and was adopted almost immediately afterwards by Prussia and by Russia, Switzerland and America following suit later.

At the end of the eighteenth century there were at least five countries—Great Britain, Prussia, the

United States, Russia and Switzerland-using identically the same melody for their national Emperor Nicholas I., at the time of the Crimean War, decided to cast aside a national anthem borrowed and imported from the enemy, and to substitute for it a genuine national anthem of native composition. The present national anthem of Russia is probably the only one that was ever adopted as a result of an open competition like the legendary tournaments of the bards of the Court of Thuringia, of the mastersingers of Nuremberg, and the violin makers of Cremona. The musical committee of selections rejected all the authems sent in but two, the respective merits of which were left for the Emperor to determine. One was by Glinka, the renowned composer of "Life for the Czar." The other was by Lyoff. Glinka's hymn was thoroughly Russian in character, and in the form of a march. Lyoff's was more solemn, but much less original. He knew, however, that a high military style of instrumentation would appeal to the Imperial ear, and his drums and trumpets decided Nicholas against all claims to recognition on the part of the more artistic Glinka. Nicholas, however, cannot be said to have made a bad choice. Both works were good, and if he preferred the more demonstrative of the two it was probably because he knew so well the tastes of his people.-McCall's Magazine.

## Guess the Names of the Rivers. Guess the name of the river that serves to hold fast.

The river that grows on a tree.

The river where Oxford and Cambridge compete.

The river that's found in the sea.

The river that actress and soldier both use.

The river that crawls on the ground.

The river that puppies and kittens imbibe,

The river where breezes abound.

The river up which Fulten's steumboat first sailed.

The river that makes the heart glad.

The river whose current drains five mighty lakes.

The river with which you catch shad.

The river that's fried with a juicy beefsteak.

The river Rome's bravest once swam.

The river whose name is a light-hearted Scot.

Back of the loaf is the snowy flour,
And back of the flour the mill,
And back of the mill in the wheat and the shower.
And the sun and the Father's will.

The river upheld by a ram.

-M. D. Babenck.

#### A Tale of a Bonnet

Part I. The Bonnet.

A big foundation as big as your hand; Bows of ribbon and lace; Wire sufficient to make them stand; A handful of roses, a velvet band— It lacks but one crowning grace.

Part II. The Bird

A chirp, a twitter, a flash of wings,
Four wide-open mouths in a nest;
From morning till night she brings and brings,
For growing birds they are hungry things—
Ay! hungry things at the best.

The crack of a rifle, a shot well sped;
A crimson stain on the grass;
Four hungry birds in a nest unfed—
Ah! well, we will leave the rest unsaid;
Some things it were better to pass.

-Our Dumb Animals.

#### Current Events.

H. M. S. Dreadnaught, which has just been launched at Portsmouth, England, is the largest and most powerful battleship afloat. Work upon this ship was begun in October last, and she will probably be ready for service by the end of this year, the rapidity of the work being not the least remarkable feature of her construction.

Sir Frederick Treeves is quoted as saying that of the British soldiers who went to the relief of Ladysmith, during the South African war, those first to fall out from fatigue were not the fat or the thin, the young or the old, the short or the tall, but those who drank. So well marked was this fact that the drinkers could not have been more clearly distinguishable if they had worn placards on their backs.

The Shah of Persia has yielded to the demand for a national assembly. The mullahs, or Mohammedan priests, were at the head of the movement for this reform,

The statement that the Danish explorer, Mikkelsen, who is planning to sail to the west of the Perry Islands in search of unknown land, will plant there, when he finds it, the flag of the United States, reminds us of the fact that the United States territory of Alaska is nearer to the North Pole than any part of our mainland west of the peninsula of Boothia.

King Christian IX., of Denmark, died on the 29th of January; and his body has been laid in the old cathedral at Roskild, the ancient capital, where Kings of Denmark have been buried for nearly a thousand years. He is succeeded by his eldest son, who takes the title of Frederick VIII. King Frederick is a brother of our Queen, of the Dowager Empress of Russia, and of the King of Greece, and father of the new King of Norway. His eldest son is now the Crown Prince Christian. The names of Christian and Frederick have been borne by the Danish evereigns alternately for the last four handred years,

It is not generally known that King Edward holds a diploma in forestry, a science which, by the special wish of his father, he studied in the forestry school at Nancy, France, and also in Germany.

The most elaborate celebrations in honor of the Prince and Princess of Wales have marked their progress in India. In Burma, the railway to Mandalay was lined by a double row of men sixty feet apart for a distance of nine:y-two miles. As the train passed through in the night, each man held up a lighted paper lantern at its approach, making a continuous illumination of the way. Trifling in themselves, these celebrations tend to show the feeling of the Indian peoples toward their future Emperor.

It is announced that the elections to the Russian national assembly will take place April 7th; and that the assembly will meet at St. Petersburg April 28th. In the meantime, the disorders throughout the empire have in a measure ceased; and, by the time the duma assembles, the people may be somewhat prepared for parliamentary government.

The conference on Morocco has not yet reached the end of its labors, and there seems to be an irreconcilable difference between the French and German demands. France wants the Moroccan police placed under the control of French and Spanish officers. To this Germany objects, and France may possibly withdraw from the conference The Sultan of Morocco, as might be expected, objects to any foreign control; but, as his authority just now extends to but a small area of the vast territory over which he claims to rule, his wishes may not be greatly regarded. Germany and France are also unable to agree upon the question of financial control, the latter claiming that French interests should be recognized as of most importance, as British interests have been recognized in Egypt.

A treaty providing for the commercial union of Servia and Bulgaria has aroused the displeasure of Austria, and non-intercourse between Austria and Servia is threatened. This, with a serious political crisis in Austria-Hungary, lias made the Danube and Balkan region again the scene of movements that threaten the peace of Europe.

Rumors that the withdrawal of Russian troops from Manchuria, under the terms of the treaty of Portland, is not being carried out in good faith, and that Russia is occupying Mongolia, together with renewed reports of anti-foreign uprisings in China, throw doubts upon the probability of continued peace in the Far East. The United States is openly a rengthening its position in the Philippines in preparation for a war with China.

That the news of the day should be warlike, while all the great nations of the world are nominally at peace, is a sad commentary upon our twentieth century civilization. It is pleasant to turn to other matters, less exciting, but not less important. The new respect for China, not as a fighting power, but as a civilized country, is worthy of note. Her great antiquity, her immense population, her remarkable morality, and her love of peace; the vigor of her people as a race, their toleration and self-restraint; even the wisdom of her rulers and the worth of a system

of government which has brought all this about, are beginning to be recognized as elements of greatness that entitle her to a high place among the nations of the world. That China should have sent statesmen to the United States in the interest of peace, while the latter country is preparing for war over trade restrictions, is much to be credit. Let us hope that they will carry home with them both peace and honor.

The new President of the French Republic, M. Fallieres, has entered upon the duties of his office. His position in the scheme of government is more like that of the British King than it is like that of the President of the United States, in that his official acts are controlled by responsible ministers of state. There is a French saying that "the King of Great Britain reigns, but does not govern; the President of the United States governs, but does not reign; the President of the French Republic neither reigns nor governs." Nevertheless, the French presidency, like the crown in a parliamentary monarchy, maintains the legal continuity of the administration through all ministerial changes, and so tends to stability and security in times of popular excitement, when other forms of government may fail.

Capt. Bernier is still bent upon adding the North Pole to our Dominion, if there is land there to occupy. He wishes to have the government steamer Arctic placed at his disposal for that purpose; his plan being to go north through Behring Strait, and drift across the pole to the shores of Greenland.

More than a million people are suffering from the familie in the northern provinces of Japan. Relief is being sent to them from different parts of the world, while their own government is doing all it can do for them. From Canada, \$25,000 worth of wheat flour will be sent as the gift of the Canadian government.

King Edward's nephew, Prince Arthur of Connaught, acting as the King's special representative, has invested the Japanese Emperor with the insignia of the Order of the Garter. The prince will return from Japan by way of Canada.

It has been decided to construct a railway across British North Borneo, to connect sea ports on the east and west coasts.

#### School and College

A social was held in the hall at Riverport, Lunenburg Co., N. S., under the auspices of the teachers, Miss L. A. Fancy, Miss G. E. Strum and Miss A. B. Parnell. The amount realized was \$63.79, which will be donated to school purposes, among which may be mentioned chemicals and a library.

A school supper was held at Oxford, N. S., on Saturday evening, February 17, and the handsome sum of \$64.50 was realized, to be devoted to library purposes. The school has had the nucleus of a library for some years, but it is quite inadequate to meet the demands made on it by the pupils and the public. The Oxford people are deeply interested in school matters and always give material en-

couragement when a call is made on them, such as is recorded above, to help the teachers and pupils in a good work.

Prince Edward Island is the smallest and least populous of the provinces. Yet it will have next year four Rhodes scholars at Oxford University. Mr. McLeod, who has been chosen by McGill University, is the second Island man elected this year.

The death of Mr. George A. Coates, a veteran teacher of Kent County, took place recently at the home of his son. Dr. Coates, at Rexton. Mr. Coates taught for many years the Superior school at Buctouche. Many of the business and professional men of Kent County owe their training to him and all cherish pleasant memories of the interest he always took in their welfare and progress.

The compulsory attendance law in Missouri is a success. Fully 60,000 more children are enrolled in the schools of the state than were enrolled the first month last year. The average daily attendance last year was about a half million. This year it will be 600,000.

#### **Book Reviews**

FIRST LESSONS IN BOTANY, By C. A. Cooper, L. L. A. Flexible Cloth. Pages 40. Price 6d.

Gives the few prominent features and outlines of plantstudy in a clear and interesting manner,

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## Educational Review Supplement, April, 1906.



"PREPARING FOR ANOTHER SEASON."





#### ARBOR DAY NUMBER.

# ducational Review.

Devoted to Advanced Methods of Education and General Culture.

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## EASCER.

Awake, thou wintry Earth— Fiing off thy sadness! Fair vernal flowers, laugh forth Your ancient gladness! Christ is risen

- Thomas Blackburn-An Easter Hymn.

The picture this month is a representation of native trees from two pictures by Sir William Van Horne of Montreal. It is something in the life of a busy man of affairs to have a taste—and cultivate it—for nature and art. The skilful delineation of trees and the larger fungi, in which Sir William has excelled, has not interfered evidently with business but has given a rare pleasure to his eventful and busy life.

The Roman Catholic church loses one of its ablest men in Archbishop O'Brien, who died in Halifax, March 10th. He always manifested a strong interest in educational affairs which he actively promoted by his ready sympathy and co-operation. In addition to his engrossing duties as a churchman, the great questions of the day, literature and political economy found in him a devoted student. He was an active member of the Royal Society of Canada and its president for the year 1896-97.

Our readers will find in this number appropriate material for Friday afternoon exercises in April, and for Easter and Arbor Day. No formal programme is offered for the observance of the latter. The day, should be devoted to a general cleaning and adornment of the school premises; the planting of trees and flower beds; lessons and recitations on trees and other plants, ending with a school entertainment in the afternoon to which parents and friends should be invited, and for which careful preparation should be made during the preceding weeks.

A subscriber asks us to publish a map of the new provinces of Alberta and Saskatchewan. To do this adequately with portions of the surrounding provinces and territories would take more space than can be spared in this number. Why not consult our advertising columns and get a new map of Canada? If the trustees cannot afford to help, a small concert on Arbor Day will realize more than enough.

A friend sent us in February a twig of willow collected the first week of that month with the white catk is half unfolded. But here it is the first week in April and no more progress has been made in bud unfolding. It is useless to look for spring in February or March in this country.

A gentleman who is deeply concerned about the greater possibilities of education writes as follows to the Review: "There is still a missing link in our educational system, considering as we must the thousands who have left school too soon, or are about to leave school. The scholars from good homes are cared for; the whole system is articulated from primary school to university for the minority; but can we not have evening rural schools, industrial or otherwise? Can nothing more be done for thousands of illiterate youth in these provinces? Denmark has one hundred high schools for adults!"

Church Work is now published in a new form and under a new editor and management. It is issued fortnightly at North Sydney, C. B., by Rev. C. W. Vernon and is an eight-page journal neatly printed on smooth white paper, with numerous clear illustrations, and carefully written editorial and other matter. We heartily agree with the announcement made by the former editor in the first number, that if such a paper does not succeed "the Church people of the Maritime Provinces should be heartily ashamed of themselves."

Talking with a commercial traveller not long ago he said he attributed his success in selling goods not so much to his industry and push as to his entire abstinence from intoxicating drinks. He said it was well understood in these times of fierce competition in trade, that it was not business-like for any man to drink. Surely this is a good temperance lesson for young people. Success in business or in any profession must not be trifled with by yielding to the temptation to drink.

There is a dearth in too many of our schools of reproductions of work of art—those that are truly beautiful and at the same time suitable. More of music, art, poetry is required to round out the natures of young people. There is no real study of music except in a few favored schools; art is entirely ignored, or confined to the placing of a few pictures on the walls; poetry is robbed of all pleasure-giving because pupils are required to analyze it too persistently. The subjects of our school course are addressed to the intellect and to the memory rather than to the cultivation of taste, or the awakening of a desire for real culture. Are our teachers preparing themselves to be the leaders of the reform that must come, or will the leaders spring up from outside their ranks?

#### Recent School Legislation.

Several changes and additions to the school law have been made both in the Nova Scotia and New Brunswick legislatures during the recent sessions. Many of these are important.

In New Brunswick the attendance of children at the public schools may be enforced by those districts which vote to adopt compulsion. This is the mildest form of a compulsory act; but it is on a par with some school legislation of the past. Before free schools were sanctioned by law in the province, the ratepayers of a district had the option to assess themselves for the support of schools.

Some of the amendments to the New Brunswick school law, it is gratifying to record, are progressive, and coupled with what has been done in recent years for the introduction of consolidated schools, manual training, nature study and agricultural education may be looked upon as decided steps toward improved educational facilities. The amendments provide that districts may assess themselves for free text books: that consolidated schools may have five acres of land instead of one; that teachers and boards of health shall hereafter look after vaccination certificates; that grammar school grants may be transferred from one section of a county to another after a lapse of ten years; that teachers shall have additional powers to preserve order and protect pupils from interference by outsiders; that school districts, failing to maintain a school in operation for two successive terms or failing to have the children conveyed to a school in a neighboring district, shall be annexed to a contiguous district. It is to be hoped that the latter especially will be vigorously enforced.

The government also has the authority to compel districts to unite and form a consolidated school if it is thought that such a union shall advance the educational interests of the community.

It is to be regretted that the New Brunswick government could not see its way clear to improve the salaries of teachers, in accordance with the petition presented by the Teachers' Association. It is held by some that an increase by the government would be met by a corresponding lowering of the local salaries paid to teachers. It is not too much to ask that districts take the initiative in increasing teachers' salaries and many are now doing so.

The fact should not be lost sight of, however, that in New Brunswick special grants are now made to over fifty schools which include manual training and related subjects in their course of study under teachers who have fitted themselves to teach these branches. Grants of fifty dollars a year are given to teachers, without regard to sex or class, who have classes in manual training. Thirty dollars additional is given to those teachers who conduct a course of nature-study with a school garden. The superior schools which have been fostered largely under Dr. Inch's regime, are scattered all over the province, and the teacher, whether male or female, receives an annual grant from the government of \$250. These, with the increase in the number of grammar school teachers, who each get \$350 from government, show that there are rewards for industrious and ambitious teachers.

The Nova Scotia government has decided to increase the grants paid to teachers from the provincial treasury. Hereafter teachers shall receive the following amounts annually: Class D, \$60; Class C, \$90; Class B, \$120; superior school, \$150; Class A, \$180; Class A in a high school of at least three departments, \$210. As we understand it, these grants are made equal to both sexes.

It will be interesting to compare them with those made to New Brunswick teachers. In every case the average grant to the latter is higher. In New Brunswick the teacher of a granmar school receives \$350 and the teacher of a superior school \$250 yearly, whether male or female. First class licensed teachers corresponding to Class B in N. S. receive,—male, \$135; female, \$100. Second class, corresponding to C in N. S.,—male, \$108; female, \$81. Third class, corresponding to D in N. S.,—male, \$81; female, \$63. It may be said that the proportion of teachers who have received normal school training is less in Nova Scotia than in New Brunswick.

The teachers' pension law which provides for retiring allowances for teachers of long standing and for those who have become incapacitated from any cause is an encouraging and progressive sign. We shall deal with this more fully in a future number.

In Nova Scotia it is proposed to appoint an advisory board to assist the Council of Public Instruction, in what way or to what extent has not yet been made clear.

#### The Influence of School Gardens.

Mr. Geo D. Fuller, director of the Macdonald Rural schools for the province of Quebec writes an interesting article on The School Garden and the Country School in the March number of the Ottawa Naturalist. We have only space for the concluding

paragraph of a paper that we should like to see in the hands of every country teacher.

As the school environment has been improved, there has been a marked change in the moral tone of the school. The pupils' attention has been turned to a consideration of the beautiful to the exclusion of many baser thoughts, and the resulting moral culture has found expression in more orderly behavior. A smooth bit of lawn and a lawn mower have proved themselves aids to good discipline, for the play hours are more rationally enjoyed on well kept grounds than on the old rubbish-littered premises, where the chief joy was often found in working greater destruction. In some schools there has been a very noticeable change in the attitude of the pupils towards the school room and grounds, and they now take pride in beautiful surroundings and care for them where formerly they sought but to make desolation more hideous. Some of the pupils have been led to attempt flower and vegetable plots at their own homes, and it seems hard to over-estimate the better training for good citizenship which pupils receive in such schools where school gardens have broadened the educational horizon and improved the school environment so greatly.

An organization called the Canadian Alpine or Mountain Club has been formed at Winnipeg, the object of which is to explore the virgin valleys, glaciers and higher ranges of the Rocky mountains, in order that their wonders and beauties may be better appreciated. The Club will have climbers and non-climbers among its members, the first to do active work in ascending the loftiest of the Rockies, the second merely to have an interest in the less strenuous objects of the organization. Success to it. The boys and girls in every section of Canada should have such clubs, the object of which would be the investigation of the valleys, hills and mountains of their neighborhood.

It is found that trees play a very important part in making the world healthful. We must not think trees are here solely to cut down for fuel or timber. Vegetation is the means by which the atmosphere benefits the earth; it is the earth's good friend. It is seen that where the trees have been cut off the winters are colder and the summers hotter. The beautiful brooks and creeks disappear in the summer; the springs that caused them were sheltered by trees; these removed and the spring is dried up. D'seases of treeless countries are unknown among forest dwellers. These things have caused people to plant trees whenever possible.—Ex.

Your Review helps me very much with my work and I look forward to its coming with pleasure. —G. C. C.

#### Our Native Trees.-IX.

By G. U. HAY.

#### Evergreens.—The Hemlock.

The hemlock (Tsuga canadensis) is one of the most graceful of our evergreen trees. When growing where there is plenty of space its lower branches are often long and straggling, but when found in the forests where its roots penetrate into rich mould, the formation of centuries of decayed leaves, it is of a majestic appearance, often from eighty to one hundred feet in height and with a trunk diameter of three or four feet. The young hemlock trees surpass all other evergreens in the grace and feathery lightness of their dense foliage which bends to the slightest breeze. Their narrow, short-petioled leaves, dark green above and pale beneath, are disposed in level sprays on the horizontal or drooping branches. The small pendulous cones, very numerous and scarcely longer than the spreading leaves, add another element of beauty to the tree in the early years of its growth.

The term "faithful" that Longfellow applies to the hemlock refers to the unchanging green of its leaves in summer and winter. But in late spring and early summer the tips of the twigs and branches are clothed with feathery masses of the new, yellowish-green leaves which form a beautiful contrast with the dark green leaves of the previous year, and produce an effect perhaps unequalled by any other forest tree. As the hemlock comes to maturity its foliage becomes less attractive, although it increases in sturdiness and majesty. Growing in the forest, the trunk usually tapers suddenly near the top spreading out its newer foliage over the tops of the surrounding trees. The lower part of the trunk is beset with stiff, broken or dead branches, or it is quite bare. The smooth close fitting bark of the young trees gradually passes into the rough, deeply furrowed bark of the mature trees which bear a resemblance to the red or black spruce.

The hemlock belongs to the group of plants which bear two kinds of flowers on the same plant, hence called monecious, that is, growing in one household; the stantinate flowers or those which produce pollen, are in loose catkins, growing from the axils of last year's leaves; the pistillate catkins, destined to become the cones, are at the ends of last year's branchlets. At the base of the green fleshy scales which clothe the pistillate catkins are the ovules which ripen into seeds after being fertilized by the pollen. In their early growth the cones are of a crimson colour, gradually changing to a brown.

The seeds mature the first year, but many of the dry cones often cling to the trees for several years.

The wood of the hemlock is soft, weak, crooked in the grain, brittle and very liable to splinter. It is of a light brown or nearly white colour. A cubic foot weighs 26 lbs. It is largely sawed into boards of an inferior quality, used for cheaper building purposes, such as flooring, shingles, material for wharves, mines, etc. It is one of the most durable timbers under water. It gives a tight hold for nails, and its boards are in common use for the first covering of frame houses. Other uses are found for it, as pines and other more expensive timbers are becoming rare.

Hemlock bark is used for tanning leather, and the manufacture of the extract for tanning is quite an industry in Quebec and to a less extent in New Brunswick. Indeed, the bark has for years been regarded as the only valuable part of the tree. A section of the bill recently introduced by Premier Tweedie into the New Brunswick Legislature for the preservation of forests makes it compulsory for those who have cut down hemlock trees for their bark to remove the trunks in order to lessen the danger from forest fires. That such a law is necessary shows that there is still wanton waste of what may be considered as fairly good timber. This wholesale destruction of hemlock trees for the manufacture of extract threatens to lessen seriously the further supply of hemlock, a wood that will become more and more useful as pine disappears.

Hemlock oil, distilled from the young leaves and shoots, and hemlock gum or "Canada pitch," as it is called, a resinous exudation from old trees, are both used in medicine. The wood is of little value as fuel, burning up very quickly, and with a loud crackling noise like that of poplar wood.

The ground hemlock (Taxus canadensis) is a low straggling evergreen shrub with leaves bright green on both sides and with a red berry-like fruit enclosing a bony seed.

The juniper (Juniperus communis) is usually found as a low straggling shrub in these provinces, with rigid, prickly leaves. Its blue berry-like fruit encloses from one to three bony seeds.

Teachers will find it useful as a preparation for Arbor day to review the lessons on our native trees which began in the March, 1905, number of the Review,

Many of the parts of evergreen and deciduous trees are good subjects for free-hand drawing: Beginners may draw the leaf-clusters of the different pines; small twigs of hemlock, cedar, spruce or fir; cones of the different evergreens and the seeds, if any can be found; twigs of alder, birch, willow, and the arrangement of buds and catkins upon them. These and many other forms are easily drawn, and if done as true to nature as possible will familiarize pupils with the characters and differences in our trees.

#### Why the Horse-Chestnut is so Called.

This is only a fairy-story; but whoever looks on the branches and twigs of a horse-chestnut tree will see there the prints of a horse's hoofs, nails and all. Examine and see for yourselves. Then try if you can tell what really caused these marks and others that you will discover on the twigs. If you can find out, then you will enjoy the fairy story which is a pretty piece of fiction.

For fairies love no tree so well As chestnut broad in which to dwell.

Long, long ago, we are told, the fairies found their homes in the flowers on the ground, but the flowers were picked and men mowed down the grass, so that the fairies lost their bright colours and were without shelter. Then Oberon, daylight king of fairies, and Queen Mab, moonlight queen of elves, took counsel together.

Under a grove with fronded plumes, Whose trees were white with spikes of blooms.

The decision was to live in trees and Queen Mab on her palfrey white,

Her moonbeam bridle firm in grip,
She plied the silken milkweed whip,
And rode straight up the waiting tree,
And out each branch its blooms to see.
Waving her saffron brand she said:
"Fairies! your future home and bed!"
And pointed up the flower-lit tree,—
Thither they swarmed as swarms the bee!
In turn each bole and fronded roof
Was trod by Elf-queen palfrey's hoof,
Till fays who bore the flame-wood lamp,
Swung in the peaceful airy camp.

That was a chestnut grove they found!
And as the sunny spring comes round,
Queen Mab, when shines the silver moon,
And clfin bugles blow in tune,
Still rides high up each chestnut tree.
That fays may know where safe they'll be;
For palfrey prints his tiny shoe
On every branch that's wet with dew,
And that's the reason now you see
Why it is called Horse-Chestnut tree.

—Th. H. Rand.—May's Fairy Tale. (Adapted).

#### A Few Early Flowers.

Nearly all our trees put out their flowers in April or early May before the leaves unfold. Why? Many of these flowers are in catkins as the willow and alder; other trees have small crimson blossoms such as the red maple and hackmatack; others like shadbush and cherry, appearing later, bear white blossoms in striking contrast with the delicate green of the opening leaves about them.

The mayflower or trailing arbutus is one of the first plants to biossom, and is an ever welcome token that spring is here. Mayflower blossoms were said to have been picked in some parts of New Brunswick in February, but more likely the buds were brought into the house and opened in some sunny window.

The hepatica or liverwort also sends out its blue and white blossoms early. Are these blossoms sepals or petals? The hepatica is much rarer with us than the mayflower, being found on the borders of rich woodlands. It too is said to have been found in blossom in parts of New England during the first days of our mild February.

The adder's-tongue or dog-tooth violet is also an early plant to blossom. It is not a violet but a lily, and John Burroughs has suggested the pretty name of fawn lily from its spotted leaves—more appropriate and better even than "adder's-tongue" which name was given because of its tongue-shaped leaves which are mottled after the fashion of the adder's back.

The spring-beauty, like the adder's-tongue, springs from an underground bulb or tuber. The pink or rose-colored lines of its petals are said to point the early bees to its nectar hidden away at the base of each petal. The Indians are said to have prized the nut-like flavor of its tuberous stem. The following legend will show that they prized its beauty also: Mighty Peboan (the winter) scatters around with lavish hand many snowy crystal stars. When, melted by the breath of spring, he is forced to retreat, he leaves some of these behind; they are the spring-beauties, blushing that they have been forgotten.

The white and blue and yellow violets, those favorites of children because they are found everywhere and are so beautiful, bloom in the order given above, the small sweetly-scented white violets first. Children love to gather them, and rightly, for what is more beautiful than a nosegay of violets; and picking does no harm if the roots are not disturbed,

and the leaves are left growing; for the leaves are the food-makers of the plant.

But a word to our little friends: Do not pick all the violets and other early spring flowers. Leave some on the road sides or on the borders of some pretty woodland path to cheer the passers-by. And flowers produce seeds. If we pull all the flowers no seeds will be ripened. But the children's friend—the violet—looks out for this. Later in the season little flowers, so small that they can scarcely be seen, grow from the underground stems and bear pods with plenty of seeds in them. Look for these during the summer but do not pick them.

And can the children tell me why the violets, the spring beauty, the mayflowers, the fawn lily and other spring plants can better stand the loss of flowers (but not of leaves) than other spring plants?

To be continued in May.

#### Beautiful Canada.

The President of the American Civic Association invites his followers to subscribe to certain good resolutions in connection with the Beautiful America movement. The change of a word will adapt them for use by our Canadian readers:

1. We will have no dirty back or front yards about our own houses, and we will, by example and help, endeavor to have our neighbors also clean up.

2. We will plant Canadian hardy trees, shrubs and vines and grow clean grass wherever we can, and will help our reighbors to do likewise.

3. We will join cheerfully, as far as our resources permit, in organized effort for clean and beautiful streets and highways, and will help any movement for parks and playgrounds with which we may come in contact.

4. We will endeavor to protect trees from the unthinking attacks of electric polemen, and will not permit the setting of electric poles on our own premises except in extreme cases, and then under rigid safeguarding of trees and of landscape beauty.

5. We will oppose the exection or the continuance of objectionable advertising signs of any kind, and will assist in their removal by kindly argument and by openly refraining from purchasing articles so advertised.

6. We will fight the mosquito relentlessly by cleaning up or oiling wet places where it may breed, urging others to do the same,

7. Finally, we will consider outdoor beauty as worth while and as economically justified, and will try to have the children of Canada grow up in a greater love for the natural beauties of their country.

Mr. J. Vroom writes from St. Stephen: The horned lark seems unusually plentiful this season.

## Our Coasts. II.—Their Lessons.

#### The Agents at Work.

PROFESSOR L. W. BAILEY.

"I with my hammer pounding evermore
The rocky coast, smite cinder into dust,
Strewing my bed."

—Emerson.

In the last chapter of this series of sketches it was shown that the coasts are a theatre of constant warfare, a scene of strife between land and sea, the former presenting a more or less bold front of crag and precipice, battlement or wall, against which the forces of the latter rush and rage incessantly, and not in vain. It may be interesting now to consider somewhat further the marshalling of these forces, the methods of their attack, and their limitations.

Force and motion are, as is well known, correlative terms. Hence water is powerful only when in movement, and in proportion to the rapidity of its movement. Thus it will strike the hardest when moved by heavy winds; it will hold up and carry when in rapid motion what it would be wholly incompetent to move when the motion is slow. Let us compare some of these kinds of motion, and their effects.

The first cause of movement in the sea is the existence of different temperatures determining currents, such as those of the Gulf Stream or the great Arctic current from Baffin's Bay. We are but little affected by the former, owing to its remoteness from our coasts; its most important indirect influence being the imparting of abundant moisture to the atmosphere above it, and thus causing fogs as this moisture is condensed by passing over colder areas nearer the shore. So the Arctic current, though nearer the coast, moves but slowly and mostly in deep water, and hence has little influence as a mechanical agent; but in addition to helping to determine fogs it brings large quantities of ice into the waters of the Gulf and keeps all our coastal waters, even in midsummer, excessively cold. It also, through its low temperature, markedly affects the nature and distribution of the fishes and other forms of life which frequent

A second cause of movement, due mainly to the gravitational attraction of the moon, is to be found in the tides. These in the open ocean are of little significance, being merely an alternate rise and fall, of a few feet; but where for any reason the general tidal movement is interfered with, it may, in addition to greatly augmented height, acquire all the velocity and therefore all the power of a river

current. Nowhere, probably, are such currents better exemplified than in and about the Bay of Fundy. Opening broadly as the latter does, towards the advancing tidal wave of the Atlantic, the waters of the latter are not only crowded together by the diminishing width and lessening depth of the Bay until at its head, as in the estuaries of the Petitcodiac and the Avon, it may reach at times the extraordinary height of sixty feet or more, but being driven through narrow straits it may acquire a rapidity of flow which is almost irresistible. The Bore upon the Petitcodiac at Moncton is well known to most provincialists, and a representation of its advancing front, sometimes four or

incessant and in the aggregate vastly exceeds in its effects both of the other agencies combined. Reaching the land, waves also receive directly the waste of the latter, and thus armed are able to do what mere water, however powerful its movements, would be incompetent to effect. Waves are the chief instruments or agents of wear; tides and currents are mainly of interest as the means of transportation and redistribution. Having in the last chapter sufficiently considered the first of these results, let us now turn our attention more particularly to those last mentioned.

Of what are beach-deposits composed? Let any one collect as many different varieties as he can of



THE BORE IN THE PETITCODIAC RIVER AT MONCTON, N. B.

five feet high, is here given. The Digby Gut and the entrance into Minas Basin, like the Petite passage between Digby Neck and Long Island, though without bores, also well exhibit the force and turbulence of the inflowing and outflowing waters, while at the western end of Deer Island in New Brunswick the conflict of opposing currents in the Bay of Fundy with others from the Passama-quoddy basin determine a whirlpool or veritable maelstrom, capable, with a high run of tides, of dragging down boats even of pretty large size.

The third kind of motion is that of Wind-waves. These affect individually only a small body of water, but being essentially surface effects and needing but little depth, they reach quite to the shore, and as wave succeeds to wave the action is

"pebbles on the beach" and probably considerably more than half of them will be found to consist of some variety of quartz—the hardest of commonly occurring minerals-either simple white quartz, or jasper or agate or chalcedony; or, if not of quartz only, of some silicious and almost equally hard mineral, such as feldspar or hornblende, or combinations of these. Why is this? Simply because these very hard minerals are more durable than others and have been left where all others have been ground to powder. If the beach is a sandy one, examination will show that the grains of sand are also nothing more than grains of quartz, and there is little else. It is only where the shore is composed of mud that soft materials are to be found, and these are evidently the rock-floor resulting from the grinding process to which all have been subjected. In the case of the coarser beds the fact of grinding is indicated by the rounded or nearly spherical form which the pebbles usually exhibit, and the roar attending the movements of breakers on the beach is not that of the breakers only but of the rock fragments which they are continually moving and grinding one against another. The coarser beds, known as "sea walls" and in which the separate pieces may be several feet in diameter, are, moreover, only to be found in exposed situations, where the waves and storms strike with the greatest power; sand beaches usually skirt the shores of open bays or indentations, somewhat better protected; muddy deposits are found in harbors, about the mouths of rivers or in off-shore shallow soundings, where gentler movements prevail. All have been derived from a common source. but represent different stages of the grinding process, and have been thus separated and differently deposited just as the depositing agents, tides and currents have been able to lift and transport them. To be continued in May.

[A coast view in Dr. Bailey's article for February erroneously represents a cliff near Alma, N. B. It should be Tiverton, N. S.—Editor.]

#### Correction of Compositions.

It is wise to have one member of a class write on the board, that all may get the benefit of the public criticism of it. As the class writes, the teacher should move from seat to seat, making suggestions, and correcting and preventing errors. If all the rules for punctuation and for capitals belonging to the grade are taught early in September, the pupil can apply them during the year, and save the teacher much of the work of correction. All misspelled words should be corrected and used for special drills. All grammatical errors should be collected in a book for that purpose, and then made the basis of a lesson in grammar before the next composition is written. It is wise to place the initials of the pupil in this book, opposite the errors he has made, that you may bring these errors directly to his notice in the class. After the compositions have been corrected individually by the teacher, the child should rewrite them in a book for that purpose. -Sel.

I find the Review very helpful and it seems to be getting better every month.—M. C. M.

#### Millet.

By MISS A. MACLEAN.

Sensier, the faithful friend of Millet (mee-ya), tells us that it was difficult to get a just photo-

graph of him. This is a copy of the one usually given of him. But Sensier (san-see-a) says of photograph taken of him at Barbizon: It was late afternoon; he was 'standing full length in sabots (sab-o), his back to a wall, his head raised straight and proud, one leg a little forward



MILLET.

like a man 'who balances himself exactly; his hat in his hand, his chest out, his hair thrown back, and his eyes as if fixed on some threatening object. This picture is to me Millet's whole life. He was pleased when I said, 'you look like a leader of peasants who is about to be shot.'"

Jean François (frang-zwä) Millet was born on the 4th of October, 1814, at Grouchy, (groo-shee) in a long, low house built of unhewn, gray stone and half hidden by the foliage of a gnarled old grapevine. The little village of Grouchy, peopled by about twenty-five families, stood on the granite cliffs of La Hague, in full view of Cherbourg Roads. But though the village stood on granite cliffs, the country back of it was fertile, and the peasants who labored there were prouder and wilder looking than those nearer Paris, at Barbizon. They were, however, simple-minded, quiet people from whose doors no one was ever turned away hungry. All the men and women who were able to do so worked in the fields in summer.

Millet's father was like the other peasants, but he was passionately fond of music and trained the village choir. He was equally fond of nature and was always pointing out natural beauty to his children. Millet remembered that he used to carve wood and model in clay. Millet's mother was descended from a family that had once been gentry in the country. She was sweet and gentle, dearly loving her children whom her never-ending toil

in the fields in summer and spinning and weaving in the house in winter prevented her from bringing up, for the women among the tillers of the earth have both their own curse and men's curse to bear. The grandmothers, who were too old for hard work, brought up the peasant children. Millet's grandmother was a good woman of strong character and well beloved.

Millet's education was better than that of his fellow peasants. He studied earnestly, and the parish priest took an interest in him and taught him Latin. Before he was old enough to work all the time in the fields he could read Latin authors. His grandmother had the germ of the art life in her; his father was an artist unable to express what he felt. When Francois worked in the fields with him and used to sketch at noon while the other laborers slept, he used to say to himself, "I have the longing without the power; perhaps the bon Dieu has given both to Francois." Later, when his younger sons were grown, he took Francois and two of his drawings to a painter at Cherbourg. The painter at first refused to believe that Francois had drawn them, but when he was convinced he blamed the father for keeping one so gifted toiling on the farm, and asked that Francois remain with him. Francois remained with him, but learned less from him than from studying and copying some old paintings in the museum at Cherbourg. He read much in the library there; Victor Hugo and Chateaubriand shaw-toe-bree-ang) especially impressed him. Later Theocritus and Burns were his great favor-

Presently the gentle-hearted father died and Francois returned for a time to the farm. But the citizens of Cherbourg had become interested in the young man and voted money to send him to Paris to study art. With sore hearts his mother and grandmother gave him their blessing, and the young man with the heart of a boy in his big body went to Paris. He was proud, shy, sensitive and awkward, and for a time he wandered about Paris, speaking to no one for fear of being laughed at. Finally he discovered the Louvre, the great art gallery of Paris. For a month he spent nearly every day there. He was very homesick but the pictures held him. The works of Michael Angelo (me-kel-an-ja-low) impressed him most. "I loved," "he said," everything that was powerful, and I would have given all of Boucher (boo-sh.) for a single nude of Rubens." As life advanced he cared

less for Rubens, but Michael Angelo and Poussins remained his life long favorites. There is much in his works that suggests both—Poussins' sober coloring and absence of sensuous quality and Michael Angelo's ruggedness and strength of line.

Soon Millet became a pupil of Delaroche. In Delaroche's (del-ä-rosh) studio he was very quiet and made no advances to his fellow pupils. They teased and joked him, but when they went too far the young Hercules threatened to answer with his fists and they let him alone, nicknaming him "l'homme des bois." They did not understand his way of drawing and did not believe that this "man of the woods" would ever "arrive." "Eh," said they, "are you going to make men and women on your own plan? The master will not be pleased with your work." He replied, "I did not come here to please anybody. I came here because there are casts and models here to study from. Do I find fault with your drawings, made of honey and butter?"

Here I may say that the return to the study of nature, which had been the glory of the Renaissance, practically died with Michael Angelo, and after that falseness and artificiality crept into art, and at the time Millet went to Paris there was an artificial academic way of painting that was an abomination to Millet who had been Nature's own pupil in the fields at Grouchy.

Millet soon left Delaroche's studio, accompanied by a fellow pupil, and they took a little third storey room and went to work for themselves. The money given by the citizens of Cherbourg was now spent and he tried to sell his pictures, but nobody would buy. He was driven to paint signs or anything that would bring him the needed coin. If it had not been for his fellow student, Marolle, who stood between this shy child of Nature and Paris, Millet would probably have succumbed to the trials which burdened him then. Later, Diaz, (dee-as) Rousseau (roo so) and Sensier became his friends and did all they could for him, but want was ever hovering near.

During the ten years subsequent to his leaving Delaroche's studio, Millet married twice; first to a beautiful, delicate girl who was inclined, like himself, to look on the dark side of life and who succumbed to her burdens about three years after their marriage. He married again a strong cheerful woman who courageously stood by him till his death. The world never fails to hear of its great

men, but how often the women, to whom the world so often owes its great men, are never heard of. But when God awards the laurels, these women will take no second place.

Millet found that he dared not paint as he wished while his children needed bread; he must paint what people would buy. Necessity and his facility in painting flesh and the nude drove him for a time to the limits of propriety. Reports of an exhibition of some of his pictures reached Grouchy and his grandmother wrote, "Follow the example of the man of your profession who said, 'I paint for eternity;' for no cause whatever permit yourself to do evil works or lose sight of the presence of God." Later he said to his wife: "If you wish I shall never paint any more nude pictures. But life will be harder; you will suffer from it, but I shall be free to accomplish that which I long to do." She replied simply, "I am ready; do as you wish." He left unfinished a picture of Hagar and Ishmael and began "The Haymakers." His family increased and life drove him hard, "But I could have forgotten it all," he said, "if I could once in a while have seen my native place."

The salon (sal-ong) at Paris systematically snubbed any artist who dared to imitate nature, and Millet's pictures were rejected. He however managed to sell "The Haymakers." Cholera had attacked Paris and hearing of Barbizon he went thither. We are told that when he arrived at Chailly he and his family set out across the fields to Barbizon in a rainstorm, he carrying his little girls on his shoulders, his wife following with an infant in her arms which she sheltered from the storm by turning up her skirt over it. A maid brought up the rear with a basket of provisions. A peasant woman who beheld the procession took them for strolling actors. They found an unoccupied, one storey, three roomed peasant house, rose and vineclad, with a garden behind; this they rented, and it became their permanent home. Millet never owned a home of his own, though he longed for one. The two-floored rooms of the house he rented were occupied by the family, the third, having only a mud floor, was his studio.

Sensier tells us that Barbizon filled Millet with enthusiasm, and for a time he was in such a state of excitement that he could not paint. He felt his feet again on God's fresh earth; he became again a peasant.

After quieting down he proceeded to paint the scenes about him,—sawyers at work on gigantic

trees, wood gatherers, charcoal burners, quarrymen worn with toil, poachers on the scent, stone breakers, ploughmen, etc., and each scene he sketched in a day-sometimes in a few hoursusing them later in his compositions. Here he was at home with the school of artists growing up at Barbizon, the artists who introduced into modern landscape painting the poetry of a new ideal, and whose works are still the honor of modern landscape painting. And Millet was one of them-Millet with his pure ideals, clear brain and powerful hand. He celebrated his own daily life and work as a peasant, and was no revolutionist as some suspected. The peasant represented to him the clearest type of the human family atoning for primal sin. And if before a painting of Millet's we are shocked by its roughness and unusualness, if, we try to forget our littlenesses and traditions and look backward over the languages of human toil and endeavor, we will surely come back to Millet and say, "He understood."

"The cry of the earth," he said, "is not of my invention. 'Thou shalt earn thy bread by the sweat of thy brow' was uttered centuries ago; who may change it?"

When accused of not seeing the beautiful side of country life, he said, "I know that there are handsome men and maidens in our villages. I see and love the trees and the flowers of which Christ said, 'Solomon in all his glory was not arrayed like one of these,' but look at the laboring horses steaming on the plain, look at the broken backed man who is trying to straighten himself upright for a moment in order to breathe and wipe the sweat from his brow on the back of his hand. Look at that poor woman all bent, who is dragging herself painfully along under a bundle of fagots—are these the gay and merry laborers in which people would have me believe? It is the human side that presents itself to me. I have never known the joyous side."

And yet he was happy in his own home. When weary or baffled in his poor little studio, he would open the door, and the tired artist would become a child among his children, weaving fantastic stories for them.

But he began to suffer from violent headaches—sometimes for days, sometimes for weeks—supposed to have been brought on by working in his ill-lighted studio. When he found the headaches coming on he could sometimes ward them off by rushing away to the fields and forest. The fresh air revived him and he would climb rocks and

amuse himself with childish joy, clad in an old red jacket, with sabots on his feet and a weatherbeaten straw hat on his head. "I do not know anything more delightful," he said, "than to lie on the heather and look up at the sky."

To be concluded in May.

Notes—The name of Delacroix was not intended to be among the names of Barbizon artists mentioned in the February issue of the Review. In the art world of Paris, about 1830, there was a revolt against the classicism of the schools. The revolters were all alike in that they wished to study from nature, but they generally arranged themselves into the realists who strove to be absolutely faithful to nature, like the Barbizon school, and the romancists, of whom Delacroix was leader, who thought that it was better to idealize more or less.

A. M.

#### Picture Study Queries.

M. Mc.; Albert Co.—Best thanks for your composition. Certainly the lark does not care very much for trees, but I was not aware its claws were too straight for perching on branches. You may be right however. Perhaps you can tell who wrote the lines quoted:

"O shame to let a little bird Thus get the start and first be heard; Come, then, and let us tune our throats And join its song with grateful notes."

JEANNIE.—There is a valuable article on Bird music in Harper's Magazine, August, 1902, by H. W. Oldys. After giving an illustration of the duet of meadow-larks, he states, "both began singing slightly out of tune, and in a short time, by gradual degrees, they had exchanged parts, so that No. 1 sang the phrase originally sung by No. 2 while No. 2 sang that originally uttered by No. 1"—a remarkable incident.

S. M. R.—Remember it is not possible to estimate the full effect of a great colorist's work, when one knows only reproductions in black and white. The district was not so barren as you suppose. Millet declared the country— "so beautiful, that he never thought of Jescribing it."

A. P.—Thank you for your notes. I believe the bird is indifferently called, "common lark, field lark, or sky lark. It is not found in Canada in the wild state. The bird in France is probably like the British. They all come originally from Asia.

A. S. McF.—It would take too much space to enter into the philosophy of art. Dr. J. C. Van Dyke says "The highest art of all, then, is that which consists in the expression of one grand idea with such force that every other thing is forgotten

in its contemplation." Breton's picture would be good even if there was no lark, or if the picture received other titles. (See Psalm 104, 23.) That girl is competent and determined and cheerful. Pity would be more appropriate for a poorly-clad, ill-nourished 'hand' in a factory.

Musical.—'Music and Youth' is now defunct, I believe. There were supplements in Sept. and Oct. 1900, giving illustrations of voices of nature. Request a musical friend to give you a portion of Beethoven's Pastoral symphony. Look up references in your Bible to the "joy of harvest."

ARCADY.—Hogg, I believe, has a poem on the skylark. The words you refer to are by Shelley. I cannot say where you can find them.

"The pale purple even
Melts around thy flight;
Like a star of heaven
In the broad daylight
Thou art unseen, but yet I hear thy shrill delight."

W. M. M.—Jules Breton also wrote poetry.

Sir Lewis Morris wrote a brief poem, Morning Song. If you think our picture represents Sunrise the words by Morris are more suitable than Shelley's.

"Aloft on circling wings
The mounting skylark sings,
A denizen of air, scorning terrestrial things."

MABEL.—A picture must deal with *one* moment only. There is no progression as in poetry.

T. L.—She behaves as an innocent healthy girl should who loves work, and is in harmony with nature. Not the sight of the lark, but its song controlled her.

H. B.

Waweig, N. B.

#### How One Teacher Used the Picture "Saved."

The primary school taught by Miss Maud A. Williams, Harvey, York County, N. B., was successful in winning the prize offered by Rev. Hunter Boyd for the best set of questions on the picture "Saved" that appeared in the February Review. In the hope that such questions may be suggestive to other teachers a few of them are given here:

- 1. Each one name something you see in the picture.
- 2. What do you like best of all in the picture? (In nearly all cases the dog).
  - 3. What has the dog done?
  - 4. How does the dog feel? (Tired but contented).
  - 5. What do you suppose he is thinking of?
- 6. Do you think that the child and the dog were strangers or friends? Wny?

- .7. What is on the dogs paws?
- 8, How did the child get there?
- 9. (For imagination) What name shall we give the child?
  - 10. And how old may she be?
  - 11. How old may the dog be?
  - 12. And what name shall we give him?
  - 13. Why is the dog's mouth open?
  - 14. Where are the child and the dog?
  - 15. How many birds are there?
  - 16. What kind of birds are they?
  - 17. Is the water a river, a lake or the sea? Why?
  - 18 Who painted the picture?
  - 19. Mention another picture of his?
  - 20. Tell something about him?

The teacher adds: "I used the picture in composition work, allowing the children to write its story. Two little girls thought the dog had saved the child from a burning building, the others thought it had been saved from the water. I also allowed the children to write some questions about the picture, and these brought up other points. I have used it as a means of training their memory, by turning its face to the wall and getting them to write all in the picture they could remember. I used the picture to improve their language, both oral and written, their imagination and memory.

"It pleases me to have the children take so much interest in their pictures. All children love pictures and it is just as easy—and so much better—to have them acquainted with good ones rather than poor ones."

#### Art Notes .- No. V.

REV. HUNTER BOYD.

This month the choice of subject does not call for minute analysis such as we have followed with other pictures, but it affords very great pleasure to examine reproductions of the work of a Canadian artist.

One of the busiest men in the Dominion is Sir William Van Horne, who, in addition to the laborious results he has achieved in railroad construction in Canada and Cuba, is also director of a score of great concerns, and yet has found time to collect some of the choicest art treasurers to be found on this continent. Not only so, Sir William is an artist himself. Sir Martin Conway says of his collection; "In all of these there is merit; the collector has a definite taste of his own, and buys to satisfy it. more than that he paints pictures himself, and pictures of no indifferent merit. He paints with an enthusiasm as great and an energy as persistent as those which carried the iron rails across the continental breadth of Canada. His trees are not inventions, but old friends. He knows a whole army of them between Montreal and Vancouver, and can draw the likeness of any one you ask for. It is in their Autumn livery that he loves them best, or rising naked out of the snowy mantle of Winter. These pictures of his are no niggled amateur productions done on a tiny scale but large canvases boldly handled. The composition is sometimes sketched apparently in ink, rapidly laid in with a large brush on the canvas itself. Few people understand the individual character and life-habit of trees better than Sir William; yet there is nothing of the scientific diagram about his pictures of them, whilst in their grouping, their lighting, and their colour, there is much art."

The two points specially insisted upon by Sir Martin Conway are admirably illustrated in the copies kindly furnished for the Review—the Autumn livery, and the snowy mantle of Winter.

It is one function of a poet or artist to enable us to discern beauty where we have failed to recognize it, and we are specially prone to overlook the beauty of beeches and birches in the period between October and April. We are glad to see the new leaves, and rejoice in the mature foliage with its possibilities of light and shade, but the delicate tracery of tree anatomy is for most a late acquisition, the pleasure of a quiet eye.

On the treatment of forest trees, and foliage by artists it may be well to consult Ruskin; Modern Painters, part II. of truth; section VI., chapter I., of truth of vegetation. Encourage the scholars to observe beeches and birches at this season, and sketch or draw from memory specimens near the school-house or any trees for which they have special fondness. Endeavor to procure a series of poetic allusions, or particulars of characters, historical or otherwise, who had these trees for their favorites.

The botanical characteristics are not called for by this study, but endeavor to evoke discussion on the symbolism of the trees; also enquire concerning the music of these trees, and compare the pine and elm. What do they say to us?

When I bought my farm I did not know what a bargain I had in the bluebirds, bobolinks, and thrushes, which were not charged in the bill. As little did I guess what sublime mornings and sunsets I was buying, what reaches of landscape, and what fields and lanes for a tramp. Neither did I fully consider what an indescribable luxury is our Indian river, which runs parallel with the village street, and to which every house on that long street has a back door which leads down through the garden to the river bank.—Emerson.

#### April Birthdays.

William Shakespeare, the world's great literary and dramatic poet, was born at Stratford-on-Avon, Warwickshire, England, April 1564—on the 23rd of that month, it is supposed. His father, John Shakespeare, was of the yeoman class; his mother, Mary Arden, was of a family of the minor gentry. Little of certainty is known of Shakespeare's early life. He was doubtless educated at the Stratford grammar school. He soon left his native place to seek his fortune in London where most of his plays and sonnets were written. The following extracts may serve to show what other literary men thought of him:

If I say that Shakespeare is the greatest of intellects, I have said all concerning him. But there is more in Shakespeare's intellect than we have yet seen. It is what I call an unconscious intellect; there is more virtue in it than he himself is aware of.

—Carlyle.—Essays.

He was not of an age, but for all time!

-Ben Jonson.

When Shakespeare is charged with debts to his authors, Landor replies, "Yet he was more original than his originals. He breathed upon dead bodies and brought them into life."

—Emerson.

Now you who rhyme, and I who rhyme, Have not we sworn it, many a time, That we no more our verse would scrawl, For Shakespeare he had said it all!

-R. W. Gilder.

But Shakespeare's magic could not copied be;
Within that circle none durst walk but he,
—Dryden.—The Tempest.

April 23, 1799.—Sir William Edmond Logan, born at Montreal, graduated at the University of Edinburgh in 1817; was director of the geological survey of Canada 1842-69; published valuable reports and scientific papers and accomplished results of signal importance in the geology of Canada.

April 25, 1599.—Oliver Cromwell, born in Huntingdon, England. Had a limited education; in the Short Parliament of 1628 he made but one speech (a pattern for modern legislators), and during the eleven years' prorogation devoted his time to the cultivation of his farms. He was the chief leader of the Parliamentarians against the King; became Lord-protector of England, 1653.

April 30, 1834—Sir John Lubbock, born in London; educated at Eton, became interested in ethnology and natural science to which he devoted the remainder of his life. His researches on British wild flowers in relation to insects, and on ants, bees and wasps, are among the most popular of his works.

#### The Course of Study—A Criticism.

EDITOR EDUCATIONAL REVIEW:

Dear Sir:—I want to express the pleasure with which I read the suggestive discussion and intelligent criticism of our school work by S. D. Scott in the March number of the Review. In common, I believe, with the great majority of teachers I endorse all that Mr. Scott says, and my only regret is that circumstances make it impossible, in some instances, to carry out his very reasonable suggestions. For example he says, "It would seem possible to arrange a system which would grade a child in some subjects and to leave him to take the others over again with his old class. The grading might be to some extent by subjects, and not by a level standard covering the whole range. That is exactly what would happen in an ungraded country school where a pupil is carried along in each subject as fast as he can get ahead in it." Mr. Scott is quite right with regard to the ungraded school, for in this particular such a school is aided by its very limitations. As there is only one teacher a pupil may study while the teacher is engaged with that pupil's class-but in a subject which the pupil does not desire—and join another class of a higher or lower grade when the same subject is being dealt with in that higher or lower grade. But in a large, wellgraded, well-manned school this is different. While neither teacher nor school authorities object to a pupil from one grade taking a class or classes with any other grade the pupil finds it impossible to do so without losing some other class which he wishes to take. For example, suppose a lad registered in grade eleven is backward in Latin and geometry. He may wish to take Latin with grade ten and geometry with grade nine, and no one objects to his doing so. But as different teachers take the different subjects, at the time when his own grade eleven class comes to the classical master he cannot leave it and slip into the grade ten Latin class for at that moment no such Latin class, is in progress and the grade ten class is in the mathematical or some other room. Neither can he slip into the grade nine geometry class for the grade nine class is probably at science, geography or drawing. But when the Latin master is doing the work of grade ten or the teacher of mathematics the geometry of grade nine can the lad not leave his own class then and join one of these? He undoubtedly may, but in doing so he will lose the English, the history, physics, or some other subject which will go on in

grade eleven at the very hour and which he does not wish to lose.

If all or a large number of pupils required to take the same subjects in a higher or lower grade than their own then the teaching staff could do much to arrange the time-table to accommodate them. But as the special cases are exceedingly varied it is impossible, without greatly lengthening school hours or multiplying the number of teachers, to do much to solve the problem. Thus it will be seen that the difficulty is not with the course of study nor with the teaching staff but rather with the conditions under which the best work is being done.

W. T. KENNEDY.

#### Criticism of P. E Island Schools.

Mr. Theodore Ross, director of the Macdonald Rural Schools in Prince Edward Island, writes as follows: "Perhaps the severest arraignment of our educational system that it has yet met with from the public platform, was that made by the Hon. S. E. Reid, Commissioner of Agriculture, in an address delivered before the Annual Convention of Farmers' Institutes. This is only the beginning of an educational campaign undertaken by the farmers of this province on behalf of a system of education that shall articulate more closely with our industrial needs." The following is a portion of Hon. Mr. Reid's address:

Our people provide generously for a training in languages that induces the boys to enter the professions leaving parents in their old age to look after the old farm. We give more attention to Latiu in our only high school than we do to agriculture, botany and physical geography combined. We spend yearly on this school that devotes more than one-third of its energies to the teaching of languages alone, a large sum. We spend annually half of our revenue on our public schools which are so conducted that the tendency is away from the farm, rather than towards it...

You support a system of public schools at a cost of \$166,000. There your children shall toil or be supposed to toil, but there they shall learn little or nothing of that you will most want them to know, directly they leave school and enter upon the practical business of life. They will in all probability be dairymen but they will not know the difference between a dairy cow and a beef cow, or whether milk is soured by witches or by bacteria. They will have the feeding of cattle but will not know what is a proteid or what is a carbohydrate or whether a cow should be fed all she will eat or just what will keep her alive. They will have the sowing of seeds but will have no means of knowing whether they are sowing timothy seed or sowthistles, they will have the reaping of harvests but no means of anding out why they get twenty bashels instead of forty. Some of them will represent you in parliament and have a share in making laws that may prove a blessing or a curse. But they do not hear one word about the political organization of our country, or the meaning of free trade or protection, or know there is such a thing as economic laws....

Can a system that neglects all these things be the best suited to a country that depends entirely on agriculture?

#### A Suggestion

A subscriber, once a teacher, now pursuing a different line of work writes: "The idea of sending prints of celebrated paintings is one of the grandest I think you have ever adopted. Were I teaching again I could make a dozen different uses of them. Would it not be a good idea to propose some subject and ask, particularly the teachers of miscellaneous schools, to give an outline of their method of teaching it to their particular schools and the manner in which it was accepted? Then if you could publish two or three of these in a clear concise form don't you think it would benefit those teachers who find little time—and money too—to attend the Normal Schools? In my experience with country schools when first teaching I would have welcomed such Wishing you still greater success with your paper and your work,"

E. S. C.

[The series of questions on another page on the picture "Saved" anticipates our subscriber's suggestion to some extent, but there are greater possibilitiess in it to which attention may be given as the work goes on.—Editor.]

#### A Persevering Student

There's a merry little student, in a suit of brown and gray, Who says his single lesson o'er a thousand times a day; He studies well the alphabet from early dawn till night;—He knows one letter only, but he always says it right. He cannot take his lunch to school as children often do, But when he's feeling hungry, he will eat a bug on two; And then without a single word about A, B, or C,—Recites the same old lesson, "Chick-a-d-d-d D."—Hannah G. Fernald, in Ginn's New Second Music Reader.

#### A Picture of a Tree

The other never once has ceased to gaze
On the great elm-tree in the open, posed
Placidly full in front, smooth bole, broad branch,
And leafage, one green plenitude of May.
The gathered thought runs into speech at last.
"O you exceeding beauty, bosonful
Of lights and shades, murmurs and silences,
Sun-warmth, dew-coolness,—squirrel, bee and bird,
High, higher, highest, till the blue proclaims
"Leave carth, there's nothing better till next step
Heavenward!"— So, off flies what has wings to help!"
From The INN ALBUM.—Robert Browning.

#### Nature-Study Calendars.

A letter from Principal D. W. Hamilton of the Macdonald Consolidated School, Kingston, N. B., gives an interesting account of the Nature-Study work attempted by the pupils in addition to that done in the garden. He writes: "Nearly all our pupils keep bird and flower calendars, and quite a number have weather records. The weather record I am sending is a copy of one kept by Wilbur Crawford, a grade 8 boy. He has it complete since January 1, 1905. In each school room there is a bird calendar and a flower calendar. The bird calendar I am sending is a copy from the advanced department calendar. The flower calendar is from Miss Darling's room, grades 3, 4 and 5. It was made by Lulu Crawford, a grade 3 pupil."

Extracts are given below from these calendars in the hope that they may suggest to other teachers the usefulness of this work and the effect it may have on boys and girls in teaching them to observe and in giving them a greater interest in their surroundings. There is only space for a few lines of each

calendar, but this is sufficient to show how the work is done.

#### WEATHER REPORT.

Day	Date	Time	Tem. Fahr.	Winds	Snew	Rain	Fog or Mist	Clouds	Hrs. of Sun Shine	Sun Rises	Sun Sets	Мөөп	Remarks
S-1	1905. April	9.30 A. M.	20	Const		×	N.	15	0	# #O	6.49		
Sat.	L		36 + Warm	South Med.				Heavy	U	5.58	6.43		
Sun.	2	4.6	25+ Cool	N. W. Med,	6.6	* *		4.4	2	5.56	6.44		
Mon.	3	6.6	30 + Cool	N. W. Med.	6.6	4.6	4.6	Med.	5	5.54	6.46		
Tues.	4	ŧ 6	40 + Warm	South very light	6.6	6.6	44	44	1 ½	5,52	6 47	New Moon	
Wed.	5	66	37 + Warm	S. E. light	**	Light		Heavy	0	5.50	6.48		
Thurs.	6	6.6	45+ Warm	S. E. Strong	e 6	+ 6	Light Mist	16	0	5.48	6.49		
Fri.	7	66	35+ Warm	South very light	46	None	None	Med.	81	5.47	6.51		

#### BIRD CALENDAR.

Date	Bird	Plumage	Habits, Etc.	Reported by
1905	1		1	
Mar. 3	Old Tom Poabody	White patch on throat, striped		
		head, dark back	Says "Old Tom Peabody"	Lulu Kelly
" 10	Juneo	Slate colour, light breast, two outer		v
			Tame	Louis Gard
. 23	Tree Sparrow	Brown head, dark spot on white		
		breast	Sweet, musical song	Millie Northruj
" 27	Blue Heron	Bluish color		
		Blue and brown		
		Reddish color		
		Brown head and light breast		
		Brownish and shows white tail		•
			Good singer	Ethel Thomson

#### WILD FLOWER CALENDAR.

Common Name	Date	Family	Description	Pupil
Spring Beauty Dog's Tooth	28 April.	Purslano	Flowers pink or white	Williston Carmichael
Violet	29 "	Lily	Vellow flowers, lily shaped	Hazel Wetmore
Crillium (purple)	29 "		Flower purple, 3 leaves, whorled	Williston Carmichael
Maple (red)		Soapberry	Red flowers in eluster	Grace Shamper
Dutchman's Breeches			White, two spurs on flower	Jessie Hunt
Violets (blue)		Violet	Flowers blue, one spur	Jessie Hunt
Dandelinn		Composite	Flowers yellow, in heads	Jessie Hunt
Bluets	4 "	Madder	Flowers blue and white, small	Ethel Cochrane
Anemone (wood)		Crowfoot	Flowers white	Jessie Waddell
Goldthread		Crewfoot	Flowers white, stems yellow under	
			ground	Elsie Sterritt

#### The Adventures of Ulysses

(Continued)

#### Charles Lamb (1775-1834.)

NOTES BY G. K. BUTLER, M. A.

He was educated at Christ's Hospital where he remained until 1789. Among his school-fellows was S. T. Coleridge. In 1792 he entered the East India Company's service where he remained for 33 years and often used to say that the books he kept there were his real works. His sister, Mary, became insane and he was obliged to care for her for the rest of her life, though she often recovered her reason. In 1807 she joined him in the "Tales from Shakespeare," and in 1808 he published "Ulysses." His "Essays of Elia" was published in book form in 1823. In 1825 he was given a pension of £450 a year by the East India Company.

His style is said to be much affected by his constant study of the Elizabethan writers. His one weakness was an indulgence in tobacco and liquor to a considerable extent.

Page 113. l. 4: "Raise your mast," in ancient, i. e., in very ancient, times the part played by sails in the navigating of a ship was very small. The mast, on arriving in port, was unstepped and laid on a rest at the stern. Even in the time of the Romans the war ships depended on rowers. (See "Ben Hur.") 1. 8: We have here the names of four of the rivers of Hades. Styx was the river which surrounded the lower world. Even down to the present time death is often spoken of as the crossing of a river, though Christianized people speak of it as the Jordan. 1. 38: Neptune was the Latin name of what Greek deity? (See notes for March.)

P. 114. I. 17: What figure of speech in the expression "Ulysses' soul melted"? What is the meaning? I. 20: Those who have read the sixth book of Virgil's Aeneid will remember a similar situation in it. I. 29: On the subject of Œdipus, Sophocles, the great Greek tragedian, wrote three plays. One, the Œdipus Tyrannus," was the greatest ever written, if we may believe Aristotle. And so it was probably till Shakespeare's time. I. 34: Castor and Pollux figure in Macaulay's "Lay of Lake Regillus." Helen it was who caused the Trojan War as she was stolen, perhaps willingly, by Paris, son of Priam, King of Troy.

P. 115. I. 6: "Orion" as the story goes, was taken up and placed among the stars. At any rate our most brilliant constellation bears his name.

I. 13: For more information concerning Ariadne read Kingsley's "Heroes," especially Theseus.

I. 16: Parse "that late." What word do we use in place of late?

I. 21: Meaning of the word "im-

mediately?" On Agamemnon, his death and its consequences, we have the great Greek trilogy written by Æschylus.

P. 117. l. 14: "The wooden horse" is among the most famous things of ancient times. Its story at greater length may be found in the second book of the Æneid. l. 24: What is the meaning of the word "machine" as found here? Look up the derivation of the word. Also if possible the meaning of the phrase "deus ex machina," which is so often found in literature. l. 31: Meaning of the word "shade" as here found? What other words have we with same meaning? Some of them are English, some Latin, some Greek in their derivation. l. 39: Give a synonym of "emulation."

P. 118. Is. 20, 21: Here is a chance to show the difference between Christian theology and the theology of the Greeks as to a future life; for they too, believed in the immortality of the soul. Compare the Valhalla of the Saxons.

P. 120. I. 10: Parse "needs." I. 12: Usual word for "invitements?" I. 31: A full account of the "Argo" and its voyage will be found in Kingsley's "Argonauts." I. 38: The Octopus when its horrors have been enlarged by story and fable may have been the foundation of the tales concerning Scylla. Compare the many stories we read and hear in modern times about the sea serpent.

P. 121. There is also a famous whirlpool on the coast of Norway. In both cases caused by the ebb and flow of the tide. 1. 27: What would you call "fore wind?" 1. 29: How far, in miles had they sailed?

P. 122: In the sentence "the more be adjured them, etc.," parse the word "the." (It is an adverb of degree.)

P. 123. l. 24: Meaning of "like neen." Give an adverb with the same meaning. 1. 30: What does "idle death" mean? 1. 36: What is modern name of "foredeck"?

P. 125. l. 14: Parse "this." l. 18: Parse "night." l. 23: What figure of speech in "attempt the blood?" l. 25: Very often in Greek poetry do we meet with the sun addressed as the all-seeing God. l. 27: The ancients were much more afraid of head winds than the navigators of more modern times. If any one has a copy of Kinglake's "Eothen," he will find a fine satire on the slowness of navigation in the Mediterranean. l. 34: Meaning of the word "stay" as found here?

P. 126. 1. 38: Find meaning of "prodigy."

P. 127. l. 3: Look up meaning and derivation of

the word "omen;" another word with much the same meaning is "portent." 1. 15: Parse "days." 1. 16: What sort of a phrase is, "the wind changing?" 1. 20: What is the meaning of "devoted" in this line? Look up its derivation. 1. 24: "Bark" is here used as we use "vessel." 1. 25: Meaning of the word "wanting?" 1. 29: I have the misprint "sea-news." What is correct and what are they?

P. 128. l. 29: What part of speech is "scarce?"
P. 129. l. 20: In the story of Perseus it will be remembered that Mercury lent him the winged sandals. l. 23: The "Lessons on English" tell us that "stay" has a certain meaning and "stop" another. Does this use of the word justify that? Consult a good dictionary. l. 36: Homer's adjective applied to "morning" is "rosy-fingered." Diana was known to the Greeks as Artemis.

P. 130. 1. 8: Parse "killing." 1. 17: What figure of speech is "drowned in discontent?"

P. 131. 1. 57: This book spells "Augur;" is it right or wrong? What is an "augur?" 1. 8: Is there a reasonable time allowed for the building of the bark? 1. 21: "Goodly"; find this word used elsewhere in the reader. 1. 28: I think it was Gladstone who said of the "Bear," "hight to boot the Wain." Why does the "Dipper," as we call it never set?

P. 132. l. 6: Parse "son." What case is it? Why does it not have the apostrophe? l. 7: What figure? l. 8 et. seq: A storm something similar to this befell Æneas and is described in the first book of the Æneid.

—There are twelve good rules which every girl and boy should master before they reach the age of fifteen:

Be courteous to everyone, whatever his or her station in life.

Shut the door and shut it softly.

Keep your own room in good order.

Have an hour for rising and rise.

Never let a button stay off twenty-four hours.

Always know where your things are.

Never let a day pass without doing something to make somebody comfortable

Never come to breakfast without a collar.

Never go about with your shoes unbuttoned.

Speak clearly enough for everyone to understand,

Never fidget or hum so as to disturb others. Never fuss or fret.—Sel.

#### Problems in Arithmetic-Grade VIII.

G. K. BUTLER, M. A.

- 1. Oil which sells at the rate of 5 liters for 25 cents makes a gain of 25 per cent; find cost price per gallon.
- 2. A druggist buys 60 kilograms of drugs @ \$1.20 per kilogram and sells @ 10c. an oz. apothecary; find gain.
- 3. An article which cost \$80 was marked 30 per cent above cost and was sold at its marked price for how much?
- 4. The selling price was \$60, the gain was 20 per cent; find the cost price.
- 5. A house which cost \$3,000 was insured so as to cover the value of the house and the cost of insurance if burned. At how much was it insured, the premium being two per cent.
- 6. A commission merchant receives 600 barrels of apples which he sells @ \$4.25 per barrel on three per cent commission. He invests proceeds at two and a half per cent. How much commission does he receive in all?
- 7. A note of \$600 dated May 3rd at 90 days and bearing four per cent interest was discounted May 23rd at seven per cent; find proceeds.
- 8. A room is 20 feet long, 15 feet wide and 12 feet high; find cost of plastering walls and ceilings at 25 cents a square yard.
- 9. Find cost of paper for the same room at 25 cents a roll when the paper is 18 inches wide and the roll contains 7 yards (walls only to be papered.)
- 10. Find in ac., sq. rds., sq. yds., sq. ft., sq. in., the area of a trapezoid whose parallel sides are respectively 300 yards and 200 yards and whose altitude is 400 feet.
- 11. How many gallons in a cylinder whose basal diameter is 10 decimeters and whose height is 20 decimeters.
- 12. The amount of a sum of money for four and a half years at five per cent simple interest is \$306.25; find the sum.

Answers.—(1) 18 cents; (2) \$120.90; (3) \$104; (4) \$50; (5) \$3061.22; (6) \$76.50+60.34=\$136.84 (7) Amt.=\$606.12; proceeds \$597.63; (8) \$31 2-3; (9) \$6 2-3; (10) 6 ac. 141 rds. 28 yds. 108 inches; (11) 345.733; (12) \$250;

The Review is a great help to me in my work in this country school, and is full of encouragement. I think that is what many of our teachers need.
—Subscriber.

#### The Forests of Canada

In the elementary course of the Natural History Society of New Brunswick last evening, George U. Hay gave an extremely interesting and instructive talk on Forest Conditions of Canada from the Atlantic to the Pacific. The lecturer having made the complete trip, and in his usual careful manner investigated the various forms of plant life, spoke entirely from his own experiences.

In the course of his remarks Dr. Hay referred to the mixed growths of evergreens and deciduous trees that clothe the ridges and plains in the eastern section of Canada, and stated that from the western end of Lake Superior through the almost treeless prairies to the shores of the Pacific a great change was noticed in the flora, none of our fine species of maple being observed. This led him to say that our maple was not really a suitable emblem for all Canada.

In the prairie districts, along the streams and rivers, were observed poplar, or cottonwood, willows and box-elder, or Manitoba maple, and a few birches. It was stated that on account of their presence in all parts of the country, the canoe birch, Jack pine or white spruce would be more suitable as an emblem of all Canada.

Reference was made to the importing and planting of Siberian and other exotic species of trees in the "treeless west," among them being the flowering pear and Siberian pea.

A highly interesting description of the flora of the Rockies, Selkirks, Gold Range, Cascade and Coast Range mountains was given. The giant Douglas fir, white spruce and red cedar (the first sometimes attaining a height of three hundred feet) of British Columbia, were described, and the statement made that one acre of British Columbia forest had produced as high as 500,000 feet of lumber. The timber cut from one enormous Douglas fir or red cedar would yield about as much as an acre of our timber lands.

Dr. Hay described the fine natural park at Vancouver—Stanley Park—where these giant trees may be seen for ages to come, long after their fellows have been destroyed,—for fire and the lumbermen are fast depleting the forests of the west, as they have done the east. The experimental farms at Ottawa, Brandon and Agassiz were referred to, and much valuable information given regarding their practical utility in the agricultural development of Canada.—Newspaper Report, March 21.

#### The Coming of Spring

An exercise for a number of children. The Hours are the Goddesses of the Seasons. —Selected and Adapted.

#### Hours .-

Come, gentle spring; ethereal mildness, come!

—Thomson.—Seasons.

#### First Voice .-

Hark! the hours are softly calling
Bidding Spring arise,
To listen to the rain-drops falling
From the cloudy skies.
To listen to Earth's weary voices,
Louder every day,
Bidding her no longer linger
On her charm'd way;

But hasten to her task of beauty Scarcely yet begun.

-Adelaide A. Procter.-Spring

#### Second Voice .-

I wonder if the sap is stirring yet,
If wintry birds are dreaming of a mate,
If frozen snowdrops feel as yet the sun,
And crocus fires are kindling one by one.

—Christina Rosetti.—The first Spring Day.

#### Third Voice .-

O tender time that love thinks long to see,
Sweet foot of Spring that with her foot-fall sows
Late snow-like flowery leavings of the snows,
Be not too long irresolute to be;
O mother-month, where have they hidden thee?

—Swinburne.—A vision of Spring in Winter.

#### Fourth Voice .-

The Spring's already at the gate
With looks my care beguiling;
The country round appeareth straight
A flower-garden smiling.

-Heine.-Book of Songs.

#### Fifth Voice .-

Softly came the fair young queen
O'er mountain, dale, and dell;
And where her golden light was seen
An emerald shadow fell.
The good-wife oped the window wide,
The good-man spanned the plough;
'Tis time to run, 'tis time to ride,
For Spring is with us now.

-Leland.-Spring.

Enter Spring with train of flowers.

#### String -

I come. I come! ye have called me long, I come o'er the mountain with light and song; Ye may trace my step o'er the wakening earth, By the winds which tell of the violets birth, By the primrose stars in the shadowy grass, By the green leaves opening as I pass.

-Mrs. Hemans.-Voice of Spring.

All.-

Welcome Spring!—in sunshine clad
Well dost thou thy power display!
For Winter maketh the light heart sad,
And thou,—thou makest the sad heart gay.
—Longfellow.—Translation from the French.

Snow-Drop .-

I am a little snow-drop
"The morning star of flowers."

-Montgomery-The Snow-drop.

Spring .-

Nor will I then thy modest grace forget, Chaste Snow-Drop, venturous harbinger of Spring.

-Wordsworth.-To a Snow-Drop.

Violets .-

We are violets blue,
For our sweetness found
Careless in the mossy shades,
Looking on the ground,
Love's dropp'd eyelids and a kiss,—
Such our breath and blueness is.

-Leigh Hunt,-Violets.

Spring .-

Welcome, maids of honor, You doe bring In the spring And wait upon her.

-Herrick.-To Violets.

Dandelions .--

Upon a showery night and still,
Without a sound of warning,
A trooper band surprised the hill,
And held it in the morning.
You were not waked by bugle notes,
No cheer your dreams invaded,
And yet at dawn, our yellow coats
On the green slopes paraded.

-Helen Gray Cone.-The Dandelions,

Spring.

Dear common flowers, that growest beside the way, Fringing the dusty road with harmless gold First pledge of blithesome May

Which children pluck, and, full of pride, uphold.

-Lowell, -To the Dandelion.

Primrose.-

Ring-ting! I am a little primrose,
A pale-yellow primrose blooming in the spring!
The stooping boughs above me,
The wandering bee to love me,
The fern and moss to creep across,
And the elm-tree for my ring!

—Wm. Allingham.

Spring .-

Welcome, pale primrose! starting up between Dead matted leaves of ash and oak that strew The every lawn, the wood, and spinney through. 'Mid creeping moss and ivy's darker green; How much thy presence beautifies the ground! How sweet thy modest unaffected pride Glows on the sunny bank and wood's warm side.

-John Clare.-The Primrose,

Hours .-

It is the season now to go About the country high and low, Among the lilaes hand in hand, And two by two in fairy land.

-Robt, Louis Stevenson,-Underwoods.

#### Hiawatha's Canoe

For five boys; Hiowatha dressed in Indian costume, the others corrying branches of the trees they represent, and which they cause to move os indicated.

Hiawotho .-

"Give me of your bark, O Birch-Tree! Of your yellow bark, O Birch-Tree Growing by the rushing river, Tall and stately in the valley! l a light-canoe will build me, Build a swift Cheemann for sailing, That shall float upon the river. Like a yellow leaf in Autumn, Like a yellow water-lily! Lay aside your cloak, () Birch-Tree! Lay aside your white-skin wrapper, For the summer time is coming, And the sun is warm in heaven, And you need no white-skin wrapper!" (And the tree with all its branches Rustled in the breeze of morning, Saying with a sigh of patience,)

Birch-Tree.-

"Take my cloak, O Hiawatha."

Hiarcatha.—

"Give me of your boughs, O Cedar!
Of your strong and pliant-branches,
My canoe to make more steady,
Make more strong and firm beneath me!"
(Through the summit of the Cedar
Went a sound, a cry of horror,)
Went a murmur of resistance;
But it whispered, bending downward).

Cedar Tree.-

"Take my boughs, O Hiawatha!"

Hiawatha.-

"Give me of your roots, O Tamarack! Of your fibrous roots, O Larch-Tree! My canoe to bind together,
So to bind the ends together.
That the water may not enter,
That the river may not wet me!"
(And the Larch, with all its fibres,
Shivered in the air of morning,
Touched his forchead with its tassels,
Said with one long sigh of sorrow)

Tamarack .--

"Take them all, O Hiawatha!"

Hiawatha.-

"Give me of your balm, O Fir-Tree! Of your balsam and your resin, So to close the seams together That the water may not enter, That the river may not wet me!" (And the Fir-Tree, tall and sombre, Sobbed through all its robes of darkness, Rattled like a shore with pebbles Answered wailing, answered weeping.)

Fir-Tree.-

"Take my balm, O Hiawatha!"

-Adapted from Longfellow.

#### The Call of Spring

Far down below, in the dark, damp ground,
A little seed slept sound, so sound;
Far up above, in the open sky,
Grey clouds floated gracefully by.

Down from the grey clouds up in the blue,
A raindrop fell, and trickled through
The hard brown earth, until it found
The little seed, that slept so sound.

Then over its face the raindrops sped,

And the seed awoke, and stirred in its bed,
"Come little seed, 'tis time to sprout,

For summer is coming, without any doubt."

"And spring has sent me," the raindrop said,
"To call you forth from your little bed;,,
Then the tiny sprout began to grow,
And a song in its heart to overflow.

To the beautiful world that was waiting above, Filled with sunshine, beauty and love; Hour, by hour, by night and day,

The little plant fought its upward way.

Eagerly stretching towards the light,
Forgot the rough way and darksome night;
At last it peeped the brown earth through,
Oh! the wonder that in it grew.

The sweet, soft air, and the song of the bird,
The voices of merry children heard,
With joy the little plant did bring,
His tribute of love to the beautiful spring.

-Selected.

Four quilts are ready to fold and spread On Mother Earth's old trundle bed. The first, a brown and white old thing. She spreads on in the early spring. The summer one is green and bright With daisies nodding in the light. And then when winds begin to blow, She spreads a red quilt on, you know, And sews it through with yellow thread. And by and by, all in a night, She spreads her quilt of snowy white.—Sel.

#### Guess the Names of the Islands

Guess the name of the islands where yellow birds sing, The islands where ponies abound, The islands where people are graciouse and kind,

The islands where people are graciouse and ki

The island of fur that is highly esteemed, The island not known long ago,

The island from which we get heat, light and smoke.

The island of frost and of snow.

The island that's famed for its lake of hot pitch, The island that likes to lap cream.

The island that's noted for exports of rum,
The island that dams a small stream.

The island where Bonaparte drew his last breath,

The island of soft, swampy ground,

The island that comes freshly solved from the min

The island that comes freshly coined from the mint, The island that's south of its sound.

#### Guess the Names of the Fish

Guess the name of the fish with two heads but no tail, The fish that is lacking in strength,

The fish that is useful to point out the way, The fish that is one rod in length,

The fish that is something that happens by chance, The fish that is pulverized chalk,

The fish that tastes best when 'tis cooked on a plank, The fish that finds fault in its talk.

The fish that looks sullen and thrusts out its lips,
The fish by canary birds pecked,

The fish that in winter glides over the ice, The fish by which warships are wrecked.

The fish that is travelled by those who pay toll,

The fish that is part of a shoe,

The fish of low spirits and greatly depressed, The fish that's unable to chew.

Sir Henry Campbell-Bannerman is, at the age of seventy, virtually the chief executive of the British Empire. But if Sir Henry, when he was fifty-five, had applied to some boards of education we have heard about, for a position as superintendent or principal of schools, he would have been rejected as being too old. Yet at that age every man who has a sound constitution and is living the right kind of life should be in the prime and vigor of his manhood. Behind him are the varied and valuable experiences of a long life. He is not daunted by difficulties, for he has met and vanquished battalions of them. He is not unduly elated by victories nor depressed by defeats. He is fully equipped for the work before him, and is in every way qualified to be to the children and youth under his charge a guide, philosopher, and friend.-The Western School Iournal.

#### Lines in Season

Two eyes and only one mouth have we.

The reason I think must be—

That we are not to talk about

Everything we see.

Two ears and only one mouth have we.

The reason is very clear—

That we are not to talk about

Everything we hear.—Sel.

"There is so much bad in the best of us, And so much good in the worst of us, That it scarcely behooves the most of us To talk about the rest of us."—Sel.

Patience, oh Soul! from a little field There cometh often a gracious yield.

-Carlotta Perry.

Hope is like a slender hare-bell,
All a-tremble from its birth;
Love is like a fragrant rose,
Cheering, blessing all the earth;
Faith is like a lily whi.e,
High uplifted into light.
—Christina Rosseti. (Adapted)

Hurried results are worse than none. We must force nothing but be partakers of the divine patience. If there is one thing evident in the world's history, it is that God hasteth not. All haste implies weakness. Time is as cheap as space and matter.—George MacDonald.

Let us be content to work
To do the thing we con, and not presume
To fret because it's little.

-Elizabeth Barrett Browning.

Square thyself for use. A stone that may

Fit in the wall is not left by the way.

—Persian Proverb.

He that is good at making excuses is seldom good for anything else.

#### Pussy Willow

In her dress of silver gray, Comes the Pussy Willow gay, Like a little Eskimo, Clad in fur from tip to tee.

Only Mother Willow knows How to make such suits as those, How to fashion them with skill, How to guard against a chill.

Did she live once long ago, In the land of ice and snow? Was it first by polar seas That she made such coats as these?

Who can tell? We only know
Where our Pussy Willows grow
Fuzzy little friends that bring
Promise of the coming spring.
—Elizabeth Foulke, in Ginn's Music Course.

#### Tree Quotations From the Bible

I will plant in the wilderness the cedar tree, and the myrtle, and the oil tree; I will set in the desert the fir tree, and the pine and the box tree together.

They shall spring up as among the grass, as willows by the water courses.

He heweth him down cedars, and taketh the cypress and the oak, which he strengtheneth for himself among the trees of the forest; he planteth an ash and the rain doth nourish it.

All the trees of the field shall clap their hands. Instead of the thorn shall come up the fir tree, and instead of the brier shall come up the myrtle tree, and it shall be to the Lord for a name!

#### Waste of Time

To save time there is need of the utmost order. I visited a school, not long since, where fully half of the time was wasted, so it seemed to me. (1) The classes had begun when a pupil entered late. The teacher entered into a conversation as to why, and it took fully five minutes, meanwhile a class of eighteen were standing waiting-ninety minutes were thus lost, besides the rest of the school stopped studying to hear the upshot. (2) The class in arithmetic was called and the teacher asked one to clean off the board: the eraser was so full of dust that he was directed to go out and clean it; this took five minutes, at least. (3) The whole school was stopped for writing; then the teacher distributed the books. Some of these had been misplaced and fully five of the twenty-five minutes were used up in getting going; as there were thirty-eight in the school there were 190 minutes wasted. Now this was called a good teacher; he had taught seven years; he was not conscious of the waste of time; he made a business of doing it; he did it day by day. Of course, there could not but results be accomplished, only a part of what might have been done.-Exchange,

[It is hoped teachers who read the Review do better than that; but there may be cases where the school time is wasted, in some instances like the above, or in other ways. Have a little quiet examination of ways and means—Editor].

Andrew Lang includes "month" in his list of 60 English words that have no rhyme. He apparently never has heard the old verse of the mathematical student:

The Nth term and the [N+1] th
Have troubled my mind for many a month.

—New York Tribune.

22-23

#### The Efficient Teacher

The most efficient teacher is she who acquires the skill to reach the entire class as though they were one, making each pupil feel as though he were receiving the full measure of her instruction. The orator who wins has this ability. A man of platform genius will hold everyone of his audience more intently than as though he were facing him alone, for the hold he has of him will be enhanced by the magnetism of hundreds of electrified minds. Each keen listener multiplies the power of the orator, and the teacher should keep the highest standards before her. She must be to the class what the orator is to his audience, holding the influence of each pupil with more direct interest than she could if she had him before her alone. Her influence should be multiplied by the electrifying force of the entire class. Forgetting this, many teachers miss their golden opportunity by being too individual in their instruction, losing forty pupils, and leaving them free for mischief while dealing with the one. This may be needful at times, but the occasion is rare. Reach the one through the many is the highest principle for the schoolroom to adopt. It does not come as the attainment of a day, but it is sure to come to whoever will pay the price in brains and patience.—American Primary Teacher.

#### Some Language Methods

One of the best devices for teaching language to young children is a system of questions and answers. The questions may be written on the board and the answers given orally or written. Or the questions may be written on cards and the cards distributed to the children, who write the answers.

The questions should be simple, but require a complete statement in reply and correct use of tenses. Questions like the following are good:

How many windows are there in this room?
How many doors are there in this room?
In what part of the room is the teacher's desk?
How many children in your class?
What is your teacher's name?
Who was your last teacher?
What do you do at recess?
Where do you live?
What is your father's name?
How many brothers and sisters have you?
When was your last birthday?
How old were you then?

How many times were you absent this week? What day is it? What month is it? What season is it? What was the weather yesterday? What do you think it will be tomorrow? Did you see any birds on your way to school? Can you tell their names? What flowers did you see? What flowers blossoms at this season? What trees bear fruit at this season? What trees bear acorns? What animals eat acorns? What trees bear nuts? Did you ever pick any nuts? What kind of nuts do you like the best? Where do they grow? etc., etc.

Popular Educator.

Writing of exercise for children in the February Delineator, Dr. Grace Peckham Murray says: "When children are old enough there is no better exercise than brisk walking. To be of benefit it should be brisk enough to bring the blood to the surface, and to expand the lungs. Running increases the endurance. Systematic running should enter more largely into the exercise for children. Running strengthens the heart, increases the breathing capacity and develops the muscles of the whole body. Like all violent exercise in which children indulge, it should be taken under the supervision of a teacher to avoid overdoing.

"An ideal way for children to pass the summer is in camps under the judicious care of a teacher and guide who can enter into the games and feelings of the boys and girls. I believe in the same education in these matters for girls as for boys. They can then become acquainted with woodcraft, botany and geology and increase their health by tramps and explorations. The primitive which exists in all, whether of younger or older growth, has a chance to show itself, and it improves the health, for it does not do for children any more than for adults to be too civilized."

Any subscriber having extra copies of the February and March numbers of the Review will confer a favor by sending them to us.

I find each succeeding number of the Review more helpful than the last.

B. G. O.

#### Review's Question Box

A. B.—Please solve the following, and what is the value of the dot in the first question?

Todhunter & Loney Algebra Page 124, Examples XLVII. Question 36; also

- (3) Please give what you would consider (a) a correct definition of participles, gerund and verbal noun, and (b) how you would distinguish them in a sentence, (c) how would you parse each named above.
- (4) What is the reaction when water is put on lime, and what gas is given off.
  - (1). Find the value of  $\frac{1}{(x-1) \cdot x \cdot (x-1)} \frac{1}{(x-1) \cdot x} + \frac{2}{(x-1)(x+1)} = \frac{1 (x+1) + 2x}{(x-1) \cdot (x+1) \cdot x} = \frac{1 x 1 + 2x}{x \cdot (x^2 1)} = \frac{x}{(x^2 1) \cdot x} = \frac{1}{x^2 1} Ans.$

The dot is used to express multiplication by many mathematicians. It is not needful in this question, but is especially useful for the sake of brevity between numbers. (See page 345, paragraph 444).

(2). Find the value of  $\frac{a \ x^{m} - b \ x^{m} + 1}{a^{2} \ b \ x - b^{3} \ x^{3}} = \frac{x^{m} \ (a - bx)}{bx \ (a^{2} - b^{2} \ x^{2})} = \frac{x^{m} (a - bx)}{bx \ (a - bx) \ (a + bx)} = \frac{x^{m} (a - bx)}{bx \ (a + bx)}$ 

Divide by x in both numerator and denominator, since  $x^1$  is less than  $x^m$  if m is an integer.

therefore 
$$\frac{x^{m}}{b \ x \ (a+b \ x)} = \frac{x^{m-1}}{b \ (a+b \ x)}$$
 Ans.

- (3). Any good grammar will answer your question much more fully than our space will permit. We can send you one if you desire.
- (4). Ca O +  $H_2$  O = Ca  $H_2$  O<sub>2</sub>. That is, when water is poured on quicklime (Ca O) the product is slaked lime. No gas is given off. The heat is so great when the reaction takes place that a portion of the water is converted into steam with which the fumes of the slaked lime mingle.
- X, Y, Z,—"Will" used with the first person denotes determination and "shall" denotes futurity. There is a lesson in the new Nova Scotia Reader which seems to contradict that. On page 44 of the No. 6 reader Sir Guyon says to Mammon after he is determined not to take the latter's treasures, "I shall not." Should it not be "I will not?"

I have not the Nova Scotia Reader, but as I cannot find the words quoted in the poem referred to (Spenser's "Faerie Queene," Bk. II. Canto VII), I conclude that the reader gives a summary or a paraphrase of the passage. The words "I shall not" may perhaps mean "I do not intend to."

H. C. C.

L. S.—A subscriber would like to know where the quotations: "the long gray fields at night," and "the dawn comes up like thunder," which are given on page 216 of the February Review, may be found.

The second quotation is found in Kipling's poem "Mandalay." The first perhaps refers to rice fields. It may be from Kipling. Can any reader tell where it is found?

W. M.—Draw an outline showing the (a) grouping of the land masses of the earth (b) the zone of fracture and explain the latter fully.

It is not necessary to print the map, if it is described so that I can understand it.

- (a.) That is very well shown in a map of the eastern and western hemispheres, divided by the twentieth meridian.
- (b.) The term "zone of fracture" is sometimes used to mean the outside layer of the earth's crust, extending from the surface to a depth of about a mile, in which the rocks are of such a character that the pressure from within has simply fractured them. But in the question quoted the term is doubtless applied to the continuous chains of mountains extending from Patagonia to Alaska, and from the North of Spain to the Malay Peninsula, which ranges were formed largely if not mainly by the upthrust of igneous matter through the lines of fracture.

H. C. C.

Our school is a country one and we are fortunate in having large grounds but unfortunate in the fact that the school board does not pay for the care of them. After many years of neglect we made a start in beautifying our surroundings. One-half the grounds were given to the girls, the other half to the boys. Then prizes for the best looking side were offered. Should the girls win, a chair swing was to be placed on their side; if the boys were successful, baseball bat, and catcher's glove became theirs. Hours of patient toil and numerous gifts of plants, shrubs, trees, and grass seeds have worked wonders.—Sel.

The examiner in drawing calmly and without suspicion wrote the following question: Which do you consider of greater practical importance to your pupils in their drawing, rapidity or delicacy?" and gasped in amazement when he read the answer:

"I think for practical purposes rapidity is the better, provided of course that the drawing is not too indelicate."

#### Three Little Trees.

[Recitation for a tiny girl. Three other children stand near—as the trees—laughing, whispering, telling secrets, clapping hands, etc., in pretty pantomine].

SENT BY MISS SADIE FOSTER, UPPER REXTON, N. B.

Way out in the orchard, in sunshine and breeze, A-laughing and whispering, grew three little trees. And one was a plum tree, and one was a pear, And one was a rosy-cheeked apple tree rare.

A dear little secret, as sweet as could be,
The breeze told one day to the glad apple tree.
She rustled her little green leaves all about,
And smiled at the plum, and the secret was out.
The plum told, in whispers, the pear by the gate,
And she told it to me, so you see it came straight.
The breeze told the apple, the apple the plum,
The plum told the pear, "Robin Redbreast has come!"
And out in the orchard, they danced in the breeze,
And clapped their hands softly, these three little trees.

#### Current Events.

Forty years growth of the British Empire has shown an increase of area from eight and a half million to nearly twelve million square miles, and an increase of population from two hundred and fifty millions to four hundred millions.

The Prince and Princess of Wales have completed a rive months tour of India, and are returning by way of Egypt.

The British troops that now occupy the fortress at Esquimault, the last British garrison in Canada, will be withdrawn in May. A Canadian force will take possession when the British troops vacate,

In February, a company of native troops was massacred by native insurgents in Northern Nigeria. A British force, with the help of loyal chiefs, has crushed the revolt, the insurgent leader and some of his followers having been killed in battle.

In Russia there are extensive farms on which nothing else is grown but sunflowers. The seeds are used for food, and the oil obtained from the crushed seeds is used in cooking.

The bad feeling that arose between Austria and Servia over a proposed commercial union of the latter country with Bulgaria has been allayed, and friendly relations are restored.

Hon. Duncan Cameron Fraser, judge of the Supreme Court of Canada, has been appointed Governor of Nova Scotia, the office having become vacant by the sudden death of Governor Jones.

The foreign trade of Canada is now three times as great as that of the United States in proportion to population,

The new Russian parliament will consist of 'wo chambers, the upper house, known as the Council of the Empire, to consist of an equal number of elected members and members nominated by the Emperor, and the lower house, or National Assembly, to be wholly elective. The two houses will have equal legislative powers, and only bills passed by both may be presented for the Emperor's

sanction.. The representative members of the Council of the Empire are to be chosen by the local representative assemblies called zemstvos, by the nobility and clergy, and by the universities and chambers of commerce; and there will be also members elected by the landed proprietors of Poland. All members must be forty years of age, and must be graduates of some college. Its sessions and those of the National Assembly are to be public. There is to be a ministry responsible only to the Emperor, but the ministers are eligible as members of the lower house. Russian statesmen, in devising this scheme, have had the advantage of a knowledge of representative governments in all parts of the world; but Russian peasants and artisans have yet to prove that they are fit to govern themselves, and the members of the old governing classes are very naturally afraid to trust them.

It is expected that the railway across the Sahara, which is to unite Oran in Algeria with Timbucto, will be completed before the end of the year. A part of it is already in operation, and the Sahara Desert has now become a favorite winter resort, where good hotels can be found along the line of the railway.

Within a very short time steam is to be abolished as the motive power on all railroads in Switzerland. Waterfalls will supply the necessary power to run both freight and passenger cars by electricity.

It is proposed to build a new Canadian railway from the eastern shore of Lake Huron to Montreal, on which electric motor engines will be the motive power. The object of the line, which will be some six hundred and sixty miles in length, is to keep within Canadian territory as much as possible of the grain carrying trade which now goes to the United States because Canadian lines are enable to handle it.

A severe press censorship has prevented details of the insurrection in Uruguay from reaching the general public, but it is now reported that quiet has been restored.

The Queen of the Netherlands is paying for concerts given in the slums of the Hague, at which only the poorest people are allowed to be present.

A recent French traveller has found that the Sahara, viewed as a desert, is much less extensive than has been generally supposed. He found a great steppe region lying south of the desert, and finally merging into the Sudan, which, though now uninhabited, has at one time supported a very large population. Centuries must have passed since increasing drought drove its inhabitants southward to the Sudan region; but a rain belt is again creeping up from the south, extending farther and farther into the desert, and within this belt grasses have appeared and animal life is abundant. In Algeria and in Upper Egypt, increasing drought has followed the cutting away of forests within the last hundred years, while, it appears, increasing rainfall has been restoring to fertility this great Saharian table-land but a few hundred miles distant.

The famine in Japan continues, and must continue until this year's crop is harvested. The people of Japan who gave so willingly to the support of the war have little left to give to their starving compatriots, and there is need of all the help that has been sent or will be sent from Canada, and other lands,

Two great turbine ships for the Cunard Line, one now building in Scotland and one in England, will soon be launched, and will be the largest and fastest passenger ships in the world. One hundred and ninety-two furnaces will consume the fuel to drive one of these ships at a speed of thirty miles an hour, and the ocean voyage will be shortened to four days from New York to Queenstown, if present expectations can be realized.

The Moroccan conference is still in session, with hopes of an ultimate agreement that will provide for the control of Moroccan affairs without endangering the peace of Europe.

Ras Makonnen is dead. He was the strongest and best known of the subordinate rulers of Abyssinia, and the probable successor of King Menelek.

Chinese unrest is still a source of anxiety to all the western world. The feeling against foreigners extends to hatred of the ruling dynasty, for the Manchu rulers have always been regarded as foreigners by the Chinese proper since they first came as conquerors in 1644. Only their good government, according to Chinese standards, has enabled them to keep the throne.

The King's nephew, Prince Arthur of Connaught, passing through Canada on his return from Japan, has now begun a six weeks' tour of the Dominion. He will be in the Atlantic Provinces at the end of this month.

There is still fierce fighting in the Philippines. Like the Dutch war against the natives of Sumatra, the war of the United States forces against their unwilling Malay subjects seems to be endless. Complete subjugation by force is impossible, owing to the nature of the country, and peace without it is very improbable.

#### School and College.

Dr. Trotter, the energetic president of Acadia University, has secured from Andrew Carnegie the promise of a gift of \$30,000, for the erection of a new science building. Whenever the one hundred thousand dollars contributed by the people towards the second forward movement is in hand in the form of "cash or realizable securities," Mr. Carnegie will make good his promise. This with the \$100,000 to be pald by Rockefeller, as a supplement to the people's contribution, should place Acadia in a good financial position. Dr. Trotter visited New York in May last and preferred his request, with the consent of the Rockefellers, to the secretary of Mr. Carnegie. That this was not granted until ten months after may give some idea of the number of similar requests that had to be passed upon in the intervening time.

Miss Muriel Carr, daughter of Mrs. John deSoyres, of St. John, N. B., has recently won a scholarship at Radcliffe Ladies' College, Cambridge, Mass., which entitles her to a course of study at an English, German or French university. Miss Carr's choice will probably be Oxford, where she will have an opportunity to complete a course of study that has been unusually brilliant.

Mr. N. H. Gardner, of the Halifax mechanic science school, has tendered his resignation to take effect on May 1st. Mr. Chas. W. Parker, who for two years has been principal of the Granville Ferry schools, N. S., where he

carried on a class of card-board construction work, has been appointed by the board in Mr. Gardner's place.

Miss Margaret Kerr of Bocabec, Charlotte County, has been appointed to a scholarship at Guelph, on the ansomination of Inspector Carter.

#### Book Reviews

MECHANICAL DRAWING. By S. A. Morton M. A., Teacher of Mathematics in Halifax Academy. Cloth. Pages 110. T. C. Allen & Company, Halifax, N. S.

This excellent little manual is divided into two parts—part one being intended for grades seven and eight, and parts two for grades nine and ten, while a chapter is added for the use of manual training students only. The constructions are of an elementary nature and are derived chiefly from the first book of Euclid. The aim of the book is thoroughly practical, being designed to serve as an introduction to the study of geometry and manual training exercises.

THE NEW PUBLIC SCHOOL DRAWING COURSE for Canadian Schools. Books 1 and 2. Price 10c. each postpaid. The Canada Publishing Company, Toronto.

The models in these books are such as any pupil in the intermediate grades should be able to study and then form outlines of similar objects that have come under his own observation. This is the object of the books,—not for the pupil to copy the model drawings, but to use them intelligently so as to be able to outline correctly the things that he sees like them. If used in this way the books cannot fail with a judicious teacher to lay a good foundation in drawing.

How We are Sheltered: A Geographical Reader. By J. F. Chamberlain, Ed. B., S. B., State Normal School, Los Angeles, Cal. Cloth. Pages 184. Price 40 cents. The Macmillan Company, New York. G. N. Morang & Co., Toronto.

The author very properly takes his starting point in the study of geography from the home surroundings and relations. He shows in a series of lessons the homes of different peoples and how they are constructed, how food and clothing are obtained, with the incidental features of communication and transportation. Thus the child is taught how his own welfare and happiness depend on the labour and thought of others, and he realizes that he in turn should contribute to the benefit of those about him,—thus making the study of geography an aid to the formation of character. The book is attractively illustrated.

Practical and Theoretical Geometry, Part II, By A. H. McDougall, B. A., Principal of the Ottawa Collegiate Institute. Cloth. Pages 154. Price 50 cents. The Copp Clark Company, Toronto.

This is an excellent supplement to the introductory course in geometry given in part I. It is intended for high schools and academics. The same accuracy and thoroughness characterizes its demonstrations and experimental work as in Part I. The author appears to have a genius for clearness and directness of expression; and the discrimination he has shown in the selection and working up of his material cannot fail to be appreciated by teachers and students.

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This is a very successful attempt to gather into as compact form as possible those literary excerpts that bring out clearly the leading events and characteristic conditions that have marked the development of the United States.

Biographical and historical notes serve to make each selection intelligible, and carefully chosen illustrations add to the attractiveness of the text.

BRYANT'S POEMS. Edited with introduction and notes by J. H. Castlemain, A. M. Cloth, Pages 238, Price 25 cents. The Macmillan Company, New York, G. N. Morang & Co., Toronto.

This is one of the volumes of the neat pocket series of English classics that these firms are publishing. The introduction contains a life sketch of Bryant and an estimate of his works. The notes are full but many of them deal in explanations that need not be explained.

Blackie's Model Arithmetics, book 5, price 3d, and the Teacher's Blackboard Arithmetic, price 18. 6d., have the currency in pounds, shillings and pence. A good feature in each is the placing of figures in large clear type. Blackie and Son, London.

In Blackie's Story Book Readers there has been received A Boy Cousin, price 2d. Also, In the Days of Chancer, A Pastoral Interlude; French Auxiliary and Regular Verbs. a good arrangement for junior classes, price 6d.; Palgrave's Golden Treasury, with index and notes, price 6d.; A Midsummer Night's Dream, in the Picture Shakespeare Series, with illustrations, introduction and notes. price Is. In the Blackie's English Classics Series we have Tennyson's Ode on the Death of the Duke of Wellington, Chaucer's The Squire's Tale, Byron's Ode to Napoleon, etc. Price 2d. each with introduction and notes. All the above are handy editions for class use. Blackie & Son, London.

In Blackie's Little French Classics the following have lately been issued: Poesies Choisies, par Ronsard et La Pléiade; Histoire des Quatre Fils Aymon; Stable's Les Aventures de Tom Pouce; Nerval's La Main Enchantée; La Chanson de Roland; Dandet's La Derniere Classe, etc.; Bouilly's L'Abbé de l'Epée. Most of these are provided with notes and vocabularies, and range in price according to number of pages, from 4d, to 8d, each. Many, such as the Song of Roland and the Four Sons of Aymon are classics. All are by the best French authors and are interesting and easy reading for young students. Their great merit consists in their attractive and convenient form, their low price, and the excellent and tersely written introduction that accompanies each. Blackie & Son, London.

In Blackie's English School Texts the following have been neceived: Bunyan's Pilgrim's Progress (Parts 1 and 2); Gibbon's The Age of the Antonines, containing the first three chapters of his famous history, The Decline and Fall of the Roman Empire; Edmund Burke's Speeches en

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## THE EDUCATIONAL INSTITUTE OF NEW BRUNSWICK.

The Executive Committee of the Educational Institute met at Fredericton during the Christmas vacation and arranged an interesting programme for the next meeting of the Institute. A number of the leading teachers of the Province will read papers or deliver addresses upon live educational questions. Prof. Jas. W. Robertson, who has taken so much interest in public education in this Province, has promised to speak before the Institute or to send a representative from Macdonald College, St. Anne de Bellevue, of which institution he is manager.

## The Institute will meet at Chatham on June 27th.

Dr. Cox, who is chairman of the local committee, will see that all necessary arrangements are made for the entertainment of the members of the Institute.

A committee has been appointed to arrange with the authorities of the Intercolonial Railway for the transportation of teachers at the most favorable rates.

## JOHN BRITTAIN, Secretary Institute.

America; Sir Thomas More's Utopia; Macaulay's Third Chapter of his History of England. These are convenient editions in cloth of English classics sold for the low price of sixpence each, and are useful to pick up and read during occasional spare moments. Blackie & Son, London.

Blackie's Latin Texts have been designed especially for schools. They are without vocabularies, but each has a very useful introduction dealing with the subject of the book and the author and giving select critical notes on the early MSS., quantity, versification, favorite language devices of the author, etc. The plan is as excellent as in that of the other "Little Classics" published by Blackie—low price, convenience, and excellence of text being the chief features. The following among others previously noted in the Review have been issued: Virgil's Aeneid, books 1, 2, 3, 4; Ilias Latina (a metrical summary of Homer's Iliad); Cæsar's Gallic War, books 5 and 6; Livy, book 6. The price of the above is 6d, each, except the last which is 8d. Blackie & Son, London.

Sir Walter Scott's The Abbot and Charles Dickens's Barnaby Rudge, edited for schools with introduction and notes. Cloth. Pages 471 and 654. Price 2s, and 2s, 6d. Adam and Charles Black, London. The introduction in

cach case is scholarly and presents a sketch of the author and a discriminating review of his works. The notes, and the glossary added to *The Abbot*, will prove very serviceable to the student.

#### Recent Magazines.

"The Canadian Voice," by Jean Graham in the March Canadian Magazine, reminds one that some Canadians at least need to reform their vocal expression; but "the women of the Maritime Provinces, have the most pleasing voices heard in our broad Dominion. The voice of the Ontario woman is usually heavy and squeaky, and the voice of Manitoba is—well, it had better not be described ....in British Columbia one hears softer accents again."

In Littell's Living Age for March 24, there is a timely article on A Great Moral Upheaval in America, quoted from the Nineteenth Century and After. The writer referring to the relations between the English and American nations say that the duty of the latter is "to know our kinsmen better, to study their ways close'y, and form an accurate conception of that which they have done and are still doing."

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## **OMISSION**

In the Journal of Education of Nova Scotia, October, 1905, page 187, Prescription. for Grade XI.

By the printer's mistake there has been omitted from the prescriptions for Grade XI in the October JOUNNAL OF EDUCATION for 1905, on page 187, the following prescription which is correct as published in the April edition preceding

"PHYSICS .-- 11: As in Gage's Introduction to Physical Science."

Practical Mathematics should be numbered respectively 12 and 13.

Education Office, A. H. MACKAY, Halifax, N. S., Jan. 27, '06. Supt of Education.

#### POSITIONS !

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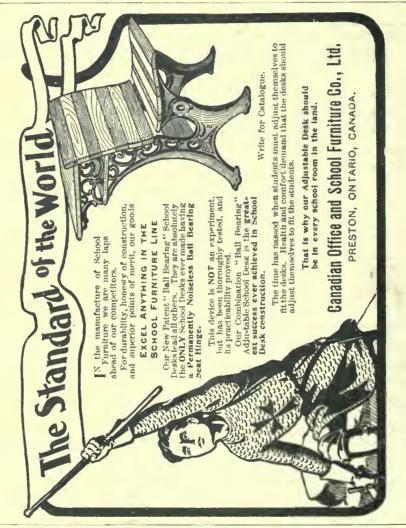
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#### WALL MAPS.

New Map of Canada just published, showing the new provinces.

Map of British Empire.

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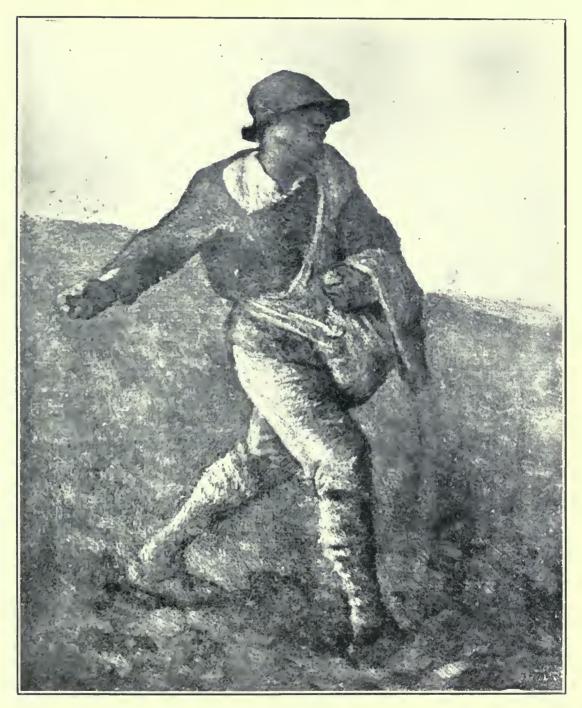
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## Educational Review Supplement, May, 1906.



"THE SOWER."

From Painting by J. F. Millet,



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PUBLISHED MONTHLY.

ST. JOHN, N. B., MAY, 1906.

\$1.00 PER YEAR.

G. U. HAY, Editor for New Brunswick

A. McKAY, Editor for Nova Scotia.

THE EDUCATIONAL REVIEW. Office, 31 Leinster Street, St. John, N. B.

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Address sli correspondence to

THE EDUCATIONAL REVIEW, St. John, N. B.

The Golden fields are waving, The Sun sets golden red. A Sleeping Empire's waking, An Empire's day is breaking. H Maiden Empire's making A Mother Empire's bread.

-Cy Warman

This number ends the nineteenth volume of the REVIEW, and its many readers were never more hearty in their support and encouragement than at present.

An index for the nineteenth volume will be published with the June number.

On the authority of Superintendent MacKay, the Review is asked to announce that the April number of the Journal of Education, Nova Scotia, is not likely to be published for some days yet to afford opportunity for it to contain the new educational legislation of the late session.

DECORATE your schoolrooms for Empire Day! The Review will send ten pictures, six of which are portraits of the famous Canadian authors, Carman, Roberts, Rand, DeMille, Howe, Haliburton, and four miscellaneous subjects, to the subscribers who pay their subscriptions one year in advance, all arrearages being paid to date. Compare the number on your address with this number of the REVIEW. Send at once. There is only a limited number of pictures. First come, first served.

WE have before referred to the valuable work done by the League of the Empire and its Monthly Record, which is published in London. The objects of the League are to further friendly and educational intercourse between the schools of the Empire. Each month the Record has some excellent suggestions to teachers and pupils in regard to correspondence between schools, offers of prizes for essays, and art designs open to competition for schools throughout the Empire. We strongly recommend it to teachers. The price is only two-pence a year, post free. Address the Editor, Monthly Record, League of the Empire, Caxton Hall, Victoria Street, Westminster, London, S. W. Teachers or scholars might find it of advantage to organize clubs and send their subscriptions collectively.

Dr. Ian C. Hannah, of Windsor, N. S., referring to the League and its Record, says: "It seems to me to be specially useful to give the rising genera tion of Canada a wider interest in imperial matters not in any jingo spirit, but with the object of broad ening their minds by letting them realize the vast responsibility laid upon our race to govern so many Asiatics according to the best traditions of the East, to provide millions of Negroes with a paternal and sympathetic administration, and at the same time to work out all the complicated problems connected with the settlement of new lands by our own people. I am very sure it is a most worthy object."

#### The Schools of Nova Scotia.

The annual report of Superintendent MacKay, of the Nova Scotia schools, has been published, and its details are of great interest. Its review of conditions and progress in every department of educational work, in a closely printed volume of nearly 250 pages, is a very masterly one, and evidently no pains has been spared to obtain complete and accurate information.

In every department the report shows an improvement over the preceding year. The sections without schools decreased from 240 to 165. The number of schools in operation increased from 2,331 to 2,429, a gain of 98; the common school pupils increased from 89,871 to 92,966, a gain of 3,095; and the increase of high school pupils was 296, with an increase over the previous year of 372 pupils who successfully passed the examinations. There was a great improvement in attendance, although the winter of 1905 was the stormiest for a generation past. The ratepayers paid \$15,000 more for salaries and current expenses of schools. School libraries increased from 169 to 208, and school gardens from 79 to 208. Teachers' licenses to the number of 756 were issued, but out of 2,566 teachers employed, only 1,068 were normal trained, a serious defect when one considers the excellent educational status of Nova Scotia's Normal School. Four hundred and forty-one new teachers entered the ranks last year, and only 148, or one-third of that number, were in training at the Normal School! It is encouraging to note, from the superintendent's report, that "this discrimination against trained teachers is likely, in the near future, to be lessened," and that there is a growing appreciation among school boards for normal trained teachers.

Little increase is noted in the consolidation of schools, but many of the inspectors are taking measures to have weak sections unite for that purpose. No arrangement has yet been made to continue the consolidated school at Middleton after the present year, when the support of Sir Wm. Macdonald is to be withdrawn. It is not likely, however, that the people of the eight districts represented in the school will consent to return to early conditions.

The reports of the inspectors and Supervisor Mc-Kay, of Dr. Soloan, principal of the normal school, of Mr. Percy J. Shaw, director of school gardens and the Macdonald nature-study department, and

the pupils' exercises at the Middleton school, all form instructive reading, and furnish many evidences of educational accomplishment.

#### The Schools of P. E. Island.

The report of Dr. Anderson, chief superintendent of schools for Prince Edward Island, while it contains some encouraging notes, refers plainly to educational conditions that should not exist in a progressive province. "An average attendance of 60.33 of the number of pupils enrolled is much below what it ought to be," says Dr. Anderson. The number of schools in the province, 475, was five less than in the preceding year.

"The time was in this province, and that not long ago, when the number of men engaged in teaching greatly exceeded that of women; now, however, there are 324 of the latter and 246 of the former." This proportion, as Dr. Anderson knows, is perhaps larger than in any other province of the Dominion or in the United States.

The enrolment of pupils for 1905 was 19,272, a slight increase over the previous year, but the enrolment was larger a quarter of a century ago than it now is, the diminution of population being only in part accountable for this.

The local assessment for the support of schools was only \$45,695 out of a total expenditure of \$168,592, the balance, \$122,897, being paid by government. This is too large a sum to be paid by the province in comparison with the very small total contributed by the ratepayers. We are prepared, therefore, to hear that the salaries of teachers are inadequate, notwithstanding the fact that there was an encouraging increase in the supplements paid them during the year. "In this province in 1905, 14 men received \$180 and 20 women \$130 as their annual stipend as teachers. The highest salaries paid to men and women in the public schools are \$870 and \$360 respectively." In the case of the poorest paid teachers, fifty cents and less a day! The inevitable result follows: "The schools are entrusted to inexperienced youths, who in turn will leave when they are beginning to be capable teach-

And yet in spite of these unfavorable conditions, Dr. Anderson finds in his numerous visitations that the work done in very many schools is excellent and highly creditable to the teachers.

#### A Few Early Flowers.

Do you like to gather flowers? "Oh, yes, indeed!" you say.
Where do you look for them?

"In the woods—all around on the ground," you answer.

Did you know there were flowers over your head as
well as at your feet?

As spring comes on, look up as well as down. See how many kinds of flowers you can find upon trees. Did you know that trees had flowers?

"Oh, yes," you say, "peach trees, apple trees, pear trees, and all fruit trees have beautiful flowers upon them."

That is very true; but much more is true. Look at the beautiful flowers on the poplar, willow, hazel, and other trees.

Have you not seen those long, woolly flowers that look like caterpillars? They come from a kind of poplar tree.

Begin to watch the maple trees very early. If you do not, their flowers will come and go and you will not see them.

One kind of maple has little clusters of tiny red flowers. Another has beautiful green flowers upon it.

The beech and the hazel produce nuts, and the oak trees acorns. Each has flowers of its own. Perhaps they are not beautiful. You may not even have seen them.

Perhaps you have not thought of their being there. But each spring these tiny flowers come and do their work (what is their work?) and go away. In the fall you will enjoy the nuts they have helped to make.

Will you not begin to watch the trees very soon? Look at the different kinds of buds. See what comes out of each. See if you can find any tree that does not have some kind of a blossom.—School and Home.—Adapted.

May is the month to keep the children on the watch for early spring flowers. Sheltered places, especially those at the foot of a hillside or on the edge of a grove facing the sun, may be examined for some of those flowers referred to in last month's Review—the mayflower, red maple, hepatica, adder's-tongue, spring beauty, violets. Some may be searched for on the ground and on the trees, such as the blood-root, coltsfoot, dandelion, strawberry, the red blooms on the hackmatack and hazel. Make a flower calendar, as suggested in the April Review, and keep a record of the date of finding each plant in bloom, with the name of the finder. If you do not know the name of the plant, send a portion of it in an envelope to the Review, or to some other friend who will gladly tell you. Be sure to keep a bouquet or two of these brave early bloomers in water in the schoolroom so that all may see them. But remember to leave plenty of them in their haunts in the woods, where they love best to stay, where they look their prettiest amid the surroundings in which nature placed them, and where other people may have a chance to see and admire them.

A beautiful white flower that appears in May is that of the blood-root or Sanguinaria. It may be

looked for in rich open woods. It rises gradually from the ground through the tightly twisted leaf in which the bud has been protected through the winter. The white flower displays in the centre a greenish spot, surrounded by a circlet of golden stamens. These lines are beautifully descriptive:

A pure large flower of simple mold, And touched with soft peculiar bloom, Its petals faint with strange perfume, And in their midst a disk of gold!

The petals soon wither and fall. In contrast with their snowy bloom is the reddish-orange colour of the juice which oozes from the cut underground stem in drops, hence the name of the plant-Sanguinaria canadensis. The latter name implies that it was named and described from specimens first found in Canada. The Indian medicine men believed that the Great Spirit had given every plant some mark which would help them to know its use. Hence they supposed that the juice of the bloodroot would stop the flow of blood. It is now used as a remedy in chest diseases, and as an emetic. The Indians formerly used the juice for smearing their bodies and for staining various domestic articles.

The tdilliums are other plants that bloom in May from tuber-like rootstocks which have been protected underground during the winter. The painted trillium is a beautiful plant found everywhere in woods. Its large white p tals, painted at their base with purple stripes, distinguish it from the ill-smelling purple flowers of the birth-root (Trillium erectum). The trilliums belong to the lily family. The name, from Latin triplum, triple, makes these plants readily recognized by children who are quick to see how well the name fits the three ample leaves, three green sepals which stay on through the summer, three coloured petals which wither away in a few weeks, twice three stamens, three styles, and the pistil with its three cavities in which the seeds are ripened. A local name for the trillium is the Trinity-flower. Seventeen species of trillium are scattered over the American continent from Georgia to the Arctic regions; of these only three are found in the Maritime provinces.

The familiar dandelion is too well known to need any description here. Children will find it a very early riser, its bright yellow flowers opening between five and six o'clock in the morning; they stay wide open all day and close again between eight and nine o'clock in the evening. This was one of the plants selected by Linnaus for his floral clock; but it did not work well on wet days, when the dandelion flowers insisted on staying in bed. Schoolboys in Italy earn an honest penny by collecting the leaves as food for the silkworm when mulberry leaves are scarce. In this country people use the leaves for "greens," and wholesome food it is if we do not mind the slightly bitter taste. The dandelion is well worth studying in the way it protects its flowers in wet weather, and the down it provides for carrying the seeds. Children will be interested in the name "blow-ball," which is sometimes given to the dandelion; and there is a trick of guessing what o'clock it is by vigorously "blowing" the downy tufts from this "ball;" the number left tells the time of day.

#### Our Native Trees-X.

BY G. U. HAY,

THE ELM AND BEECH.

Although the elm and beech belong to different families, they are so marked as shade trees that they may be taken together here.

The elm (Ulmus americana) is one of our most beautiful and stately trees, so often selected for shade and ornament that one scarcely thinks of it as belonging to the forest. Yet it is found in abundance near water courses and in damp and moist soils throughout the Maritime provinces and eastern America. It attains its greatest luxuriance on rich intervales along our rivers. No shade tree can surpass it for beauty of foliage and form. Sometimes it may be seen as a single shaft, with branches near the top and with tufts of short leafy twigs covering the long slim trunk from near the ground upwards. This is the feathered elm. Usually it has an entirely different habit of growth, sending up to the height of twenty feet or so a massive trunk, which divides into stout branches shooting upwards and continuing to throw out smaller branches and twigs as they ascend. have that drooping and spreading habit which give the tree the vase-like form so well known along our Such trees spread their shade invitingly over the greensward beneath. This is the form of elm so characteristic of the lower stretches of the St. John river.

Under the cooling shadow of a stately Elm, Close sate I by a goodly River's side.

Sometimes the elm branches, starting out from the trunk near the ground, sweep upward in a large and beautiful curve, sending their tips outward in a far reaching circle almost touching the ground, and giving the tree the appearance of a huge ball when viewed from a short distance. The fine elm tree near the Normal School, Toronto, and many other famous elms, have this form; but so great is the strain when the tree is loaded with wet foliage that the branches are liable to break off at or near the trunk. The elm, as it advances in age, especially in higher and cultivated grounds, is very likely to assume this form; it is in the younger elms and those growing in the rich alluvial meadows that its stately outlines and graceful curves may be seen to best advantage.

The elm needs an abundance of water and rich soil; when these are provided its growth is very rapid, and it will become a good sized tree in from fifteen to twenty years. Most elms reach the height of their beauty in fifty years or so. They decay early; but instances are not rare, especially in those of the rounded form, where they reach an age of several hundred years. The famous Washington elm, in Cambridge, Massachusetts, under which George Washington took command of the Continental army in 1775, is certainly more than two hundred years old; but this is now decaying and cannot last long.

Many instances are reported of the distance that elm roots will grow in search of water. Some years since a drain in the vicinity of Paris was stopped up, and on digging down to discover the cause it was found that it had been clogged with a growth of roots which proceeded from an elm tree nearly nearly fifty feet distant. (When roots grow in water they develop great masses of rootlets, which was the cause of the clogging).

The flowers of the clm precede the leaves in early spring. They are of a yellowish tinge and hang in close, conspicuous bunches from the ends of They are very simple in structure, each with a small bell-shaped calyx, with four to nine stamens on long slender filaments, and an ovary having two short styles. During the few days that the flowers remain open they are crowded with bees. The oval leaves are simple, with a sharp point, and their edges are usually doubly-serrate. The seeds mature very rapidly; each is provided with a wing which grows about it in the form of a circle. If the seeds be collected and planted in moist soil early in June they will grow almost immediately, a hint for those who may wish to cultivate this fine shade tree. It is interesting to note that while the leaves of the elm are alternate, the first pair in seedlings are opposite.

The wood of the elm is hard, strong, tough, compact. The difficulty of working it prevents its general use as timber. Its fibres hold tenaciously together; and as the wood has no special beauty compared with the maple, cherry or some others, it has no special value for furniture. It was formerly used in ship building; and the tough wood is useful for ox yokes, wagon supports, hubs of wheels and similar purposes where there is a cross strain. A cubic foot weighs 45 pounds. The bark is tough and strong, and has been used for making ropes and chair bottoms. The wood makes good fuel and yields an abundance of ash.

#### THE BEECH.

The trim, neat appearance of the beech (Fagus americana) when growing in the forest has given it the reputation of being the "best dressed" tree of the woods. It has a tall graceful trunk, with thin, smooth, close-knit bark, ash-grey in colour, with darker and lighter shades, but becoming paler in winter. Its green leaves turn to a rich reddish-brown or amber colour, and in autumn remain longer on the branches than those of other deciduous trees. Frequently trees in the deep woods retain their withered leaves throughout the winter. Its green leaves are not liable to attack from any insect. The smooth shining appearance of its twigs and the polish of its shapely, conical winter buds add to its trim appearance.

The beech frequently attains a height of from 75 to 100 feet, with a trunk diameter of from two to four feet. When growing in open fields it is much less in height, but often attains a considerable circumference. Its spreading branches help to give it the dense shade for which beech forests are remarkable. While there is an abundance of flowering plants to be found on the ground in oak woods, few are to be met with under beeches. This is perhaps due to the dense shade. A curious brownish-yellow plant, from six to twelve inches in height, is sometimes found in great abundance under beach trées in late summer and autumn. This is a parasite, called beech-drops, which draws its nourishment from the roots of beech trees to which it is attached.

The beech is one of the most widely distributed trees in north-eastern America, and many of our so-called hardwood ridges are clothed principally with this tree, along with birches and maples. The flowers which appear at the same time with the leaves are of two kinds, staminate and pistillate. The

former are yellowish green, growing in tassels or heads; the latter usually in pairs on a short stalk. The fruit is the well-known triangular nut which is enclosed in a bur. The burs open and the nuts fall soon after the first frosts of autumn. There is a saying that beech-nuts are abundant only once in seven years. This would be an interesting question for some one to follow up, to find out whether there is any foundation for the saying, and if there is, to ascertain, if possible, the cause. Another saying about the beech tree that requires to be investigated is that it has never been known to be struck by lightning.

The wood of the beech is hard, tough, and close-grained. A cubic foot weighs 43 pounds. In colour it is light or red, giving rise to the belief among country people that there are two kinds, the white and red. There is but one species known in these provinces. The difference in colour in those noted above may arise from the more or less rapid growth of the wood. The texture also of the white beech is tougher and less liable to warp; that of the red is more brittle.

The wood of the beech makes the best of flooring. It is used also in chair-making and turning, for saw-handles, bench planes, and for many other purposes. Its wood makes excellent fuel.

It is difficult to transplant beeches, because they usually grow attached to one another under ground. But to cultivate a young tree from a beech-nut is an interesting experiment, if only to notice the two wide and thick first leaves (cotyledons) that appear above ground, and growing up between them the little stem bearing the true beech leaves.

#### The Clovers.

The clovers have no time to play; They feed the cows, and make the hay; And trim the lawns, and help the bees, Until the sun sinks through the trees.

And then they lay aside their cares, And fold their hands to say their prayers, And drop their little tired heads And go to sleep in clover beds.

Then when the day dawns clear and blue, They wake and wash their hands in dew, And as the sun climbs up the sky They hold them up and let them dry; And then to work the whole long day; For clovers have no time to play.

-Helena Leeming Jelliffe,

#### Raleigh Anticipated Darwin.

To the Editor of the Educational Review.

DEAR SIR,— In perusing Sir Walter Raleigh's History of the World, published in 1614, I have just come across a passage which seems to me of the greatest interest as showing that Raleigh anticipated Darwin in realizing:

- (1) That species are not immutable.
- (2) That they are affected by environment, especially climate.

As I do not think this passage is at all well known, I venture to transcribe it for the benefit of your readers. It is from chapter vii, sec. o, and the author is seeking to prove that the ark was large enough for the then existing beasts. "But it is manifest, and undoubtedly true, that many of the species, which now seeme differing, and of severall kinds, were not then in rerum natura. . . . . And whereas by discovering of strange Lands, wherein there are found divers Beasts and Birds, differing in colour or stature from those of these Northern parts; it may be supposed by a superficiall consideration, that all those which weare red and pyed Skinnes, or Feathers, are differing from those that are lesse painted, and weare plaine russet or blacke; they are much mistaken that so thinke. And for my own opinion, I find no difference, but only in magnitude, between the Cat of Europe, and the Ownce of India; & even those Dogges which are become wilde in Hispagniola, with which the Spaniards used to devoure the naked Indians, are now changed to Wolves, and begin to destroy the breed of their cattell, and doe also oftentimes tear asunder their owne children. The common Crow and Rooke of India is full of red feathers in the drown'd and low Islands of Caribana; and the Black-bird and Thrush hath his feathers mixt with blacke and carnation, in the North parts of Virginia. The Dog-fish of England is the Sharke of the South Ocean: For if colour or magnitude made a difference of Species, then were the Negro's, which we call the Blacke-Mores, non animalia rationalia, not Men, but some kind of strange Beasts: and so the Gyants of the South America should be of another kind, than the people of this part of the World. We also see it daily, that the nature of Fruits are changed by transplantation, some to better, some to worse, especially with the change of Clymate. Crabs may be made good Fruit by often grafting, and the best Melons will change in a yeare or two to common Cowcummers, by being set in a barren Soyle."

Sincerely yours, IAN C. HANNAII. King's College, Windsor, N. S., 24th April, 1906. Our Coasts. II-Their Lessons.

Continued.

#### The Agents at Work.

PROFESSOR L. W. BAILEY, LL. D

It will be interesting now to note some of the special peculiarities of the muddy deposits, both for the reason that they are so conspicuous and cover such large areas about the head of the Bay of Fundy, and because in connection with them are found certain features which are of the greatest service in throwing light upon the events of periods long antecedent to our own.

The extent of the mud-flats laid bare by the abb of the tide along portions of the coast of Albert and Westmorland counties, New Brunswick, and the shores of Minas Basin, Nova Scotia, is very large, their breadth being in some instances a mile or more, The mud itself is of a bright red colour, extremely fine and tenacious, the redness being due to iron oxide contained in the rocks from which the material was derived, while the fineness is the result of the long continued trituration of the same material under the action of moving waters. This material is constantly being deposited, the tide at each flood spreading a thin layer over those previously laid down, while at ebb the whole surface is laid bare and exposed to any influences which may operate upon it. One of these might be a passing shower, every drop of which falling upon such fine and light material would leave its impress, to be subsequently buried and preserved under the new layers afterwards deposited. Or if, instead of rainy weather, there be a warm summer sun, the surface will dry, and by drying be made to shrink, thus producing numerous cracks or small fissures, also to be buried later as a new tide comes in. One may sometimes see the whole surface of a mud flat honeycombed by these shrinkage cracks. Or again, as "worms come out after a shower," even in our streets and fields, so they do from their burrows on the tidal flats, and one may readily recognize not only their holes or homes, but also long, round trails extending in all directions over the muddy beds, marking where the worms have made their daily travels in search of food. Finally, the observer perchance may find an impression which he readily recognizes as the track of a three-toed wading bird, or another equally characteristic of some domestic animal, or of man, and, like Crusoe on his desert island, he naturally infers that where such tracks exist there must recently have been either bird or quadruped or man to produce

them. Thus in addition to the evidence afforded by the rounded pebbles of a sea wall or the sand-grains of a sandy beach, as to their origin as beach deposits, so the fine muds tell an equally legible and still more interesting story, one which "he who runs may read." Evidently, armed with such means of recognition, the student can pass from the gravelly and sandy beaches, or from the muddy tidal flats of today, and finding what are practically the same things in the rocky ledges, or in the extensive marsh lands which skirt the bay, will reach the conclusion that they, too, must once have been at or below the sealevel, and were produced in the same way.

A word or two further as to the marsh lands. These are usually spoken of as the "dyked marshes," because, were it not for artificial embankments or dykes, they, too, would be frequently submerged, as indeed they sometimes are when through neglect or through extraordinary high tides, like those of the Saxby gale, the dykes are broken through and the "turbulent tides," as Longfellow expresses it, "are allowed to wander free o'er the meadows." These meadows are very extensive in both provinces, and are also of extraordinary fertility, producing crop after crop of fine grass without the aid of artificial manures.

I have space to refer to only one other interesting point connected with the dyked marshes. this: At certain points these marshes have been found to contain the buried but still erect trunks of upland trees. They occur several feet below the surface of the marsh, and of course as much below the level now reached by the flood tides. could not possibly have grown where they were subject to submergence under salt water; and hence the conclusion is forced upon us that the land bordering the bay is now lower than it formerly was. Indeed there is good reason for believing that not the Bay of Fundy trough only, but the whole Atlantic seaboard of America, is undergoing subsidence. In Northumberland Straits the sinking is even more marked than in the bay. The sea is said to be attacking the ruins of old Fort Moncton, and from a cemetery near by is washing out the bones of certain unfortunates who, as recorded on one of the tombstones, were those scalped by the Indians.\* Finally both in New Brunswick and Nova Scotia are to be found at many places remains of old Indian encampments, originally, of course, located above the reach of the sea, but which are now being constantly washed and removed by the waves. In New Brunswick such old encampments, marked by the occurrence of shells, arrow heads, beads, bones, etc., are to be seen at Oak Bay, on the St. Croix river, at the mouth of the Bocabee river, and on Frye's Island; while in Nova Scotia I have observed them about Mahone Bay and at the head of Port La Tour.

Such movements as are indicated in the above facts are general in the earth's crust, but are not always downward. When in this direction they lead to the submergence of the coast, the "drowning" of rivers (as will be discussed in a later chapter), the origination of islands, the deepening of harbours, etc. When in the opposite direction, they extend the coast seaward, re-unite the islands with the mainland, lengthen the course of rivers, and for a time determine conditions of general uniformity. If affecting larger areas, they may in places lift the land to mountain heights. In the next chapter we shall have to consider some of the effects of their elevatory movements.

#### Letter From Northern Alberta.

Wr. W. B. Webb, writing from Astleyville. Alberta, April 12th, says: "We have had a remarkably mild winter, with but little snow, not more than three inches, perhaps. Have had none since February 1st. Wagons have been in constant use. The farmers have been at work since April 2nd, the land being very dry. Have had almost continuous sunshine all winter; the days are warm and pleasant now, but colder at night-fall. The Anemone is blooming, and the poplar trees are looking green with the hanging catkins.

"The last few numbers of the Review have been especially good. The pictures are valuable and very helpful in many ways. The articles on the Coast by Dr. Bailey are particularly helpful; these ought to be especially so in Acadia—to use the old name—and such pictures are of great interest in prairie sections, as they help to impress the description that may be given of the sea-shore. Your article on trees ought to be very useful to teachers, but we have few of the trees in Alberta that you have described."

The Japanese do not allow their children to go to school until they are six years old. They claim to have scientifically proved that if a child goes to school at an earlier age it is both mentally and physically detrimental,

<sup>\*</sup>See Bulletin Nat. Hist. Soc. of N. B., Vol. V, Part I, p. II.

#### Lamb's Adventures of Ulysses.

Continued.

NOTES BY G. K. BUTLER, M. A.

P. 135, l. 5: Here the rocks are said to be smooth. What is the general character of rocks on the sea shore, and why are they thus? l. 8: Among the Greeks it was very common to deify a river. l. .): Meaning of the phrase "stayed his current?" l. 22: "Voice spent" means what? l. 25: The rack was one of the instruments of torture of the Middle Ages used to extract testimony from stubborn witnesses or accused persons. Its use is mentioned in some of Scott's novels. l. 36: The name of the river, Calliroë, means a "beautiful stream."

P. 136, l. 5: The word "insecure" is worth being studied in its derivation, "in," "se," "cura," "not apart from care. l. 14: Parse the word "leave." l. 21: What figure of speech in the expression "the air breathed steel," and what does it mean?

P. 137, l. 5: Meaning of the prep, "against" as found here? l. 9: "Your reputation stands much," etc. What does this phrase mean? l. 10: "Timely" means? l. 12: "Vestments," often called "vesture," and Macaulay in the "Lays" has shortened it down to "vest." l. 23: Find the derivation of "primitive." l. 35: Even then it seems the unmarried were expected to be more eareful in their dress. Of course, like other old-fashioned things, the saying has died out, hasn't it? l. 39: The Romans, too, when dressed for state occasions, put on their white togas. How strange to them would have appeared our black coats and silk hats worn on similar occasions now?

P. 138, l. 13: What kind of oil would it be? l. 17: Homer in the original speaks of how well the mules trotted on their way out. l. 22: Here we have, perhaps, the earliest kind of washing machine. Of what kind of material would the clothes likely be made?

P. 139, l. 27: Delos is one of the islands of the Aegean Sea. If anyone has Kingsley's "Heroes" and will look up "Theseus," he will find how the Aegean got its name. l. 30: Meaning of "past" in this line?

P. 143, l. 3: It may be remembered that the seer Teiresias was also blind, and that Homer himself was. l. 11: Meaning of the word "jar" here? What part of speech is it? The oracle here is probably the famous one at Delphi. l. 12: Meaning of "period" here? It is used in its more unusual sense of "end" or "finish?" I. 16: Expressed to the life" means what? l. 39; Look up "prowess."

P. 146, l. 33: It will be remembered by those who have read Othello how the "fair Desdemona" was won by similar tales.

P. 147, l. 15: "Massy plate," instead of "massy;" we more commonly used "massive." What is the meaning of "plate?" l. 28: Meaning of "yielded" in this line?

P. 148, l. 17: The length of his absence is said to have been twenty years in all,

P. 149. In the first book of the Aeneid a goddess appears to Aeneas in much the same way.

P. 150, l. 18: "Were" is in what mood? l. 19: Meaning of "wanting?" l. 22: If not too difficult for Grade VIII, "being dead" is a good bit of parsing to exercise their ingenuity on. l. 30: Telemachus in its French form. Telemaque is the title of a well known tale dealing with this same story. Be careful of the pronunciation of Penelope. In those classical names each vowel is sounded; c is not usually silent at the end of a word as in English.

P. 151, l. 12: Meaning of "concert." How does the noun come to have the meaning it does? 1, 28: "Ill" is not so often used as "evil" in this sense.

P. 152, l. 7: Meaning of phrase "in his time." l. 15: Case of the noun "beggar." What would be its case in the sentence "his conduct became a beggar?" l. 28: "Antipathy" from "anti" against "pathos" a feeling; just the opposite of "sympathy."

P. 154, l. 4: "Will not stick to invent any lie." Explain meaning of this phrase. I. 10: "On't" for the more modern "of it." As I mentioned before. Lamb was a student of Elizabethan literature. 1. 39: Meaning of "forged?" How is this meaning connected with the other one?

P. 162, l. 34: "A travelling Egyptian" with us would be called by what name?

P. 163, l. 15: Those who have Kingsley's "Heroes" will remember how Jason carried a beggar across the Anaurus, and how it proved to be Hera, Queen of the Immortals.

P. 164, I. 7: The famous Olympic games were eelebrated at Olympia, in Western Greece, every fourth year. To win a prize at one of the events there was the highest honour a Grecian athlete could attain. Of such importance were they that the Greek calendar was based on them, as we date from the birth of Christ.

P. 165, I. 1: Meaning of "stomach" here? I. 37: Is four acres of good "glebe land" a fair day's work for one man and team?

P. 166, l. 27: Look up "spleen,"

P. 167, 1-11: Parse "one." What sort of a verb is "became" here? 1. 27: What part of speech is "right?" Macaulay says,

"Right well did such a couch befit A Consular of Rome."

P. 156, l. 18: "Brave" means what? l. 21: Find derivation of "inclement." l. 25: "Case;" Macaulay in Horatius says, "Never I ween did swimmer, in such an evil case." The whole story as told on this page well illustrates the character of Ulysses, the crafty.

P. 157, l. 22: I think reference has previously been made to the fact that the Greeks drank their wine always mixed with water. l. 29: Here we have the words "vests" in the sense already referred of "vesture" or "clothing." Jove's cup-bearer was Ganymede.

P. 159, l. 19: Parse the noun "house," especially its case; l. 37: Be careful of the meaning of the word "admire" in this line.

P. 160, l. 18: "Bears" would more usually be "keeps." "Still" could be here interpreted in its old sense of "always."

P. 161, l. 5: Who was "the king of the skies?" l. 10: "Chiefest." If you 400k up the grammar I think you will find "chief" given as one of the adjectives which can't be compared. But we find many writers using comparative and superlative degree of such adjectives as: "supreme," "chief," etc.

P. 170, l. 15: The three Fates were conceived as spinning the thread of man's life, or, more correctly, one held the distaff, another spun, and the third cut the thread when complete.

P. 171, l. 36: For a full account of this voyage read Kingsley's "Argonauts" in the "Heroes."

P. 175, l. 3: For the story of the way in which Athené got the shield, read "Perseus" in the "Heroes."

Canadian mica has been increasing steadily in value from 1895 to the present time, and that of India has been almost as steadily decreasing in value; so that, where in 1895 the imported value of Indian mica was nearly three times that of Canadian mica, the 1904 Canadian mica stood higher than Indian.—Scientific American.

The Province of Quebec has set aside the whole Gaspe Peninsula as a forest preserve.

#### Millet .- Continued.

By Miss A. Maclean.

"The Sower," which many consider Millet's best picture, is at present in the Vanderbilt collection in the Metropolitan Museum, New York. It was painted at Barbizon, but the peasant is of Millet's home place, such as he himself was when he worked in his father's fields. Millet did not paint from models, he painted the type rather than the individual. The sower marches along with a firm and serious step, scattering the seed on the steep, greyish brown hillside, clad in a dark red shirt, dark blue trousers that reach to the knee, dark greyish stockings wrapped round with cords of straw, rough

sabots, on his feet, and a shapeless dull brown hat throws his face into shadow. A flock of crows fly near, and on the



A PAIR OF SABOTS. \*

hilltop another pheasant is finishing his day's work in a glint of the setting sun, while all the hillside is in shadow.

Millet sent "The Sower" to the Salon in 1850, and of it Gantier (go-tee-ay) then wrote: "The night is coming, spreading its grey wings over the earth; the sower marches with rythmetic step, flinging the grain in the furrows; he is followed by a flock of pecking birds; he is covered with rags. He is hony, swart and meagre under his livery of poverty, yet it is life which his large hand sheds; he who has nothing, pours upon the earth with a superb gesture the bread of the future. On the other side of the slope, a last ray of the sun shows a pair of oxen at the end of their furrow-strong and gentle companions of man, whose recompense will one day be the slaughter-house. . . . . There is something grand in this figure with its violent gesture, its proud ruggedness, which seems painted with the very earth the sower is planting." This picture raised a storm among the critics. Some saw in it a revolutionist who cursed the rich and scattered shot against the sky.

Though fixed in a land that he liked, Millet never ceased to long for the home of his early days, where now his mother and grandmother were sinking under sickness, anxiety and age. When, worn out, the grandmother died, sorrowing till her last breath that she could not see her Francois, Millat was over-

<sup>&#</sup>x27;When asked for bicautograph, Millet sometimes make a skotch of a pair of sabots, writing his name after.

whelmed with grief. He did not speak for days, and his mute suffering was pitiful to see. When spoken to he could only sob, "Oh, why could I not have seen her once more!"

Now this mother was left with the responsibility of the farm. Her children were leaving her one after another. She felt that everything was giving way beneath her, and she wrote, "My dear child, you say you are very anxious to come and see me. I am very anxious, too, but it seems you have very little means. My poor child, this grieves me. Oh, I hope you will come, I can neither live nor die, I am so anxious to see you. If you could only come before the winter. Ah, if I had wings to fly to you! I end with kissing you with all my heart, and I am, with all possible love, your mother. Widow Millet."

But the poor mother waited, listening for a footfall, hoping for a surprise that never came. Francois waited, too, hoping that poverty would relax its grip and let him see his dying mother, but in vain. Then the patient little mother folded her poor, toilknotted hands and went to meet the God who would tell her what it all was for, and she would rest.

In the Salon of 1853 Millet exhibited "Ruth and Boaz," "The Sheepshearers," and the "Shepherd." They were much praised, and he secured a secondclass medal, and succeeded in selling all the three. But these windfalls scarcely sufficed to fill the holes made by a life that had always been hard and burdened with debt. His pictures usually would not sell at all, or for ridiculous prices. But had he been so minded he need not have suffered. When Diaz heard that he had gone to live at Barbizon, he wrote: "What! Do you mean to tell me that you have decided to live with brutes and sleep on weeds and thistles, to bury yourself among peasants, when by remaining in Paris and continuing your immortal flesh painting you are certain to be clothed in silks and satins!" But Millet saw what he believed to be his duty, and did it—who has done better?

After a time he sold some more pictures and went home to settle up the estate with his eight brothers and sisters. He asked only for his uncle's books and a great wardrobe of oak, leaving his part of the house and farm to one of his brothers, requesting only that the old grape vine should not be destroyed.

After his return to Barbizon his fortunes improved, and he took his wife and family for a three months' visit to his old home. Gradually his name began to grow, some called him the singer of the peasants; others, the novelist of the sorrows of the people, and there was aroused in some minds a world

of political and social problems. Though Millet was himself submissive to the unequal allotment of earth's good and evil, such pictures as the "Man with the Hoe" pressed home the fact of this inequality, so that men began to think seriously of it, and the human brotherhood of man is being advanced to-day by the martyr life of Millet.

The year 1855 was a lucky year for Millet. He 'sold his "Peasant Grafting" for 4,000 francs, and was able to pay his debts, and for a while paint in comfort. But care and actual want again gathered about him, though in the time of his greatest suffering, haunted by headache, and fear ever following him, he painted his most beautiful works, "The Gleaners," "The Angelus" and "Waiting;" this last suggested to him when he waited, hoping to go and see his mother. He had now grown to where he could paint the air, see the light, paint the invisible. In "The Angelus" he wished to give an expression of music, the sounds of the country, the church bells. Into this picture he put the whole strength of his coloring. When Sensier saw it, he said, "It is the Angelus!" Millet said, "It is, indeed; you can hear the bells; I am content; it is all I ask."

Then his "Death and the Woodcutter," one of his most beautiful creations, was refused by the Salon. In this he saw a deliberate design to hurt him, and straightened up to bear the burden. He said, "They wish to force me into their drawing-room art, to break my spirit. No, no, I will say what I feel!" Protests arose over this treatment of Millet. Dumas (du-mä), the elder, wrote, "Who knows if the artist does not tell a story with his brush as we with our pens? Who knows but that he writes the memories of his own soul?"

Of the large "Sheepshearer," Thore (to-ray) wrote, "This simple sheepshearer makes us think of the great works of antiquity of the most solid painting and best colour of the Venetian school." Of it Pelloquet (pel-lo-kay) wrote: "Here is great art, art that raises the mind; it is full of character, firmness and grandeur; it reaches the highest style without effort—a large way of painting, serious and solid—which we can only accuse of excess of austerity."

In 1862 he tried his highest venture and painted "Winter," "The Crows," "Sheep Feeding," "The Woolcarder," "The Stag," "The Birth of the Calf," "The Shepherdess," and "The Man with the Hoe." In 1873 Millet had the satisfaction of seeing his "Woman with the Lamp" sell for 38,000

francs, his "Washwomen" for 15,351, "Geese" for 25,000, and the "Woman Churning" for 14,000 francs.

But now when the sun of prosperity is beginning to shine upon him, he is breaking down from the long struggle. He was seized with a dreadful hemorrhage, which greatly weakened him. He worked, nevertheless, and finished several pictures. Then came an order allowing him 50,000 francs for some decorative painting for the chapel of Sainte Geneviève. He was appalled and delighted with such an attractive task, but death prevented him from accomplishing it. When he knew death was near, he said, "I die too soon; I am just beginning to see into Nature and Art."

The great painter breathed his last on the 20th of January, 1875. Everywhere his death caused regret; volumes of newspaper articles were written about him. His friends eloquently expressed their sorrow, and those who had been indifferent were touched-alas, too late. France realized then what she had slighted and lost. A collection of his works was now sold for the benefit of his family, and people then saw how wide a field the master had covered, what variety of manner, what intense conviction, what strength and gracefulness of handling. Single canvases that could scarcely find a buyer at any price when painted, have since sold for fortunes. "The Gleaners," which he sold for 2,000 francs, has since sold for 300,000 francs; "The Angelus," which he had great difficulty in disposing of for 2,500 francs. sold in 1889 for 553,000, and in 1890 for 800,000 francs. But what matter-Millet has gone beyond the need of money-forever beyond the sad earthcry.

#### Learning Latin.

When Jane and I first went to school
To Uncle Ebenezer,
He taught us of the stirring times
Of Caius Julius Caesar;
And how, when Zela's fight was won,
The message, terse and spicy,
The consul sent to waiting Rome

Of "Veni, Vidi, Vici."
But now our boy from school returns
A hundred times the wiser,
And glibly reads the Latin text
Of Kyuse Yulius Kyzer;
Whose very words he'll even quote
In accents queer and squeaky,
To prove that what was really said
Was "Wany, Weedy, Weeky!"

#### Art Study Notes.-VI.

REV. HUNTER BOYD, WAWEIG, N. B.

#### The Sower.

The picture selected for this month is a good example of the work of J. F. Millet. There is no difficulty about the title. Every scholar could name it correctly, even if it had never been seen before, Some peculiarities about the man's shoes, or his hat, or the arrangement of the grain sack, will arrest the attention of superficial observers; but none can fail to note that the man is really doing what he professes to do. It strikes one that he is wholly unconscious of any observers. We are also impressed with his solid appearance; the figure stands out from the landscape in a very remarkable manner. There is a kind of momentum in his movement that could only be acquired by a sower who had been striding over the furrows all day. Indeed as we continue to look at the man we almost expect the hand to advance for a fresh supply of grain. Every part is engaged in the operation; his work absorbs him; and thus we have unity in the picture, one of the first requirements of all great art. The man is depicted upon a very narrow canvas, but we cannot help imagining the portion of field that has already received the grain, and the portion that will speedily be covered before darkness overtakes him. picture is a good illustration of the saying that, "The beautiful is the fitting."

Particulars concerning the artist are given in another column, and also in last month's Review. Beyond directing attention to some of the main elements of Millet's style, there is little occasion for explanation of the picture. Millet felt the strength, the seriousness, the intensity of the sower. It is ours to share the emotion.

#### Wanted-Men.

God give us men! A time like this demands
Strong minds, great hearts, true faith and ready hands;
Men whom the lust of office does not kill;
Men whom the spoils of office cannot buy;
Men who possess opinions and a will;
Men who have honor,—men who will not lie;
Men who can stand before a demagogue,
And damn his treacherous flatteries without winking!
Tall men, sun-crowned, who live above the fog
In public duty and in private thinking;
For while the rabble, with their thumb-worn creeds,
Their large professions, and their little deeds,

Mingle in selfish strife, lo! Freedom weeps,

Wrong rules the land, and waiting justice sleeps!

—J. G. Holland.

#### Answers to Queries.

E. L. K. The sentence, "What do these trees say to us?" was not intended to mean that the pictures "tell a story." What associations, what memories, are awakened! For instance, there are those to whom a group of beeches or birches mean merely so much cord-wood, or stove-wood. For others there will be a mental image of the restless leaves of the birch, and the dense shadow of the beech, or it may be a recollection of a nutting-party. What about the symbolism of these trees? Can you name authors or others with whom either of them were special favourites?

GERALD. Yes, I have seen the paragraph in *The Western Teacher*. It is surprising, that the editor admitted such statements concerning our monarch. The writer of the article evidently knows no more of the truth concerning King Edward VII than he does of the December number of the EDUCATIONAL REVIEW and its supplement of Edwin A. Blashfield's picture. There was no need for stating that liberty is a British sentiment, it is more than a sentiment. If you were teaching school on the prairie, and as much at a loss to convey an idea of a huge boulder as some teachers are of the mode of swinging a luge bell, possibly one might recommend you to procure a picture of "Plymouth Rock."

R. M. Sir W. C. VanHorne was born in Illinois, but has lived for many years in Canada, and all his pictures have been painted in this country, so that he may well be described as a Canadian artist. True, he is not a "professional," but there are few who paint trees better than he does, and possibly none who love them better.

F. R. There is still a vesel in the British navy named "Temeraire." It is the third "Temeraire," and took a prominent part in the battle of Alexandria.

ALICE. I do not know any book dealing exclusively with Canadian art and artists. Much information is obtainable from magazine articles. The Educational Department in the government of Ontario has made special effort to secure reproductions suitable for schools, and occasionally pictures are purchased for Toronto.

ROBERTA. The lark in France may differ from that in England, but I do not know. All the poetic allusions you are likely to meet with are based upon the bird as it has been observed in the latter country. It makes no difference in the picture. Breton dealt

with the song of the lark, or, rather, its effect produced upon the peasant girl.

G. F. Certainly; in course of time certain principles may emerge which will guide in the choice of pictures for certain grades; and also principles for guidance in their use. There are books dealing with the matter, but not much attention is usually given in any normal college course. A "picture study club" is a good idea. H. B.

#### The Review's Question Box.

A. A. B. What book would you recommend as better than Meiklejohn's English Language as an authority in grammar?

The text-books on English grammar are so many and of such varying degrees of excellence that it is difficult to select. For a short text containing the principles of grammar and their application, there can be no better than Dr. D. J. Goggin's Elements, published by W. J. Gage & Company, Toronto. A more comprehensive work, so thorough that it leaves little to be desired, is Nesfield's English Grammar. Past and Present, published by Macmillan & Company, London.

In answer to a subscriber, L. S., asking where the quotation. "the long grey fields at night," is to be found, the REVIEW suggested that it might be from Kipling. This is not correct. The lines are found in Tennyson's "May Queen," in the seventh stanza of the second part of the poem:

You'll never see me more in the long grey fields at night.

Answers were received from Mrs. M. M. de-Soyres, Miss H. S. Comben, St. John N. B.; Miss Evelyn R. Bennett, Hopewell Cape, N. B.; J. A. Bannister, Steeves Mountain, N. B.; H. A. Prebble, Hampton, N. B.; Miss J. E. Mullins, Liverpool, N. S.; Thos. Gallant, Belle Cote. N. S.; H. Reeves Munroe, Taymouth. N. B.; W. B. Webb, Astleyville, Alberta; M. R. Tuttle, Elgin, N. B. Mr. Tuttle suggests that the reference is "to the long shadows which one would see in a country like England towards evening, or in New Brunswick."

A doctor prescribed rest and change for a small girl, saying that her system was quite upset. After he had gone, the little girl said, "I knew I was upset, mamma, because my foot's asleep; and things must be pretty bad when you go to sleep at the wrong end."

#### Another Examination Test.

A recent number of the New York Evening Post gives an account of a test made recently by the Cleveland, Ohio, educational commissioners to determine whether the criticism was just that pupils who had finished the grammar school were "neither quick nor accurate in simple arithmetical computations." (One should add, of course, that in the United States a grammar school is preparatory to the high school). Since the result is rather striking, the extract is here presented, giving the paper and some statistics as to the examinations:

Add:

	Subtract:	
1234567		9832184567
8910		3219383574
23456		
789101		
234	Multiply:	
56789		38798640209
210978		46039
3456		
78123		
432987		
65432	Divide:	
		394)26544332(

- " What is 25 per cent. of \$280?
- "What is 50 per cent. of 8-9?
- "What is 33 1-3 per cent. of .015?
- "A merchant had 300 barrels of flour, of which he sold 25 per cent, at one time and 33 I-3 per cent, of the remainder at another time. How many barrels had he left?"

This examination is easy, and absolutely free from "catch" questions. Each pupil was given all the time he wanted, but was asked to hand in, on a separate sheet, each problem, as soon as he "felt sure that he had the correct answer."

Let us look at the results. One hundred and ninety-three pupils were tested, representing five schools. In the addition, the time was from one to nine minutes, eighty-six answers were right and one hundred and four wrong; in subtraction, one to three minutes, one hundred and seventy-one right and twenty wrong; in multiplication, one to seventeen minutes, twenty-three right, one hundred and sixty-eight wrong; in division, two to ten minutes, one hundred and seven right, sixty-two wrong; in percentage, one to nine minutes, one hundred and thirty right, sixty-two wrong. Of the sixty-two pupils who made errors, five gave three wrong answers, and fifty-five one wrong.

We believe also that the eighth grade in Cleveland is no exception. But any board of education which is confident that its own system is more efficient can easily apply this identical test. We should be interested to learn the results in schools in this vicinity.

The written examination in spelling was almost as illuminating as that in arithmetic. The words were pronounced "by the regular teacher and in the usual form," so as to prevent embarrassment or confusion. The list is as follows:

drowsy	elegant	sieve
peninsula	tongue	guardian
excelled	orange	convalesce
diligence	Delaware.	hazel
measles	cholera	blamable
stirred	civilize	barbarous
alliance	anxiety	marvel
opponent	Wednesday	obliged
surviving	veteran	financia1
worthy	military	navigator
annoyance	increased	business
ratio	chargeable	telegraph
dimmer	possess	collision
wrangle	imagine .	seditious
opposed	patriotic	balance
control	abandon	ally
conceal	riddle	

One hundred and forty-four eighth-grade pupils from four schools were chosen to compete. The poorest paper contained thirty-six misspelled words out of a total of fifty. The only paper without an error was returned by a girl whose name should be recorded in the Hall of Fame, Ione Diggs. The whole number of misspelled words was 1,887, an average of more than thirteen for each pupil.

#### Is Grammar of Use.

The subject in which the grammar school, socalled, contravenes most sharply the law of the order of learning is, perhaps, grammar. For grammar, being the analytic and theoretical study of language, does not belong in the grammar school at all. The scientific classification of phenomena cannot commence until the phenomena have been assembled and made familiar. To this law of learning language is no exception. The language study proper to the grammar school is observation and acquaintance, that is, more particularly, practice in reading, speaking, composing. Nor for this is the study of grammar necessary. What is necessary is a very large amount of practice; much reading, much speaking, much composing. The only use of grammar here is a negative one, namely, to correct mistakes. And for this negative purpose the only person in the grammar school who need know grammar is the teacher. The positive, scientific study of grammar must be reserved for the high school.— W. G. Parsons, in the April Atlantic.

#### Lines in Season.

To be prepared for war is one of the most effectual means of preserving peace.—George Washington.

Nothing except a battle lost can be half so melancholy as a battle won.—Duke of Wellington.

He who did well in war, just earns the right
To begin doing well in peace.—Robert Browning,

Truth is its justice's handmaid, freedom is its child, peace is its companion, safety walks in its steps, victory follows in its train; it is the brightest emanation from the gospel; it is the attribute of God.—Sydney Smith.

Let nothing foul to either eye or ear reach those doors within which dwells a boy.—Juvenal.

It is better to keep children to their duty by a sense of honor and by kindness than by fear.—Terence.

I do love my country's good with a respect more tender, more holy and profound than mine own life.—Shakespeare.

Our father's God! from out whose hand The centuries fall like grains of sand, We meet to-day, united, free, And loyal to our land and Thee, To thank Thee for the era done, And trust Thee for the opening one.

-Whittier .-

From shore to shore, Somewhere the birds are singing evermore.

-Longfellow

"Whoever plants a mulberry tree in his garden sends a public invitation through birdland for its people to come and live with him."

The little people that live in the air

Are not for my human hands to wrong.

—Alice Carey.

Does the meadow lark complain as he swims high and dry Through the waves of the wind and the blue of the sky? Does the quail sit up and whistle in a disappointed way, Or hang his head in silence and sorrow all the day?

Stars creep
Timidly forth, and Venus with her crest
Of diamond splendor hovers, loveliest,
As vestal guardian of the violet deep.

-Nathan Haskell Dole.

No longer forward or behind
I look in hope or fear;
But grateful take the Good I find,
The best of Now and Here,

-Selected.

Our lives are songs; God writes the words,
And we set them to music at pleasure;
And the song grows glad or sweet or sad,
As we choose to fashion the measure.
We must write the music, whatever the song,
Whatever its rhyme or metre;
And if it is sad, we can make it glad;
Or sweet, we can make it sweeter.
—Matthew Arnold.

Be just and fear not; let all the ends thou aimest at, be thy country's, thy God's and truth's.—Shakespeare.

A thousand voices whisper it is spring;
Shy flowers start up to greet me on the way,
And homing birds preen their swift wings and sing
The praises of the friendly, lengthening day.

The buds whose breath the glad wind hither bears, Whose tender secret the young May shall find, Seem all for me—for me the softer airs, The gentle warmth, wherewith the day is kind.

—Sel.

#### The Wild Doves of Saint Francis.

(This legend was originally given in an Italian book Called"The Little Flowers of St. Francis.").

"The Little Flowers of St. Francis."

A Tuscan peasant youth he saw, w

A Tuscan peasant youth he saw, who bore Tethered and bound a swarm of young wild doves, Poor pris'ners who were doomed to sale and death. St. Francis, who loved all the things on earth, All gentle creatures that have breath and life, Felt in his heart a deep compassion born, And looked at them with eyes of tender ruth.

"O good young man," he cried, "I pray that you Will give to me these poor and harmless birds-Sweet emblems they of pure and faithful souls-So they may never fall in ruthless hands That quench such lives in eruelty and blood." The youth had snared the birds within the woods, Was taking them to market, where their doom He knew was slaughter-sudden, cruel death; Nor had one thought of pity moved his mind, And yet, when gentle Francis made his plea It found an answer in the young man's heart; For use may blunt and thoughtless custom dim The mind to deeds of needless pain and death, Yet in each soul there is a secret cell Whose echo answers to the voice of truth. So the young man gave the wild doves to the saint, And wondered what the holy man would do With these poor captives from the woods and trees. St. Francis took them to his loving heart,

And on his breast they nestled safe and warm.

"Dear little sisters," said the holy man,

"Why did you let them take your liberty?

Why place yourselves in peril of your lives?

But you are safe from every danger now,

And I will care for you and build your nests

Where you may safely rear your little brood,

And live your lives as God would have you do,

Who is the Father of all living things."

The wild doves listened to his tender words;

And in his eyes they saw affection beam,

And in his voice they heard their Father's voice.

So the wild birds were tamed by love alone,

And dwelt with Francis in his convent home,

And there he built them nests that they might live

Their free and happy lives without annoy.

-William E. A. Axon.-Abridged.

#### Springtime Studies.

In the early spring days when the leaves come back to the trees and the birds return from the South, what can be done to bring into the schoolroom some of the new life and freshness of nature's resurrection. Many children in our city schools have little or no opportunity for observing the beauties of nature unless presented with suggestive examples by the progressive teacher. Nothing will develop thought more rapidly than the opportunity to observe the growth of a plant, the unfolding of the fern leaf, or some similar phenomenon, and thought power will lead to thought expression. The stimulation of the æsthetic sentiments will surely help to make each child happier, his view of life broader and more significant; his observation more accurate, his entire range of thought keener and more elevated.

Peas, beans or other seeds, planted in the schoolroom, will be the best method of showing the growth of plants and the value or needs of the various parts. Full directions in reference to this can be found in "Outlines in Nature Study and History." If some seeds are planted in moist sawdust they can be pulled up at intervals to show the successive stages of growth. Have each child make drawings at specified times to illustrate the continuity of growth. In order to enlarge the scope of the lesson use a selection that presents the same thoughts in poetic form. By combining these correlated topics, the subject will be flooded with a new light and an appreciation of good literature can be The following selection is simple and intelligible, and, therefore, well adapted to the purpose:

> "In the heart of a seed Buried deep, so deep, A dear little plant Lay fast asleep.

"'Wake!' said the sunshine 'And creep to the light', 'Wake!' said the voice Of the raindrops bright.

"The little plant heard And it rose to see What the wonderful outside World might be."

Use the selection also as the basis of language lessons. The observation of plant life with all its necessities will assist in making real the thoughts contained in the poem. A booklet made of draw-

ings illustrating the growth of the plant from the seed, with the poem written on the cover, will be a valuable and seasonable accompaniment to this series of lessons.

Other appropriate lessons can be taken in connection with branches of the pussy-willow, or applé, peach, or cherry blossoms. If these be brought into the school-room and placed in water, as the blossoms unfold, they will be a delight to the children and they will also afford an opportunity for observation that many of the pupils will not have elsewhere. Calendars can be made and decorated with sprays of the buds and blossoms.

Bud life and habits, the annual migration in the autumn and returning in the spring, the connection of this with the food supply, will furnish much interesting material. The blue-bird and robin, whose welcome notes announce the approach of spring. should receive special consideration. If a bird's nest can be procured and combined with the branch of apple-blossoms, there will be obtained excellent material for drawing and language lessons in connection with the following poem:

"Two little robins made a nest "Twas in the warm spring weather; They built it out of sticks and straws, And little bits of feather.

"It was upon an apple bough With blossoms all around it, So neatly wove and fitted in That no one ever found it."

The drawing may also be used to decorate the cover of a booklet, within which is written the poem, reproduced by the pupils in their own words.

There are many other suitable poetic selections that will be most valuable in these lessons which combine language and drawing in a form that will inspire in the child a desire to seek and to know more of the life of the great outside world,—

"The world's so full of a number of things
That I'm sure we should all be as happy as kings."

—The Teacher.

#### A Secret.

(Recitation for three tiny girls with gestures). 1 know of a cradle, so wee and so blue, Where a baby is sleeping this morning.—do you?

I think he is dreaming the dearest of things— Of songs and of sunshine, of tiny brown wings.

I'll tell you a secret,—don't tell where you heard,— The cradle's an egg,—and the baby's a bird!

-Selected.

#### Canada's Size and Population.

Canada contains nearly one-third of the area of the whole British Empire.

Its population in 1867 was 3,500,000; in 1901, 5,371,315; now it is estimated at over 6,000,000.

Canada's population west of Lake Superior fifty years ago was 8,000; now it is more than three-quarters of a million.

Canada began the twentieth century with about the same number of people as the United States began the nineteenth century.

Canada has enough territory to give each inhabitant nearly 400 acres.

The Maritime provinces are nearly as large as England and Wales.

Canada has more than forty nationalities represented in her population, but she has 87 per cent of Canadian born people and 8 per cent are British born, making 95 per cent of British subjects.

One out of every three and one-half of the population is of French descent.

British Columbia is the largest province and the richest in minerals.

Canada's centre of population is near Ottawa.

Canada is thirty times as large as the United Kingdom of Great Britain and Ireland.

England's population is 558 to the square mile; Canada's little more than .5.

There are 132,101 more males than females in Canada.

Canada is adding to its population every year a number equal to the population of Toronto.

Canada has more than one-half of the white population of all Britain's colonies.

Fifty-five per cent of Canada's foreign born population, 193,617, are naturalized citizens.

Canada's population west of Lake Superior is 75 per cent British and Canadian born; 25 per cent foreign born.

Ouebec Province has 290,000 of British and 1,322,115 of French descent.—Selected.

#### Guess the Name of the Boy.

The boy colored light yellow red. (dickie).

The boy that's the beak of a crow.

The boy that's a sailor, afloat or ashore,
The boy that's a light, loving blow.

The boy that's a notch in the blade of a knife,
The boy that's a jerk of the head,
The boy that's a wooden tub, small at the top,
The boy colored light yellow red.— Selected.

#### The Trees' Rebellion.

(Recitation for a little girl.)

Dame Nature said to her children the trees,
In the days when the earth was new,
"'Tis time you were putting your green leaves on,
Take them out of your trunks, dears, do.

"The sky is a soft and beautiful blue,
The snow went away long ago,
And the grass some time since popped up its head,
The crocuses are all ablow.

"Now hurry and get yourselves dressed, my dears, All ready for summer weather." But the trees tossed their heads from side to side, And grumbled out all together:

"We really would like to alter our dress,
We are quite tired of wearing green;
Each year our new suits are just like our old,
Can we not have a change between?"

Dame Nature said to her children the trees, "I'm astonished, I must confess, To hear you are tired of your robe of green; I think it's a beautiful dress.

"But wear it always in summer you shall, (I've said it and will be obeyed). However, I'll see ere the winter comes, If some little change can be made.

"Your unele John Frost comes to visit me\_ From his home in the polar seas, And I'll ask him to bring for each of you A dress any colour you please."

So every year you may see for yourself,
That whenever Jack Frost comes here,
The trees are no longer dressed all in green,
But in other colours appear.

-Lizzie Wells, Toronto.

#### Our Little Brothers of the Fields.

O brothers of the tongue that speaks, the hand that works such other good, the brain that thinks so kindly for those of your own species, will you not hear and heed the plaint in these wild voices that reach you even at your windows? Will you not have mercy on those harmless ones that, after centuries of persecution, know and think of you only with aversion and terror? Hang up the gun, burn the whip, put down the sling, the bow, the trap, the stone, and bid them live. Let their joyous voices greet the sun again, as in the days before they learned the fear of men. Take their drooping carcasses out of your hat, my lady, and set an example such as a gentle, well-bred woman should give to her ignorant sisters. Be ministers and friends, not persecutors and enemies. Shoot at targets all you please. Punish the evil in the human race, if you will be stern. But spare, for their sake, yet more for your own sake, our little brothers of the fields .- Charles M. Skinner .- Atlantic

#### Problems in Arithmetic-Grade VIII.

G. K. BUTLER, M. A.

1. A man can spend \$15 on papering a room 18 feet long, 15 feet wide and 12 feet high. The room has two doors 3 feet by 7 feet, and two windows 3 feet by 6 feet. The cost of putting on the paper is \$3, how much can he pay for a roll of 8 yards, 18 inches wide?

2. The cost of carpeting the same room with carpet 27 inches wide at \$2.50 a yard is what?

3. Find cost of one floor on the same room 34 inch thick at \$25 a m.

4. A cylinder is 20 inches high and holds 10 gallons; find its basal diameter.

5. Find the proceeds of a note of \$350, dated June 5th, at 3 months, bearing 5 per cent. interest, and discounted June 27th at 7 per cent.

6. A book is sold at a price which gives a gain of 20 per cent. and a discount of 10 per cent. on the marked price of \$2; find the cost.

7. Oranges bought at \$2.50 a hundred are sold at the rate of 3 for 10 cents; find gain per cent.

8. A horse which cost \$200 is sold to A at a gain of 40 per cent.; A, after he is injured, sells him to B at a loss of 30 per cent.; find A's loss in dollars.

9. What principal will produce \$67.50 interest in 3 years at 3 per cent?

10. If 600 liters sell for \$120 at a gain of 25 per cent., find gain (in dollars and cents) on 500 gallons.

11. An agent receives \$4292.50 to buy flour on 1 per cent. commission. If flour costs \$4.25 a barrel, find the number of barrels he can buy.

12. The base of a triangle is 40 rods, the height is 60 yards; find the area in ac. sq. rds., sq. yds., sq. ft., sq. in.

13. Reduce 6 fur., 14 rds., 3 yds., 2 ft. 8 in. to the fraction of a mile.

Answers. (1) Number of rolls 19 5-6, or 20 cost 60 cents. (2) \$100. (3) \$6.75. (4) 13.28 + inches. (5) \$354.55—\$4.96=\$349.59. (6) \$1.50. (7) 33 1-3 per cent. (8) \$84. (9) \$750. (10) \$90.86. (11) 1,000 barrels. (12) 1 ac. 58 sq. rds. 4 sq. yds. 4 sq. feet 72 sq. inches. (13)  $\frac{3.9.6}{4.9.6}$ 

What bosom beats not in his country's cause?—Pope.

I am glad to think
I am not bound to make the world go right,
But only to discover and to do
With cheerful heart the work that God appoints.

—Jean Ingelow.

#### "All Thy Work Praise Thee, Oh Lord."

Green Things .-

We all green things, we blossoms bright or dim, Trees, bushes, brushwood, corn, and grasses slim, We lift our many-favored lands to Him.

Medicinal Herbs .-

I bring refreshment,—

I bring ease and calm,—

I lavish strength and healing,—

I am balm,—

We work His pitiful will and chant our psalm.

Birds .-

Winged Angels of this visible world, we fly To sing God's praises in the lofty sky; We scale the height to praise our Lord most High.

Beasts and Cattle .-

We forest beasts,—we beasts of hill or cave,— We border-loving creatures of the wave— We praise our King with voices deep and grave.

Small Animals .-

God forms us weak and small, but pours out all We need, and notes us while we stand or fall; Wherefore we praise Him, weak and safe and small.

All Men .-

All creatures sing around us, and we sing; We bring our own selves as our offering, Our very selves we render to our King,

Little Children .-

He maketh me,—
And me,—
And me.—
To be

His blessed little ones around His knee. Who praises Him by mere love confidingly.

All.—

Let everything that hath or hath not breath,
Let days and endless time, let life and death,—
Praise God, praise God, praise God, His creature saith.
—Christina Rossetti,

#### Five Little White Heads.

Five little white-heads peeped out of the mold, When the dew was damp and the night was cold: And they crowded their way through the soil with pride: "Hurrah! We are going to be mushrooms!" they cried. But the sun came up, and the sun shone down, And the little white-heads were withered and brown: Long were their faces, their pride had a fall—They were nothing but toadstools, after all,

#### Keep Your Sons at Home.

Women of Canada! Do you want your sons to grow up proud of their parents' choice of a country; proud of a country in which to live and work and have their home themselves? Do you want them, as soon as they have finished their schooling or their university course, to look around for the career most in keeping with the particular bent of mind which you and Fate have given them? want this career to be along some line with which you feel yourself in sympathy? Do you at least wish that it shall be spent in Canada and not in some foreign country away from every tie of home? Do you not long, with every fibre of your being, for the happening of some circumstance which shall place beyond all peradventure your son's choice of a life-work right here in Canada?

We know you do. Then build up Canadian industries; support Canadian schools and universities; choose Canadian enterprises in which to invest money; give Canadian labour the first choice; do everything humanly possible to create a pride in our fair Dominion—these are what we contend are the bounden duties of all Canadians. Do these things and we create a great country. Create a great country of noble ideals and diversified industries, and no Canadian woman's son will need to go to the United States to find employment, or the widest scope for the best talent that in him lies.

And your daughters! You know that as the gray hairs make their appearance (and even Canadian women do gradually grow old!) you will not like it if you look around and find yourself alone, with one girl in California and another perhaps in Maine. You will think things all awry if there are not little grand-children clambering up your knee. You will think hard thoughts of your countrymen for not having devised means for keeping the girls nearer home. Yet, if the boys leave for another country to find the careers denied them in their own, what are the girls to do? The boys—ought they not to remember whom they have left behind? The girls—are they to become old maids?

Canadian women! We remind you of these things; but we know you can recognize them for yourselves. Your whole lives and loves are intertwined with the destiny of your native country. You want to see Canada grow mighty and populous, not only because you love her for herself, but because her prosperity is the link which binds your sons and daughters to the old home spot for all time to come.—Canada First, Woman's Department,

#### One King, One Flag, One Fleet.

One Brotherhood is ours, one King, One Land we call our Home, One Flag to British realms we bring To wave where'er we roam.

Come, sons of Britain, let us meet, Our brethren o'er the seas to greet, Come, sons of Britain, let us meet, Our brethren o'er the seas to greet.

One Fleet shall make our Union strong; Our sons shall not be slaves, In distant lands, bursts forth the song, "Britannia rules the wayes."

Undaunted we have faced the foe,
As one great nation known;
In war or peace, in weal or woe,
We'll rally round the throne.

For flashing swords are not our sign: United, strong and free, We shall for peaceful arts combine, And peaceful homes shall see.

The weak to raise, the wrong to right Be Britain's great behest. And mutual help shall put to flight, Each petty, envious guest.

Our message to the world is Peace:
Whilst Commerce spreads our fame,
May Truth and Honour never cease
To crown our British name.

God bless our King; now join all hands, And with a mighty cheer, Resounding through Imperial Lands, Will draw each other near.

Myles B. Foster.

#### Guess the Name of the Bird.

Guess the name of the bird that is woven in looms, (duck).

The bird that is coined out of gold, The bird that is flown at the end of a string, The bird that is useless when cold.

The bird that is wise and can see in the dark,
The bird that is fastened with spikes,
The bird that is honored on Thanksgiving Day,
The bird that the President likes.

"Is there a son of generous England here?
Or fervid Erin?—he with us shall join,
To pray that in eternal union dear
The rose, the shamrock and the thistle twine!

"Types of a race who shall th' invader scorn,
As rocks resist the billows round their shore;
Types of a race who shall to time unborn
Their country leave unconquered as of yore!"

—Thomas Campbell,

#### Victoria the Good.

Queen Victoria was one of the best rulers who ever lived. She had a very kind heart, and was always glad to do what she could for the good of her people. She often gave sums of money to those who were very poor, and she would write kind letters to those who were sick or in trouble.

One of her letters was written to Miss Nightingale during the Crimean War. In it she says: "I wish Miss Nightingale and the ladies would tell the poor noble wounded and sick men that no one feels more for their sufferings than their Queen. Day and night she thinks of her beloved troops."

Another of these letters was sent to some poor women who had lost their husbands in a dreadful accident in a coal-pit in the north of England. It told them how the heart of the good Queen was sad at their great loss, and the letter helped them to bear that loss with braver hearts.

Queen Victoria had many sorrows of her own, the greatest of which was the loss of her good husband, the Prince Consort, who died after twentyone years of married life. The whole nation wept with the widowed Queen.

Even in her great sorrow the Queen did not forget the sorrow of others. Not long after the death of Prince Albert she went to her castle in Scotland. One of the women of the village near the castle had also lost her husband, and the Queen went at once to comfort her. She often paid visits to the poor people about the castle and took many dainty things to the sick. In one cottage the Queen once found an old sick woman left quite alone. The rest of the family had gone out, the woman said, to see the Queen. "Tell them," said the visitor, after talking kindly for some time to the poor woman who did not know her, "that while they have been to see the Queen, the Queen has been to see you."

The planets in the western sky in early May evenings present an interesting sight. Nearest the horizon is Venus, higher up is Jupiter, while between them is Mars. They are all moving eastward, but Venus goes fastest, and overtakes Mars on the 6th, forming a remarkable conjunction with that planet, the two being so near together that they can scarcely be separated by the naked eye. As this happens at nine o'clock in the morning we cannot observe it, but on the preceding and following evenings their apparent distance apart will be less than half the moon's diameter. Venus overtakes Jupiter on the 11th, and Mars overtakes him on the 18th.

#### A Canadian Wheat Field.

We have taken the liberty to change the title of this selection from "Dacotah" to "Canadian."

Like liquid gold the wheat field lies,

A marvel of yellow and russet and green, That ripples and runs, that floats and flies, With the subtle shadows, the change, the sheen,

That play in the golden hair of a girl,

A ripple of amber—a flare

Of light sweeping after-a curl

In the hollows like swirling feet

Of fairy waltzers, the colors run

To the western sun

Through the deeps of the ripening wheat,

Broad as the fleekless, soaring sky,
Mysterious, fair as the moon-led sea,
The vast plane flames on the dazzled eye
Under the fierce sun's alchemy.

The slow hawk stoops

To his prey in the deeps;

The sunflower droops

To the lazy wave; the wind sleeps.

Then all in dazzling links and loops,

A riot of shadow and shine,

A glory of olive and amber and wine,

To the westering sun the colors run

Through the deeps of the ripening wheat.

O glorious land! My Western land, Outspread beneath the setting sun! Once more amid your swells I stand,

And cross your sod lands dry and dun.

I hear the jocund calls of men

Who sweep amid the ripened grain With swift, stern reapers, once again,

The evening splendor floods the plain.

The cricket's chime Makes pauseless rhyme., And towards the sun The splendid colors ramp and run Before the winds feet

In the wheat. —Hamlin Garland.

#### The Sculptor Boy.

Chisel in hand stood a sculptor boy,
With his marble block before him;
And his face lit up with a smile of joy,
As an augel dream passed o'er him.
He carved it then on the yielding stone,
With many a sharp incision;
With heaven's own light the sculptor shone,
He had caught that angel vision.

Sculptors of life are we, as we stand
With our souls, uncarved, before us,
Waiting the hour when at God's command
Our life dream shall pass o'er us.
If we carve it, then, on the yielding stone,
With many a sharp incision,
It's heavenly beauty shall be our own,
Our lives that angel vision.

—Bishop Dogne,

#### Five Evidences of an Education.

These five characteristics, then, I offer as evidence of an education: Correctness and precision in the use of the mother-tongue; refined and gentle manners, which are the expression of fixed habits of thought and action; the power and habit of reflection; the power of growth and efficiency, and the power to do. On this plane the physicist may meet with the philologian and the naturalist with the philosopher, and each recognize the fact that his fellow is an educated man, though the range of their information is widely different, and the centres of their highest interests are far apart. They are knit together in a brotherhood by the close tie of those traits which have sprung out of the reaction of their minds and wills upon that which has fed them and brought them strength. Without these traits men are not truly educated, and their erudition, however vast, is of no avail; it furnishes a museum, not a developed human being. It is these habits, of necessity made by ourselves alone, begun in the days of school and college, and strengthened with maturer years and broader experience, that serve to show to ourselves and to others that we have discovered the secret of gaining an education.—Nicholas Murray Butler.

#### The Dominion Cabinet.

Prime Minister—The Right Hon, Sir Wilfred Laurier.

Minister of Trade and Commerce — Hon, Sir Richard Cartwright.

Secretary of State—Hon. Richard William Scott. Minister of Justice—Hon. C. Fitzpatrick.

Minister of Marine and Fisheries—Hon, L. P. Brodeur.

Minister of Militia and Defence—Hon. Sir Frederick William Borden.

Postmaster-General—Hon. A. B. Aylesworth.

Minister of Agriculture—Hon, Sydney A, Fisher. Minister of Public Works—Hon, Charles S, Hyman,

Minister of Finance—Hon. Wm. Stevens Fielding

Minister of Railways and Canals—Hon. Henry R. Emmerson.

Minister of Interior and Superintendent-General of Indian Affairs—Hon. Frank Oliver.

Minister of Customs-Hon. Wm. Paterson.

Minister of Inland Revenues—Hon, W. Templeman.

#### The Voice of the Grass.

Here I come creeping everywhere;

By the dusty roadside,

On the sunny hillside,

Close by the noisy brook,

In every shady nook,

I come creeping, creeping everywhere.

Here I come creeping, creeping everywhere;

You cannot see me coming,

Nor hear my low, sweet humming;

For in the starry night,

And the glad morning light,

I come quietly creeping everywhere.

Here 1 come creeping, creeping everywhere;
My humble song of praise
Most joyfully I'll raise
To Him at whose command
I beautify the land,
Creeping, silently creeping everywhere.

-Sarah Roberts.

#### Boys Wanted.

Charles G. Irish, who addressed a meeting of 300 night school pupils in Utica, N. Y., March 14th, spoke of the time when he and a young friend came to the conclusion that there were too many boys in the world, and went on to tell of seeing a sign in a Utica business establishment's window, "Boys Wanted," and of going in and making inquiries.

"I went in," Mr. Irish said, "and asked the owner of the business how many boys he wanted, what he wanted them for, and what kind he wanted. He said, 'I want boys, and I want a lot of them.' asked him what kind of boys he wanted, and he said, 'I want live boys.' I did not think this was very strange, as I did not suppose he wanted dead boys. He did not want half live boys or lazy boys. could understand this very well. 'Then,' he said, 'I want boys who will come early in the morning and work all day and not have their eyes on the clock all the time. I want boys that will be prompt and that will take hold and learn the business. Such boys as this,' he said, ' are somewhat scarce. Then,' he added, 'we want clean boys, boys who will come with their hair brushed and their faces and bodies washed. I do not object to patches on their clothes, but I do not want dirty boys. What I really mean by dirt is what comes out of the insides of boysswearing, foul talk, evil thoughts. I want clean boys, and such boys are scarce. I have to hang out that sign very often.'"

#### The Banner and the Carpet.

The royal banner bent his head. And to the royal carpet said: "In the Palace at Bagdad Different duties we have had: Different, too, is our reward, Though servants both of one great lord.

"While the storms beat on my head, For a queen's feet you are spread. I, on marches blown and torn, Into the jaws of death am borne. You are kept from dust and rains, Battles, winds, and rents and stains.

"Yours a calm and happy life; Mine is full of pain and strife." Then the royal carpet said: "You to heaven may lift your head. I lie here beneath men's feet A slave to tread on and to beat; You in battle's stormy night, May lead heroes to the fight."

-William R. Alger.

#### The Victoria Cross.

After the Crimean War, Queen Victoria ordered a new medal to be made. It was to be called the Victoria Cross, and given to any soldier or sailor who had done some very brave deed before the enemy.

The first Victoria Crosses were made from the metal of guns taken from the Russians in the war. In the centre is a crown with a crowned lion above it. From arm to arm of the Cross hangs a scroll bearing the words, "For Valour." The medal is greatly prized, and the soldier or sailor winning it may write the letters V. C. after his name.

The first Victoria Crosses were given by Queen Victoria herself to the men who had won them. She rode to Hyde Park on a white horse (an emblem of victory), wearing a scarlet coat and a plume of feathers. The men were drawn up in a line, and were brought one by one before the Queen. Then she stooped and pinned the medal upon each man's left breast.

Lord Roberts, one of the bravest British generals, won the Cross when he was a young officer serving with the troops at the time of the Indian mutiny. One day two Sepoys ran off with a British flag. Roberts followed, re-took the flag, killing one Schoy and putting the other to flight. On the same day he rescued a British soldier from a Sepoy, who was on the point of stabbing him with a bayonet. these two brave deeds Roberts was given the Victoria Cross.

In the late Boer War the son of Lord Roberts also won the much-prized medal. He went with a few other brave men to try to save some guns lying in an open place swept by the Boer fire. He was shot down and soon afterwards died, so that he never knew he had won the Victoria Cross.-Adapted from the Britannia History Reader.

#### Key for Identifying Sparrows.

Miss Annetta A. Bradley, of Carleton Co., New Brunswick, who recently took the nature-study course at the Macdonald Institute, Guelph, sends us the following key for identifying sparrows by their most conspicuous markings. It is very simple, and may help some student of birds to make a start:

A	0	iestnut Crown	
Z 1 .	~ 1	iesiniii Crown.—	

1	. Spot on breast	Sparrow.
	. Bill red	
3	. Chestnut patch on wingSwamp	Sparrow.
4	. With none of these Chipping	Sparrow.
	A A. Crown not chestnut.—	
1.	. Two white tail feathers Vesper	Sparrow.

- 2. Yellow line over eye . . . . . . . . . . . . . . Savanna Sparrow.
- 3. Yellow spot between eye and bill .. .. White Throated Sparrow.
- 5. Breast streaked with spot in centre . . . Song Sparrow.

#### Canada, a Rich Country.

"I have travelled four thousand miles over Cana-I have been in the bush and on the prairie, and I have come to the conclusion that Canada is the country of the future; I know of none greater. Her mineral resources alone make her the richest country in the world. This is not mere conjecture; I have arrived at this conclusion after a fair investigation in several parts of the country and a thorough study of the reports of the Dominion Government's Geological Survey Department, and an inspection of the ores to be seen in the collection at Otlawa.

"The resources of Canada are such as to make her a Britain, France, Spain and Russia, all in one. She possesses the iron of Britain, the fruit and salubrious climate of France, the rich minerals of Spain, and wheat fields that rival the best in Russia."-Mr. Joseph Sutherland, of England, in Montreal Witness.

I enjoy the REVIEW very much. The art notes, poetry, etc., in fact everything, is very helpful.— E. R. B.

#### The Glory of the English Tongue.

Beyond the vague Atlantic deep, Far as the farthest prairies sweep, Where forest-glooms the nerve appal, Where burns the radiant Western fall, Our duty lies on old and young,— With filial piety to guard, As on its greenest native sward, The glory of the English tongue.

That ample speech? That subtle speech! Apt for the need of all and each: Strong to endure, yet prompt to bend Wherever human feelings tend. Preserve its force—expand its powers; And through the maze of civic life, In letters, commerce, even in strife, Forget not, it is yours and ours.

RICHARD, LORD HOUGHTON.—From an Envoy to an American Lady.

#### Professor Bell's Kites,

Professor Alexander Graham Bell, the inventor of the Bell telephone, spends his winters in Washington and his summers near Baddeck, in Cape Breton, where he conducts experiments with his tetrahedral kites. The ordinary kite of course requires to be held by a string in order to make it sail, but Prof. Bell has been able to make his kites ascend alone into the air, mounting skyward against the wind without any string, and even turning a circle and rising higher, just like some birds.

"So much significance do I attach to the success already obtained with the free-soaring kite that I named it the 'Oionos,' as the ancient Greeks styled the 'birds of augur,' whose soarings their prophets watched from 'towers of observation," says Prof. Bell.

One of these kites was tested with a man weighing 165 pounds suspended from it, and it rose until he was thirty feet from the ground, and kept him there steadily. The kite and its attachments weighed 123 pounds, so the total weight supported by the wind was 288 pounds. These of course are only preliminary studies, and they do not mean that man is ready to fly; they are useful merely in enlarging scientific knowledge of how the wind acts on large surfaces exposed to it.

The Review comes like a faithful friend from the East. Beaver Lake, Alberta. A. I. W.

Cape Breton County.

L. B. R.

#### The Ferns.

Deep in the woodland glen
The earth is white with snow,
And by the frozen brook,
With cowled heads bending low,
As if in prayer devout,
With mantles white and straight,
Like monks in silent row,
The ferns of winter wait!

Deep in the woodland glen
The old earth wakes from sleep;
The brooks with laugh and song
Spring down from steep to steep.
A gallant hand of knights,
With pennons floating free,
Stand where the white monks stood,
A brave Green Company!

Every Other Sunday.

The full name of the city of San Francisco, as given by its Spanish founders, was "Mision de los Dolores de Nuestro Padre San Francisco de Asis,"—the Mission of the Sorrows of our Father St. Francis of Assisi. The sorrows of its stricken people have recalled the name.

It has been noted that the earthquake region, a belt that surrounds the earth at about thirty or forty degrees of north latitude, is the region of greatest fertility and most desirable climate, and therefore of the densest population, and the oldest civilization in the Old World. This seems to be equally true in the New World, if we add the Central American extension of the earthquake region to the northern belt.

In his book on Nature Teachings F. S. Wood says in speaking of cork: "So buoyant is this substance that a very efficient belt can be made by stringing together 3 or 4 rows of ordinary wine corks and tying them round the neck like a collar. In these circumstances it is simply impossible to sink, and though anyone may collapse from exhaustion, drowning is almost out of the question."

[It might be a safe plan for those who are timid about venturing on the water or who are indifferent swimmers to accustom themselves to the use of such a necklace—to test it well while swimming in water beyond their depth and wear it constantly while boating. Drowning accidents frequently occur because people "lose their heads" on being thrown into water. To become accustomed to the water and know just how to act in it is a great means of safety.—Editor.]

I am forwarding my subscription for another year for my old friend the EDUCATIONAL REVIEW.

#### True Bravery.

Some one may say, "Did not the men and women have to be braver in the war times than in time of peace?" Let us stamp that as false. What a terrible thing it would be to be brave, if bravery requires of us to hurt and kill! Is it not brave to try to save life? Thousands of brave men are risking their lives to help men and save us all from harm. Brave doctors and nurses go where deadly disease is, and are not afraid to help save the sick. Brave students are trying perilous experiments, so as to find out better knowledge for us all. Brave engineers on thousands of locomotives are not afraid of sudden death if they can save their passengers from harmful accidents. Brave sailors are always facing the sea and the storm. Brave firemen stand ready to die to bring little children safely out of burning buildings. Brave boys every summer risk their lives to save their comrades from drowning. Brave fellows hold in check maddened horses and prevent them from running away with women and children. Brave women risk their own lives daily for the sake of others. Never forget it; it is better to be brave to help men than it is to be brave to harm them.-Charles F. Dole.

"I left my dog accidentally at a friend's house yesterday," said a young girl, as reported in the *Philadelphia Evening Bulletin.* "My friend tried to get him to run after me, but he would not leave. He plainly held that I would soon return; that, since I had gone without him, I would come back inevitably for him, and he stuck to the room where I had parted from him, feeling that it was his duty to do so. Finally my friend called me up on the telephone.

"'Your dog won't go,' she said. 'He thinks you will be back, and we can't drive him out.'

"' Hold him up to the 'phone,' said I.

"She held him up.

"'Peter,' I said, 'come home, I am waiting at home for you. Come straight home, Peter, good little dog.'

"Peter wagged his tail, wriggled down and out of my friend's arms and set off homeward like a flash of lightning."

In schools where there may be objections to g neral readings from the Bible or repeating the Lord's prayer, this plan may be adopted for the morning exercises: One morning alternate readings of the Beatitudes (Blessed are the poor in spirit); on another concerning charity (Though I speak with tongues of men and of angels). On another concerning God's care (The Lord is my Shepherd); and so on. Then a favorite hymn may be sung; followed by a memory gem that may be helpful for the day's work.

#### Current Events.

Last month will be remembered for the great eruption of Vesuvius, and the terrible earthquakes in Formosa and in California. Never since the destruction of Pompeii has the volcano made such havoc in the towns and villages that cluster about its base. The eruption, which had grown alarming in March, continued to increase in violence until the tenth of April, giving the inhabitants of the surrounding regions ample time to flee for safety; yet the people, destitute and helpless, were for the most part unable to get away. Thousands or houses were crushed by the weight of falling ashes, and hundreds of people perished in the ruins.

The earthquake in the southern part of the island of Formosa completed the ruin of one or more towns that were injured by a lesser shock in March. Landslides are said to have completely changed the topography of the country. Hundreds were killed by the disturbance, and thousands left homeless.

More appalling, because nearer than either the Formosan disaster or the volcanic disturbance in Italy, and perhaps more terrible in itself, was the great earthquake in California, by which, at the least estimate, one thousand people were killed, and hundreds of thousands left homeless and destitute. The first shock was felt on the morning of the 18th of April. By it, and the resulting fires, more than half of the great and wealthy city of San Francisco has been destroyed, and other cities have suffered severely. Immediate aid was sent from other parts of the United States, and from foreign lands; the Canadian government contributing \$100,000, the Emperor of Japan a like sum, and the Empress of China \$50,000, with an additional sum for the Chinese residents of San Francisco.

The final draft of the Moroccan convention was signed by the delegates to the conference on the seventh of April. It is a lengthy document, and begins with an impressive introduction, setting forth that the emperors of Germany, Austria and Russia, the kings of Belgium, Spain, Great Britain, Italy, Portugal and Sweden, the presidents of the United States and France, the sultan of Morocco and the queen of the Netherlands, desiring that order, peace and prosperity reign in Morocco, have assembled their plenipotentiaries to consider the proposed reforms and to determine on the means to apply them. The chief provisions of the agreement are that France shall police four Moroccan ports, Spain two. and France and Spain together two others; while France will have a controlling share in the financial management of the country.

The Natal authorities were about to execute certain Zulus who had been concerned in an anti-tax uprising, when the British government interfered to stop the execution. Thereupon the Natal cabinet resigned, declaring that they would not submit to to dictation by the Imperial government. Then the latter withdrew the objection, and the executions took place. Now a serious uprising of Zulus is reported, and there is a rumor that a British army

corps is to be sent to South Africa, both of which rumors may prove to be part of the same story.

A special commissioner has been sent to South Africa to devise a scheme of responsible government for the Transvaal.

King Edward has changed the name of Lagos

Territory to Southern Nigeria.

Japan has adopted the principle of the government ownership of railways, and its parliament has appropriated money to buy out the private owners. It will take five years or more to carry the plan into effect.

The opening of the new railway from Berber, on the Nile, to the shores of the Red Sea, at the new port called Port Sudan, makes it possible to cover the distance in ten hours, where it required ten days to accomplish the journey by camel caravan. The new railway provides a new route to India, in case of the closing of the Suez canal.

Perhaps the most important political event of the past month has been the reconciliation between Austria and Hungary. A new Hungarian parliament will be elected on the basis of universal suffrage, and all pending disputes between the Austrian Emperor and his Hungarian subjects will be left to

its decision.

President Roosevelt's recent suggestion of the need of a progressive tax on inheritances to check the dangerous accumulation of wealth in the hands of individuals has been received with great astonishment in the United States, among those who do not know that such a tax has been levied in Great Britain for years. The fact that there are wealthy men, any one of whom could re-build San Francisco at his own expense, and still remain rich, is more astounding than the President's suggestion.

At the present rate of progress, it will require forty years to finish the Panama canal if the sea level is adopted. If the lock system is adhered to, the work can be done much sooner, but the results

may be less satisfactory.

The report that extensive beds of anthracite have been found near Albany River, is the latest and brightest story of the great mineral wealth of the region south of Hudson Bay. Rich silver mines have been found in the Cobalt region; but if, as it now appears, coal and iron are found near together there, their presence is of more value in the future development of the country.

Currie, the discoverer of radium, has been killed by an accident in the streets of Paris. Since his great discovery, the old idea of the indestructibility of atoms has been abandoned. The atom is now regarded as composed of electrons, which may be given off, with the setting free of enormous energy; and it is calculated that if the action extends throughout the earth, the emission by every atom of an electron once in a thousand million years would be sufficient to account for the earth's internal heat.

The first Russian parliament will be opened by the Emperor Nicholas in person on the tenth of May. It is expected that he will then announce a general amnesty for political prisoners. Sugar cane has been successfully cultivated, under government auspices, in the lowlands of Afghanistan.

The Olympic games, in which atheletes from all over the world are to compete, were begun in Greece on St. George's Day. The King and Queen of England were present as guests of the Queen's

brother, King George.

The Dominion Parliament has invited King Edward and Queen Alexandra to visit Canada during the present year. It is hoped that their Majesties will come at the time of the opening of the new bridge across the St. Lawrence at Quebec. Great changes have taken place in His Majesty's North American dominions since he, as Prince of Wales, in 1860, opened the Victoria Bridge at Montreal. Then Canada included but a part of the present provinces of Quebec and Ontario. Now three oceans mark its boundaries, and half the continent is embraced in its area; while its great commercial highway crosses regions then unknown.

We are accustomed to the use of French as well as English in the official life of Canada. It was a novelty, however, for the new lieutenant-governor of Nova Scotia to receive and reply to an address in Gaelic. His appearing in plain clothes at public functions is also another thing in his favor.

A new treaty between Great Britain and China provides for the recognition of China's protectorate over Tibet, and for the opening of certain Tibetan markets to Indian trade. Great Britain will not interfere with the interior affairs of Tibet, unless other powers do so. China will erect telegraph lines and will give preference to the British in the matter of railway concessions; and will pay a large part of the expenses of the British expedition to Lhasa in 1903-4.

#### School and College.

F. R. Branscombe, the energetic and popular principal of the Hopewell Cape. N. B., School, and his advanced pupils, gave the Comedy—"Between the Acts" to a large and appreciative audience in the Public Hall on Thursday evening April 12th. The proceeds which amounted to \$35 will be used to procure maps for the school.

Mr. Cyrus H. Acheson, formerly of Charlotte County, is now Inspector of Schools at Johannesburg, Africa. In a brief note he states that his family are all well and enjoying African life very much. He says the big questions in Africa just now are Chinese labor and native unrest.—

St. Andrews, N. B., Beacon.

At a concert, followed by a social, held in the school house at Carleton, Annapolis County, the sum of \$24.00 was realized. It is the intention of the teacher Mr. M. C. Foster, who is a Guelph nature student, to use the proceeds for school garden purposes. Nearly a third of an acre of the school premises which is now practically waste land will be ploughed, fertilized and fenced, thereby laying the foundation of a permanent school garden.

The inspectors of schools in New Brunswick, so far as we have been able to learn, have appointed May 11 as

Arbor day.

## THE EDUCATIONAL INSTITUTE OF NEW BRUNSWICK.

The Executive Committee of the Educational Institute met at Fredericton during the Christmas vacation and arranged an interesting programme for the next meeting of the Institute. A number of the leading teachers of the Province will read papers or deliver addresses upon live educational questions. Prof. Jas. W. Robertson, who has taken so much interest in public education in this Province, has promised to speak before the Institute or to send a representative from Macdonald College, St. Anne de Bellevue, of which institution he is manager.

## The Institute will meet at Chatham on June 27th.

Dr. Cox, who is chairman of the local committee, will see that all necessary arrangements are made for the entertainment of the members of the Institute.

A committee has been appointed to arrange with the authorities of the Intercolonial Railway for the transportation of teachers at the most favorable rates.

### JOHN BRITTAIN, Secretary Institute.

Professor A. M. Scott, of the University of New Brunswick, has been offered the position of superintendent of schools, of Calgary, and it is likely that he will accept the position. Professor Scott has devoted himself with much energy and ability to his work in the University, where his services will be greatly missed.

. Miss Antoinette Forbes has resumed her duties in the Windsor, N. S., Academy, after a three months' leave of absence.

Mr. Charles L. Gesner, principal of the school at Canning, N. S., was married on the 11th April to Miss Carrie F. Bent of Belleisle, N. S. The Review extends its cordial congratulations to the happy couple and wishes them many years of happiness.

Dr. Annie M. McLean, of Wolfville, N. S., a graduate of Acadia, who received her degree of doctor of philosophy from Chicago University, has been chosen professor of sociology in Adelphi College, Brooklyn, N. Y., and will begin her duties in September.

Miss Muriel Carr, of St. John, N. B., has been offered and has accepted the chair of English literature in Rockford College, Illinois, within a short distance of Chicago. Miss Carr recently won the fellowship given by the Women's Educational Association of Boston, a rare distinction, as it is open to all graduates of American colleges. Miss Carr will spend a year, prior to taking up her duties at Rockford, in research work in Early English literature, especially in the comparison of black letter manuscripts, which are kept in various cities in Europe, as Oxford, London, Paris. Berlin and others.

Miss Florence C. Estabrooks, a graduate of the St. John, high school in 1900 has made a splendid record in her first year's work at McGill, winning first place in English, Greek, algebra and advanced geometry, besides first rank honours in Latin and general standing, with four prizes including the Coster memorial prize. The young lady and the school from which she graduated are to be congratulated on winning such a distinction as leader of an exceptionally large class at McGill.

Twenty-five Canadian students are enrolled this year at Yale University.

Mr. Will Whitney, recently manual training instructor in the Schools of St. Stephen and Milltown, N. B., is now taking a course in Manual Arts at Teachers' College, Columbia University, New York. Mr Whitney is desirous of giving his service to Canada as soon as an opening occurs.

#### Recent Books.

Essays of Elia. (First Series). By Charles Lamb. Selected and Edited with Introduction and Notes by George Armstrong Wauchope, Professor of English in South Carolina College. Semi-flexible cloth. XXXVI+302 pages. Portrait. Mailing Price, 45 cents. Ginn & Company, Boston.

This volume contains thirty of the most popular essays. The introduction by the editor is a fresh, sympathetic, and judicious appreciation of the author's character and work. It is accompanied by a chronological table and a short bibliography. The notes are the most adequate ever presented in an edition of Lamb, and embody the results of ripe scholarship and several years of laborious research. Accompanying the notes on each essay is a set of questions and review topics illustrating the editor's original pedagogical methods of teaching literature.

The Geography of America. By William Hughes, F. R. G. S. Cloth. Pages 129. Price 1s. 6d. George Philip & Son, London.

This book gives in very compact form much information on the physical, political and commercial geography of North and South America. It has three maps, and the matter contained in the work, so far as a cursory examination reveals, is up to date.

From the same publisher (Geo. Philip and Son) there come the Model Atlas, price 6d. containing 50 maps of the chief countries of the world with relief models, all in colour and the Threepenny Atlas, containing sixteen coloured maps, both very useful for convenient reference.

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FIRST YEAR IN FRENCH FOR BEGINNERS, By B. L. Hénin LL. B. (University of Paris). Cloth. Pages 52. Price 50 cents. D. C. Heath & Co., Boston.

This book with the exception of a few introductory lessons and the vocabulary is written entirely in French, thus compelling the pupil to think in and speak the language he The course is practical, gradual and is learning. methodical.

THE MEDEA OF EURIPIDES. Edited by Harold Williamson, M. A. Cloth. Pages 159. Price 2s. Blackie & Son,

Two editions of the Medea have been consulted in preparing this volume,-the German edition of Wecklein and the English of Dr. Verralls, the latter an admirable interpretation of the Greek scholar. The introduction, notes, vocabulary and index are well adapted to meet the needs of the scholar. The clearly printed page and the fine illustrations will also be much appreciated by students.

CHEMISTRY LECTURE NOTES. By G. E. Welch, B. Sc., (London). Cloth. Pages 63. Price 1s. 6d. Blackie & Son. London.

These notes are such as would be taken during a course of lessons on inorganic chemistry. They are necessarily brief and blank leaves are inserted alternately with each page of printed notes for drawings and taking of additional notes. The arrangement is very convenient for students and should save valuable time.

Précis Writing. Edited by H. Latter, M. A. Cloth. Pages 214 Price 3s. 6d. Blackie & Son, London.

This book contains a number of valuable exercises in précis writing for civil service candidates, army classes, and others, mainly in diplomatic correspondence.

LES DEUX Sourds. By Jules Moinaux. Edited with notes and vocabulary by I. H. B. Spiers. Cloth. Pages 53. Price 25 cents. D. C. Heath & Company, Boston.

A brief comedy in sound colloquial French, with a clever plot and lively action.

THE ART AND PRACTICE OF LAUNDRY WORK. By Margaret Cuthbert Rankin, Cloth. Pages 191. Price 2s. 6d. Blackie & Son, London.

This work should prove very useful to young housekeepers and for students and teachers. It has been written to give a correct knowledge of household laundry work and is the outcome of many years of experience and observa-

COMPLETE HISTORY READERS. No. VI. Cloth Pages 254. Price 1s. 6d. Blackie & Son, London,

This book with carefully selected passages from the history of England and the Empire and attractively illustrated is a very appropriate one for this month. The development of the Empire receives much attention in the volume.

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These lessons, all in French, are easy, well graduated and adapted for oral teaching.

Mr. Andrew Carnegie's rectorial address before the University of St. Andrews on Peace is noteworthy in behalf of that cause. Published in pamphlet form, price 10 cents or 100 copies for \$5, by Ginn & Company, Boston.

#### Recent Magazines.

The May Delineator, has a complete display, pictorial and descriptive, of the latest Spring fashions. Hon. Justice David J. Brewer contributes an article on "Woman in the Professions" in which he comments on the significance of the fact that the status of women has changed in the last half century. Alice Brown contributes a fairy tale for the little ones. There are other features to delight young folks, including a chapter in the serial, "Sunlight and Shadow" and pastimes by Lina Beard.

The April Canadian Magazine, with its excellent coloured cover and its attractive coloured printing is one of the best issues of this publication. Canadian periodicals are showing improvement, as might naturally be expected with the growth of the country and the development of our

national life. The historical and analytic article on the Grand Trunk Pacific is important, and is rendered attractive by the liberal use of photographs of scenes along the proposed line and portraits of the directors.

The April Atlantic contains a rich variety of articles upon timely and important topics. Willard G. Parsons contributes a striking paper entitled Making Education Hit the Mark; Charles M. Harger has a picturesque paper on The Lodge, setting forth the place of the lodge in the social and intellectual life of the American people. Among the essaye are The Reform in Church Music, by Justine B. Ward, A Plea for the Enclosed Garden, by Susan S. Wainwright, and Tide-Rivers, by Lucy S. Conant. The stories, are uncommonly attractive and entertaining.

By all odds the most striking figure in the new Liberal Ministry in England is Mr. John Burns "The Workman-Minister" whose personality and career are interestingly described in an article which The Living Age for April 14th reprints from The Nineteenth Century. Very diverting is the skit of "American Manners" which The Living Age for April 14th reprints from Temple Bar.

The April Chautauquan continues the scholarly and interesting series of articles entitled Classical Influences in Modern Life. W. A. Elliott contributes a study of the Modern Greek—no close relation to the Greek of olden times but interesting modern, democratic and enterprising.

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## **OMISSION**

In the Journal of Education of Nova Scotia, October, 1905, page 187, Prescription, for Grade XI.

By the printer's mistake there has been omitted from the prescriptions for Grade XI in the October JOUNNAL OF EDUCATION for 1905, on page 187, the following prescription which is correct as published in the April edition preceding

"PHYSICS.--11: As in Gage's Introduction to Physical Science."

Practical Mathematics should be numbered respectively 12 and 13.

Education Office, A. H. MACKAY, Halifax, N. S., Jan. 27, '06. Supt. of Education.

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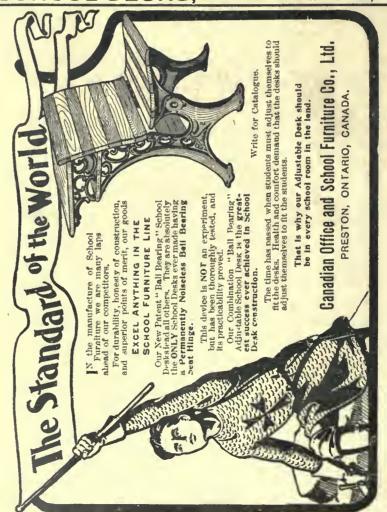
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# The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

PUBLISHED MONTHLY.

ST. JOHN, N. B., JUNE-JULY, 1906.

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G. U. HAY, Editor for New Brunswick

A. McKAY, Editor for Nova Scotia

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misunderstanding may be avoided.

The number accompanying each address tells to what date the subscription is paid. Thus "229" shows that the subscription is paid to June 33, 1906.

Address all correspondence to

THE EDUCATIONAL REVIEW, St. John, N. B.

No Review will be issued in July.

St. John, N. B., is moving in the matter of establishing vacation play grounds for children.

The Educational Institute of New Brunswick will meet at Chatham, June 27-29. The Educational Association of Nova Scotia will meet at Halifax September 25-27. See particulars of both meetings on another page.

The Summer School of Science holds its 20th session at North Sydney, July 3-20. Calendars containing all information can be had by addressing the secretary, W. R. Campbell, M. A., Truro. The third session of the French Holiday Courses in connection with McGill University will be held at Montreal, July 6—26. The longer courses at Yale and Harvard begin about the same time. The advertising pages of the Review give full information.

Professor A. Melville Scott, Ph. D., who has just retired from the University of New Brunswick to accept the superintendency of schools at Calgary, was presented recently by the Y. M. C. A., Fredericton, with a gold watch fob. Dr. Scott's active interest in all work that appeals to the citizen and university professor made him a valued member of the community and his loss will be much felt.

The Educational features of the Exhibition at St. John in September are fully set forth on another page. It is some time since the work of the schools of New Brunswick was adequately represented, and it is to be hoped that teachers, pupils and school officers will be eager to avail themselves of the opportunity that such friendly competition affords. The natural history exhibit will be much more complete than any previously furnished, showing the native animals, plants, and economic minerals of the province in an attractive way.

During this month teachers may do much to direct the activities of their scholars during the approaching long summer vacation. The scholars are interested in things out-of-doors; plan out something interesting that they can do in that line, which shall help them in next year's nature-work, and at the same time be recreation for them,-for recreation is not idleness. In this connection teachers will find many suggestions in Principal Soloan's article on "Summer Holiday Activities," published in last year's October number of the Review.

Would it not be a good plan to name some of our schools after men who have conferred honour upon the cities and provinces throughout Canada, rather than to have such schools named after the streets in which they stand. There are many men for example in the Maritime Provinces whose names are remembered in educational or literary circles, or in the councils of the country. It might be more fitting for Halifax, for instance, to have its Howe or Haliburton school, instead of the Morris or Albro St. school; St. John could honour the names of Sir Leonard Tilley, King, John Boyd in the Winter street or Union street schools; Fredericton could revere the names of Sir Howard Douglas, or Sir

L. A. Wilmot, or Theodore Rand in its York street or Charlotte street schools. Now that we have exhausted the names of kings and queens and governor-generals, would it not be well to honour local celebrities in naming our city and town schools?

#### Canadian Nationality.

The Cry of Labor and Other Essays. By W. Frank Hatheway, St. John, N. B. Cloth. Pages 230. Wm. Briggs, Toronto.

Canadian readers are glad to welcome in book form an elaboration of the fugitive essays of Mr. W. Frank Hatheway, which for several years past have appeared in the press under a pen-name. Mr. Hatheway is a tireless student, a wide reader, a lover of Nature in all her moods, and thoroughly impressed with the possibilities of Canada. He knows the nations of the old world from personal contact and from books; he has seen all parts of this fair Dominion; on foot and on bicycle he has visited hundreds of hamlets and country sides in New Brunswick and Nova Scotia, talked with the people, sympathized with their moods and respected their convictions, exchanging ideas on every conceivable topic, in every grade of society. Living at times both in city and country, he knows the latter as few know it-its mountains and valleys, its glens and gorges, its lakes and streams. He has seen it in cloud and in sunshine, in winter and in summer, in the vivid green of springtime and the varied hues of autumn,—and he has appreciated its beauties as few are able to do.

So much for the author; now for the book. His aim, he tells us, is "to develop a high national character, so that the word 'Canadian' will mean an educated intelligence that sees both the beautiful and the useful in Nature, that has an abiding faith in the Creator and a deep love and reverence for the land in which we live." Throughout, from his own observation in other lands and from his extensive reading, he finds Canadian scenery, Canadian conditions of life superior to those of other lands, and every page of the book appeals to Canadian citizens to feel the responsibility of their citizenship, to take a wholesome pride in it and to cultivate a love for their natural surroundings.

A note of patriotism is struck in the book when the author, almost on every page, advises Canadians to know more of their own country, to study its resources, to know its beautiful scenery, the wonderful progress it is making industrially. There should be an intellectual progress to keep pace with this material progress. But to advance along every line we should "seek our ideals at home."

#### Tests of Applied Education.

Prof. F. J. Miller of Chicago University in a recent lecture there, declared that our colleges develop the mind rather than the heart, and said that candidates for degrees should be required to answer such questions as these:

"Has education given you sympathy for all good causes? Has it made you public-spirited, so that you look beyond your own dooryard and take an interest in a clean city? Has it made you a brother to the weak? Have you learned how to make friends and to keep them? Do you know how to be a friend yourself? Have you learned the proper value of money and time? Can you look out on the world and see anything but dollars and cents? Can you be happy alone? Are you good for anything for yourself? Do you see anything to love in a little child? Can you look straight in the eye of an honest man or pure woman? Will a lonely dog follow you? Can you be high-minded and happy in the drudgeries of life? Can you see as much beauty in washing dishes and hoeing corn as in playing golf or the piano? Can you see sunshine in a mud puddle? Can you look up to the sky at night and see beyond the stars."

Education is "something more than a college education;" broadly, it is "adjustment to life," he said.

#### The Ideal Teacher.

Before all other qualifications, however, the teacher's character is the fundamental requisite. That must be above reproach in all things. Milton's words about the poetic power are specially true in regard to the power to teach. "He who would not be frustrate," said the great poet, "of his hope to write well hereafter in laudable things, must himself be a true poem." He who would not be frustrate of his hope to teach well at any time ought himself to be a lofty exemplar of the virtues he would impress upon his pupils. The teacher who stands before a class for hours every day ought to exert greater influence even than the clergyman who speaks from the pulpit one day in the week, and he ought at least to have an equally lofty character, known and recognized by all men. The teacher who is master of his subject, and who has this nobility of character, needs no help of artifices to assist him in governing his pupils—he has simply to be, and they obey.—Arthur Gilman, in Atlantic Monthly,

#### Our Native Trees - XI.

By G. U. HAY.

THE OLD OAK TREE.

Outpost of some primeval wood, More than two hundred years it stood, And watched benignantly the ways Of men in these strange latter days. And if the gnarled old tree but knew All those on whom its shade it threw, What a great, various company It sheltered in its memory!

It caught the sunbeams as they strayed Among its leafy boughs, and made An oasis in the traveler's way, How many a sultry summer day! It kept, mayhap, his courage good, As midway of the towns it stood, A way-mark he could measure by, And know his journey's end more nigh.

It gave the children acorn-cups,— Such have they where Titania sups,— And its brown, bitter nuts it poured To swell their homely, winter hoard. Its boughs were wont to interlace, To make a neighborly meeting-p'ace. While sometimes lovers' trysts, maybe, It saw,—this silent, friendly tree!

It gave the birds a home, and we Were happier for their minstrelsy,— No sweeter, though, than its own rune, When west winds were with it in tune. It gave a sense of calms and joys, Beauty and strength in equipoise; A hint of life ourduring ours, As the russet leaves its showers.

And then beside our winter fire, We watched the cheerful flame aspire, As its stout heart to ashes turned, While willingly for us it burned,—Still free to serve as when it made A hospitality of shade.

And who of us can hope to be
Of sweeter use than this oak-tree?
Shade, shelter, dial, meeting-spot,
Giver of song, hope, warmth, and thought!
—Selected.

Three species of Oak are said to exist in the Maritime Provinces. of which the red oak (Quercus rubra) is the commonest. It is a rapid grower, and its wood, which weighs 41 lbs to the cubic foot, is less valuable than many others, being softer and so full of sap that it is difficult to remove it by drying. For this reason it makes poor fuel. It is short-lived, in comparison with other oaks, but grows to a large size and has a spreading habit, giving abundance of shade. In a forest of red oak,

which may sometimes be found on slopes facing the sun, there is usually plenty of room for smaller plants, quite different from what one finds in the denser shade of a beech forest. The flowers which appear with the leaves in spring are of two kinds on the same tree (as with other oaks), the staminate flowers (each containing about eight stamens) in catkins and the fertile ones, like tiny little pink knobs,—both growing in terminal or axillary clusters on recent shoots.

The oaks are among the last trees to put out their leaves in spring and they retain them late in the fall. The leaves of a forest of red oaks, with their rich red and purple colours, are a beautiful sight when the brighter colours of the maples begin to fade. The heart wood of the red oak is reddish in colour, splits easily, shows a beautiful grain, and is much in demand for making furniture. It is used for planking for the decks of vessels, for strong barrel staves, and for bridge posts where there is exposure to water.

The fruit is a large, somewhat bitter acorn, enclosed in a shallow open cup, very abundant. In some districts where there are forests of red oak, swine are fed on the acorns which are known as "mast." The acorns ripen and fall at the end of the second season.

The beautiful shape and spreading habit of the red oak make it very desirable as an ornamental tree, but it requires plenty of room and sunlight to reach the majestic proportions to which many of these trees attain. The trunk soon becomes lost in the large and numerous branches which spring from it in curves. Most of the limbs are knotty and crooked.

The bur oak (Quercus macrocarpa) is not a common tree in the maritime provinces. The bark of the trunk and branches is an ash gray, darker than that of the white oak. This tree does not here attain the size which distinguishes the red oak, but its trunk is more erect, and its branches less spreading. It is found in deep rich soil in river valleys; grows much more slowly than does the red oak, and is more difficult to transplant.

A variety of the scarlet oak (Quercus coccinea) has been found in at least one place in New Brunswick by Dr. Brittain. It is smaller in size than either of the preceding forms, its foliage is also more deeply cut, shining green in summer and a bri liant scarlet in autumn, making it a very desirable tr e for ornamental purposes. The young trees are said to be lacking in symmetry, but they make a rapid growth in any light well drained soil.

The short stout trunk of the oak, holding its immense weight of branches, is an emblem of strength. Its wood has shown this strength. For hundreds of years it was used in building the ships of England's navy. The ancient Britons worshipped the oak, which then grew in great abundance over the southern part of the island of Great Britain.

#### Our Mountains and Hilis.

By Professor L. W. Bailey, LL.D.

If our sea-coasts, as shown in previous sketches, have their beauties and their lessons, this is no less true, in both particulars, of our hills and mountains.

True it is that within our limits we have not eminences sufficiently exalted to introduce in any great degree the element of grandeur. We have no towering peaks like those of the Alps, the Yungfrau or the Matterhorn; no volcanic cones, like those of Vesuvius or Etna; no permanently snow clad summits or glacier-filled valleys; no profound cañons, such as trench the Rocky Mountain system in so many ways and places; we have no heights exceeding 2,900 ft., which in regions of great mountains would be mere pimples on the side of the loftier ridges; yet no one can stand on the summits of our higher hills, after a more or less arduous climb, without feeling amply repaid for the effort necessary to reach them.

Take for instance Bald Mountain, at the head of the Nictau branch of the Tobique, the highest, as, with the exception of a few feet, it is certainly the finest eminence in Acadia. As one stands upon its nearly bare summit, and with his eye sweeps the horizon in the effort to identify recognizable points, what a panamora lies spread before him! As far as the eve can see (and this under favorable conditions may be one hundred miles or more-including in one direction the distant hills of Gaspe, and in the other the conspicuous ridge of Mt. Katahdin in Maine) there is apparently an unbroken forest, though columns of smoke rising here and there in the distance, mark where clearings or settlements have taken partial possession. At our feet is Nictor Lake, prettiest of New Brunswick lakes, nestling among hills, but little inferior to that on which we stand, which for unnumbered ages have stood undistinguished by special appellations, and have, through the labors of Prof. Ganong, only recently been named and measured. (See list below). To many, such a view suggests the waves of a

storm-tossed ocean; only, unless a storm be brewing—and storms in these highlands come with unexpected suddenness and violence—there is a
quietude which is almost solemn. Surely such
scenes widen one's horizon in more senses than one.
They lift the observer to a higher than the ordinary
plane of thought, and, as Ruskin has said, "Nature
herself among the mountains seems freer and
happier, brighter and purer, than elsewhere."

Let us change now for a moment our point of view and look old Sagamook (Bald Mt.) from the lake below, as the writer has done more than once by the moonlight of a midsummer night. The accompanying photo will give some idea, but a very imperfect



NICTOR LAKE AND SAGAMOOK MOUNTAIN.

one, of its outline, but only an actual visit to what is undoubtedly the prettiest and most striking bit of scenery to be found in New Brunswick, can convey any adequate idea of the impression it produces, an impression not of beauty only, but also of grandeur, solemnity and mystery,—the latter for the reason that so many thoughts are suggested, which one finds it difficult or impossible to answer. How long for instance has the mountain been there? How and when was it produced? Does it represent the original hill in its entirety? or is it, like many other mountains, only a fragment of what it once was?

Before attempting to answer these questions, and as paving the way to an answer, let us look for a moment at some other of our prominent hills.

I would next refer, in New Brunswick, to the Squaw's Cap and the Sugar Loaf near Campbellton. Their names suggest their general outlines, which, like some of the effects of sea-sculpture already noticed, illustrate the frequency with which Nature produces results similar to those of human agency. A view from the summit of the first named eminence with members of the Summer School, Campbellton, 1899, resting near the summit, 2,000 feet above the sea, is given in the accompanying cut. In this case the ocean is distinctly visible in the distance, its surface dotted with white sails, while nearer at hand is the sea of green which is always, unless forest fires have swept them away, an accompaniment of mountain views, and in the near foreground piles of

## Educational Review Supplement, June, 1906.



"FEEDING HER BIRDS."

From a Painting by I, I. Miss.t.





SQUAW'S CAP MOUNTAIN, NEAR THE SUMMIT.

broken rock fragments, rent by frost and ice from the rocky ledges of which they once formed a part. Here one of our first lessons may be learned. It is that what we commonly speak of and are apt to regard as the "everlasting" hills are evidently subject to decay. They are continually losing of their substance, and if this process continues indefinitely, the mountain must in time be worn down and disappear. It is the same lesson that we learned on the seashore, the lesson of inevitable change. Every one of our hills tells the same story, and the great piles of angular fragments on their sides, known to geologists as taluses, become both a proof and a measure of the change. They represent the results of what is known at the "creep" of rocks-movements which, ordinarily slow, but at times augmented by more vigorous slips or slides, are everywhere tending to reduce the heights of the land to the level of the sea. The accompanying cut shows one among the conspicuous land slides characterizing the Bay of Fundy coast in eastern St. John county, while similar effects are very conspicuous at Blomidon. Another feature of our mountains deserves attention here, for it gives another lesson based on mountain forms. It is this: If we look from some high eminance over the sea of hills spread on every side of us, we notice that however distinct the individual hills may be, they all rise to about a common level; in other words they owe their form and individuality mainly to the valleys which separate them. Now these valleys are occupied by streams, such as the Tobique, which, in the case of the Bald Mountain view already alluded to, may be seen, with its tributaries, winding like silver threads through the forests of green; and the question arises whether the valleys are not due to the streams, and whether, before the latter began their work, there were no valleys and therefore no hills, what are now such being all united in a common block. This is the view now generally held as to many mountain regions, and it serves to explain many facts which would otherwise be inexplicable. Such flat blocks or plateau, of which there are several in New Brunswick, including the whole of our northern High ands, are commonly known as peneplanes. They suggest, a fact to which we shall return in a lat r chapter, that our rivers may, in some cases at 'east, be older than the hills. The fact referred to also explains—what is often found to be the case in our northern hills, like those of the Restigouche and Nepisiquit r.gions—that what appears from the valley below to be a veritable mountain is, as we prove by ascending it, only the cut end of a ridge, the top of which is flat for many miles. There are indeed isolated hills, and some of these, like the Sugar Loaf, already mentioned, or Bald Peak near Riley Brook on the Tobique, are very conspicuous, looking almost like volcanic cones, but even these are probably remnants of plateaus isolated or reduced by water erosion. The idea that mountains in general are wholly the results of upheavals, does not tally with the facts. A part of their elevation, and possibly a considerable part, may be due to up-



LAND SLIDE, ST. JOHN COUNTY, N. B.

ward bends of the earth's crust, but their prominence, and the details of their outlines are due almost solely to cutting down rather than to thrusting up. Like most geological results they are due not to sudden convulsions, as is so generally thought, but rather to the operation of ordinary agencies operating through long periods of time.

It may be of interest and of service, now, to have a systematic table of the principal elevations in the maritime provinces. Those of New Brunswick are mainly given upon the authority of Dr. W. F. Ganong, who has done so much towards the correct determination and delineation of the physical features of the Province.

#### HEIGHTS OF ACADIAN HILLS.

#### 1.- NEW BRUNSWICK.

Name	County	Locality	Elevation	Origin <sub>,</sub>	
Sugar Loaf. Squaw's Cap. Sagamook. Gordon. Bailey. Carleton Big Bald. Teneriffe. LaTour. Moose Mt. Bald Head Blue Mts. Bald Mt.	Restigouche do. do. do. Northumberland do. do. Victoria do. do. York do.	Near Campbellton do. Nictor Lake, Tobique do. 3 miles S. of Nictor Lake Nepisiquit Region  Near Riley Brook Tobique Valley Near Harvey	2000 2000 2576 1569 2675 2300 2108 2090 1030 1866 1724	Sedimentary and Volcanic do.	
Crauberry Hill. Magundy Ridge. Howland Ridge Bald Mt. Douglas Mt. Mt. Pleasant Chamcook Eagle Ben Lomond. Quaco Hills	Kings Queens Charlotte do.  St John do. Albert	Near Magaguadavic L. Near Millville Near Long Reach Near Weldsford Near St. Andrews Near Loch Lomond South of Sussex, &c.	1462 1200 637 854 850 500-1000 1050	Sedimentary do. Granite do. do. Sedimentary and Volcanic Sedimentary and Volcanic Sedimentary	
Cobequids					

Some of the readers of the Review, noticing the term "volcanic" occurring so frequently in connection with the origin of our prominent hills may be somewhat surprised, and be led to ask, do these hills actually represent old and dead volcanoes? To which I answer no, not in the sense that they were ever "burning mountains" like Vesuvius, or Etna or Stromboli, high cones, with craters at their sum-Some of them may indeed have once had those features, even if they are not recognizable now; but what is meant is that the material constituting the hills termed volcanic, are largely or wholly made up of material similar to that of ordinary volcanoes, and hence of igneous rather than aqueous origin. They show abundantly in many places the fact of their having been once

Annapolis and Digby

melted, not only by their slag-like aspect, but also by the effect which they have determined upon the rocks in contact with them; in other places, as on Grand Manan, and near Israel Cove on Long Island, N. S., they show the same columnar or basaltic structures as seen on the Giant's Causeway in Ireland; at still others, as on Blomidon and the range of the North Mts., they are filled with cavities due to the expansion of steam and other vapors. In many instances, as in the case of the high hills at the head of the Tobique and Nepisiquit rivers, they are simply old volcanic muds or tufas, and beds of this character are there spread over vast areas. In the case of the North Mountains of Nova Scotia, on Digby Neck and in Grand Manan, the molten rock, instead of issuing from one or more isolated

1000

Granite

vents, would seem to have come up along an extended crack, parallel with the trough of the Bay of Fundy, and doubtless due to the strains determined along its bottom in some former period of subsidence.

The granite hills so conspicuous in both Provinces, such as the Nerepis Hills, Cobequids and South Mountains, have also a semi-igneous origin: only here the material composing them probably originated through the action of heat acting only at great depth, and producing crystallization without fusion.

The relative hardness of igneous and granite rocks accounts for the prominence with which such hills usually rise above the surface.

# On the Present Confusion in the Names of American Plants.

BY W. F. GANONG.

In the Review for January 1904, I gave an explanation of the reason for the condition described by the above title, and stated that the whole subject was to be considered and acted upon by an International Botanical Congress to be held at Vienna in 1905. I wish now to explain briefly the action of the Congress and its significance for those who use the scientific names of our native plants.

And first I had better recapitulate the reasons for the confusion, leaving the reader to consult the original article if he wishes fuller information. It is universally agreed among Botanists that each species of plant shall bear but one scientific name, which is in Latin and consists of two words, a genus word and species word; and furthermore all are agreed that the first scientific name given a plant after the introduction of this system by Linnaeus in 1753, shall ever after be its sole name. Nowadays, and in recent years this method of giving names is, and has been, universally practiced, and there is no appreciable confusion in the names of recentlynamed plants. But unfortunately, whether through carelessness or accident, it was not closely observed in earlier times, with the result that a great many names came into wide, or even universal, use which were not the first ones given the respective plants, the earlier ones being overlooked or forgotten. In the past fifteen years, however, as an accompaniment of the greater activity and more critical spirit prevailing among students, many of these older names have been discovered, thus actively raising the question, shall we retain the well-known though later ones, or shall we abandon them in favor of the

earlier and theoretically correct ones? The subject in practice is vastly more complicated than this simple statement would seem to imply, and upon the various points at issue the Botanists of this country have separated into two schools, the Grayan school, (with their ideas expressed in Gray's Manual, and in many subsequent publications, chiefly by the New England botanists), and the Neo-American School, (represented by Britton and Brown's Flora and Britton's Manual). Among the many points at issue between the schools, two stand out with especial prominence, and they are these.

First:—when in the progress of knowledge a species has had to be changed from one genus to another, and has had its species name changed during the process, shall its correct scientific name be that combination of genus and species names which it bears when finally landed in its correct genus, or shall it be the name of the correct genus combined with the earliest specific name ever given to the plant? The Grayan School has held the former, following in practice a so-called Kew Rule, and the Neo-American school the latter.

Second:—a great number of the first names given to genera became, for reasons which were explained in the original article and need not be repeated here, replaced by later-given names which have come into wide or even universal use. Shall these later well-established names now be set aside in favor of the earlier?

This second question is much more important than the first, considered above, partly because these names happen to be so numerous, and partly because every change of a genus name changes of course, the name of all the species contained in that genus, no matter how numerous they may be. In this matter the Grayan school has been in accord with the leading Botanists of Europe in holding that such iong-established names should not be changed, and they have followed a certain rule, (called the Berlin Rule), for the regulation of doubtful cases. The Neo-American school, on the other hand, maintains that the older names must all be restored, claiming that only thus can stability in nomenclature be finally attained. There are other differences between the schools, but they are less important and more technical, and we shall confine ourselves to these

And now, what of the Vienna Congress and its decisions? In my opinion this Congress was as representative, authoritative and competent an assembly of Botanists as could possibly have been brought together; and moreover the carefulness and

publicity of all the preliminary preparations were such as to ensure the greatest fairness and opportunity to all. The matter of nomenclature was in charge of a special committee appointed at the Paris Congress in 1900. Long before the meeting of the Congress, this committee invited all Botanists to send in their ideas and suggestions as to nomenclature, and months before the meeting the committee published a large volume in which they gave all these suggestions, together with the rules adopted in earlier congresses and other matter germane to the subject. This volume was sent to all persons who were to take part in the nomenclature discussions of the Congress. The Congress met in June, and there were present more than five hundred Of these about one hundred were Botanists. specialists in classification and nomenclature, and took part in the discussions upon the latter subject. They represented, as officially-appointed delegates, all the principal botanical societies and institutions of the world, and of these delegates sixteen were The various proposals made by the different schools and individuals were debated through six days. In most cases the important questions were debated and voted upon separately, and even in cases where groups of related questions were voted upon in block, every member had the right to call for separate discussion and vote upon any single matter. I do not see how anything could possibly have been fairer. And the result in the two matters most at issue between the Grayan and Neo-American schools was this. In regard to the Kew Rule, the Congress decided in the main against the Grayan school, though with a reservation in its favor in the case of such names as have had their rank (from variety to species or vice versa) changed in transference. On the other, and more important question, the decision was wholly in favor of the Grayan and against the Neo-American School; for while not adopting the Berlin Rule as such, the Congress sanctioned as correct a list of familiar and long-established generic names, including practically all those at issue between the two schools. This action of the Congress is comparable to that of Legislatures, when they legalize by special enactment certain acts, marriages, etc., which are in equity correct though with some flaw in their title. Some of the other decisions of the Congress on minor points also went heavily against the Neo-American School, though hardly any other point went against the Grayan School.

So much for the decisions of the Congress. What effect will they probably have upon this troublesome

subject of confused nomenclature? Of course nobody is in any way legally bound to follow the decisions of the Congress, but whether any Botanists who have the good of the Science at heart, and especially any of those who took part in the Congress can honorably ignore its decisions is another question. Of the two American Schools, one at least has left us in no doubt as to its intentions. The leaders of the Grayan School have announced that they will loyally conform to all the decisions of the Congress. The partial abandonment of the Kew Rule will necessitate, they estimate, some fifteen percent of changes in the names of the Sixth edition of Gray's Manual, but the future editions of that Manual, and all the publication from the Gray Herbarium, we are assured, will follow the decisions of the Congress. The leaders of the Nco-American school, so far as I know, have made no announcement of their intentions, but I cannot question that they also, having made a gallant fight for principles in which they believed, will accept the issue in the spirit both of true sportsmen and of public spirited scholars, and will likewise conform their usage to that of the Congress. Thus we may look forward to an end of that confusion in nomenclature which has been not simply an annoyance, but an actual impediment to the further progress of botanical knowledge.

The answer to each of these enigmas is the name of an English Author.

Makes and mends for customers?—Taylor. Dwellings of civilized countries?—Holmes.

A head-covering?—Hood.

What an oyster heap is likely to be?—Shelley.

A very tall poet?—Longfellow.

More humorous than the former?—Whittier.

A worker in precious metals?—Goldsmith.

Always a pig?—Bacon.

A disagreeable foot affection?—Bunyan.

A domestic servant?—Butler.

A strong exclamation?—Dickens.

A young domestic animal?—Lamb.

An Englishman's favorite sport?—Hunt.

A young teacher says: I have found the Review well worth the subscription price to the young and inexperienced teacher, keeping him in touch with the work, ideas and methods of his fellow teachers.—F, I, P.

#### Corot.

By Miss A. MACLEAN, New York.

Jean Baptiste Camille Corot (ko-ro) was born in Paris, July 26th, 1796. Taking the train at Paris, a short run brings one to Sevres and Ville d'Avray. Sevres is on the river, but Ville d'Avray is further back on the ridge. Passing up through the Ville (veel) and descending the other side of the ridge by steps, one comes to a beautiful little lake. Just at the foot of the steps is a fountain, and on the large marble slab is inscribed "Veri diligentia" (search after truth). A large medallion head of Corot is cut in the slab, and beneath it his name. Opposite the fountain is the old home, where he lived with his sister after their parent's death. Nothing has been changed



since his death. It is a picture of ease and comfortquaint, flower-decked, vineclad, tree-shaded. Turning from this, one faces the lake. There are the trees Corot painted, and which one can never fail to recognize-willows, silver-leafed beeches here and there silver-poplars, and, on the further shore, tall Lombardy poplars with ragged ruffles of leaves about their dead stems.

were as familiar to Corot as the walls of his studio. Loveliness everywhere. Millet was in full sympathy with his surroundings; Corot with his. Millet's pictures may be called the rugged strophes of toil, Corot's the summer idyls; each are part of life and nature.

Today in the Bas Bréau, in the forest of Fontainebleau, at the very gates of Barbizon, the grand trees speak as they spoke to Rousseau; in the open glades the play of light and shadow lures and witches as it did Diaz; still the gorges of Franchard offer the backgrounds for scenes of animal life they gave Barye; the cattle of Troyon still feed in the meadows; Corot alone is absent in spirit, for the idyllic tone and sun-steeped haze of his best canvases are not of Barbizon.

Corot's parents were well to do people. He respected his father, but had a real reverence for his mother, whom he thought the most beautiful of women. Late in life he discovered peasant relatives among the vineyards of Burgundy. He was proud of these and said, "They are good workers, and they used to call out to each other in the fields 'Hi Corot!', and I used to think they were calling me."

Dumesnil said of Corot's appearance, "of good height, strong, of a robust constitution, with a healthful, frank, jovial expression; liveliness and tenderness in his eyes; a tone of bonhomic blended with penetration; great mobility of face." His parents sent him to the Lycée of Rouen in 1806, and there he remained seven years, receiving his entire education. His father intended to make a business man of him, but Nature got in her work ahead of père Corot. When placed in a draper's store he availed himself of every opportunity to hide away and sketch. The draper told his father that he would never make a business man and that he ought to let him be an artist.

The home at Ville d'Avray was purchased by Corot's father as a summer home, and there young Corot would lean from the open window and drink in the misty loveliness of lake and sky and tree long after all the others in the house were asleep. In the stillness, the dreamy, visible dampness, the light, transparent vapors impressed him in a way that influenced all his after career. When he came to paint, it all came back to him. At Ville d'Avray his artistic sense was quickened and his dislike for commercial life deepened. He begged his father to let him give up business, and be an artist. His father. a shrewd business man, finally consented, but told him that while plenty awaited him if he remained in business, he would allow him only an annuity of 1500 francs if he became an artist. "See if you can live on that," he said, "you shall have no capital at your disposal while I live." Corot gladly accepted the annuity and began to paint. Millet's relatives thought his talent a divine gift—Corot's family did not believe he had any gift, and thought painting an idling with life. Millet's life was a long struggle: Corot had enough to live on; he never married; he gave his life to art, interpreting Nature as she appeared to him, diffusing constant sunshine about him, with a song always in his heart and on his lips. Beauty and gladness were revealed to him, but not the heights and depths; these are revealed only to those who have struggled and suffered. For a long time recognition did not come to him, but when it did come he said, "I am the happiest man in the world." Corot studied two winters with Victor Bertin, a pure classicist, then went to Rome in 1825. At the Academy there his social qualities made a much greater impression than his artistic abilities. He was more apt in Nature's studio. As an artist he united harmoniously academic traditions with impressions received directly from Nature. man.

Those lithe figures that dance through his summer landscapes, are the wood and river goddesses of ancient art transformed into the moods of Nature in color, form, posture and everything. Aligny, who was regarded as an authority in landscape, after seeing one of Corot's landscapes, painted at Rome, told his comrades that Corot could well become the master of them all. This opened the gates of hope to Corot, and he never forgot Aligny's kind recognition. Long years after, when Corot was seventy-eight years old, he stood shivering, one cold winter's day in the falling snow, by the open grave of Aligny, refusing to go away till the last rites were paid to his friend. "It is a duty," he said, "a sacred debt." Few have been loved as Corot was. His generosity was in harmony with the rest of his great glad nature, he would never accept any money from his pupils, and gave away generously, even when he had nothing but his annuity. In 1855, he inherited an estate yielding an annual income of 25,000 francs. Success in art came about the same time. He placed the income out of his reach, allowing it to accumulate for his nephews and nieces. His habits were simple, and he used the surplus of his income to help others. He gave away many annuities. An artist friend became blind, and his landlord was going to dispossess him. Corot purchased the place and sent the title-deed to the artist with the message, "Now they can't put you out." He was so thoughtful. One year at Arros he painted a little peasant girl. On his return the following year, he learned that the child had been drowned. He carried the picture to the parents and said. "Here is your little girl come back to yon," and was repaid by the great joy and gratitude of the parents. He was loved as a comrade and respected as a master among the landscapists twenty years his juniors. Dumesnil says that in his younger days he was the gayest of the gay in the dances at the Academy of Design. Every spring he fled to the country. He said. "I have a rendezvous with Nature, with the new foliage and the birds." He painted, smiling of singing or talking with the birds and trees. When evening came he would say, "Well I must stop, my Heavenly Father has put out my lamp."

Corot's "Paysage," in the Lonvre, seems the actual expression of the life and spirit of its maker. It is a picture of a lake resting in the silver haze of a summer morning. The eye pierces through the mist to the far away shore where the rising sun s ems to be falling in drops of light on the glassy surface. The wooded shore is half revealed, half

shrouded in mystery — fit home for elusive, mysterious people of Nature.

In "Le Matin" Corot has painted these elusive, lithe beings—not mortal, not divine, not heroic, but wonderfully blending with the tones of the land-scape. Who has not felt in the solitudes of nature that only a thin veil hides from us a life that is all about us?

Corot never thought he painted grand things. Before a painting of Delacroix's he exclaimed, "He is an eagle; I am only a skylark. I send forth little songs in my grey clouds."

Dumesnil thought that Corot's religious paintings gave evidence of capacity for grand art as represented by Titian, Rembrandt and such. Nature shimmers through Corot's landscapes — dreamlandscapes whose quiet beauty grows on one as they are studied. He did not labor over his pictures. He feared to tarnish in an after hour the fresh grace of what Nature had revealed to him in the hour of her presence. This fresh, unlabored quality is the distinctive charm of his canvases.

The grand medal of honor was not given to Corot after the exposition of 1874. His friends were disappointed. They thought it would have been fittingly conferred as a final and full recognition of the master's work. Consequently a movement was started among his admirers and friends, and a gold medal was prepared. Three or four hundred artists and friends met at the Grand Hotel to welcome the dear old master with great enthusiasm and affection. Amid the enthusiasm of the presentation of the medal, Corot whispered to the presiding officer, "One is very happy to feel one's self loved like this."

A short time before the presentation of the medal, Corot's sister, who had shared his home, died. His health rapidly declined after her death. He still went to his studio, but could not paint. A few days before his death he said, "I have had health during seventy-eight years; I have had good friends; I am thankful." On his deathbed he heard of Millet's death. His death was kept from Barye, then dying of heart disease. In his last moments Corot's right hand moved along the wall; his fingers seemed to be holding a brush; then he paused and said, "Look how beautiful it is! I have never seen such landscapes before." On Tuesday, the 23rd of February, 1875, the great, glad heart of this generous, much loved child of Nature ceased to beat and his spirit went out through the silver mists to meet the God of Nature, waiting in the dawning of a glorious morning on the other side.

#### Art Notes - VII.

BY HUNTER BOYD, WAWEIG, N. B.

#### Feeding Her Birds.

The picture, which Jean Francois Millet painted in 1860 and exhibited in the Salon in Paris in 1861, whilst peculiarly appropriate for Primary Departments will repay the attention of older scholars.

The name given by the artist was Becqueé which may be roughly termed beakful, and readily suggests the small portion of food which a mother bird holds in her beak for her young family. Considered poetically it is easy to recognize other points of resemblance to a cozy nest and the tender care with which the nestlings are watched by parent birds. We say birds, for although it is the mother who is feeding the little ones, the father is seen in the orehard just beyond the house, busily engaged for his family, and thus it appears a beautiful scene of healthy, peaceful home-life. The little girls wear caps not unlike the one on their mother's head, but their younger brother has on a kind of tam-o-shanter. They are evidently fond of him, and the wee fellow enjoys the first taste from the steaming bowl. In other instances we have found that Millet's subjects were absorbed in their respective occupations and possibly so small a matter as the tilting of the stool on which the mother is seated helps to indicate the intensity of her act. Just as the thick bare walls of the house are clothed with a beautiful vine, so these peasant folk in their course durable clothes, and clumsy-looking sabots, yield a vintage of human affection to the quiet-eye, and we are not surprised to learn that Millet, who was so fond of his faithful wife and their nine children, and also spent much of his time in digging, regarded this as his favorite picture.

Teachers are urged not to attempt to describe the picture. Seek however, to encourage conversation in the class on all the details, especially as to the relationship of the children to each other, and then to their mother, and ere long it will appear to some of them that the point of the spoon which is thrust forward is not greatly unlike the beak of a bird, and they will enter into the eagerness with which the little birds are fed who have become hungry at their play. But let Millet first make his own appeal, and after that the scholars may receive further light from the teacher's observation, or from these notes. Remember art is intended to supply good grounds for evoking the higher emotions. We wish to share those of Millet as he glanced in that dooryard.

#### Replies to Queries,

Nora. It is a brother of the famous Jean Francois Millet who has just died. His name was Jean Baptiste Millet. He excelled as engraver. J. F. Millet's son is also an artist, and I believe that some of his work may be seen in the Art Academy at Sackville, N. B. There is also an artist named Francis Davis Millet, who painted "Between Two Fires."

R. S. L. Encourage your scholars to observe the movements of any experienced sower in your own locality. A man will not pass over a field very rapidly, but if he be as fully engrossed in his sowing as Millet's peasant, his action will tend to become as rhythmic.

BEGINNER. It would be a good plan to arrange a series of scenes, commencing with ploughing, harrowing, seeding, reaping and so on. Gleaning is little known in this country, partly because there are few persons to do it, and also because most farmers would say "what's the odds of a few oats or a little wheat anyway." But the custom still has beautiful associations of thrift and generosity.

EVELYN. See preceding answer. You can also arrange a series according to time of day, e. g., there are several pictures of men and women going to work, also the noon-day rest, and returning from labor. Invite your scholars to bring a cent and purchase a set of the Perry Pictures illustrating a day's work at various seasons.

The following anecdote, says Harper's Weekly, is told of a prominent Baptist minister, celebrated for his caustic wit: He was speaking once at a dinner given to commemorate an important event in the history of New England, his text being "The Pilgrim Fathers." "I have always," he said, "felt the deepest sympathy for the Pilgrim fathers, who suffered such extraordinary hardships in establishing a foothold in this country. But, sorry as I have felt for the Pilgrim fathers, I have felt still sorrier for the Pilgrim mothers; for not only were they obliged to endure the same hardships, but they had also endured the Pilgrim Fathers." H. B.

Your paper is of the greatest value to me, as I think it surely is to any teacher. I wish you many successful years in your splendid work of helping the teacher.

Northumberland Co.

M. G. M.

#### Notes from the Macdonald School, Guelph.

By M. G. F., A New Brunswick Teacher.

We New Brunswick teachers who are taking the nature-study course at the Macdonald Institute at Guelph, would like to tell our fellow-teachers a little about the work we are doing here. There are fifty students in our class; seven are from New Brunswick; the remaining forty-three are from various parts of Canada. We feel that we are a part of the Macdonald movement which means better teaching for Canada.

We find a great teacher in Professor McCready. He has led us to realize as never before the importance of nature-study, which takes for its thought the child and its natural environment. It is possible to get children in love and sympathy with nature.

"There is no glory in star or flossom Till booked upon by the loving eye. There is no fragrance in April breezes Till breathed with joy as they wander by."

The child's earliest education is almost entirely in nature. It is an education of seeing and doing. Teachers who realize this and who have much love and sympathy for children will prove, by making a wise use of what has been gathered from the course pursued here, proper methods in teaching nature-study.

Much of our time is spent in field work in the study of plants, insects and birds, under the direction of Professor McCready and members of the college staff. Excursions are made to the different departments of the Agricultural College where we always find a willing and helpful instructor.

Our aim as teachers is not to memorize the names of a great number of plants, birds and insects; but to grasp the new methods of giving instruction in the subjects of the course.

Soon we shall finish our work here and return to our own province; but we shall ever carry with us pleasant remembrances of our visit to the Guelph Macdonald Institute and the Agricultural College. We shall also feel grateful to our leader Professor McCready, who has so thoroughly taken up this work with us and to our government which has seen the wisdom of sending us here.

From a recent subscriber: I enjoy the Review very much and always look eagerly forward to its coming. It offers so many useful hints and suggestions, that I sometimes wonder how I managed to do without it so long.

M. L. D.

#### An Open Letter to Kindergartners.

TO THE KINDERGARTNERS OF THE MARITIME PROVINCES, AND TO ALL WHO ARE INTERESTED IN CHILD-CULTURE.

By Mrs. Catherine M. Condon.

When the history of the Kindergarten movement comes to be written, it will be painful to find how little direct and acknowledged effect it has produced on our public school system up to the present time. In 1886 there were three small, struggling private kindergartens in Nova Scotia, two of them in Halifax, and one in Yarmouth. They were private enterprises, but did good work. These failed for want of financial support. Here let me remark, that personally, it has always appeared to me, the burden of ways and means should be assumed by a capable committee, so that the kindergartner may devote herself wholly to her work without distraction. (Here follows a history of the kindergarten movement in Nova Scotia and New Brunswick, with the names of those directly associated in the work).

A well-conducted kindergarten is its own best argument, and no intelligent person can carefully observe the busy, happy little ones, following the directions with alacrity, because they have learned, even those who are "little Turks" at home, that, obedience produces pleasure in well-ordered circlegames, and pleasant work at the tables. See how industrious and attentive they are; no listlessness here, but all eager and alert, and looking out for the next pleasant expression prepared for their productive self-activity. Kindliness and good manners, the "morals of the heart," are in the very air of this "Paradise of Childhood." As a preparation for the school, this genial training of eye, ear, hand and mind cannot be over estimated, and those who have studied Froebel's methods most carefully, and have seen them carried out most frequently, under the most varied conditions, feel deeply, and see clearly, the need of this addition to our common school system. There is but one way to further this great reform; and that is for the people themselves to look into the claims made by the advocates of kindergarten extension, and if (as they, will) they find those claims are founded on sound views of life and a correct pedagogy, then it will be their duty to make up their minds to further the movement in every reasonable way. The seed has been sown, and much patient labor has been bestowed by the few who have the strong conviction of the value of Froebel's system, born of study and experience. If

mothers, teachers, inspectors, school boards and educational' bodies generally had been willing to examine the matter in order to see "if these things are so," and then have thrown their influence into the scale, there would be today kindergartens in connection with some, at least, of the large graded schools of these provinces, and our teachers in mixed schools would have been encouraged to make themselves acquainted with the methods of the kindergarten, so that they might keep the little ones happily and profitably employed, instead of forcing them, at once, to submit to rigid scholastic methods, unsuited to their tender years.

It will be said governments should take it up. Yes, they should, but governments get to run in a groove, and grow stiff with officialism. They usually steer clear of taking the initiative. No one who has watched political careers will deny this general tendency. But in all fairness it must be conceded that governments are compelled to a certain amount of conservatism, and may reasonably expect a mandate from the people for any striking departure from use and wont.

Meanwhile let kindergartners advance their banner, inform public opinion, invite teachers and outsiders to come and see their principles in operation, point out their effects on character, answer objections dispassionately, and show teachers of all grades what a help it will be to them when kindergartens are the order of the day. Be zealous, watch for opportunities to speak a word, well-chosen, urge upon the tax-payers the great value of the beginnings of manual training in the kindergarten, where it has so conspicuous a place, if they are to receive an equivalent for the large sums they are spending (and wisely spending) on science, manual training, agricultural and art schools. If you arranged your arguments in a rational manner, you will find this view very effective in gaining advocates for kindergarten extension.

In conclusion let me urge every kindergarten to send an exhibit, this autumn, to the Exhibitions at Halifax and St. John, no matter how small, but let it all be henest work, really done by the little hands themselves. There will be a full exhibit of Milton Bradley's Kindergarten Material, (unsurpassed in quality) from his agents, Steinberger & Co. in Toronto. It is to be hoped that all will visit this part of the Exhibition, and do their best to explain and illustrate and show what a help in the training of the child these things may become, both in the home and school.

As was done last year, Miss Hamilton will take over and conduct a class from Dartmouth, at the Halifa'x Exhibition. This was much appreciated then, and aroused great interest. If only some generous person would pay the expenses of a class from the normal school it would add to the interest. If all the kindergartners in the province will come to the Exhibitions, prepared to explain some special point of kindergarten work, much good may be accomplished. But begin at once to explain to the children what the Exhibitions are, what will be shown. Make it a lesson in the love and pride of their own dear native land, stir their hearts to do their part, by preparing some specimens to send, of their pretty hand-craft, to show how happy children enjoy themselves in work. If we all act together wisely, this opportunity should greatly help kindergarten extension in the maritime provinces.

#### Dalhousie Convocation.

The annual convocation of Dalhousie University was held in the hall of the School for the Blind. The departure met with approval in many quarters. The undergraduates were conspicuous not by their noise, but by their absence.

The closing exercises of the year have been gradually growing in interest. Four years ago Class Day exercises were introduced by the students. This year the Alumni took a more active part, giving a dinner to the graduates, and holding a reception in the evening of Convocation Day. The reception given by the graduating class was one of the most enjoyable of the week. The conference held at Pine Hill by the Presbyterian College for their Alumni, at which brilliant courses of lectures were given by Professor Short of Queens, Principal Falcouer, Professors Magill and Morton and others attracted many visitors to the city.

The Convocation of the University was enlivened by the eloquent address of Governor Fraser, one of the University's best known sons. In introducing him the President referred to the fact that Governor Fraser and Governor MacKinnon of Prince Edward Island, both Dalhousie graduates, were holding the high st offices in their native province, at the same time—that—Mr. Justice Sedgwick, another Dalhousie graduate, was at the head of the government of Canada in the absence of Lord Grey.

President Trotter of Acadia University received the honorary degree of doctor of laws, and acknowledged the honor in graceful terms. In proposing him, Dr. MacMechan on behalf of the senate referred to his great services to Acadia University and to higher education, and expressed regret over his retirement from active university work in Nova Scotia.

Professor Short of Queens University whose able addresses before the Board of Trade and the Theological Conference left a deep impression on Haligonians, spoke briefly and impressively.

Seventy-five degrees in art, science, engineering, law and medicine, were conferred, and several important prizes and scholarships were announced.

Thirty-six, (of whom ten were women) received the B. A. degree; three the B. Sc.; one the Bachelor of Engineering in Mining; fourteen the LL. B.; thirteen, (one a woman) received the degree in Medicine; six the M. A. degree; one the M. Sc.; and one the honorary LL. D.

Of the Bachelors of Arts six came from N. B., two from P. E. I. and the rest from N. S. Of the Bachelors of Laws N. B. claims one, P. E. I. two, Quebec one, and N. S. the rest. Two of the graduates in Medicine were Acadians.

The Acadians are taking greater advantage year by year of the educational advantages of Dalhousie. In addition to the two receiving the degree in medicine, another received the prize for the best standing in chemistry and materia medica; three attained a high standing in law, one being among the very best in the class. This record is most praiseworthy.

The science research scholarship (value \$750 a year for two years) and the Rhodes scholarship were blue ribbon prizes of the session in science and literature. The former went to Johnston MacKay, a son of Superintendent MacKay for a research in "Hydroxylamine;" and the latter to Arthur Moxon of Truro.

During the year the Cape Breton Alumni offered a bursary of \$50 and the Mining Society a scholarship of \$60 for competition among the students in mining. The latter was awarded to Mr. F. A. Grant.

Diplomas of honour were awarded to the following on taking the B. A. degree.

CLASSICS.—High Honours.—Arthur Moxon.

English And History. — Honours. — Blanche Eunice Murphy, Harry Clement Fraser.

Phinosophy, — High Honours, — Harry Stuart Patterson.

Honours.—Francis Paul Hamilton Layton.

Pure and Applied Mathematics,—High Honours.—Charles Thompson Sullivan.

Chemistry and Chemical Physics.—High Honours.—Henry Jermain Creighton.

Candidates for honours restrict their studies during the third and fourth years to one or two subjects. To those who do not specialize but take high standing in all the subjects of the regular course for the B. A., diplomas of distinction are granted. These diplomas are intended to represent as much work and be as difficult of attainment as honour diplomas. Two were granted this year as follows:—

Great Distinction.—Edward Wilber Nichols.

Distinction.—Anna Elizabeth McLeod.

The following prizes were granted to those completing their courses:—

RHODES SCHOLARSHIP.—Arthur Moxon.

Nomination to 1851 Exhibition Scholarship.— G. M. J. MacKay, B. A.

SIR WM. YOUNG MEDAL.—Charles Thompson Sullivan.

University Medals.—Classics.—Arthur Moxon. Chemistry.—Henry Jermain Creighton.

MEDICAL FACULTY MEDAL (Final M. D. C. M.).— D. A. McKay, B A., B. Sc.

Avery Prize (General Proficiency).—Edward Wilber Nichols.

The following undergraduates were successful in winning prizes:—

Junior Entrance Scholarships:

MACKENZIE BURSARY.—Effic May Thomson.

SIR WILLIAM YOUNG SCHOLARSHIP.—J. Congdon Crowe,

Professors' Scholarships.—W. R. Armitage, Florence E. Dodd, C. D. R. Murray, E. Clara Walker.

Special Prizes:

NORTH BRITISH BURSARY (Second Year, General Proficiency).—E. A. Munro.

WAVERLEY PRIZE (Mathematics).—G. W. Stairs.

Cape Breton Alumni Bursary (Third Year Mining).—Not awarded.

MINING SOCIETY SCHOLARSHIP (Third Year Mining.—F. A. Grant.

Dr. Lindsay Prize (Primary M. D. C. M.)—S. R. Brown,

FRANK C. SIMSON PRIZE (Chemistry and Materia Medica).—B. A. LeBlanc.

Higher degrees were conferred as follows:— MASTER OF ARTS.

Harriet Mnir Bayer, B. A.—By Examination in History.

Charles Tupper Baillie, B. A.—By Thesis—Macaulay's Prose Style.

Charles Jacob Crowdis, B. A.—By Examination in Philosophy.

George Moir Johnston MacKay, B. A.—By Thesis — "Hydroxylamine."

Murdoch Campbell McLean, B. A.—By Examination in Modern Ethics and Metaphysics.

Arthur Silver Payzant, B. A.—By Examination in Philosophy.

MASTER OF SCIENCE.

George Huntley Gordon, B. Sc.,—By Thesis in Engineering.

Doctor of Laws. (Honoris Cansa).

Rev. Thomas Trotter, D. D., President of Acadia University.—In Recognition of his Distinguished Services to Higher Education.

In his address the President referred to a gift of \$200 to the Physical laboratory by the graduating class on Arts and Science; (the gift of the class of 1905 was \$201.85 to the library); a gift of \$300 for Engineering instruments; a gift of a motor worth \$300.

He also spoke of the excellent work which Professors MacKenzie and Jack, the newly appointed professors on physics and engineering, were doing. The University was most fortunate in securing the services of such able men. Professor MacKenzie is regarded as one of the abler young physicists whom Johns Hopkins has sent out; and he has had the advantage of two years' study in the Cavendish laboratory under the celebrated J. J. Thomson of Cambridge. Professor Brydone Jack's good work in New Brunswick is known to all.

#### Enconia at University of New Brunswick.

On Thursday, May 31st, the University of New Brunswick, at the close of a most prosperous year, celebrated its one hundred and sixth encenia. A class of thirty was graduated, made up of sixteen arts students and fourteen engineers. Three of the thirty were young women.

The address in praise of the founders was delivered by Professor McDonald of the department of philosophy and economics. He pointed out that the highest aim in life for the educated citizen is to make truth and justice prevail. He should not stand aloof from the world of action, but should perform his part in the work of bettering the conditions of human life. This duty was never more incumbent upon us than at the present day, in view of the recent revelations in insurance, railroad management, trust tactics, the packing of meats and other business activities. President Roosevelt's famous "muck-rake" speech was reactionary and harmful, tending to hush up scandals which ought to be brought to light and to be made matters of common knowledge, in order that legislative action might more surely be taken, and casting a slur upon high-principled and earnest men, who are working to remove evils from the body politic. The only deliverance from catastrophe that is possible for nations will come by making truth and justice prevail.

The address on behalf of the Alumni Society was delivered by Professor A. W. Duff of the Worcester Polytechnic Institute. His topic was education. He contended that the great aim of education was not the training of the memory or of the logical faculty, but the development of the powers of imagination by touching whatever might be the subject of study with imaginative interest. He spoke of the harm of emphasizing the purely technical in study and in testing the results of study. In closing one of the finest addresses ever delivered in the University, he said that New Brunswick ought to look for distinction in the future of the great nation which Canada must inevitably become, not to her natural resources, great though they are, but to the intellectual and moral possibilities of her people. Greece, a country great neither in natural resources nor in industries, had left an impress on the history of the world which had lasted till the present day and ever would last. Scotland with a more stubborn soil and a more rigorous climate had played a part in the destinies of the empire, hardly second to that of her more highly favored neighbor, England. And in like manner, in the development of an intelligence naturally great, the people of New Brunswick would find their highest aim and the University of New Brunswick would be the head of this movement if it received the enthusiastic support that it deserves and needs.

A most pleasing feature of the occasion was the conferring of the honorary degree of LL. D. upon two of the University's most distinguished graduates, the widely known poets and men of letters, Bliss Carman and Charles Roberts. Equally deserving was the degree of M. A. bestowed on Mr. S. W. Kain.

After the regular programme was completed the students presented Dr. Scott, who has resigned the chair of Physics to take the position of superintendent of schools in Calgary, with a gold-headed ebony walking-stick, decorated with a bow of red and black ribbons, the student's colors. The address of presentation was read by Mr. C. W. Clark. Finally Chancellor Harrison announced the name and spoke at some length upon the qualifications of Dr. Scott's successor. He is Professor Salmon of King's College, Windsor. Professor Salmon was the holder of a scholarship at Queen's College, Cam-

bridge, and graduated from Cambridge University with honors in Mathematics. He remained the next year at Cambridge studying Physics and Chemistry, and taking a laboratory course under Professor J. J. Thomson in the laboratory in which most of the great advances in physical research have been made in England. He was five years assistant to Professor Henrici in the City and Guilds Central Technical College, London, the best and most efficient Engineering College in London. He there instructed classes in civil, mechanical and electrical engineering. For the last two years he has held the chair of Physics and Mathematics at King's College, Windsor.

Professor Henrici says of him, "he is a very good mathematician, an excellent and conscientious teacher, a good disciplinarian and a thorough gentleman."

Professor Dixon of Birmingham University, England, says, "he is a gentleman, very energetic and a very hard worker and has the great advantage of knowing the country."

President Hannah of King's says, "He is quite an authority on the subject (of Physics) and has written an admirable text-book that is winning its way in schools and colleges." "He is well read in many other subjects than his own and takes the keenest interest in all the questions of the day." "He has been in this country long enough to be quite Canadian in sympathies."

#### Convocation at Mount Allison.

Never probably in the history of Mount Allison were the exercises all held in such unpleasant weather. On Saturday just as the sports were beginning rain scattered the spectators precipitately. and it came down with a drizzle or fast and furious till Wednesday morning. Not till Wednesday evening after the visitors had gone did a fitful gleam of sunshine glint over the soaked lawns and muddy streets. Of course outdoor exhibitions, such as the Athletic Sports and the young ladies' drill on the lawn were wholly impossible. Yet in spite of wind and weather the various indoor exercises and entertainments were well attended. There was an absence on the streets of gay summer attire, since visitors and students had to go round swathed in water-proof garments, but the continuance of such unseasonable weather became after a while a sort of joke and almost added to the gaiety of the occasion.

In general the year was a most successful one. The Academy has had the largest attendance of recent years, and sent out a matriculation class of

fifteen in addition to a number of graduates in book-keeping, shorthand, typewriting, etc.. The two Alumni scholarships offered for mathematics and languages to those matriculating into the University, were won respectively by Eldred Boutilier of Centreville, N. S., and Arthur Le Grand of Paspebiac, Quebec. Although both students have French names, English is their mother tongue. The Academy staff will have several changes. Most note-worthy is the departure of Principal Palmer's chief assistant, Mr. W. A. Dakin, '04, who is to enter on the study of medicine. Mr. Dakin, who has a fine baritone voice, and sang frequently, both solos and in choruses, will be much missed in Mt. Allison life.

In spite of the recent additions the Ladies' College was this year filled to the utmost, and Dr. Borden found himself reluctantly compelled to refuse applications. At the anniversary exercises diplomas were presented to twenty-seven students who had completed courses in some line of work,-music, vocal or instrumental (piano, organ or violin), oratory or household science. The gold medal offered by Henry Birks & Sons of Montreal, for the highest general average in all studies was won by Miss Vera Mollison of Yarmouth, formerly of St. John. The names in the prize list suggested the wide range from which students are drawn, since there were representatives not only from all the maritime provinces, but from Newfoundland, Pennsylvania and St. Kitts, W. I. The music showed the excellence and finish that have hitherto characterized the efforts of Dr. Archibald and Professor Wilson. The latter is to spend the summer in England, but both he and Dr. Archibald will resume their duties in the autumn. Professor Hammond was absent, having sailed for England ten days ago. Several of his paintings were, however, on exhibition in his studio in the Art Gallery. Miss Bessie McLeod who was his assistant a few years ago, is to return to her position. Miss Foster, the vocal teacher, who has been so popular, is obliged to return to her home in England. It is expected that another young lady from the Royal Academy of Music will be her successor. Miss Ruggles of Boston, who will be remembered by the students of a couple of years ago, is to return as the other vocal teacher. Miss Nellie Clark of Rexton, N. B., who graduated two years ago and has since been studying in Leipsic, has been given a position on the conservatory staff. Miss Bowker has resigned and a new associate with Miss Carver in Oratory is to be appointed. Some changes have been made in the literary course (M. L. A.) of the Ladies' College, by which all who complete it will, while having a

wider range of studies, have finished the mathematics, Latin etc., of the Freshman year in the University and be prepared to graduate in the University in three years.

To relieve the crowding of the previous year the fourth story of the University Residence—giving thirty extra rooms—was at the beginning of the past year ready for occupation. This extra space was necessary on account of the additional students that were coming to pursue courses in engineering. A new professor, J. W. Crowell, B. S., C. E., of Dartmouth College, was appointed in charge of Surveying, etc. Under his direction the students have done some interesting work. Most noticeable are the plans of the Mt. Allison grounds showing the location of buildings, drives and walks, elevations, areas etc. These, both in their original form and in blue prints, have been on exhibition and attracted considerable attention. Four men completed the two years' course admitting them to the third year at McGill in applied science. Fifteen men entered on the full work in engineering this year; several on the Arts course are taking options in that department, and the outlook is good for the coming year.

The degree of B. A. was conferred on a class of nineteen, four received M. A., and Professor Crowell was given B. S. (ad cundem). Several members of the class go to McGill for medicine and applied science, two or three will enter a law school, two or three become ministers, and some will teach for at least a year or two. At the head of the class was G. Roy Long of Tyne Valley, P. E. I., who delivered the valedictory. He was also the leader of the Mt. Allison debating team which last winter won against Dalhousi2 in the Inter-Collegate debate. He expects to pursue a post-graduate course at Harvard. At the University Convocation an address was delivered by Professor Tory of McGill. He was also a guest and spoke at the banquet of the Alumni and Alumnae Societies on Tuesday evening. At this in spite of the rain about one hundred and fifty sat down at the tables. An address was there read which had been sent by Mr. M. J. Butler, Deputy Minister of Railways, and which arrived too late for Convocation. Dr. J. M. Buckley, editor of the Christian Advocate of New York, lectured on Friday evening and preached the Baccalaureate sermon on Sunday.

It is not necessary to refer to the prizes of the year except to notice that the two Fred Tyler scholarships of \$60 each which have been awarded to the class of '06 year by year since the death at the

end of the Freshman year of the young man in whose memory they were founded, will henceforth be given in perpetuity to the Freshman class. A new permanent scholarship is announced for the Theological department, endowed by Mrs. Paisley,

The meeting of the Board of Regents which closed the proceedings for the year passed quietly and quickly. The last instalment of the Massey bequest of \$100,000 has just been paid and enabled the President of the University to meet better the increasing expenses of buildings and salaries. Although Mt. Allison has had a prosperous year, yet many plans for progress and increased usefulness are checked by lack of means. New and enlarged accommodation is needed at the Ladies' College and more instructors and professors at the University.

[The closing exercises of Acadia University are being held as the Review goes to press. An account will appear in our next number.]

#### Practical Problems in Arithmetic.

- 1. A note of \$250 dated Nov. 29th, at 3 months with 4 per cent interest, was discounted Dec. 20th, at 6 per cent; find the proceeds.
- 2. Find the time in which \$200 will amount to \$225 at 3 per cent.
- 3. Find the compound interest on \$200 from March 16, 1900, to August 9, 1902, at 6 per cent a year, payable half yearly.
- 4. A book cost \$5, and was sold at a marked down sale at a discount of 25 per cent. This caused a loss of 10 per cent; find the marked price.
- 5. The cost price was 80 per cent of the selling price, the selling price 90 per cent of the marked price; at what per cent above cost was it marked.
- 6. The gain was 20 per cent, the discount 20 per cent; find the gain per cent had no discount been given.
- 7. Find the rate per cent at which \$375 will amount to \$427.50 in 4 years.
- 8. A cask which holds a metric ton of water is full of barley worth 75 cents a bushel; find its value.
- 9. 600 kilograms cost \$2.50 a kilogram, the duty was 40 per cent, the gain 30 per cent; find selling price per oz. apothecaries.
- 10. A merchant buys his goods at 20 per cent discount on list price, and sells at 15 per cent more than the same list price; find gain per cent.

Answers. — (1) Amount \$252.58; Proceeds \$249.55. (2) 41-6 years. (3) \$30.50. (4) \$6. (5) 38 8-9 per cent. (6) 50 per cent. (7) 3½ per cent. (8) \$20.63. (9) 14 cents. (10) 43 3-4%.

#### A Nest in a Pocket.

A little bird went to and fro.
Once in the nestling season,
And sought for shelter high and low,
Until, for some queer reason,
She flew into a granary
Where, on a nail suspended,
The farmer's coat she chanced to see,
And there her search was ended.

The granary was in a loft,
Where not a creature met her;
The coat had hollows deep and soft—
Could anything be better?
And where it hung, how safe it was,
Without a treeze to rock it!
Come, little busy beak and claws,
Build quick inside the pocket!

You never saw a prettier nest
In rye-field or in clover,
Than this wherein she sat at rest
When building work was over.
Three speckled eggs soon warmly lay
Beneath the happy sitter;
Three little birds—oh, joy!—one day
Began to chirp and twitter.

You would have laughed to see them lie Within the good man's pocket,
Securely hid from every eye
As pictures in a locket!
Busy and blissfully content,
With such a place for hiding.
The little mother came and went
To do their small providing.

And not a creature wandered in,
Her nestlings to discover,
(Except a wasp that now and then
About her head would hover).
Until—ah, can you guess the ta'e.—
The farmer came one morning,
And took his coat down from the nail
Without a word of warning!

Poor little frightened motherling!

Up from her nest she fluttered,
And straighthway every gaping thing
Its wide-mouthed terror uttered.
The good man started back aghast;
But merry was his wonder

When in the pocket he at last
Found such unlooked-for plunder.

He laughed and laughed. "Upon my word,"
He said aloud, "I never!—
Who could suppose a little bird
Would do a thing so clever?
Come now! 'twould be a shame to harm
The fruit of such wise labor,
I wouldn't hurt you for a farm,
My pretty little neighbor!"

He put the coat back carefully: I guess I have another; So don't you be afraid of me
You bright-eyed little mother.

I know just how you feel, poor thing,
For I have youngsters, bless you!
There stop your foolish fluttering
Nobody shall distress you."

Then merrily he ran away
To tell his wife about it,—
How in his coat the nestling lay,
And he must do without it.
She laughed, and said she thought he could!
And so, all unmolested,
The mother-birdie and her brood
Safe in the pocket rested.

Till all the little wings were set

In proper flying feather,
And then there was a nest to let—

For off they flocked together.

The farmer keeps it still to show,
And says that he's the debtor;
His coat is more the worse, you know,
While he's—a tittle better.

—Mary E. Bradley.—From St. Nicholas.

#### The Treasure-Trove of Springtime.

There are treasures in the garden,
Buried low and buried deep,
Such as buccaneers and pirates
Had not ever in their keep.
You may find them if you seek them
During April on in May,
With the spade and fork and shovel,
In the good old gardening way.

Captain Kidd hath never hidden
Any gold beneath the sod
That is brighter than the yellows
Where the daffodils do nod.
And the golden cups the tulips
Will lift up, are greater gain
Than the spoils from out the holds
Of all the gal'cons of Spain.

All the argosies and carvels

Which the Corsuirs chased of old,
Did not flaunt such challenge-banners
As the roses shall unfold.'

And the rolls of silks and satins

Won as plunder,—what had they
Like the velvet of the petals

Of those roses to display?

And the bales of stuffs from Persia,
And the rugs of softest dye,—
With the pointings of the pansies
May they ever hope to vie.
And the ropes of pearls, the rubies
And the jewelled diadems,—
Does not every dew of summer
Crown the flowers with its gems?

Oh, the hoardings of those rovers
And their dollars and doubloons,
With their chink of precious metals,—

How they sing their merry tunes!
But the likes of the valley

As they twinkle on the stem
They can ring a chime of silver
Which shall more than rival them.

So, go you all a-gardening
To win the joy of life!
Go make the stubborn soil give up
Its riches ripe and rife!
You will find them if you seek them
Duting April or in May,
With the fork and pick and shovel,
In the good old gardening way.
Dig deep the spade, and with a will
Uplift the wealth that's there!
For in the earth there is no dearth
Of riches, everywhere.

W. D. Ellwanger.—Pall Mull Magazine.

#### The Sunbeams.

"Now, what shall I send to the Earth to-day?" Said the great, round, golden Sun.
"Oh! let us go down there to work and play." Said the Sunbeams, every one.

So down to the Earth in a shining crowd, Went the merry, busy crew; They painted with splendor each floating cloud;

And the sky while passing through.

"Shine on, little stars, if you like," they cried,

"We will weave a golden screen

"We will weave a golden screen
That soon all your twinkling and light shall hide,
Though the Moon may peep between."

The Sunbeams then in through the windows crept. To the children in their beds—
They poked at the cyclids of those who slept,
Gi'ded all the little heads.

"Wake up, little children!" they cried in glee,
"And from Dreamland come away!
We've brought you a present, wake up and see!
We've brought you a sunny day!"

-Emilie Poulsson.

Now is the time to begin the lessons of the preservation of plants: to love a flower and "leave it on its stalk." When a child has learned that, he has learned a great deal more than that. I saw a most tempting bunch of black-eyed daisies last summer in an open field, and went to them with a hungry hand. A friend with me said, "I've struggled with myself for two weeks not to pick those so that others might enjoy them." I paused, ashamed. She had learned her lesson, I had not. But to gather flowers gently that no root be disturbed or next year's blossoms doomed—that's another lesson. Teachers have been thoughtlessly guilty in the past in praising the flower gifts of children regardless of how or where they were gathered. Let us atone,—Selected.

#### Guess the Names.

Guess the name of the goddess that's fairest of all,
The name of the god that's most fair,
Then the word which describes into what they may fall

If the little blind god match the pair.

The third word is English, now give the Greek name For this god who though blinded is gay

And who mixes things up when he's ruling the game In a maddening sort of a way.

Then, fifthly, discover the name of the youth Who cared not for matron or lass.

And ne'er fell in love till the found a smooth pool. Where he saw his own face in the glass.

Next search for the name of the comedy muse, A lady both classic and merry,

Then the multi-hued goddess who shows through the clouds

And uses the bow as her wherry.

Number eight is the beautiful goddess of night, Subduer of god and of men,

And, lastly, we call on the love slaughtered nymph Whose voice comes again and again,

Then take all the names and the words you have found, Behead every one of the nine,

And arrange all the letters you've cruelly chopped off, From the top to the bottom in line

You will find that they spell what at this time of year Is considerred especially fine.

Guess the name of the city of brotherly love, The city that is a sore throat,

The city renowned for its scents, good and bad;
The city that lightly doth float.

The city once noted for blades of fine steel,

The city that's easy to reach,

The city that's famous for hats and canals,
The city that's sought at the Heach.

The city where witches were tiled for their lives,
The city in which Lincoln died,

The city what crows with a loud, rancous voice;
The city where knots are untied.

The city that set the s'aves free years ago,
The city with one golden gate,

The city that's hot on the tip of the tongue, The city where Wolfe met his fate.

That the geographical area of America is not fully comprehended is illustrated by an anecdote told by a celebrated comedian. An Englishman, accompanied by his valet, had been traveling due west from Montreal for four days. At the end of the fourth day, master and servant seated themselves in the smoker of the train, whence the man looked steadily out of the car window. At last his companion grew enrious

"John," he said, "of what are you thinking."

"I was just thinking, sir, about this discovery of Hamerica," replied the valet. "Columbus didn't do such a wonderful thing when he found this country, did 'e, sir? Hafter all's said and done, 'ow could 'e 'elp it?"—Selected.

#### Current Events.

Marengo, the leader of the insurgents in German South Africa, has taken refuge in British territory, and is now in the hands of the Cape Colony police. This means the end of a long and very costly war between the German authorities and the natives.

St. Helena, in the South Atlantic, is threatened with financial ruin by the withdrawal of the British garrison. The farmers and merchants in the island, whose whole living was made by supplying the garrison troops, will have no market when they are gone.

British rule in Egypt may be looked upon as now firmly established, since Turkish imperial troops had occupied centain Egyptian territory in the peninsula of Sinai, and the Sultan has been forced to recall them at the demand of the British Government.

The independence of Cuba is a fiction, quite as much as is the Turkish sovereignity in Egypt. The senate has amended the treaty between Great Britain and Cuba, because it is known that the United States government did not approve of the treaty in its original form. It is not expected that Great Britain will be willing to accept the amendments; so the treaty is probably dead.

At Halifax, on Victoria Day, for the first time in the history of the Dominion, a brigade of Canadian troops embracing the three arms of the service, infantry, artillery and engineers, was reviewed by a general officer commanding. The Halifax garrison at present numbers about a thousand men of all arms.

By an almost unanimous vote of the provincial legislature, Regina is chosen as the permanent capital of Saskatchewan.

The new Canadian Pacific Steamship Empress of Britain, has made the trip from Moville to Quebec in less than six days. The fastest previous trip over the same route was made in six days and three hours. Throughout the voyage, the steamer was in wireless telegraph communication with the land, coming in touch with the vibrations from Cape Ra e before she reached the limit of those from the Polchu station. Her sister ship, the Empress of Ireland, will go on the same route; and a further reduction of time in the ocean voyage is expected.

The two new Cunord liners now nearing completion will be the largest ships affect. They will each have accommodation for three thousand passengers, and carry a crew of eight hundred men.

The new province of Allerta has decided to establish a telephone system under government ownership.

A new optical instrument, invented in Austria, is called the ultramicroscope. It is said that by the aid of the new instrument it is possible to see particles measuring no more than the four-millionth part of a millimetre in diameter.

On the roll of the new House of Commons, an Irish member has signed his name in Grelic. This is the first time that any member of the parliament of the United Kingdom has signed the roll in other than English characters.

The Mexican government has granted to a British company the right to build a railway from the Gulf of Mexico to the Pacific coast. The line will be six hundred miles in length.

The Japanese have adopted a system of compulsory education for both boys and girls. When the pupils leave schoo', at the age of fourteen, they will be able to speak Japanese, Chinese and English.

The insurrection among the Zulus of Natal is not yet subdued. The Basutos sympathize with the Zulus. As the blacks greatly outnumber the whites, the situation is serious.

The d'scovery of diamonds is reported near Coba't, in the northern part of Ontario.

Dillon Wallace, the New York explorer who has returned from an eleven months' trip through Labrador, reports that he found the lumbler conditions in the interior not so good as was expected, and the mineral deposits not so in h as many persons had supposed.

The gypsy moth and the browntail moth are becoming very serious pests in the United States. The latter has come as far north as Maine, and we may expect it soon to reach our borders.

By the recent eruption, the cone of Vesuvius was reduced in height eight hundred feet, and the crater widened to a diameter of five thousand feet.

The 10th of May, or the 27th of April according to the Russian calendar, was a memorable day in Russia; for it saw the opening of the first national parliament and the beginning of constitutional government in the Russian Empire. With the most impressive ceremonies and gorgeous display, the Emperor of all the Russias laid down this auto-ratic rule, and called upon the representatives of the people to assume their share in the government of the country. The new parliament has entered upon its work with dignity and restraint; for representative government is no new thing in Russia, though this is their first national assembly. Whether the Douma, as it is called, will be able to legislate for the empire, or whether, as the prophets of evil forotell, it will yet end in disorder, the day of its first meeting will remain a notable day in Russian history.

By the marriage of King Alphonso to Princess Ena of Battenburg, on the last day of May, a niese of King Edward VII. becomes Queen of Spain.

The chief event in the Olympic games, at Athens, was the great Marathon race, which took place on the first day of May, and was won by a Canadian athlete, named Sherring. The contestants included Greeks, Germans, Frenchmen, Italians, Switzers, Belgians, Swedes, Danes, Egyptians, Englishmen, Canadians, Australians, and athletes from the United States. The length of the course is twenty-six miles. The Marathon race is the event in the Olympic games in which the Greeks of old took most interest; and their descendants, the modern Greeks, think it the greatest honor to win this race. Fully two hundred thousand persons witnessed the contest, and the Crown Prince of Greece ran beside the winner at the close.

It is announced that the next conference of colonial premiers will meet at London in April next.

Canada having assumed the defence of her own territory, the last garrison of British troops is now withdrawn. The new responsibilities are taken up with soberness and confidence; and, though our own troops are as much soldiers of the King as are those whom they replace, there was no elation, but a feeling of regret, when the last of the Imperial troops departed.

British West Africa will soon produce more cotton than the mills of Lancashire require. It is estimated that the British Cotton Growing Association will import from there this year cotton valued at more than half a million dollars of our money.

The Japanese have their own system of wireless telegraphy, invented by a native scientist named Kimura. To this they attribute much of the success of Admiral Togo's fleet in the recent war with Russia.

By the underground system of wireless telegraphy, invented by Reverend Father Murgas, in Pennsylvania, messages have then successfully transmitted for a distance of eighteen miles.

Helium, the last of the gases supposed to be permanent, has been 'liquefied at a temperature within about two degrees of the supposed absolute zero.

Acetylene is now used as an explosive in Germany, where its use as an illuminant has proved disappointing. In blasting with it, the confined mixture of gas and air is exploded by an electric spark. The rock is not thrown out, but broken into pieces small enough to be easily removed.

It is expected that a hundred thousand immigrants will land at Quebec this year, in addition to the thousands that have come and are coming to other Atlantic ports, and the thousands that come from the United States to settle in the Canadian provinces. A large proportion of these new settlers speak English, are fairly well supplied with money, and are well adapted to the life of the pioneer in the new farming regions of the west.

Oklahoma will take its place in July as a new State in the neighboring Republic. It is composed of the Indian Territory and the Territory of Oklahoma, its limits being approximately those of the Indian Territory before its division, in 1889. About one-fifth of the inhabitants are of Indian or mixed blood. These Indians, Cherokees, Choctaws, Chicasaws, Crees and Seminoles, have their own legislatures and courts for sixty years past; and their own schools and newspapers, their own languages. About one-third of them can speak and read English.

San Francisco will be rebuilt, probably upon a new ground plan, and with elaborate adornments that will make it one of the most beautiful cities in the world.

Several revolutionary movements have taken place recently in Central and South American countries, but they seem to have been of little more than local importance. The conference of representatives of all the American Republics, which will meet in July, in the splendid city of Rio de Janeiro, is of greater interest, though no immediate outcome of the meeting is expected, beyond the recognition of the principle of co-operation among the Latin-American Republics.

Please accept my thanks for the pictures sent. I think the Review without any additions is worth the money paid for it. It would be hard to let it go from the schoolroom. Argyle Head, N. S.

I. M. T.

I value all the pictures sent with the Review very highly and take much pleasure in mounting them.

Gaspereau, N. S.

F. A. H.

#### The Review's Question Box.

J. W. H. Kindly tell me the name of the plant sent herewith. The people here (Deerfield, Yarmouth County) call it the moose-wood, but it looks more like a wild form of hydrangea.

It is the American Wayfaring Tree or Hobblebush, a common straggling shrub of our northern woods. The large white corollas of the neutral flowers, which form a circle round the less showy fertile flowers of the inner cluster, much resemble the hydrangea.

S. N. Kindly tell me the name of the bird of the following description, seen near Petitcodiac, N. B. in late May. It is a little larger than the Song Sparrow, propably about the size of the White-throated Sparrow. The whole body is a bright scarlet colour, the wings and tail are a dark olive, nearly black near the body. It was alone when seen and seemed to be quite tame.

The bird is very likely the Scarlet Tanager, a very brilliant and conspicuous bird, and a rare visitor in many parts of these provinces. One was seen at Ingleside, N. B., on June first, the only one noted during a sojourn there of twenty years. It was quite tame, like that seen by our correspondent,—and obliging. It visited a neighboring orchard, where it lingered among the top branches and seemed to appreciate the admiration of the neighbors and ourselves, who were all delighted at the vision of searlet flitting amid pink buds and fresh newly opened leaves on that bright June day. It is slightly larger than the White-throated Sparrow (Tom Peabody) and is about the size of the Cedar Waxwing.

From Chapman's hand book of Birds: "High among the tree tops of the cool green woods the Tanager sings through the summer days. Hidden by the net work of leaves above us, we often pass him by; but once discovered he seems to illuminate the forest. We marvel at his colour. He is like a Bird of Paradise in our northern landscape. The song is a loud, cherry, rhythmical carol, suggesting the song of the Robin."

F. R. B. Recently a cannon ball weighing 15 lbs has been found imbedded at the base of the "Hopewell Cape Rocks." It was uncarthed by the action of tide and ice which occurs every spring. Is considerably rusted and surface is uneven, showing imprint of small stones. Kindly answer in Review if you think it of any historical importance.

All discoveries of this kind are of importance as tending to stimulate inquiry into the past history of the place where such objects are found. The instance quoted by our correspondent may serve to show that a battle or skirmish occurred near the place during the French period. Search should be made for other relies, and their position if found,

carefully noted, and communication regarding them be made to Rev. Dr. Raymond or other members of the N. B. Historical Society at St. John where the objects may be sent. Better still, a local or county historical or natural history society may be formed for the purpose of further inquiry and study on a systematic plan. All objects, such as that found by our correspondent should form the nucleus of a local museum which would be increased by additional discoveries. This would become a most valuable repository in the coming years.

#### News Notes.

From the Springville Breeze.

We're pleased to state that Mr. Wren

And wife are back, and at the Eaves.

The Robins occupy again
Their summer thome at Maple Leaves.

The Gardens restaurant reports
A fresh supply of angleworms.

The Elms—that fav'rite of resorts— Has boughs to rent on easy terms.

We learn that Mrs. Early Bee
Is still quite lame with frosted wings.

Ye Editor thanks Cherry Tree For sundry filoral offerings.

We hear of rumored comings out Of some of Springville's choicest buds.

In case you run across Green Lawn, Don't wonder why he looks so queer,

'Tis only that he's undergone

His first short hair-out of the year.

—Edwin L. Sabin, in St. Nicholas.

#### Birds and Man.

"They say" said the wren to the thrush,—
"I know, for I build at their eaves,—
They say every song that we sing on the wing,
Or hid in the leaves,
Is sung for their pleasure!
And you know 'tis for love and ourselves that we sing!"

"Did they say," said the thrush to the wren,—
"I'm out of their circle, I own,—
Did they say that the songs they sing were
Not for themselves alone,
But to give us pleasure?"
"Why, no," said the wren, they said no such

-Edith M. Thomas.

#### School and College.

Ten of the women school teachers of Woodstock have been granted an increased salary of \$25.00 a year, to begin with the next term.

Mr. J. Penny has been chosen Rhodes scholar for Newfoundland. He is a student of marked ability, a good athlete, and a general favorite with his fellow students.

The National Educational Association of the United States, which was to have met in San Francisco in July, will not be called together this year.

No meeting of the Dominion Educational Association will be held this year.

The American Institute of Instruction will meet at New Haven, July 9-13.

The interprovincial committee, appointed to select a series of readers for the French schools of the maritime provinces, recently met at St. John, and made substantial progress in the assigned work. There will be four readers for the first four grades, and these will be ready for use at the opening of the term in August, 1907. The books will contain extracts from French-and English authors, all in the French language. English will be taught in these early grades colloquially, according to the Berlitz method, and no book instruction in English will be introduced until the fifth grade is reached. No religious or sectarian views are to be included in the new readers, thus observing the spirit of the school law in this respect. Professor J. M. Lanos, now of Queens University, Kingston, Ontario, is compiling the book for grade one, Rev. Father Bourgeois of Memramcook, N. B., that for grade two; Inspector Hibert of Westmorland County, N. B., the other for grade three, and Rev. Father Dagneau of Church Point, N. S., for grade

The Gladstone Prize, one of the highest honours that Oxford University has to bestow, and the most eagerly coveted, has been won by Chester B. Martin, St. John, N. B., the first Rhodes scholar from New Brunswick. Such a high award, won after a spirited contest in which many of the brightest scholars, gathered from all parts of the English speaking world took part, reflects the highest credit on Mr. Martin, the schools of St. John and his alma mater, the University of New Brunswick.

On the evening of Empire Day, May 23rd, the pupils of the public school at Dalhousie, N. B., L. D. Jones, Principal, aided by local singing talent, gave a concert in the Temperance Hall. The exercises were chiefly patriotic in their nature, consisting of drills, recitations, songs, etc. The hall was very prettily decorated with flags, bunting and pictures, and was filled with a large and appreciative audience. The sum of \$59.20 was realized, part of which will go towards a science outfit, and the remainder, towards reseating the intermediate department with single adjustable seats.

Miss Grace Henderson of Chatham, who has been teaching the junior department of Dalhousie Superior School, has been compelled to give up her school duties on account of ill health.

The enclosed reprints of pictures in the Review have not only adorned the walls of my school-room, but have proved wonderfully instructive both to pupils and teacher.

Kings County, N. S.

A. M. G.

# TEACHERS AND PUPILS ARE SPECIALLY INVITED TO ATTEND THE

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#### Recent Books.

The Vest-focket. Standard Dictionary.—James C. Fernald, Editor. Choth. Price 25 cents. Funk and Wagnalls Company, New York.

This is a very admirable little compendium for constant use, and may be carried easily in the vest-pocket, if one wishes. It combines with a dictionary of common words, their spelling, pronunciation and meaning, a great variety of interesting facts usually found in gazeteens and encyclopedias.

An Introduction to Astronomy. By Forest Ray Moulton, Ph. D. Cloth, Pages 557. Price \$1.25.

This volume contains a very excellent epitome of the present condition of the science of astronomy. It will be appreciated by the ordinary reader as well as the the student. Maps and illustrations, directions for the observation of the constellations and other objects in the heavens, with the theories regarding them that have received the sanction of astronomers, are designed to give students a well balanced conception of this fascinating science.

First Year French, for Young Beginners. By J. E. Mansion B.-es-L. Cloth. Pages 120. D. C. Heath and Company, Boston.

These lessons are designed for children in the most elementary stage, the essentials of grammar being taught by introducing the difficulties gradually. Exercises appended to each lesson provide ample drill.

ELEMENTARY ALGEBRA. By G. A. Wentworth, Half morocco, 421 pages. Mailing price \$1.25. Ginn & Co., Boston,

In preparing a new algebra for secondary schools the author has provided a new set of examples throughout the book. At the request of many teachers a sufficiently full treatise on graphs and several pages of exercises in physics have been introduced. The first chapter contains the necessary definitions and illustrations of the commutative, associative, and distributive laws of algebra. The second chapter treats of simple equations and is designed to lead the beginner to see the practical advantages of algebraic methods before he encounters negative numbers.

Readings in European History. By James Harvey Robinson, Professor of History in Columbia University. Abridged edition. Cloth. 573 pages. Mailing price, \$1.65. Ginn & Company, Boston.

This abridged edition is intended especially for high schools, and is designed to supplement the author's introduction to the History of Western Europe. For each chapter of his text he furnishes pages of extracts, mainly from vivid, first-hand accounts of the persons, events, and institutions discussed in his manual. In this way the statements in the text-book may be amplified and given added interest and vividness. He has drawn upon the greatest variety of material, much of which has never before found its way into English.

# The Provincial Educational Association of Nova Scotia

WILL MEET AT THE

#### HALIFAX ACADEMY, HALIFAX,

## September 25th, 26th, 27th.

There will be three morning sessions and one or two evening sessions. Much time will be devoted to

#### Discussion on the Adjustments of the Course of Study Demanded by Modern Conditions.

THE HIGH SCHOOL COURSE will receive special attention in discussing the Report of the Committee on High

There will be no afternoon sessions, so that members may be free to study the Natural History and Industrial Products of the Dominion at the Dominion Exhibition, which will be open at that time.

A. MCKAY, SECRETARY.

LA GRAMMAIRE. An amusing comedy by Eugene LaBiche. Edited with notes and vocabulary by Moritz Levi, professor of Romance languages, University of Michigan, Cloth. Pages 70. Price 25c. D. C. Heath & Co., Boston,

No nation has produced such a series of excellent comedies as France, and LaBiche is one of the most amusing in his writings, extravagant and full of comic situations, yet spontaneous and witty to a most entertaining degree. This little book will make the French student read in spite of himself.

Ans Goldener Tagen, Von Heinrich Seidel. Edited with notes and vocabulary by Dr. Wilhelm Bernhart. Cloth. Pages 144. Price 35c. D. C. Heath & Company, Boston.

An interesting little volume for students of German, with a portrait of the author as a frontispiece,—the strong, material looking face of one who made his way from his father's country parsonage to the position of a leading engineer in Germany's railway system, and yet who has the secret of interesting healthy young people in felicitous, out-of-door narrative. It is a well rounded story of romance and adventure forming a piece of educational literature well suited for the schoolroom.

THE ART READER. By P. E. Quinn. Cloth. Pages 167.
Price to teachers 90 cents. A. W. Elson, Boston.
Copp, Clark, Company, Toronto.

This book, handsomely bound and illustrated is designed for supplementary reading in schools. Its contents embrace descriptions of Egyptian, Greek and Roman antiquities; masterpieces of the old and more recent artists, great churches, etc. The book is very suitable for teachers who are endeavoring to interest their pupils in artistic reproductions of the great masters, to create a taste for art and to give suitable instruction in it as a branch of knowledge.

DYNAMIC FACTORS IN EDUCATION. By M. V. O'Shea,
University of Wisconsin, Cloth. Pages 320. Price
\$1.40. The Macmillan Company of Canada, Toronto.
The key-note to this timely book on education is energy

how it may properly be directed in the child's life and in

school work; how the nervous energy of the teacher and child may be adjusted and stored, and how mental tension and over stimulation may be avoided by aesthetic influences and wholesome recreations. Altogether it is a valuable book for the teaches or student who is tempted to do too much work.

An Elementary Logic. By John Edward Russell, M. A. Cloth, Pages 250. Price 75 cents. The Macmillan Company of Canada, Ltd., Toronto.

This book aims to present to young students, the essential principles of correct thinking. These principles are very clearly presented, and teachers will find it very advantageous to have such a concise treatment of this science, as is given in the volume.

HIGH SCHOOL PHYSICAL SCIENCE, Part II Revised edition.
By F. W. Merchant, M. A. Principal London,
Ontario, Normal School, Cloth, Pages 290. Copp.
Clark Company, Toronto.

This revised edition of what is evidently found to be a very useful school book, is designed to cover the courses in sound, light, magnetism and electricity prescribed for middle classes in preparatory schools and academies. The book is neatly printed, abundantly illustrated, and well adapted to interest pupils in experimental work in physical science. Theory and practice are very adequately combined. An index is given with answers to questions set in the text.

The Garden of Childhood. By Alice M. Chesterton. Cloth. Illustrated. Pages 174. Copp, Clark Company, Toronto.

A set of thirty prettily told, home-made stories, each of which is illustrated by one or more pictures. They are issued by the Moral Instruction League, London, and are designed for the amusement and instruction of children in primary schools.

DICKENS' A TALE OF Two CITIES and LONGFELLOW'S TALES OF A WAYSIDE INN. Cloth. Price 25 cents each. The Macmillan Company of Canada, Ltd., Toronto.

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An interesting and instructive programme is being arranged. Addresses will be given by leading educationists and

The Executive Committee will meet at 9.00 a.m. on Wednesday, the 27th, and the Institute will open in full session at 10.30 a. m. of that day. Arrangements for reduced fares will be made with the railways and the steamboat lines. order to secure a free return, Teachers should obtain, when purchasing a ticket, a STANDARD CERTIFICATE, duly filled in by the Tieket Agent. of each line of railway travelled over.

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classics. They contain introductory sketches of the authors, a criticism of the books named above, with notes

THE PHYSICAL NATURE OF THE CHILD, and how to study it. By Stuart H. Rowe, Ph. D. Cloth. Pages 211. Price \$1. The Macmillan Company of Canada Ltd.,

This book is valuable not only for normal schools and colleges, but for teachers and parents who are seeking for fuller information in the direction of children under their care, especially those requiring peculiar treatment,

#### Recent Nagazines.

The Chautauquan for June is a special number on civics, in which, by a series of popers, attention is called to the betterment of conditions in the social and iotellectual life of

The Atlantic Monthly for May has a remarkable paper by John Burroughs in his best vein, entitled Camping with President Roosevelt, presenting one of the most intimate pen portraits of the President, that has been written. There are other essays of great interest, including one on Froude, by Goldwin Smith. There is a group of specially notable stories, and there are two fine poems, one by Bliss Carman, and the other by Richard Watson Gilder.

Twenty-two persons contributed to the varied table of contents in the May Canadian Magazine. Stories, sketches, poems, sporting articles, bits of history and more serious material make up the menu. Harold Sands recalls the fact that Simon Fraser started in May, 1805, for the exploration of the unknown district now known as British Columbia, hence the title of his article, One Hundred Years in British Columbia. F. Blake Crofton writes of the imperialism of Haliburton and Howe-two of the most wonderful of Canadian publicists. Mr. J. E. B. McCready, a veteran journalist, begins a series of reminiscences of the first Dominion Parliament,

The April number of Acadiensis, published at St. John by Mr. D. R. Jack, is an interesting magazine. It opens with a picturesque article on the History of Miscou, by Professor W. F. Ganong. The editor, D. R. Jack, contributes three excellent essays, and Professor MacMechan of Dallhousie University writes an interesting historical sketch entitled Halifax in Books.

The weekly numbers of Littell's Living Age for May contain subjects of gurrent interest in international affairs,-the conference at Algeciras, the Hungarian compromise, the English education bill, the Russian elections,

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Sent by the REVIEW for Empire Day, to all subscribers who are paid in advance, are now entirely exhausted. A few

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suitable for school Suplementary Read-ings are still on hand and will be sold at HALF PRICE—namely,

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St. John, N. B.

the relations of Canada and the United States, etc., all ably treated in articles which The Living Age reprints from the Spectator, Economist, Saturday Review and other organs of English opinion.

The June Delineator is a most attractive number, containing the usual array of the latest styles and literary features of great excellence. Gustav Kolbé interestingly tells the story of Home, Sweet Home, and there is a variety of excelelnt verse. For children, there are Stories and Pastimes, among them one of Alice Brown's Gradual Fairy Tales, and for the woman of the home, many articles of house wifely interest.

In the June Atlantic there are timely and vigorous discussions on national interests; science is represented by Professor See's account of Recent Solar Research and other articles; literature has several clever and delightfully written essays including Julian Hawthorne's English Lawns and Literary Folk; and there are bright stories and poems, anticipating the lighter literature of the summer months.

The June Canadian Magazine has articles of much interest, among which are Professor Coleman's (Toronto) on Earthquakes and Volcanic Eruptions, and Frederick Dolman's on Sir John Millais' art and art methods. The stories of the June number are exceptionally good.

#### EDUCATION DEPARTMENT— NEW BRUNSWICK.

#### OFFICIAL NOTICE.

#### Departmental Examinations, 1006.

(a) The High School Entrance Examinations will begin at all Grammar and Superior Schools on Monday, June 18th.

At these examinations the Lieutenant-Governor's Medals are to be competed for, in accordance with instructions issued from the Education Office.

- (b) The Normal School Closing Examinations for License and for Advance of Class will be held at the Normal School, Fredericton, and at the Grammar School buildings, Chatham and St. John, beginning on Tuesday, June 12th, at nine o'clock, a. m.
- (c) The Normal School Entrance Examinations and Preliminary Examinations for Advance of Class, the High School Leaving Examinations and the University Matriculation Examinations will be held at the usual stations throughout the Province, beginning at nine o'clock a. m. on Tuesday, July 3nd.

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Examinations for Superior School License will be held both at the June and July examinations,

For further details in regard to the Departmental Examinations, see School Manual, Regulations 31, 32, 45 and 46.

CLOSE OF TERM.

The number of Teaching Days in present Term is 121, except in the City of Saint John where the number is 120. The last teaching day of the Term is Friday, June 20th; but teachers who attend the Provincial Institute at Chatham may close their schools in time to reach Chatham on Wednesday, June 27th.

The First Teaching Day of the next Term will be Monday, August 13th, except in Districts having eight weeks' summer vacation in which Districts the schools will open August 27th.

#### SCHOOL MANUAL.

A new Edition of the School Manual containing all amendments made to the School Act up to date (including the Compulsory Attendance Act, passed at the last session of the Legislature) will be published during the summer vacation and mailed to Trustees and Teachers.

MANUAL TRAINING COURSES. 1906-7.

Training courses for teachers desirous of qualifying as licensed Manual Training instructors will be held at the Provincial Normal School during the session of 1906-7 as follows:

Elementary Course.—September 18 to December 21, 1906.

Advanced Caurse.—January 8 to June 21, 1907.

The elementary course is intended to qualify teachers for the license to teach Manual Training in rural schools. Candidates for admission must hold at least a second class Provincial license, and be prepared to furnish evidence of their teaching ability.

The advanced course is intended to qualify teachers for the license to teach Manual Training in town schools. Candidates for admission should hold a first class license, but teachers holding a second class license, and having a good teaching record, may be admitted on their merits.

In each course, students showing little aptitude for the work will be advised to discontinue at the end of one month from the date of entrance,

Tuition is free, and the usual travelling allowance made to Normal students will be given to teachers who complete their course and proceed to the teaching of the subject in the Public Schools of the Province.

#### HOUSEHOLD SCIENCE.

No provision exists at present in the Normal School for the training of Household Science teachers, but certain institutions have been approved by the Board of Education as training places for New Brunswick teachers desiring to qualify as licensed teachers of the subject.

Full particulars of the several courses outlined allove may be obtained from the Director of Manual Training, T. B. Kidner, Fredericton.

J. R. INCH,

Chief Superintendent of Education.

Education Office, May 25th, 1906.

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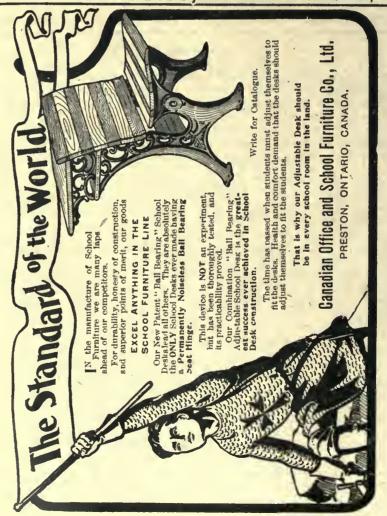
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THE EDUCATIONAL REVIEW is always continued to subscribers until a notice to discontinue is received. This is the fairest way; as nearly all our subscribers expect the Review to be sent to them even after their year has expired, the understanding being that they will remit at the first convenient opportunity. But subscribers should not allow themselves to become delinquents and to be dunned. Dunning is expensive in the matter of time and postage.

The present number of the Review will prove a welcome visitor to the hundreds of teachers who will read its pages previous to entering on their work for a new term, and we hope to make every future number stimulating and helpful. We wish our subscribers a happy and profitable year's work.

The teacher of few words—what a blessing she would be to some schools! The chattering teacher is the creaking hinge of the school, and the mischief of it is she keeps a-going constantly. nerves? No wonder.

Dr. W. T. HARRIS, probably the best known educationist on this continent, has resigned the office of United States Commissioner of Education, which he has filled acceptably for the past seventeen years. His valuable reports, covering one or more large volumes each year, are veritable mines of information, while his writings on the philosophy of education have given him a world-wide reputation.

Do you intend to make your school premises and your surroundings better and more fully equipped at the end of the year than you found them at the beginning? If so, that will convince the trustees that you are the right man or woman to teach their school; and this will do more to solve the questions of permanency and better salaries for teachers than acres of foolscap covered with the most ingenious and convincing arguments.

"My boy does not have to work," said a mother a few days ago. Poor boy! We are not surprised that the remark was made in a police court where the boy had been arraigned for some petty offence. One of the worst things that can happen to a boy is to be taught that he does not need to work. What did God give a boy hands for, but to use in some right endeavor? For what was his brain, given but to be employed in something useful? If kind fortune has blessed the boy with plenty, he will have the more with which to help others and make himself a blessing. But to permit a lad to grow up in idleness because he "does not have to work" is a good start toward the workhouse. It is the suicide of character and the creation of a nuisance, Idleness is the ruin of any life. Blessed is the boy who has to work. He has a future. The world will respect him, and, if he be faithful, will crown him by-and-by.—United Presbyterian.

#### The Meadow's Changes.

Who says the meadow is monotonous? There is no place so quickly transformed as the meadow. Every passing cloud trails its shadows across its surface, and every breeze tosses its drapery into billowy motion. Every season leaves its individual imprint. With the fall of the water, while the grasses are passing through all the shades of grav, blue, and green in their hurry to overtake the upland—the bog bean covers its spikes with feathery bloom. Little mounds of sweet gale and patches of royal fern add a touch of russet in response to the call of spring. Soon the gray and blue and russet take on as many shades of green, and at the fading of the bog bean the graceful arrow-head shoots up its glossy spears and opens its wax-like flowers. Then the whole meadow reflects the sky in the blue of the "flag flower prankt in white." When summer is at its height the little pale blue-bell and a whole horde of diminutive beauties struggle in the waving grasses to welcome the coming of their queen—the meadow lily. The perfume of the purple fringed orchid lures us to its hiding place on the outskirts of the thicket where the rose and meadowrue are rioting.

Then comes the scent of new-mown hay, and we hasten to gather the nodding white cotton-grasses. Far out on the river bank the sedges are ripening and will soon be white—for Autumn is here, with its plumes of golden-rod and asters—blue and white. The thicket is holding a carnival of color. Red apples are glowing on the thorn, tempting the robins and other thrushes. The high-bush cranberry is bending under the weight of its scarlet clusters. The wax-like beads are reddening on the leafy stems of the Canadian holly, while underneath the ground is carpeted with the bronze and gold of the fading fern and graceful fronds of meadow-rue.

Again the water begins to creep over the fading grasses and soon the "curtain of snow will cover all with its white echoless silence."

INGLESHE.

WE have received a copy of "Our Jabberwock," a sixpenny monthly magazine for boys and girls, published by the League of the Empire, London, It is full of good things—healthy stories, short plays, articles on birds and beasts, and much other matter of interest to young people.

#### Provincial Educational Institute at Chatham.

The New Brunswick Educational Institute for 1906 was held at Chatham, opening on Wednesday morning, June 27th, and closing Friday afternoon. June 29th. There was a strong representation from the eastern counties of the province, as well as from St. John, Fredericton, St. Stephen, Woodstock and other centres. The hotels at Chatham were taxed, to their utmost to provide accommodation, and many private houses were opened to visitors through the attention of Dr. and Mrs. Cox and the committee! assisting them. The sessions and public meeting were held in the large hall of the fine high school building, of which the townspeople of Chatham are justly proud. The weather was warm and pleasant; and the many beautiful lawns and shade-trees through the town, in their early summer verdure, were a delight to the visitors. The excursion on the Miramichi river will not soon be forgotten, nor the kind hospitality of Lt.-Governor Snowball, to whom the members of the institute are indebted for a most pleasant afternoon spent on that noble river. Premier Tweedie was a frequent attendant at the meetings, and Mrs. Tweedie, at the close of the institute, entertained the members at an informal and delightful garden party. The Premier also placed his stenographer and long distance telephone at the disposal of the members of the institute, a courtesy that was much appreciated.

The absence of Dr. John Brittain, the secretary, through illness, was very generally regretted. Principal Hamilton and Miss Milligan, of St. John, his assistant, attended efficiently to all the duties of that office.

It was appropriate to send to the British Columbia Teachers' Institute, meeting at Victoria, at the far west of Canada, a telegraphic greeting, which was cordially acknowledged by that body on the following day.

Dr. Inch presided in his usual dignified and efficient manner. In his opening address he referred to salaries of teachers, claiming that the average had increased in this province during the last few years from ten to twenty per cent. He quoted from a letter from Inspector Mersereau to show that while salaries were higher in the western prairie provinces, there were fewer comforts, and the cost of living there was higher.

Premier Tweedie, in his address at the public meeting, hoped that before he laid down the seals of office his government would increase the salaries and provide a scheme of pensions for teachers. Mr. E. W. Pearson, director of music in the public schools of Philadelphia, gave an address on the teaching of singing, which was greatly appreciated. He held that to make this successful a definite course on the movable do staff notation is necessary, and that the grade teacher, with good supervision, is the only one who can accomplish this. He gave a large number of instances in which it had been done, taking but twelve minutes a day, and answered satisfactorily a variety of possible objections. At periods of the institute where opportunity offered, he instructed classes in the elements of singing with the greatest interest to all. His enthusiasm and confidence in his method were catching.

Inspector Bridges and Miss Mary McCarthy, director of music in the Moncton schools, followed his address with strong arguments in favor of music teaching in the schools, and commendation of Mr. Pearson's method.

Miss Ada E. Smith, of New London, Connecticut, gave two excellent addresses on geography teaching; Dr. Cox spoke on the Transfer of Latin and Algebra to Grade IX; Professor Lochhead, of Macdonald College, on Educational Unrest; Principal Hamilton, on the Decoration of School Grounds and School-rooms; and Dr. H. S. Bridges on Some Phases of Modern Education.

Dr. Cox's address brought out a lively discussion. He was strongly supported by Inspector Carter, who held that manual training, domestic science and commercial subjects belonged to grades seven and eight, and that to make room for these Latin and algebra should be relegated to the high school, as had been done a few years ago in the case of geometry. Dr. Bridges, Inspector Bridges, Mr. Myles, Principal Owens, Principal Foster and others opposed this unless the high school course was lengthened to four years.

Professor Lochhead maintained that the introduction of nature-study in the school curriculums, as at present constituted, was only partially successful. To realize its greatest possible benefit the course of study would have to be revolutionized.

Principal Hamilton made a strong argument on the educational value of decorating school-rooms with re-prints of works of art, and the means these afforded for giving elementary instruction in art to children.

Dr. Bridges said it was dangerous to experiment with education. Old methods were preferable in many respects to new. He emphasized the importance of language studies, and thought there was not now the intelligent mastery of books as in former days.

Principal Geo. J. Trueman, in his address before the high school section on the Admission to College on High School Certificates, presented a well-prepared argument in support of it. In the discussion which followed, many declared themselves opposed to more than one examination at the close of the high school course.

Col. S. U. McCully, in his paper on Military Training in the Public Schools, emphasized the importance of that promptness, order, obedience and other qualities developed by a systematic military training.

H. H. Hagerman, in his talk on the metric system of weights and measures, gave suggestions for developing in pupils' minds practical ideas in regard to the system.

Dr. Philip Cox was unanimously elected representative to the Senate of the University of New Brunswick, in place of H. H. Hagerman, M. A. Dr. Bridges, H. H. Hagerman, J. Frank Owens, Dr. Hay, George A. Inch, Dr. Cox, R. E. Estabrooks, B. C. Foster, E. W. Lewis and Miss Ina Mersereau were elected members of the executive committee.

The text-book committee of 1904 was re-elected for two years: Miss Annie Harvey, Dr. Bridges, S. W. Irons, F. O. Sullivan, B. C. Foster, Dr. Crocket and Inspector Carter.

The N. B. Teachers' Association met on the evening of the 28th and re-elected the old officers and executive. The salary schedule at present in force was adopted for the coming year.

Two noteworthy addresses at the public meeting on the evening of the 27th were those made by Rev. L. Guertin, D. D., of St. Joseph's College, Memram-cook, and by Rev. Dr. Borden, of Mt. Allison.

In many neighborhoods there are places interesting from a historic point of view, and there are old people who can contribute much to the making of an accurate and a complete record of events. Now, why cannot the teacher, when he has reached certain stages in the study of history, send members of the class to make maps of localities in which noteworthy things were done, and to collect from the oldest inhabitants, and from all other sources, all facts which would be of value in the writing of history? The records so collected, with accompanying mass, could be embodied in compositions, and should be discussed, and, if necessary, revised in the class. The teacher who follows the plan here suggested will be teaching the children to go to original sources for history and geography, and incidentally to learn the value of accuracy and clearness in description.—Western School Journal,

#### Summer School at North Sydney.

The Summer School of Science for the Atlantic provinces met at North Sydney, Cape Breton, July 3rd to 20th. The visit there was one of unusual ' interest on account of the attractive scenery of the island and the great iron and coal industries carried The Dominion Government steamer "Canada" was placed at the disposal of the school for two days, and excursions were made to Ingonish Harbor and to the Bras d'Or Lakes, touching at farfamed Baddeck. The members of the school will always entertain the kindliest feelings toward Capt. Knowlton, his officers and crew, for the many attentions received during these excursions. The opportunity was also given to see the historic city of Louisbourg, the scenery of the beautiful Mira river, the coal industries of Sydney Mines and Glace Bay. and the steel works at Whitney Pier. The visitors were impressed with the operations carried on at No mere report could convey any these places. adequate idea of their immensity. Every opportunity was taken advantage of by polite officials and attentive workmen to explain the intricacies of the manufacture of coal and iron with their by-products; and the visitors were satisfied with the great object lessons which every day aroused their wonder and curiosity.

To have seen the Louisbourg of history, the picturesque and commodious harbour of Sydney, with its animated scenes by day and night, the attractions of Mira river and Bras d'Or Lakes; to inspect the workings of the Marconi telegraph system on board the "Canada" and to see the towers near Glace Bay; to listen to the wierd stories of miners who work two miles out under the Atlantic and hear at night the dull thud of ships' anchors' over their heads,-all these and many more new experiences were the lot of those who attended the Summer School at North Sydney. It is little wonder that, in a region like this, the larger classes were found out of doors instead of in the classrooms. But many students travelled far, and came for the sake of the regular work. These gladdened the hearts of the instructors and were pretty constant in their attendance.

President Seaman and Secretary Campbell were kept busy providing for the many meetings and engagements of the school, and though their resources were often taxed to the utmost, they were equal to all occasions.

The reception given by the ladies of North Syd-

ney and the many courtesies extended to the visitors were warmly appreciated.

The next meeting of the school will be at the new consolidated school at Riverside, N. B., on the invitation of ex-Governor McCleland.

Two governors, Lieut.-Governor Fraser, of Nova Scotia, and Lieut.-Governor McKinnon, of P. E. Island, attended and spoke at the opening meeting of the school this year. They also took part in the excursion to Glace Bay and Louisbourg. Next year the school expects to have three lieutenant-governors, at least, at the opening meeting.

The following are the officers for the coming year: Professor W. W. Andrews, president; J. E. Barteaux, vice-president for Nova Scotia; Dr. G. U. Hay, vice-president for New Brunswick; Miss Guard, vice-president for P. E. Island; J. D. Senman, secretary-treasurer. Principal McKittrick was elected to the board of directors in place of Dr. J. B. Hall, whose term had expired, and Principal Geo. J. Trueman was chosen local secretary at Riverside.

#### Language.

Write the following in statements. Let pupils put their work on the board. Notice very carefully the spelling of each word. Have pupils make an oral statement about each word used. This can be made an excellent lesson for teaching one use of the comma:

I. Eight domestic animals; five persons. 2. Twenty wild animals; ten flowers. 3. Twelve garden vegetables: nine provinces. 4. Fifteen fruits; six countries. 5. Ten quadrupeds; four large rivers. 6. Twelve birds; five sour fruits. 7. Ten minerals; four kinds of cake. 8. Six grains; six kinds of vehicles. 9. Ten things seen on the way to school. 10. Ten things in the schoolroom; four books. 11. Twelve farming implements; four fuels. 12. Six bad habits; six building materials. 13. Ten games; twelve musical instruments. 14. Five articles of clothing; four kinds of apples. 15. Ten kinds of cloth; five kinds of money. 16. Twenty trees; six things seen in the sky. 17: Ten household articles; five kinds of windows. 18. Ten things bought at a hardware store. 19. Ten occupations; eight kinds of people. 20. Five kinds of snakes; eight languages.—Exchange.

You are to be congratulated on the Review's rapidly increasing usefulness. Our teachers are now, more than ever, awakening to its value. It has helped me wonderfully through many trying periods of school work.

W. A. T.

#### Our Rivers and Lakes.

PROF. L. W. BAILEY, LL. D.

No spell could stay the living tide Or charm the rushing stream, Leyden.

In the second chapter of this series "our coasts" were considered, and in that which followed it, "our mountains and hills." These are connected with each other through "our lakes and rivers," which are equally full of interest and instruction.

Mountains, rivers and the sea are three connected parts of the earth's distillatory apparatus. From the waters of the coast comes the supply of moisture which, driven by the winds, falls as rain or snow, especially where these winds, by blowing over elevated land, have their temperature reduced. is the sun which lifts the waters into the air, thus giving them what the physicists call "energy of position:" the hills and mountains are the condensers which cause the air to drop its load; it is gravity which causes the precipitated waters to flow back to the source from which they came, at the same time enabling them, by the energy set free, not merely to float our lumber and turn our water wheels, but also to cut into and to carve, more or less deeply, the surfaces over which they flow.

There are few natural phenomena more interesting than those connected with running water. They give to natural scenery a beauty which we never fail to miss when they are absent. They are the most life-like of all natural processes, and, taken together, illustrate a history, ever varying in detail, which if we choose to follow it out, shows the most singular parallels with that of human beings. Thus a river has its birth, in the womb of mother earth; it has its infancy, characterized merely as a time of gathering strength; its youth, impetuous, noisy and headstrong, defying all obstacles, not easily turned aside, carving its way with but few intervals of rest; its maturity, when, its work mostly done, it moves slowly and majestically upon its determined way; its period of old age, when, having reached the sea level and lost the energy which it at one time had, it no longer works, but drops its load, assuming now the appearance of a calm repose. It may even have its second childhood, when, through -the elevation of the region which it traverses, its power of doing work is for a time again renewed. Streams, like men, have also their conflicts and adventures, their struggles for existence, followed by survival or extinction, as they may or may not be able to adapt themselves to changed conditions. Finally they may, in a sense, be not only dead, but

"buried," as has happened with many of the rivers of America.

Let us now see how far these parallels find illustration in connection with the rivers of Acadia.

· Few countries are more thoroughly watered than the province of New Brunswick. Travel where you will within its borders and you are never very far from a water course. Take a good map of the province and you will find that, like the arteries and veins of the body, streams, large or small, traverse every portion of its area. Of these, about four hundred miles are navigable by steam, at least an equal amount in addition is navigable by canoe, and an almost indefinite number are large enough to be available for the driving of lumber. Connected with these are numerous lakes, more than forty of them exceeding a mile in length, and, where not in close proximity to settlements, abounding with fish and game, offering great attractions to the sportsman and tourist. Cascades also are numerous. affording great and widespread opportunities for the employment of water power in manufacturing operations or the development of electricity,

In Nova Scotia, owing largely to its more limited extent, no point being more than fifty miles distant from the sea, the streams, though numerous, are less important. The lakes, also, though very abundant, are usually of small size and little depth.

If now we attempt to institute a comparison between the rivers of Acadia—a most fascinating study, especially if based upon personal acquaintance and exploration-we shall first have to consider the places and eircumstances of their birth. These are naturally, for the most part, remote from settlements, being upon the higher grounds constituting the "divides" between the natural slopes of the surface, and often densely forest clad. They will also be found, in the great majority of instances, to originate in lakes or ponds. These are gathering grounds for more or less considerable areas, and, in addition to brooks or rivulets, are themselves fed, like the latter, by springs, the discharges of which, owing to the coolness of the waters, are always sought by sportsmen as affording the best opportunities for fishing. These springs are occasionally of large dimensions, one, at the head of the Tobique lakes, being especially remarkable, covering an area of nearly half an acre, with water of exceptional clearness and purity, and a temperature which, even in midsummer, is not more than 42°. On the other hand, where streams originate from or pass through boggy land, they are apt to have the dark colour

and swampy taste due to the vegetable acids usually produced in such situations.

From the origin or birth of our water-ways we now proceed to consider their history and development. It has been stated above that rivers have their periods of growth, maturity and old age. How, we may now ask, are we to distinguish between a young and a mature or old river? Well a stream is young, in the sense which is here implied, when it still has the greater part of its work before it, that work being the making and deepening of its channel; it is old if that work is nearly done. Young rivers are usually swift, broken by rapids and falls, with their channels narrow and often bordered by rocky bluffs; old rivers are characterized by broad and open valleys, moderately flowing currents, with numerous islands, and more or less extensive flood grounds. Naturally their course will at first be determined by the position of the divides and the steepness of the slopes or watersheds; but if, with the aid of a good map, we try to trace them out, we are soon struck by the fact that while the minor streams evidently flow off, like rain on a roof, along existing slopes, or occupy valleys between enclosing hills, the larger ones in many instances cut directly across the latter as though they had been but little influenced by the irregularities of the present surface. Thus one of the principal tributaries of the St. John, viz., the St. Francis, starts from Lake St. Francis, hardly ten miles distant from the great St. Lawrence, and on the northern side of the great divide or "Height of Land" separating the Province of Quebec from that of New Brunswick, and yet, instead of emptying, as one would expect, into that river, cuts through a high range of hills to join the St. John, and then the combined waters of these and other tributary streams, still apparently unaffected by the obstacles in their way, turning southward traverse at least four other great axes of elevation to discharge into the Bay of Fundy. Only one explanation of this anomaly, shared with the St. John by the St. Croix and the Magagandavic, as well as by the Hudson and the Potomac, is that the rivers are, in part at least, older than the hills; that these have risen athwart their path, but that, like men, having once "gotten into a groove," they could not well get out of it, and so, as the hills rose, have simply cut their grooves more and more deeply. they are still at this work shows that they are, in part at least, still young.

To make this and some other points in connec-

tion with our rivers more clear, it is now necessary to say that at a period but little, if at all antecedent, to man's first appearance upon the earth—a period known to geologists as the Glacial Period-all this portion of America was, as generally believed, in a condition similar to that of Greenland to-day, i. e., deeply buried beneath a continental or semi-continental glacier, even our highest hills being covered by hundreds, if not thousands of feet, of snow and ice. This great ice mass, too, was, as in the case of Greenland, "on the move," and therefore, as well exhibited both in that country and in Switzerland, in a condition to deeply abrade the surface on which it rested, ploughing deeply wherever the conditions were favorable, breaking off projected ledges, taking large quantities of rock material into its mass, transporting this to considerable distances, or pushing it in front of its advancing foot, there to remain, when the glacier finally melted away. Such accumulations of ice-transported rock material are in Switzerland, known as "moraines," and, as will be shown in a later chapter, are common over many parts of New Brunswick and Nova Scotia. Moreover, when the ice, through climatic changes, began to melt, the first formed streams, owing to the complete burial of the hills and valleys below, would be determined in their course, not by the latter, but by the ice-slopes above. Thus as ridges began to protrude, streams, fed by the melting ice, would have no difficulty in crossing them, at the same time determining a groove or "water-gap," which ever after they must follow. This is the explanation of the anomaly referred to above, and many of our rivers, or parts of them, are of glacial origin, produced when the land stood higher than now, and when, as a result of such elevation, both water and ice were far more effective agents of sculpture and removal than they ever since have been. But while many of our rivers, or some portions of them, were thus excavated, channels formed at that time, or previously existing, were in many instances obliterated, as the result of being completely filled up by the debris of the glaciers, thus forcing the rivers at a later period to carve for themselves entirely new Finally, as the land during the period of ones. elevation was not only higher, but more extended than now, coastal regions which are now submerged being then a part of the dry land, the mouths of rivers emptying into the sea would have their mouths far outside of their present position, they and their former channels, in some instances for hundreds of miles, becoming buried or "drowned" as the land, after the Glacial Period, sunk not only to the present level, but below it. A final but relatively slight upward movement brought things to the conditions in which we find them to-day, although, as stated in a previous chapter, there is reason to believe that these oscillations have not yet wholly ceased.

With these explanations we may, in a later chapter, return to the study of our existing streams.

#### How One Woman Keeps Young.

How to keep young is one of the questions of perennial interest to the feminine mind. Amélie Rives, the noted author, who is said to look like a girl in her teens, recently told of her reply to a physician who wrote her to send him the secret of what he called her perpetual youth, "I wrote back that he must consider the cost," she said. "It is a cost that few of his fashionable patients would make, for I rise at 7 or 7.30, ride or walk in the country roads, live close to my books, see few people, and retire at 10. What fashionable woman could endure my life? I remember thinking about it one winter morning, when I was walking along, the crisp, crackling snow under my feet, the fairy outline of a gossamer frost revealing every twig of bush and tree, and I was so invigorated and happy I could have whistled like a boy with delight; but if I had been a woman of fashion I couldn't have endured the silence, the empty distances, the quiet; why, a woman of fashion would die in my place, and I am quite sure that I should in hers."

#### A Place for the Boys.

What can a boy do and where can a boy stay If he is always told to get out of the way? He cannot sit here, and he must not stand there. The cushions that cover that fine rocking-chair Were put there, of course, to be seen and admired. A boy has no business to ever be tired. The beautiful roses that bloom On the floor of the darkened and delicate room Are not made to walk on-at least not by boys. The house is no place, anyway, for their noise. A place for the boys, dear mother, I pray, As cares settle down round our short earthly way. Don't let us forget by our kind, loving deeds To show we remember their pleasure and needs. Though our souls may be vexed with problems of life And worn with besetments and toiling and strife, Our hearts will keep younger-your tired heart and mine-If we give them a place in their innermost shrine, And to life's latest hour 't will be one of our joys That we keep a small corner, a place for the boys. -Boston Transcript.

#### Art Notes -- VIII.

BY HUNTER BOYD.

#### "The Order of Release," by Sir John Everett Milials.

The reproduction selected for this month is from one of the artist's best works, although it is not so well known as many of his other paintings. The original is dated 1853, and was exhibited in the Royal Academy of Arts in that year. It is now in the Tate collection of the National Gallery. When first shown the picture evoked much interest, indeed policemen were required to regulate the crowds who thronged about it. The price given for works of art is not always a fair indication of value, but many will be impressed on learning that Sir Henry Tate, the last purchaser, gave \$25,000.00 for it, and then presented the picture to the British nation. It is an oil painting on canvas, 31/2 ft. by 21/2 ft., and therefore the figures are less than life-size. They are, however, rendered with extreme care, and in the judgment of one eminent critic, as a piece of realistic painting, it may challenge comparison with anything else in the world.

The artist introduces us to a scene which belongs to a period a hundred years before the time when the depicted it. We are supposed to be in the anteroom, or waiting-room, of a gaol, situated near the border of England and Scotland, possibly in the town of Carlisle. A prisoner who has been in the rebeliion of 1745 is seen wearing a kilt of the Gordon tartan, his right arm being in a white sling. His head falls upon his wife's shoulder, and his left arm embraces her and his child. The wife has procured an "order of release," and is handing it to the gaoler who stands in the doorway, and it will be necessary for him to take the "order" to his superior officer for verification before the prisoner can be released. The little child is asleep, but the collie who jumps up and fawns upon his master is intensely awake. A feature to be noted with special interest in the hands of all the persons, for Millais devoted special care to their treatment; and as emotional expression is not confined to features, we have here a good instance of accord between faces and hands in the working out of this little drama. We cannot expect to get very subtle details in a black-and-white copy of the picture, but the general bearing of the woman leads us to expect that whilst she displays an air of triumph, and some indication of contempt for the gaoler, there is also love for her husband, and a certainty that he will soon be at liberty.

The test that may properly be suggested in dealing with this scene is-if such an event ever took place, is it likely that the occurrence was as Millais has depicted it? We believe so for several reasons. The artist has been scrupulously careful in his reproduction of uniforms and textures. The "order" was painted from a genuine one. Special pain's were taken in the treatment of the collie dog, and the little child was actually asleep when Millais seized the expression. (The woman who posed for the picture afterwards became the second wife of the artist). The actors in this silent drama have all entered so thoroughly into the situation, and Millais has so truthfully rendered it, that we are helped to an appreciation of the feelings which prevailed between the Scotch and English in 1745, as symbolized by the "good wife" with her order for pardon, and the turnkey with his bunch of keys. Such are the facts concerning the picture. teacher should hold them all in reserve, and endeavor to secure conversation on the subject. In the junior classes the interest will probably centre about the little child, the dog, the broken arm of the man, and the strewed primroses. In intermediate classes, where British history has been studied, the picture will be of use in illustrating the costumes worn at that period. In the senior classes special attention may be drawn to the composition of the central group, and it will be found that affection makes them a unit.

Professor Blackie used to form a very picturesque feature in the Edinburgh streets. He was a cheery old patriarch, with handsome features and hair falling in ringlets about his shoulders. No one who had seen him could possibly forget him.

One day he was accosted by a very dirty little bootblack, with his "Shine your boots, sir?"

Blackie was impressed with the filthiness of the boy's face.

#### Barye, the Sculptor.

MISS A. MACLEAN.

Antoine Louis Barye (bä-ree) was born in Paris, September 15th, 1796. His father was a goldsmith. His family preserve as souvenirs of his earliest childhood figures of animals which he cut out of paper. In 1819 Barye received third prize for a medallion from the Ecole des Beaux Arts. The following year he won second prize in sculpture For four succeeding years he competed unsuccessfully, and in 1824 his work was not even admitted. So he abandoned the beaux arts and returned to his craft, and for years set himself quietly, determinedly, to master his art. Nothing was neglected; he drew from the living model, he familiarized himself by observation and dissection with the physical structure of man and animal, he informed himse!f thoroughly about the best methods of melting and casting metals, he copied in the Louvre the works of the masters. But the Jardin des Plantes was his greatest studio then and throughout his life. the garden the animals are to be seen in their cages; in the museum of zoology they are found stuffed; and in the museum of comparative anatomy are their This was the day of the Cuviers: Frédéric, the younger, became curator of the menagerie in 1804.

After years spent in study, Barye made his first salon exhibit in 1827, a sculptured "Tiger Devouring a Crocodile." This work created great enthusiasm among the new school. Hitherto no one had thought of actually studying animals from life. The academic school was constrained to award him a medal of the second class. But powerful as this work was. Barve had not vet attained to maturity in his art. In the Salon of 1833 Barye exhibited ten works of sculpture, the most notable being the "Lion and Serpent." It produced even greater enthusiasm than the "Tiger and Crocodile." Very soon the enthusiasm gave place to anger among the academic sculptors. Barye, however, was decorated with the Legion of Honor, and the lion was purchased by the state and placed in the garden of the Tuileries. Someone says the lion lives, and if you wait long enough you will hear the deep growl as he shrinks in loathing from the serpent he is about to kill. Still there was too much detail in Barve's work-he had not yet reached grandeur. The years that followed till 1837 were busy and prosperous. Thiers was minister from 1832 till 1836, and wished some great work to commemorate Napoleon I. The inspiring hope of decorating the entire Place de la

<sup>&</sup>quot;I don't want a shine, my lad," said he. "But if you'll go and wash your face I'll give you a sixpence."

<sup>&</sup>quot;A' richt, sir," was the lad's reply. Then the went over to a neighboring fountain and made his ablutions. Returning he held out his hand for the money.

<sup>&</sup>quot;Well, my lad," said the professor, "you have earned your sixpence. Here it is,

<sup>&</sup>quot;I dinna want it, auld chap," returned the boy, with a lordly air. "Ye can keep it and get yer hair cut."—*Tit-Bits*,

Concorde was held out to Barye. But finally it was resolved to have an eagle with seventy feet span of wings descending upon the Arc de Triomphe, clutching in its talons trophies symbolizing the cities and nations conquered by Napoleon. Alas for France that none of these were carried out, and that she gave not her geniuses work worthy of them. The jury of thirty-six proceeded to treat Barye as they had treated Millet, Rousseau and others. His bronzes were refused. He interpreted this as an order to submit to academic ideas or cease to compete, and did not again compete till 1850, when the old jury was swept away with the monarchy. 1840 he completed the lion, which is walking about the base of the Bastille column. This was another milestone in the onward march of the great sculptor. The lion is pacing with slow measured steps about the base of the pillar, breathing low growls as he goes. Charles Blanc says of this lion, "It is the image of the people guarding their dead."

But Barve had begun answering the action of the Salon of 1837 by making himself a manufacturer, hiring skilled labor and selling his products. These consisted principally of small statues of animals and birds. But oh, the folly of it! The folly of France! There stood one who could have done for Paris what the masters of Greek art had done for Athens, and they let him waste his time in making Lilliputians for a living. He did not neglect grand art altogether, however. "Thesens and Minotaur" belong to grand art, and in 1847 he finished the "Sitting Lion." This was his first public answer in monumental work to the closing of the Salon doors, and the answer was a complete one. Here all details are effaced. lion, grand, calm, terrible in his conscious might, sits there on his throne looking towards the ends of the earth. The state purchased it and placed it near one of the entrances to the Louvre.

Eighteen hundred and forty-eight came, and with it the revolution; the Salon was no longer closed, and the artists of the new school got their chance. Barye was himself made one of the judges. He re-entered the Salon of 1850 with the "Centaur and Lafrith" and the "Jaguar and Hare." Both are now in the Louvre. The Centaur is grand, but the Jaguar—such strength, such savagery, such suppleness!—you can feel its muscles slip under its brouze skin. It is not an individual, but a type—this is genius, immortality. Barye had attained maturity in art. The Jaguar was purchased in 1852 by the Imperial House, and Barye was named professor of

drawing and zoology at the Museum of Natural History, a position he held until his death. At the World's Exposition of 1855 the international jury awarded him the grand medal of honor in the section of art bronzes, and he was named officer of the Legion of Honor. In 1868 he was elected to the Academy of Beaux Arts.

Sylvester, Barve's friend, describes him at the zenith of his power: "He is of supple figure and above middle height, his dress is modest and careful, his bearing and gestures are precise, tranquil, worthy. His eyes, vigilant, firm, look you always frankly, profoundly in the face. He listens to you with patience, and divines your thoughts. All his words hit the mark, but they seem to come with effort from his thin, strong lips, for with him silence is virtue. He follows the maxim, 'It is better to be than to appear.' He has never taken an ambitious step, never spoken a servile word, never cherished a jealous thought, being ever ready to give full I do not know a contemporary credit to others. more ready than he to hear what is true and exalt what is beautiful. A man convinced of his own worth, without vanity, solid in his affections, despising his enemies to the point of forgetting them, charitable toward others, severe toward himself." Corot and others, who knew him well, found him an interesting talker and critic, the mute reserved man becoming full of animation and sparkle. He was married twice. His first wife and their two daughters died, and he married again and had eight children. He seemed to have loved his home and family, but of his domestic life little is known. He painted as well as sculptured, and it was when painting backgrounds for his animals in the forest of Fontainebleau that he was most associated with his Barbizon fellow artists. He knew the wild animals of Fontainebleau well, and in the rocky gorges of the forest he imagined the Indian jungles and African wilds.

Heart disease kept him to his chair at last, and Corot's death was kept a secret from him. One day, toward his last, Madame Barye was dusting some bronzes, and remarked that when he felt better he ought to see that his signature on the bronzes be made plainer. He replied, "Give yourself no uneasiness, twenty years hence they will be searching for it with a magnifying glass,"

The calm, determined, kindly man, one of the greatest geniuses of any land, ceased from his labors on June 25th, 1875. France mourned her gifted son, but she was not wise in time.

#### A Book Worth Reading.

To the Editor of Educational Review:

DEAR SIR,—This is an age of school libraries. Books, many and varied, much used and little used, are found on the shelves. I wish to make mention of one, which seems to me should have a special shelf to itself in the centre of constant use. In the carefully prepared lists issued from which to make selections for the schools, there is a title I do not remember seeing, i. e., "The Opal Sea." Permit me to recommend this charming piece of literature to teachers and pupils of our public schools. value lies in its novelty of idea, beauty of style, coloring of thought and scientific information. A better and clearer explanation of the tides is given in a few words than it was ever my fortune to hear, even after repeated requests, in lengthy lectures at our normal school. Life inanimate (winds, etc.) and animate, above and below the surface of the sea, is clearly and almost poetically described.

I hope that these few words may draw the attention of those interested in such subjects. The author is John C. Van Dyke. The book first appeared March, 1906, and is published by Scribner's, New York, at \$1.50.

Sincerely yours,

A. W. L. SMITH.

Halifax, N. S., June 30, 1906.

#### The Language Box.

Keep a little box, with a slit in the cover, on your desk. Give to each pupil some small slips of paper, on which they are to write every incorrect expression heard at recess, on the playground, or when they are not at school, if you wish to break up bad habits as quickly as possible. The slips are to be dropped into the box, some time during the day. The language lessons are heard, in this case, late in the school day. At that time the box is opened, the slips read by the teacher, and corrected by the class.—Normal Instructor.

The teacher of grammar and rhetoric wrote a sentence on the blackboard, and then called upon William.

"John can ride the horse if he wants to," read the teacher. "Re-write the sentence in another form."

William surveyed it dubiously for a moment: then a flash of inspiration showed him his path.

"John can ride the horse if the horse wants him to," he wrote.—Youth's Companion.

#### The Teaching of Elementary Geometry.

By M. R. TUTTLE.

Great improvements have been made in the teaching of this important subject within recent years. In former years the whole of the first book of Euclid would be gone through with before any original exercises were given. Many would learn the propositions verbatim, so that nearly all of its educational value was lost. With the introduction, at an early stage of their progress, of exercises to be worked by the scholars' own ingenuity, a great improvement was made. Intuition, imagination, conception and reason were more strongly developed. The further great changes that have recently been made are in line with the trend of modern education. The new education demands the practical. It re-enforces reason by appeals to the senses. It is objective before being subjective. What, then, are the recent reforms in geometrical teaching?

Mechanical drawing is introduced at a very early period of the pupils' course, in fact about as soon as he enters school; so, if his geometrical education is thus carried on from the first in connection with drawing and modelling, geometry proper might be commenced in the sixth or seventh grade. This would give a course of two or three years before undertaking deductive geometry in the high school. It would include such exercises as the measurement of angles and areas, by the use of instruments, the arriving at geometrical truths by the inductive method of drawing and modelling, the measurement of heights and distances.

This method would have the advantage of putting his knowledge to a practical use from the very beginning. He would be learning to do by doing from the first. Sometimes a boy of poor reasoning ability is skilful in the use of the powers that call into play the motor activities. These boys, by this method, would be encouraged, and thus led on to the more rigorous demonstrations of later years. Nor should this practical geometry be abandoned in the high school. So important is it that the Mathematical Association of Great Britain, the successors of the Association for the Improvement of Geometrical Teaching, as well as the various works on elementary geometry that have recently appeared, all agree that it should be continued after deductive geometry has been begun. Taught in this manner, geometry is an aid to arithmetre It is also an invaluable

is aided by it, in turn. It is also an invaluable adjunct to manual training.

There is an admirable work on the subject which

has recently appeared, and which was reviewed in a late-number of the EDUCATIONAL REVIEW, "Mechanical Drawing," by S. A. Morton, M. A., Halifax, N. S. It might be well to use this work as an introduction to, and in connection with, the texts in geometry at present in use in the schools of the Atlantic provinces. Nevertheless, there are series by the same author which combine both the inductive and deductive elements, either in one book or in two. One of this character would perhaps form a safer guide for teachers who are just entering the profession. Take, for instance, "The Elements of Geometry," by Lachlan and Fletcher, London, Edward Arnold. Would it not be a good plan for our textbook committee of the N. B. Provincial Educational Institute to suggest a good work? At present the subject is on the N. B. course of study, but the scheme needs elaborating. I have no doubt this scheme will have the sympathy and co-operation of the Provincial Normal School. We might ask them to set every year some questions on the subject for the entrance examinations.

A HINT TO TEACHERS.—A little girl sat listening to a poem. Her mother stopped frequently to explain and simplify. After quietly submitting for a time the little one said: "Mother, dear, I could understand so much better if you would please not explain."

#### Guess the Name of the Poem.

Guess the name of the poem that tells you the time,
The poem where two are made one,
The poem by which a wide river is crossed,
The poem with which yarn is spun.

The poem whose anvil rings loud 'neath his blows,

The poem that falls from the sky,

The poem that shines where the moon has grown old,

The poem that sames where the moon has grown old,
The poem that cannot be dry.

The poem where forests are stripped of their leaves,
The poem that follows the deer,
The poem that sails without captain or crew,
The poem that rings once a year.

#### The Swallows.

"Gallant and gay in their doublets gray,
All at a flash like the darting of flame,
Chattering Arabic, Airican, Indian—
Certain of springtime, the swallows came!"

"Doublets of gray silk and surcoats of pumple, And ruffs of russet round each little throat, Wearing such garb they had crossed the waters, Mariners sailing with never a boat."

-Edwin Arnold.

#### Something for a Lazy Afternoon.

It was a hot afternoon in August. The glowing sun sent its scorching rays on the roof and sides of the little white rural schoolhouse which was unprotected by even a tree. In the schoolroom it seemed too hot to breathe, and the nineteen restless pupils, varying in age from five to sixteen, were lounging in their seats. As I tapped the bell for afternoon recess, and as the children filed listlessly past me, I realized that the language lesson on coal which I had planned for the last hour would be an utter failure.

Some interesting work must be given the children, something that would cause them to forget the heat; but when the children had taken their seats my heart sank with despair, for 1 was myself too tired to originate any instructive occupation.

Suddenly I had an inspiration. One class was studying map drawing by scale. Giving to the three little folks some colored shoe pegs for work in stick laying, I sent the rest of the pupils to the board with their rulers. Who ever saw a child who did not like to draw on a board? I had each child measure off a two foot space, and we called it a meadow. I then asked each to draw a picture of a tree, and we would see if any one could tell what tree was represented. How hard they thought! As I watched the trees grow on the board, some looking as if a west wind had broken them, and others as if they had been struck by lightning, I realized that these country children surely had "eyes that see not." Two of the drawings, one of a maple and one of a pine, were very good. As I asked them to prepare for dismissal, one large girl involuntarily exclaimed, "It isn't time to go home?"

As the pupils filed out and were on their way, they watched the trees and made comparisons that would enable them to draw trees more correctly in future.—Adapted from an Exchange.

Spelling.—Summary, arrival, corridor, efficient, Schenectady, betrayal, conceivable, arraigned, pavilion, lunatic, assimilate, laudanum, Delaware, corroborate, accessible, citadel, excelled, clumsy, luncheon, livelihood, carnival, amateur, rehearsal, umbrella, piteous, cemetery, Manhattan, particle, cocoa, erroneous, legacy, tournament, embezzle, illuminate, irrevocable, courteous, relegated, amoyance, reverence, dropped, inevitable, concede, outrageous, electricians, interference, conferring, counterfeit, yachting, standard, etymology.

#### Psychology for Teacher and Parent.

MRS. CATHERINE M. CONDON.

Every phenomenon has its meaning; and the scientist notes facts that, by the casual onlooker, would either pass unobserved or be deemed too insignificant for mention. But to the scientist "day unto day uttereth speech, and night unto night showeth knowledge." By the practice of passing nothing by without observation, careful comparison, study of the relation of isolated facts, in regard to time and space and causation, and then by giving those facts their proper place in the body of ascertained truth, the scientist is enabled in this way, and only in this way, by synthesis, to formulate and enúnciate a law. No art or science is ever built up but by observation, comparison, judgment and inference. The art and science of education form no exception to this principle; but what a time it has taken to find this out!

Psycho-physiology, which concerns itself with the inter-relations of body and soul, is adding greatly to the knowledge and efficiency of parents and teachers; and that in proportion as they allow themselves to be guided by expert authority into the right track, and put upon their guard against wrong conclusions, and become habituated to a correct method. Add to this the immediate record of an observation with its curcumstances of time, place, cause and effect and varying conditions, strict adherence to truth being the key-note; and although the contribution to scientific investigation may be small, it may prove a missing link, for which unavailing search has hitherto been made, or it may be the last iota of evidence that establishes the soundness of theory. Why have we not been more sedulous in our attempts at human culture, and more generous in giving the fruits of our experience to others?

The astronomer has a record, well-nigh continuous, running back for centuries, and, given time for his calculation, he would map out for you the starry heavens for a century to come. A difficult task, indeed, and one of the triumphs of human intellect.

But how much more difficult the task of the educator. The stars fast fixed in necessity pursue their beaten track in the heavens and their mighty revolutions with foreseen and absolute certainty. But man, a free agent, within his limited sphere, and needing in the formative stage constant care and guidance lest he go astray, how seldom, under even favorable conditions, does he receive the searching

observation and study that is bestowed upon his subject by the student of science!

The theory of Locke, that man comes into life a tabulu rasa, on which you may write what you please, and that no ideas can exist which have not been acquired through the senses, has been for some time discarded by philosophers. It may indeed be questioned whether if Locke had been a father, and had continuously watched the development of his own child, he would ever have formulated such a theory.

More searching investigation brings in with startling force the fact of heredity; the child is a very palimpsest, written within and without, scored with lines innumerable, only some infinitesimal few decipherable, by their effects, to the keen eye of scientific research, and to the vision, rendered sharp by parental love which may be looking out for the development of known undesirable hereditary traits, so that by wise dealing they may be nipped in the bud, or their force transmuted.

The influence of heredity is profound for good or evil, according as it is recognized and given right direction, and we cannot ignore it if we would, but, like the rampant, fiery horses in Plato's noble simile, if skilfully managed, it will carry the individual onward and upward. Heredity, is a spiritual force, and, while its manifestations must, in the first place, be observed by the senses, that is only half the task, for the nature, scope and limitations of this factor in human development must be spiritually discerned.

What watchfulness, what care, what ingenuity, what virtue, in a word, what wisdom of the heart, as well as the hand, is needed! Where shall we then begin? With the child. When? At birth. How ridiculous this will appear to those unthinking people who say that the child must have attained a certain age (differently stated) before he can become the subject of discipline, before he can be trained to habits of obedience and good behaviour and pleasant manner. It will be wise for all our teachers, in their own interest, in order to secure a happy school life, to take up this study of the child; and there are few so situated as not to have an opportunity of studying the infant in the cradle, and through all the stages of child-life up to school age. Much help may be obtained from those mothers who do not shirk their maternal duties, but "live with their children," and in that sweet and gracious life of service learn much which, if embalmed in

accurate, and uninterrupted record, would in years to come stir up memories most precious and be of permanent value. If passed on to the child, when grown up, what a guide it would be, and what a warning, in good time, it might prove against certain tendencies that, if not checked, might prove fatal to character. For the teacher, what a full page in the book of human nature would have been scanned, could she but watch critically the unfolding of even one child from infancy till it had passed through her grade, and what an enlargement of sympathy and spiritual insight.

Psychology, like every other art and science, must begin at the beginning, or as near the beginning as it can. For the ordinary observer that limit is fixed at birth.

As an aid to the beginner, the most complete and scientific account of the manifestation of the soul of the child, and the first glimmering light of the intellect is to be found in the record, kept regularly, at least three times a day, with scarcely any interruption, by Dr. Wilhelm Preyer, Professor of Psychology in the University of Jena.

It was the record of his son, a normal child, without brother or sister, carefully shielded from disturbing influences, and it lasted over three years. All the senses, in their range, their order of unfolding, and their limitation, were observed scientifically and by a man whose candor, love of truth, freedom from bias and generous acknowledgment of the labours of others, is manifest on every page, thus creating confidence in the mind of the reader in the competence and good faith of his guide.

Preyer's Soul of the Cull, in two volumes.

I. The Senses and the Will, \$1.50; II, Mental Development in the Child, \$1.00. D. Appleman & Co., New York.

To measure an angle by a watch, lay two straight edged pieces of paper on the angle, crossing at the apex. Holding them where they overlap, lay them on the face of the watch, with the apex at the centre. Read the angle by the minutes of he dial, each minute being six degrees of arc. It is easy to measure within two or three degrees in this way.

A lady once asked a little girl of five if she had any brothers.

### Literature in the Whole.

How should literature be studied? It should be studied to get straight to the heart of the author,his thought and his feeling. Knowledge of historical and classical allusions and definitions of words are necessary to an appreciation of literature; but any chasing down of allusions for the sake of mere knowledge, any seeking out of the origins of words, any study of the life of an author when it sheds no light on the work in hand, is a waste of time; for it distracts the attention from the literature, and never allows the reader to catch the fires of a great creative spirit. So, too, while literature is the best instructor in composition, it should never be called upon to give this lesson until it has first unfolded its great truth to the reader. And there can be nothing more stultifying to a class than forcing these secondary matters to a prominent place in the study of literature, because, forsooth, they are the only things that can be marked and tabulated. How often a child in school is trained to dislike literature because he is made to spend his energy turning the leaves of a dictionary or some handbook, or learning the nauseating drivel to be found in some edited texts! When an instructor arrives at this stage of teaching where little things are seen out of all true proportion, his life has already fled, and soon the life of the class will flicker Every student that makes details of supreme importance is like a near-sighted man studying some noble work of architecture. may know the beauty of each individual column, the perfection of each pedestal and capital, the graceful lines of each window and door; yet this near-sighted man would have little sense of the strength and harmony of the whole. And there are many students in our classes making a myopic study of literature. Its minutest details are perfectly known; but the great broad significance of its mighty unity is never dreamt of.

The method, then, will be to seek first the truth. If in the search historic or classic references must be known, if new words are hiding the meaning, if figures of speech need explanation, if the biography of the author throws light on his meaning, learn these things. But always remember that they are but incidents; the real thing is the living truth which a great spirit has found and written down for the enlargement of the soul.—W. F. Webster, in "Teaching English in the High School."

<sup>&</sup>quot;Yes," said the child, "I have three brothers."

<sup>&</sup>quot;And how many sisters, my dear?" asked—the lady.

<sup>&</sup>quot;Just one sister, and I'm it," replied the small girl.

—Little Chronicle.

### A Habit of Observation.

Agassiz says, "You study nature in the house, and when you go out of doors you cannot find her." If you wish to become observant, irritate your curiosity, become inquisitive. Train it off into the region of the five senses. If people were as curious about the business of their neighbors in the fields and woods, in the household concerns of the birds, and the domestic relations and economies of the bugs, as they are about their neighbors in houses, how fast would our books of original observations be filled up; for it is the same power which, piped off in one direction or the other, makes us busybodies and gossips or observers and naturalists. To the latter end, read such books as open up the physical world; books which introduce, and provoke experiment and examination, rather than those which explain away and describe; settle down to the cultivation of a knowledge of the seemingly unimportant and uninteresting landscape wherein you find the extent of your riches to be; and you will live; and the deeper you delve the greater you will soon agree with Charles Kingsley, "that he is a thoroughly good naturalist who knows his own parish thoroughly."

But, it is not the eye that sees or the ear that hears. Behind the eye and ear must be the seeing and hearing brain, the inquiring mind, taking note of all that passes outside its windows, for such only are the senses. Do you ask, "What shall I look tor?" "What shall I observe?" Anything, everything. Examine the colors of dawn and sun-Cloud colors never got into literature till John Ruskin painted them. See what he says, let him introduce you to the glories of the heavens. Learn to know the birds by their cries and songs, and by their flights and figures. Note the time of their comings and goings, and find out what birds spend the winter with you. Note the putting on of the foliage; every tree has its time and tint in spring and autumn. Find what colors predominate in the flowers in the various seasons and months. Note the colors of autumn, and of families and groups of plants and of ripened fruit. Learn to distinguish plants and seasons by their scents at night. There is a geography of scents of every path and highway you will find, so that you could pick them out if you were blind. Note the works of frost, and snow drifted and stratified and sculptured by the winds of winter.

Saunter down the lonely highway and tarry in the first neglected fence-corner tangle of brambles, weeds and vines, for the remainder of the afternoon. Nothing interesting in our well-known neighborhood! Surely we should be ashamed to say it. All the problems of botany, biology, geology, zoology and evolution lie before me in the fields and woods about my home, inviting my observation, taxing my acuteness and reason. There is material for a novel and original book in every field. What we want is a habit of close observation.

All children are born naturalists, and it is only that training and occupation counteracts or overlays this faculty, that delight in nature is not more universal. The invitation of all nature to the eye is "Come and see." Henry Ward Beecher, in his Norwood, pleasantly observes, "Yea, let me abide with the artist in fine scenery or stroll with some learned professor, who shall name familiar flowers, and let me know what bug it was that bit me, and what bird sung to me." Let us glean at least a few treasures from this store-house of a world, when the terms are so pleasant and easy.—Ex.

### Lines in Season.

There is no unbelief; Whoever plants a seed beneath the sod And waits to see it push away the clod, He trusts in God.

Whoever says when clouds are in the sky, Be patient, heart, light breaketh by-and-by, Trusts the Most High.
Whoever sees, 'neath field of winter snow, The silent harvest of the future grow, God's power must know.

-Bulwer Lytton.

Let me go where'er I will
I hear a sky-born music still;
It is not only in the rose,
It is not only in the bird,
Not only where the rainbow glows,
Nor in the songs of woman heard,
But in the darkest, meanest things,
There always, always something sings.

—Emerson.

Still o'er the earth hastes Opportunity,
Seeking the hardy soul that seeks for her.
Swift willed is thrice-willed; late means never more;
Impatient is her foot, nor turns again.

-Lowell.

Weakness never need be falseness; truth is truth in each degree

Thun-lered-pealed by God to nature, whispered by my soul 10 me.

-Robert Browning.

### Acadia University Closing.

The past year at this institution, which closed June 6th, has had in it several things which will help to distinguish it from previous and subsequent years

What is known as the second forward movement has just been successfully completed. The first forward movement secured sixty thousand dollars from the constituency, an amount which was supplemented by fifteen thousand from Mr. Rockefeller. When even this was first undertaken there were those who were emphatic in declaring the task to be an impossible one. The realization of this aim did not make possible, however, any appreciable advance for the schools. The mere payment of debts, without expansion in necessary directions, is retrogression. Hence the governing board felt the weight of responsibility which was upon them, when, at the completion of the first movement, President Trotter came forward with his resignation. And it was just the depth of this concern, evinced by the readiness of the governors generously to employ their own means to assist in the exigency, that induced the president to withdraw his resignation and give himself vigorously to a second forward movement far greater than its predecessor. The ensuing communications and interviews of Dr. Trotter with Mr. Rockefeller, through Mr. Rockefeller's secretary, issued in that wealthy gentleman pledging himself to pay into Acadia's treasury a dollar for every dollar obtained from the friends of the university, even up to one hundred thousand dollars. Thereupon began a resolute and energetic effort to raise nothing short of this large sum, an effort which has been so wisely and zealously prosecuted that announcement of its full success was made a few months ago. The rounding out of this enterprise is an evidence, not only of the skill of Dr. Trotter in such an undertaking, but of the love which possesses the Baptist people of these provinces for their schools at Wolfville, and of the large things that may be achieved where such love exists.

Within the year, also, and as another fruit of the president's energy, Mr. Carnegie has made an unconditional gift to the college of thirty thousand dollars, the whole amount to be used for a well-equipped science building. This building, it is expected, will be erected some time next year. There has thus been obtained for Acadia during the nine years of Dr. Trotter's incumbency upwards of three hundred thousand dollars toward a required enlargement.

But while the year gone will be remembered for its financial success, it will also be remembered as the one in which Dr. Trotter's official connection with the schools came to an end. Impaired health has made it necessary for him to give up this educational work for what is more congenial to him

and less taxing. The appointment of his successor is now under careful consideration; and it is hoped on all sides, whether the appointment be delayed or soon made, that the one chosen may suitably follow up what has lately been done so well.

The year will also be marked as the one in which Dr. Keirstead's absence was first felt, and the one in which Professor R. P. Gray first occupied the chair of English language and literature. former gentleman so long wrought in Acadia's halls of learning, and with such signal ability, and filled so large a place in the religious and educational life of our "provinces by the sea," that he has been greatly missed by his co-workers and friends during his first year as professor at Me-Master University, Toronto. But he is not lost to us, however, since good work done anywhere reaches everywhere. Professor Gray, who stepped into the place made vacant by Dr. Keirstead, has enjoyed the best advantages for study in American and English universities, and has had several years of experience as teacher and lecturer at the University of Rochester, N. Y. He has rendered such a good year of service at Acadia, both in the classroom and in the various relations of college life, as gives excellent promise for the department he represents.

On the 6th of June last Acadia College gave the degree of bachelor of science for the first time. There was effected not long since such an affiliation with McGill University as enables Acadia's B. Sc. men to enter the third year of the faculty of applied science at McGill. The recent readjustment of courses at Acadia, and the new relation thereby brought about with the large technical schools, is exactly in accordance with the requirements of our day, and expressive of the purpose of Acadia's governing board to keep abreast, as far as may be, with the appropriate exactions of our times.

The Baccalaureate sermon at the June closing was preached by Dr. Joseph McLeod, of Fredericton, who delivered a strong and timely address.

There was special fitness in having Dr. McLeod, who has long been a leader among the Free Baptists of New Brunswick, perform that service at that particular time, since union of the Baptists and Free Baptists of New Brunswick was consummated but a few months ago.

New Brunswick visitors noted the creditable place taken by students from their province in the list of those who just graduated from Acadia College. Frederick S. Porter, of Fredericton, carried off the Nothard and Lowe gold medal for the highest average in all subjects of the sophomore, junior and senior years; Raymond P. Colpitts, of Forest Glen, took rank next to Mr. Porter, and received the Governor-General's silver medal; while Wm. H. Coleman, of Moncton, won the Kerr Boyce Tupper gold medal for oratory. Joseph E. Howe, of Hillsdale, was the best all-round athlete in the insti-

tution, and withal was a first-class student in every department, graduating with honors in history and

political economy.

Nineteen in all received the B. A. degree; two the B. Sc. degree; and three the M. A. degree in course. The honorary degree of D. D. was conferred upon Rev. George Sale, of Atlanta, Georgia, and of M. A. upon Rev. B. H. Nobles, of Sackville, N. B. Special exercises were held on anniversary day to mark the retirement of Dr. Trotter. address to him was read by Mr. I. B. Oakes on behalf of the governors, this being accompanied by a purse of one thousand dollars. Dr. R. V. Jones read another address on behalf of the faculty. The graduating class presented the college with a fine portrait of the retiring leader. To all this Dr. Trotter made tender and fitting reply, thus closing his memorable administration.

It may be added that Horton Academy and Acadia Seminary, the school for boys and the school for girls, have both had a good year, the former having a registration of 100, and the latter 216. It is with abundant confidence in the institutions at Wolfville, Nova Scotia, that those entrusted with their guidance can appeal for an ever-growing number of young men and young women to turn their steps thither and avail themselves of the choice educational advantages there afforded.

### King's College Encomia. A. C. C.

The King's College Encœnia this year went off with no very special adventures. Dr. Hannah handed in his expected resignation, having come to the conclusion that (unless Church people are willing to contribute enough to put the college in line with the other institutions of the kind—which apparently they are not) there is no possible future for old King's, except to federate with Dalhousie to form a larger university for arts and science, and to use her venerable building in Windsor for a divinity college. At the annual meeting of governors, a motion with this end in view was proposed by Mr. Cotton, of P. E. Island, and seconded by the president; the opposition was such that it was modified to leave out all reference to federation, and to confine the proposal to making King's merely a divinity college. Even so, however, it was lost by 12 votes to 10.

At a meeting of the governors held in Halifax on 5th July, it was decided to re-appoint all the professors for one year, leaving the question of a new president to a committee. The future of King's College is thus still in the balance, and it is greatly to be hoped that her supporters will speedily decide either to add at least \$100,000 to her endowments or will come to the conclusion that ten colleges granting degrees are too many for three little provinces with a combined population of well under a million, and that the plan of the Presbyterians in seeking to build up a strong central university and maintaining a really fine divinity college for their own body is one that has been markedly justified by its success.

### Teachers' Institutes.

Considering the great preponderance in numbers of rural teachers, their lack of influence in educational institutes may, at first glance, seem strange, but if a little consideration be given the matter, a reason will not be difficult to discover.

Tenure of office being shorter in the country than in the city, a teacher may be engaged for a term or two, wthout getting acquainted with her co-laborer in the adjoining district, and she comes to the institute without even having talked the programmeover with her next-door neighbor. The town teachers if they are not intimately acquainted, at least know one another by reputation, and when any question comes up relating to their own particular work, it has previously received some consideration, and some line of policy has been outlined, and when nominations for office are made, there is some cohesion among them as to those who would best represent their interests, while the country teachers who could outvote them by a very large majority do not even nominate those engaged in the same work. We do not for one moment insinuate that any intentional advantage has ever been taken of this inactivity on the part of the rural teachers, and must also acknowledge that country teachers are very backword about taking part in the work of institutes when requested to do so. They discuss very intelligently the drawbacks of ungraded work, suggest topics bearing upon the same, but take no action to bring them before Teachers' Institutes.

In the *Delineator* for August Clara E. Laughlin tells the story of the life of Rembrandt, whose pictures are held invaluable in the world's best collections of art, and Gustav Kobbé writes of the famous civil war song of the south, "Dixie," and its composer, Dan Emmet, the old minstrel. In the Campaign for Safe Foods, Mrs. Abel contributes a chapter on "The Market Inspector and the Buyer," which concludes this series of notable articles. There are numerous articles devoted to the interests of the home;—The Kitchen, House Furnishing, Needlework and Dressmaking; and the children's pages include a variety of features having for their purpose the entertainment of young folks.

THE July number of *Acadiensis* has articles on Jonathan Eddy and Grand Manan. The Union of the Maritime Provinces, The History of Tracadie, Halifax in Books, with other articles of interest. D. R. Jack, publisher, St. John, N. B.

### Recitations for the Youngest Children.

Six and nine had a falling out;
I can't say what it was all about.
One was angry, and said, "Oh, fie,
You know you are worth three less than I."
The other cried, with a pout and frown,
"You're nothing but six turned upside down!"

-II. R. Hudson.

### For a little girl five years old .-

I'm one and one, and one and two,
That is my age all told;
And if I live as long again,
I shall be twice as old.

### How do birds first learn to sing?-

From the whistling wind so fleet, From the waving of the wheat, From the rustling of the leaves, From the raindrop on the eaves, From the children's laughter sweet, From the plash when brooklets meet.

-Mary Mapes Dodge.

Good night!
Sleep tight!
Wake up bright
In the morning light
Te do what's right
With all your might!

Play you are a little farmer. Cut the hay. Rake it. Put it in your cart. Hauf it to the barn.

#### Exercise for Tired Children .-

I put my right foot in, I put my right foot out, I give my right foot a shake, shake, shake, And turn my body around.

I put my left foot in,
I put my left foot out,
I give my left foot a shake, shake, shake,
And turn my body around.

I put my right hand up, I put my right hand down, I give my right hand a shake, shake, shake, And turn my body around.

I put my left hand up,
I put my left hand down,
I give my left hand a shake, shake, shake,
And turn my body around.

I lean my head hack,
I lean my head front,
I give my head a shake, shake, shake,
And turn my body around.

-Selected.

#### Parts of the Body

VIRGINIA PUTNAM.

Touch the eyes .-

Wink and Blink are my two eyes,
Kind friends they are to me;
For all the pleasant things on earth
With Wink and Blink 1 sec.

#### Touch the ears .-

Hark and Listen are my ears,
I hold them very dear;
For music and the songs of hirds
With these good friends I hour.

#### Touch the nose .--

Sniff is my funny little nose,

I like it very well;

For sweet perfumes and fragrant flowers
With little Sniff I smell.

### Touch the cheeks and chin.-

Dot and Dent are my two cheeks,
And Dimple is my chin;
They get so full of laugh, sometimes,
It's hard to keep it in.

#### Touch the lips .-

Rose and Ruby are my lips,

They were made to smile, not pout;

They were made to keep the cross words in,

And to let the kind words out.

#### Place hand upon the head.-

Thinker is my little head, In it I store away, For fear that I may lose them, My lessons every day.

#### Clap hands softly.-

Clasp and Clap are my two hands, So many things they do, It would be very hard, I think, To name them all to you.

#### Place hand on the heart.-

Pitty-pat is my little heart,
It beats on my left side;
I try to keep it full of love,
And free from hate and pride.

#### Point to the feet .-

11op and Skip are my two feet,
With them I walk and run,
They're always ready to start off
When errands must be done.

#### Point upward.—

To God, our Heavenly Father,
Who gave them all to me.
Since all these useful friends are mine,
How grateful I should be.

-Selected.

### Closing Hymn,

Air—"Now the Day is Over."
Now our work is over,
Over is our play,
Heavenly Father keep us
On our homeward way.

Make us kind and gentle, Loving, pure, and true, Be Thou ever with us In whate'er we do.

-Kindergarten Review.

There is a Quaker, I understand, Who, for three sons, laid off his land, And made three circles nicely meet So as to bound an acre neat.

Now, in the centre of that acre Is found the dwelling of that Quaker; In centre of the circles round A dwelling for each son is found. Now can you tell by skill or art How many rods they are apart?

Jimmy: "A man had two eggs for breakfast every morning. He never stole them; he never bought them; he never had them given him, and he never kept hens. How did he get them?"

Jemmy: Give it up."

Jimmy: "He kept ducks."—Woman's Home Companion.

### The Streets of Paris, May 1st.

Extracts From a Letter By Mary Johnstone.

\*Everybody has been looking forward with mingled feelings to May 1st this year. A general strike among the workpeople, sufficiently far reaching in its results to amount to a revolution has been anticipated. The authorities of Paris with the double purpose of preserving the peace, and intimidating the strikers called into requisition 60,000 soldiers to supplement the regular garrisons.

I went out about 8 a. m., expecting at least to see all shops clos d, and the streets filled with people. To my surprise, and I may add, also to my disappointment I found quite the contrary. Many shops even the largest, namely, the Bon Marche and Magasin du Louvre open, but absolutely tranquil and almost deserted, on the streets fewer people than usual, here and there a soldier or a group of soldiers, how could one escape them when there are more than 70,000 within the walls. Not only were there few people to be seen walking or loitering about, but hardly a conveyance. Looking closely at the tramways and omnibuses I found they were practically empty. The same state of things existed up to the late afternoon, when some few people having heard

of nothing startling having taken place ventured forth on foot. As some one remarked next day, Paris had assumed the aspect of an old time New England town on Sunday. Those whom one did encounter carried a visage not Parisian. I am speaking now of the general condition and aspect. There were exceptions.

Anyone entirely ignorant of passing events walking, say in the Tuileries gardens or the Luxembourg gardens on the 30th of April and May 1st must have felt without observing, that there was "something up." Where were the usual tourists, with their faithful "Baedeker's?" Where the loiterers making merry at their expense? Where the merry children with their balls, their tops, their skipping ropes? Where the groups of "Noonahs" enjoying their daily gossip while plving their needles industriously? I could not have believed either of these places could be so deserted in broad daylight. True it rained heavily a couple of times during the day, but from 3 p. m. until sunset it was superb. I went about in the different quarters of the city up to 7 p. m., and directly after dinner sallied forth again. Never on the boulevards have I seen such a small pretence to a crowd. Cafe after cafe we passed with empty, deserted tables outside, a most unusual thing even in severe weather, and no more persons within than one could count on his fingers. On my way to the Hotel de Ville I made a tour of Notre Dame, and stumbled upon the morgue in my wanderings. Everything was as still and silent as death itself. Ordinarily in such an evening prowl at this one cannot go a hundred yards without seeing or hearing someone or something amusing and interesting. I crossed the Seine by the Pont Austerlitz near the Jardin des Plantes and remarked at the time that truly Jean Valjean escaping from Javert could not have found that vicinity more deserted. At 9.30 I stood in front of the Hotel de Ville, and it is a literal fact that for more than five minutes not one person crossed "the Place." Yet even as we stood there in the moonlight, in spite of the tranquillity, there was that in the general aspect, that very absence of demonstration which made us remember that within the court and cellars of that very Hotel de Ville at that very moment were stationed upwards of 1,000 soldiers.

Now this very desertion of the streets and cafes was full of significance. One half the people stayed at home because they feared what might occur if they ventured forth, and the other half, the "might have been" disturbers of the peace were intimidated by the troops stationed in every conceivable place,

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even the court yards of private dwellings and business houses.

The day did not pass however without incident. It was necessary for the military to disperse the crow'd three separate times, and upwards of six hundred arrests were made. When one remembers that on any patriotic fete the arrests amount into the hundreds, this number is not appalling.

Just at the setting of the sun as I made my way from the Luxembourg gardens to St. Germain des Pres, a sight that I shall not soon forget arrested me. It was at Place St. Sulpice. The troopers of the Garde Republican stationed in the Mairie close by had just led out their horses for their evening drink: the whole basin of the fountain was surrounded with men and horses; everything was quiet and peaceful almost a solemn hush, and the last rays of the setting sun were caught by the bright steel helmets of the troopers. The setting, the imposing facade of St. Sulpice in the back-ground and the convent with its garden walls on the side, made an indelible impression on my memory. I drew near to the basin and observed the figures in the picture in detail, and could not but be touched by the perfect understanding between each trooper and his horse. Each spoke

to his animal as to a friend and the horse made up in intelligence of expression for its lack of language to reply.

### CURRENT EVENTS.

Stromboli is again in active eruption.

The fourteen conferences of the Inter-Parliamentary Union is now in session in London. All the parliaments of Europe are represented. The representatives of the Russian douma, however, were obliged to withdraw in consequence of the dissolution of that body.

The enlargement of the Kiel Canal is made necessary by the increasing size of war ships. Its bed will be widened from sixty to one hundred and thirty feet, and its surface width will be increased to three hundred and fifty feet.

After a few weeks of open war, and several sharp engagements, a treaty of peace has been concluded between Guatemala and Salvador. Honduras is also a party to the treaty, which provides that future differences be referred to arbitration.

Five thousand miles of new railway will be laid this year in the Canadian West. A bridge which the Canadian Pacific will build across the Pelly River, near Lethbridge, Alberta, will be over a mile long and three hundred feet above the water level. Opens'
Sept. 1st

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The new King and Queen of Norway have been crowned at Trondhjem, an ancient capital.

It is stated that the number of homicides per million inhabitants in Canada is three; in England, ten; in France, fourteen; and in the United States, one hundred and twenty-nine.

Native and foreign scholars are now at work in Shanghai preparing three new Chinese versions of the Bible. One is in the high classical language of the country, another in the low classical, and the third in the colloquial tongue which is used by three-fourths of the people.

A man who has recently died in England is believed to have been the last survivor of the wreck of the troopship "Birkenhead," the loss of which on the coast of Africa has given us one of the most striking stories of the discipline of British troops. The "Birkenhead" was originally a merchant vessel, and was built at St. Andrews, N. B.

Two cruisers will be used this year to maintain the authority of Canada and Great Britain in the Far North. One is to patrol the waters of Hudson Bay; the other to visit Baffin Bay, Lancaster Sound and Smith Channel. The headquarters of the mounted police for the Hudson Bay district will be transferred from Fullerton to Fort Churchill.

The Pan-American Congress now in session at Rio de Janeiro, Brazil, is not receiving a very hearty support from some of the Spanish-American republics. Mutual jealousies, and fear of the influences of the greater republics, makes them somewhat distrustful of its results.

The Russian Emperor has dissolved the parliament and appealed to the people, calling a new parliament to assemble in March. The chief question at issue is the expropriation of lands for peasants. In the meantime, the government has proclaimed a very liberal land policy, which it hopes will be supported by a new parliament, elected under a more extended franchise. But certain members of the dissolved parliament, some of whom met hastily in Finland after the dissolution, have issued a revolutionary manifesto, calling upon their supporters to refuse to supply money and troops to the government, and not to recognize any loans to the government made without consent of parliament. Bloodshed is to be feared as the result of this appeal; for the parliament just closed had already begun to regard itself as the real governing power, and the small group of late representatives who assume the right to speak in its name may find followers enough, in the disturbed state of the country, to bring about an armed uprising.

# The Provincial Educational Association of Nova Scotia

WILL MEET AT THE

### HALIFAX ACADEMY, HALIFAX,

### September 25th, 26th, 27th.

There will be three morning sessions and one or two evening sessions. Much time will be devoted to

### Discussion on the Adjustments of the Course of Study Demanded by Modern Conditions.

THE HIGH SCHOOL COURSE will receive special attention in discussing the Report of the Committee on High Schools and Colleges.

There will be no afternoon sessions, so that members may be free to study the Natural History and Industrial Products of the Dominion at the Dominion Exhibition, which will be open at that time.

A. MCKAY, SECRETARY.

It is said that Germany and Austria will send armies to the help of the Russian government in case of an uprising in Poland,

A new wireless method of transmitting power has been perfected by which a crewless boat can be steered from the shore, and its speed increased or slackened at will.

The attempt to murder the new King of Spain on his wedding day, which came so near being successful, is found to have been the result of an anarchist plot.

More discoveries of valuable minerals have been made in the Cobalt region, which is now recognized as one of the richest mining districts in Canada. Cobalt ore, which was formerly shipped to the United States for treatment, will be refined in Canada.

A year has passed since Peary sailed from North Sydney to find his way to the North Pole, and no word from him has been received. News of his success is expected in September, at the latest, if he has been successful. In the meantime, Wellman, another United States explorer, is preparing to start from the north of Europe with an air ship and motor sledges, hoping to reach the North Pole in a flight of three or four days from Spitzbergen. There are two other Arctic expeditions out with other objects, that of Harrison, an English geographer, who left Mackenzie river a year ago to winter in Banks Land and explore Beanfort Sea, and that of Mikkelson and Liffingwell, which left British Columbia in May last to discover new Arctic lands. In addition to these, a Danish expedition is about leaving Copenhagen to explore the northeast coast of Greenland and try to reach the Pole.

#### SCHOOL AND COLLEGE.

Rev. C. J. Bailden, M. A., Trinity College, Cambridge, the head master of St. Alban's school, Brockville, Out. has been appointed to the presidency of King's College, Windsor. The appointment is regarded as a very strong one.

Mr. J. S. Lord, recently principal of the superior school, Fairville, N. B., has been appointed on the staff of the St. John schools. He has been succeeded by Mr. W. C. R. Anderson, B. A., a recent graduate of the University of New Brunswick.

Mr. G. H. Adair has been re-appointed principal of the Hopewell Hill, Albert County, superior school, with an increase of salary.

The following Nova Scotia students received the master of arts degree at Yale University in June: Joseph Austen Bancroft, Acadiaville; Earl G. Bill, Wolfville (Deforest scholarship and prize of \$400); Theodore 11. Boggs, Wolfville (Scott-Hurtt fellowship); Roland G. D. Richardson, Lawrencetown; Arthur Taylor, Kentville.

At the annual school meeting of the ratepayers of Port Elgin, N. B., the compulsory education law was adopted by a unanimous vote.

Sir William C. Macdonald has handed over to the Board of Governors of McGill University the school of agriculture and teachers' training college now being built at St. Anne de Bellevue, near Montreal. The cost of the building, which is expected to be open for students early next year, will be over a million dollars, and there is an endowment of two millions for maintenance.

Mr. C. J. Callahan has resigned the principal-hip of the St. George, N. B., superior school, and will enter on the study of law.

Mr. Wm. Whitney, late of Milltown, N. B., who has been doing post-graduate work in Columbia University, N. Y., during the past year, has accepted a position in the manual training department in the new school at Fair-haven, Mass., lately founded by H. H. Rogers, the American millionaire.

Mr. Wm. Clawson, a former U. N. B. professor, has been awarded a scholarship at Harvard for the fine work he has done there this year.—Gleaner.

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MISS ETHELWYN R. PITCHER, B.A. Or MISS SUSAN B. GANONG, B.S., Principals

Alexander Muir, the author of "The Maple Leaf," and principal of Gladstone Avenue school, Toronto, died suddenly at his home in that city as he was preparing to retire, after his usual day in school. He was seventy-two years of age.

Mr. H. Burton Logie, B. A., and J. Roy Fullerton. B. A., have resigned their positions in the Chatham, N. B., grammar school to pursue post-graduate work. They were presented with testimonials by the pupils, by whom they are held in high esteem.

Mr. Horace L. Brittain, who has efficiently conducted the Salisbury, N. B., superior school during the last term, has resigned.

Dr. Soloan, in his remarks at the closing of the N. S. Normal School, June 28th, said that the year has been most successful. There had been during the year about 160 students in attendance: five in the A class, 80 in the B class, 40 in the C class, and 26 in the D class. Of these, almost all were now qualified teachers.

Dr. J. B. Hall, of the normal school staff, will take a trip to the motherland during the summer vacation. He will take up some post-graduate work at one of the colleges of the University of Oxford. We wish the evergenial Doctor a very pleasant summer's study,-Truro News.

### Recent Books.

THE CHURCH IN FRANCE. By John E. C. Bodley. Cloth. Pages 182. Price, 3s. 6d. Archibald Constable & Co., London.

The book contains two lectures on the Church in France, delivered at the Royal Institution, London. Their interest is heightened by the recent revolution that has taken place in the ecclesiastical system in France. The book will be a great help to those who may wish to study past and existing conditions in the history of the church in France. ELEMENTS OF POLITICAL SCIENCE. By Stephen Leacock,

B. A., Ph. D., Associate Professor of Political Science, McGill University, Montreal. Cloth, Pages 417. Price, \$1.75. Houghton, Mifflin & Co., Boston.

The great value of this work is the authoritative and methodical manner in which the whole subject is treated. The book is divided into three parts-Part 1 treating of

the nature of the state, Part II of the structure of government, Part III of the province of government. Under these heads the author gives a vast array of facts on systems of government and social conditions that have existed and are now existing, coupled with judicious criticisms and conclusions

Systematic Inorganic Chemistry. By R. M. Caven, D. Sc. (London), and G. D. Lander, D. Sc. (St. Andrews and London). Cloth. Pages 374. Price, 6s. Blackie & Son, London.

This is a book for advanced students, written from the standpoint of the Periodic Law. The elementary parts of the subject are either omitted or recapitulated, in order to give greater prominence to those intended for students reading for their final degree or other advanced examina-

FIRST STEPS IN MENTAL GROWTH. By David R. Major, Ph. D., Professor of Education in the Ohio State University. Cloth. Pages 360. Price, \$1.25. The Macmillan Company of Canada, Toronto.

The studies in this book are based upon constant observations and experiments made upon a child during the first three years of his life, and the author's interpretation of them. The records present a suggestive series to those interested in the psychology of infancy.

Arthur Hassall's Brief Survey of European History, cloth, pages about 400, price 4s. 6d., presents a historical sketch from the coronation of Charles the Great to the present day. Only the great events are emphasized, special attention being given to the causes and results of the great movements in history. It is provided with a good index and with maps. Blackie & Son, London.

Blackie's Model Arithmetic, Number Six, price 4d., contains a varied and abundant array of problems for solution. Blackie & Son, London.

Rev. S. Claude Tickell's exposition of Latin Syntax is a concise tabular summary of the rules and examples governing Latin prose composition, arranged in a series of formulæ; price 1s. 6d. O. Newmann & Co., London.

Gaston Boissier's Tacitus and Other Roman Studies is a critical and scholarly series of essays on the pre-eminent place in historical literature occupied by the great Roman. Cloth. Price 6s. Archibald Constable & Co., London.

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Onr English Towns and Villages, price 1s. 6d., Ben Jonson's London, Historical and Descriptive, price 1s. 6d., Blackie's Model Reader, Book 1V, price 1s. 4d., all in cloth and profusely illustrated, are interesting in contents, and can be used for supplementary reading. Blackie & Son, London.

Child Life in Our Schools, by Miss Mabel A. Brown, cloth, price 3s. 6d., is an interesting contribution from an English point of view, of the first steps in a child's education. It emphasizes the importance of nature-study, geography, school gardens and other means of directing the self-activity of children. It is finely illustrated, and its schemes of work for primary schools are very suggestive to teachers. Geo. Philip & Son, London.

A fine selection of reading matter for young people is to be found in Blackie's Story-book Readers, attractively presented in good type and illustrated, consisting of about 100 pages each, price fourpence a volume, and all selections from good authors. Among them are the following: Saxon and Norman, from Scott's "Ivanhoe;" In the Days of Nelson, from Winder's "With the Sea Kings;" On the Welsh Marches, from Scott's "The Betrothed;" Charlie Marryat, from G. A. Henty's "With Clive in India;" The Loss of the "Agra," from Charles Reade's "Hard Cash;" Martin Rattler, abridged from R. M. Ballantyne's story. Blackie & Son, London. From the same publisher there is a smaller series for younger children, presented in the same attractive binding (red) and good type, price 2d. and 21/d. each, suitable for grades one and two. These are stories adapted from such authors for children as Geraldine Mockler, A. R. Hope and others. Teachers that are on the lookout for literature for the youngest children should consult these books,

Readers of French will find in The History of Aladdin and his Marvellous Lamp, price 1s. 6d., with notes and vocabulary, a story that is sure to interest old or young. Le Livre des Jeux, a book of twelve French games for English children, price 1s., well illustrates the interesting methods adopted of late years in the teaching of French to young people. The games are bright and lively, and will be entered upon with zest by children who are possessed with a little knowledge of French. Blackie & Son, London.

Winbolt's Latin Hexameter is a little book, price 2s., containing rules for hexameter writing, sufficient to cover a course of two years in Latin. It is convenient in form, and will prove serviceable to the student of Latin verse. From the same editor we have books V, V11, V111, IX of Virgil's Aeneid, price 6d. each, without notes or vocabulary,—good text-books, and at a low price. Blackie & Son, London.

In Blackie's English School Texts, edited by W. H. D. Rouse, Litt. D., we have Holinshed's England in the 16th Century and Izaak Walton's Complete Angler, price 6d. each, well known classics, in a low-priced and convenient form. Blackie & Son, London.

A phonetic transcription of Black's La Première Année de Français, presents some difficulties, on first sight, to the ordinary reader on account of its somewhat cabalistic characters. Its promise—to ease the way to French pronunciation—does not seem hopeful. Adam and Charles Black, London.

#### Recent Magazines.

Leading articles in recent numbers of Littell's Living Age are Russia at the Parting of the Ways, which draws a vivid picture of the disturbed conditions through which Russia is now passing; an appreciation of John Stuart Mill, by John Morley; an Incursion into D'p'omacy, by Sir Arthur Conan Doyle, an extremely interesting account of the work which he undertook to clear the name of British soldiers from accusations of cruelty during the Boer war.

The July Canadian Magazine has an extensive range of articles, which carries the reader to the Antarctic, to New Zealand, to the Alps and into the Rockies. Mr. McCready continues his excellent reminiscences of the first Federal Parliament at Ottawa, describing a duel between Messrs. Howe and Tupper. Judge Savary has an interesting paper on the Acadians, and among the short stories is one from the pen of the late Dr. George Stewart.

The Atlantic Monthly for July has a varied and interesting table of contents, including essays, poetry, stories, suitable for the season, that will be appreciated by summer readers.

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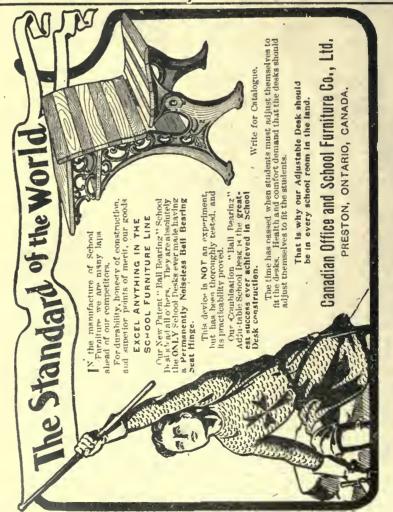
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### Educational Review Supplement, September, 1906.



JAMES WATT DISCOVERING THE POWER OF STEAM.

By David Neal.



### The Educational Review.

Devoted to Advanced Methods of Education and General Culture,

PUBLISHED MONTHLY.

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### SEPTEMBER.

While summer days grew brown and old, H wizard delved in mines of gold; no idler he—by night, by day, he smiled and sang and worked away. And, scorning thrift, with lavish hand he cast his gold across the land.

Still smiling, o'er the trees he wound Long russet scarfs with crimson bound: he drew a veil of purple haze O'er distant hills where cattle graze; he bathed the sun in amber mist, And steeped the sky in amethyst.

Low in the east, for crowning boon, he hung the golden harvest moon; And donned his coat of frosty white As twilight deepened into night. Then to the roll call of the year September answered, "T am here!"

PROFESSOR ELMER E. BROWN, of the University of California, has been appointed to succeed Dr. William T. Harris as United States Commissioner of Education at Washington.

A FINE opportunity is given the Nova Scotia teachers this month of attending the Provincial Educational Association at Halifax, and also the Dominion Exhibition in that city.

Instead of the usual review of "Recent Books," which appears each month in these columns, we shall in this number let the books speak for themsclves, by publishing short extracts from them.

WM. CROCKET, LL. D., has retired at a ripe age from the principalship of the New Brunswick Normal School. His long and devoted service to education, and the esteem and gratitude in which these services are held by thousands of his former pupils, now in every walk of life, must be a great solace to him in his declining years. All will join with us in the hope that these years will be spent in the quiet that crowns a well spent life.

MR. H. V. BRIDGES, M. A., Inspector of Schools, has been appointed principal of the Normal school in place of Dr. Crocket. Mr. Bridges is a graduate of the University of New Brunswick. He has had a large experience in educational work both as teacher and inspector, an experience that will prove valuable to him in this responsible position. REVIEW joins with his many friends in wishing Principal Bridges many years of usefulness in this more enlarged and important sphere.

THE subject of our picture this month is one that will take the attention of every boy or girl. thoughtful attitude of the boy, James Watt, as he watches the steam issuing from the tea-kettle, the mother at the open door with her rapt gaze, the father in another room; the simple furniture, the table of books, rude fire-place—all form a simple picture of a Scottish home of a century and a half Teachers will find it a work of absorbing interest to the children to pick out the many objects in the old-fashioned kitchen.

### An Important Report.

The Provincial Educational Association of Nova Scotia, at its meeting in Truro last year, listened to a paper from Professor E. W. Sawyer, of Acadia College, in which he claimed that there is at present a serious lack of proper co-ordination in the work of the high schools and colleges, the result meaning serious loss and injury to the province. A committee was appointed, consisting of nineteen members, representing the academies and degree-conferring colleges of the province, with Dr. A. H. Mac-Kay as chairman. The report of this committee, which is to be submitted at the approaching meeting of the Association, has been published, and is a most interesting document, dealing with the whole subject of secondary education in a most impartial spirit, and quoting from leading educationists throughout the civilized world in support of the recommendations advocated.

The report briefly, yet carefully, states the conditions and makes its recommendations:

The committee were unanimously of the opinion that, in mathematical and in science subjects, the standard in our schools has been raised in recent years and the work in them had been greatly improved and would compare favorably with that done in the schools of any other country; but that language studies had suffered from being comparatively neglected, and that our schools were in this respect behind those of the most progressive and enlightened countries.

This condition of affairs had resulted moreover in an unsettling of the relations between the high schools and the colleges. The advance in the standard in mathematical and in science subjects and the making of both of these lines compulsory on all high school pupils, had brought about in these an overlapping of the colleges by the schools, and, to avoid the waste involved in duplicating work already done in the schools, it has been found necessary for the colleges to re-adjust their courses in mathematical subjects by raising their standard by an amount equal to the work of about one session or year. On the other hand the putting down of Latin, Greek, French, and German, merely as extra subjects to be taken up or not just as the pupil or teacher saw fit, placed these subjects at a great disadvantage as compared with the others which had been made compulsory, and resulted in a considerable diminution in the number of those studying them and in less attention being given to them; for, with the spirit of emulation engendered by the government examinations, both teachers and pupils naturally directed their attention to those subjects from which there was no escape, and in which a certain minimum of marks had perforce to be made, if the pupil was to receive the coveted "pass" certificate. In the case of these languages therefore, and more particularly in the case of Latin and Greek, the schools had been falling away from the colleges, and although the colleges had been trying to keep in touch with the schools by repeated lowerings of their entrance requirements in these subjects, a point had been reached when it had been found absolutely necessary to start beginners' classes in the colleges in both Latin and Greek in order to accommodate the many who now enter college with little or no previous instruction in those subjects, and who wish to acquire a knowledge of them. It is to be hoped that these classes, or that in Latin at any rate, may not be found necessary for more than a year or two after the present high-school course has undergone revision.

The committee believe that the course of study in the high school should be such as will not only furnish a sound mental equipment for those who leave the school to enter upon the business of life, but will also serve as a fitting preparation for those who may wish to continue their studies in the college or professional school. It is certainly one of the proper functions of the high school to serve as a connecting link between the elementary school and the college.

The committee believe further that the two objects which nominally appear different are after all essentially the same; that the aim in both cases should be to really educate rather than instruct, to improve the character and to develop and strengthen the intellect so as to bring it to the highest possible condition of efficiency in whatever sphere it may be called upon to act, rather than to cram the memory with a number of bits of knowledge however interesting or valuable these may be in themselves or in the eyes of the advocates of so-called useful knowledge.

The committee then proceeds to draw up a tentative course of study for the four years' high school, with seven subjects only for the ninth, tenth and eleventh grades, and nine subjects for the fourth year. To show what radical changes the report recommends, it may be stated that the course at present in use for the first three grades outlines an average of twelve subjects in each grade instead of seven, with all the languages except English as optional. The report recommends Latin as well as English for all grades, each language to count double that of any other subject.

The committee lays particular stress on two points: First, the superior advantages of training that the more condensed course would afford; and second, the great advantages arising from the study of Latin,

In an admirable appendix the opinions of many eminent educationists throughout the world on these two points are carefully summarized. The committee seems to have done its work with great industry and intelligence.

A correspondent, who is a competent critic, kindly sends us the following facts concerning the report:

The report shows that the committee took itself and its duties seriously. The work of its sub-committee on publication has been conscientiously and thoroughly well done. The results of the general committee's deliberations and enquiries and the related appendices, all of which are presented in an unusually clear and interesting manner, makes this report by far the most important document relating to education in Nova Scotia that has appeared in many years. It is worthy 'of the widest possible publication, and should be in the hands of all who are interested in education in these provinces.

Unfortunately, whether justifiably or not, a considerable amount of the interest recently taken in school matters in Nova Scotia manifests itself in adverse criticism of things as they are. The business men complain that the boys and girls coming to them from the schools, as a rule, write badly, spell badly, and perform simple arithmetical computations slowly and inaccurately. Those looking for further good qualities complain that pupils in school are not trained to think, and that they are painfully lacking in the ability to make a continuous mental effort in one line for a reasonable length of time. Experienced teachers of good standing in their profession complain that the existing curriculum and regulations practically constitute a system of militarism for them, and results in over-pressure on their pupils. Whether the committee's report contains any comfort for the souls of any or all of these complaints, is for them to judge. The report is constructive at any rate, and gives suggestions and sets forth a well-reasoned-out scheme for the improvement of existing conditions. This is a great advance on mere restive carping criticism.

Whether one agrees with the conclusions reached by the committee or not, he cannot but accord praise to the report for one thing. It is perfectly straightforward, frank and ingenuous. On debated matters of general theory the publication committee is exceedingly careful to give clear and exact references to all its authorities. This in itself makes it valuable to teachers. These references show how easily any teacher can get first-hand information concerning the opinions of the leading educationists in America and Great Britain.\*

Some of these references are so useful to those interested in current discussions on educational topics that they are here quoted as given in the report.

Concerning Latin, the report says: "One point on which the committee were perfectly unanimous, was the very great importance of the study of Latin, and the desirability of its being taken up by every high school pupil. On this not a dissenting voice was heard. The committee, it might be noted, was not a one-sided one in its composition. Among its members were included teachers of various sciences, modern languages, mathematics, and other subjects, as well as teachers of classics; but all, without exception, were anxious to see Latin given a very prominent place in the high school course of study."

Concerning the courses of study in N. S. schools and the labors of educationists elsewhere the report

says:

"The committee would remind those who take an interest in education in Nova Scotia, that it is now some fourteen years since any material change has been made in the course of study prescribed for our schools. Some of the results arrived at by these labors are open to us in a number of exceedingly interesting and valuable reports, and it would be strange indeed if we in Nova Scotia could not learn something from them. Among these there are four documents to which the committee desires to direct the attention of our teachers and the public in general." These are the reports mentioned in the footnote.

There are four appendices to the report. Appendix I. is on the importance of limiting the number of subjects to be studied; Appendix II. The importance of language as an instrument of education; Appendix III. The importance of Latin as an instrument of education. These three appendices consist of quotations from educational associations and committees in America and Great Britain, and from leading educationists in those countries and in Germany. Appendix IV. is on Secondary Education in Germany, England and the United States. It gives the courses and time tables in several of the leading secondary schools in those countries and the high school courses recommended by the Committee of Ten in the United States. The above synopsis is sufficient to show that the thanks of the teaching profession and the public are due to the publication committee for the able manner in which they have drawn up their report on the relations between the high schools and colleges in Nova Scotia.

<sup>\*</sup>I. Report of the Committee of Ten on Secondary Studies, with the Reports of the Conferences arranged by the Committee. New York: American Book Co., 1894. Pp. 249. 30 cents.

<sup>2.</sup> Report of Committee of Fifteen on Elementary Education, with the Reports of the Sub-Committees: On the Training of Teachers: On the Correlation of Studies

in Elementary Education: On the Organization of City School Systems. New York: American Book Co., 1895. Pp. 235. 30 cents.

<sup>3.</sup> Report of the Committee on College Entrance Requirements. Chicago: The University of Chicago Press, 1899. Pp. 188. 25 cents.

<sup>4.</sup> Special Reports on Secondary Education in Prussia: (1) Problems in Prussian Secondary Education for Boys, with Special References to Similar Questions in England, by Michael E. Sadler. (2) Curricula and Programmes of Work for Higher Schools in Prussia. London: Wyman & Sons, 1899. Pp. 279. 18.

### The Foundations of Chemistry as Seen in Nature Study.\*

By John Brittain, Woodstock, N. B.

In order to teach effectively we must distinguish carefully between the trivial and the important between the accidental and the essential. We are apt to spend too much of the precious school-time over the details which have little significance—the lifeless husks which enclose and conceal the living germ—thoughts. We think that we must do this in order to be thorough; but we deserve no credit for thoroughness in doing things which should not be done at all or which should be done elsewhere or at another time. Let us rather devote our skill and patience to the development, in natural and logical sequence, of the great facts and principles of nature and of life. Practice and the habit of observation will ensure a sufficient knowledge of details.

#### CHEMICAL UNION.

At the basis of all the natural forms we see—organic and inorganic—lies the fact of chemical union or combination. To learn to distinguish it, by its effects, from mere mechanical mixture, it is not necessary for the learners to wait until they have become acquainted with the molecular and atomic theories. Only very simple apparatus and cheap material are required for the experiments which follow.

Each member of the class is supplied with a small stick of dry white wood. The sticks are held for a few seconds in the flame of a spirit lamp. At once a soft black substance appears in the heated part of the stick—a substance which will mark on paper and which will be found to be insoluble in water. The pupils recognize this as charcoal which they may be told is a form of carbon. Now the question is, where was the charcoal before the stick was heated? We could not see it before that was done.

It will be found, by holding the hand above the flame of the lamp, that no charcoal issues from *it*—nor does it come out of the surrounding air. Hence it must have been in the stick at first. But why did the charcoal not then make the stick black?

Heat slowly and carefully a little of the wood, cut into small pieces, in the bottom of a closed test-tube. Clear drops of a tasteless liquid like water form on the inside of the tube above the wood; and as the water gathers, the charcoal appears. The

water evidently comes out of the dry wood and leaves the charcoal behind.

It can easily be shown, by means of a hand balance, that a piece of charcoal (from a stove) weighs less than a piece of the dry wood, equal in size, from which the charcoal was obtained.

It is plain then that *dry* white wood contains both charcoal and water, and that when the water is driven out by the heat, the charcoal can be seen. And so it appears that the water in the wood hides the charcoal, else the wood would look black, and the charcoal conceals the water, else the wood would feel wet.

It may now be stated that when two substances—as charcoal and water in this case—are so united together that they conceal each other's properties, the two substances are said to be chemically united or combined; and the substance they form by their union is called a chemical compound. Thus dry wood may be regarded as a chemical compound of carbon and water.

Next mix together, in a bottle, water and powdered charcoal. Do they unite chemically? They do not conceal each other's properties. The black charcoal can still be seen and the water felt. They now form, not a chemical compound, but a mechanical or physical mixture. But how can the charcoal and water be got to unite chemically? They must have been chemically separate before they united to form wood; but we don't know, at present, how to compel them to combine to form wood.

Put finely divided wood, to the depth of about an inch, into a test-tube loosely closed with a cork or the thumb—and apply heat until the tube is filled with smoky gas; then without withdrawing the heat remove the cork or thumb, and try with a match until you succeed, to set fire to the gas in the tube. How do you account for this combustible "woodgas?" Since this gas will burn, it cannot be watergas (steam); so we must conclude, since chemists find that pure wood is composed entirely of carbon and water, that this gas was formed in some way from these two substances in the wood. be noted here that the water set free by the heat soon becomes colored by some other liquid, and that a mass of charcoal remains in the tube after the water and the combustible gas have been all expelled. It will be found upon trial that this charcoal residue, although it will not burn with a flame like the gas, will slowly burn away with a glow when held by a wire in the flame of the lamp.

<sup>\*</sup>This article by Dr. Brittain appeared in the Ottawa Naturalist for July, 1906.

It seems from this experiment that when wood is heated in a closed space, it breaks up into other substances besides charcoal and water. This will explain too, in part, the manufacture of charcoal and wood alcohol by the destructive distillation of wood, that is by heating wood in closed vessels, and the production of coke (carbon) and coal gas from bituminous coal by destructive distillation.

Let the children char small samples of starch and sugar — try whether they contain water—and whether combustible gases are formed when they are decomposed by heat. The last experiment may be performed by heating a little starch and sugar in an iron spoon until they take fire. It will be seen that the solid substance does not burn, but the flame is a burning gas which rises from the solid matter. The starch and sugar are really being heated in a closed space, shut off from the air by the spoon below, and the burning gas above. In like manner, in the case of wood fire, we see that the flames are caused by the burning of the combustible gases, given off from the hot wood.

The children will now be able to describe the results of their experiments with sugar and starch, and to state and justify their conclusions as to the composition of both. They will doubtless conclude that, like wood, starch and sugar are probably composed of charcoal and water chemically united. They may then be told that sugar, starch and wood and several other substances of similar composition are called carbohydrates. The fitness of this name should be shown from its derivation.

In all this work, the teacher is supposed to act only as the director of experiments and as the referee in deciding the validity of the arguments and inferences. His skill is measured by the success he has had in inducing each pupil to do his own observing and thinking independently.

After a careful review of the whole ground, the children should retain a good working idea of chemical union—will see that heat tends to separate substances that have been chemically united—will understand what agricultural lecturers mean by carbohydrates—will know that when carbohydrates are heated in a closed place until they decompose they break up into carbon, water, and other substances hquid and gaseous—will see that a flame is a burning gas, and that a solid, as carbon, burns without a flame—and will be able to form an intelligent conception of many processes in nature and the arts which would otherwise be quite inexplicable.

The main topic in these lessons—for this work covers several lessons—is chemical union; but the other topics discussed are important, and all of them help in making clearer the idea of chemical union. This illustrates another method of making our teaching more effective, and saving time in the process. I mean that while we keep in view one principal topic we should always associate with it others which are significant and worth teaching in themselves, and at the same time are so related to the central topic that they can be used effectively in enforcing it.

A correspondent of the Manchester Guardian makes some very reasonable suggestions on the education of the agricultural labourer. He declares that the curriculum of the ordinary elementary school is not well fitted to do its work in rural districts. It is too literary, and bears no direct relation to the probable life-work of the village children. Many of them are to be agricultural labourers, but the last thing we dream of teaching them is the science and art of agriculture, or the scientific facts which will stand them in good stead in their future work. What, then, is his remedy? It is, briefly, that we should follow a plan similar to that which has been carried out in France, since 1893, "écoles primaries supérieures." The aim of these schools is to give technical instruction of a commercial, industrial, or agricultural nature to the boys in the French communes as they are drafted out of the ordinary primary schools. The Commune bears part of the expense, and the State helps with scholarship grants, and grants in aid of salaries. What these schools profess to do is "to direct the minds of the pupils from the first day to the last towards the necessities of the practical life which awaits them." "The agricultural course," says M. le Blanc, one of the chief authorities upon agricultural education in France, "makes it its special aim to teach the laws of Nature, and to instil into the minds of its pupils those scientific notions which they could never acquire at home. To attain this end lessons on the theory of natural and physical sciences, or even on agricultural sciences, are not sufficient. Experiment must give the students a substantial grounding, and this knowledge must be completed by further experiments intelligently carried out by themselves."

I feel that I must have the Review in my work. T. T. G.

### S. J. Farnham.

MISS A. MACLEAN.

At Ogdensburg, N. Y., is a monument with this inscription: "Soldiers and Sailors, Township of Oswegatchie, War of the Rebellion, 1861-1865." For this monument many designs were submitted, but the originality and beauty of S. J. Farnham's design won. She chose as her subject the "Spirit of Victory," representing this by a female figure in flowing garments with a wreath of laurel in her left hand and a flag in her right. The figure is seven feet in height and the flag standard rises four feet higher. The figure stands on a fluted Roman column and base of Barre granite twenty-four feet high to the top of the cap. Around the lower part of the column are four war eagles, scanning the face of the world as they stand posed on an endless fasces, representing strength and eternity. bronze group is resting on the top of the base proper, and on each of the four sides of the base is a bronze shield, with inscription and decoration. Near the top of the column is a bronze wreath of maple leaves. "Victory" is nobly balanced, and expresses grandeur and power. The face is sad, and the head has a slight droop. This rendering is in accordance with the artist's idea that there must necessarily be sorrow and tragedy in every victory. The bronze soldier who stands on guard at the base seems a being who has lived and suffered and is possessed of soul. The artist considers this her greatest work as yet, but she has produced others of great beauty and merit.

In the Italian garden of Captain Emerson, of Baltimore, is a beautiful fountain, the design being three laughing nymphs, and the boy, Pan, who is clasping a bunch of grapes from which the water spouts. Mrs. Farnham's little son, "Jim," posed for Pan. He made an ideal model, entering into the spirit of his mother's conception, and the mischievous laughing figure of this joyous, winsome child in its utter primeval irresponsibility is most attractive. Beneath the fountain are these impromptu lines written by Mrs. Farnham:

In Arcadia, hallowed spot,
Sans reproache et sans culotte,
Graces in alluring shapes
Played and danced among the grapes,
None to question or to hamper,
None on fun to cast a damper.
Joyous spontaneity,
Knowing not propriety,
Would the All Wise Power saw fit
To unlace our lives a bit,
Give us room to breath, and be
Like the gods in Arcady!

S. J. Farnham is a fearless and dashing equestrienne, and well understands horse nature, and enjoys galloping over her western ranch as much as anything else in life. This fact accounts for the spirited bronze work called "Cowboy Fun," vibrant with life, irresistible force and swift onward motion.

Mrs. Farnham's marble bust of the beautiful Mrs. H. Bramhall Gilbert is a fine example in correctness of technique and perception of character. The Great Neck Steeplechase cup, won by Mr. W. R. Grace in 1904 is another specimen of her work, and it, too, shows her accurate knowledge of horses and her skill in depicting them.

And the marvel is that six years ago this sculptor did not know anything of the great gift God had given her. While recovering from a severe illness her husband brought her some modelling wax in the hope that it might help her to while away the hours of enforced inactivity. She at once fashioned in wax a recumbent figure of great beauty, representing Iris, the goddess of the rainbow. Having no proper appliances, she pressed into service surgical instruments of various kinds by way of armature. Her surgeons vouched for the corectness of "Iris" from an anatomical standpoint, and were amazed that it was an initial production.

Mrs. Farnham had the advantage of extensive foreign travel, and thus became acquainted with the masterpieces of ancient and modern sculptors in all lands.

Little teaching from the schools is possessed by this original artist. But she has tremendous earnestness. Her skilful hand and eye furnish the externals, and the soul which she puts into her work is, after all, that which makes the grandeur and assures the lasting value of a work of art. In her judgment the personality of an artist working from within must determine the particular aspect and treatment of the subject chosen. She likes best scupltures that are full of force and emotional expression. She puts her whole heart and soul into all she does, and those who have seen her work can only conclude that the virile strength and subtlety in execution, combined with her visual and temperamental gifts, insure to her a crowning future.

The season of bird migration has now begun. Many birds are already assembling for the journey to the south. Why do they go? When will they return? These and many other questions in relation to birds will furnish occasion for September talks.

Victoria is half way between London and Hong Kong.

### A Great Mediæval School.

### "The School of the Palace."

By MISS CATHERINE M. CONDON.

Let us, in imagination, transport ourselves back to the ninth century of our era, say, about 805 A. D., and, finding ourselves at Aix-la-Chapelle, make the best of our way to the Palace of Charlemagne. We shall not need to ask our way; its turrets, battlements and fine arcaded cloisters will sufficiently indicate it. Before the massive gates stand the guards, in full armor, holding lance and battle-axe. Like their imperial master, they are of great stature and strength. Passing them, we go through the court-vard, where military and athletic exercises are proceeding with vigor. Presently, at a given signal, the different groups of various ranks and ages break up and march into the school-room, the great hall of the palace. Among the royal children are Pepin, King of Italy, and Louis, King of Aquitaine. They are still young, for they were taken to Rome by Charlemagne, their father, in 801, and anointed by the Pope at the age of four and three respectively. They probably enjoy a visit home, as well as other little boys who do not wear a crown.

This "School of the Palace" is a mixed one. Some have thought it an academy for learned conversation and communion only. But instruction was imparted in literature, and such science as was then possible. Special stress was laid upon the teaching of religious doctrine and practice, as was natural, when the only teachers were ecclesiastics.

But careful primary work would be as necessary then as now to prepare for the study of the liberal arts; and still later in life than this, Charles, finding his good right hand more facile with the sword than the pen, was practising penmanship, desiring to improve it; and no doubt some one in the school skilful in the writing and illumination of manuscripts would assist the Emperor, who would no doubt avail himself of the splendid manuscripts received as presents from the Emperor at Constantinople; and from the Caliph of Bagdad, the renowned Haroun-al-Raschid, who also sent him an elephant, apes, rugs and carpets, and a curious striking clock, with many other rich gifts. The tone of the school must have been wonderfully liberal, for he charges the bishops and abbots that, "they should take care to make no difference between the sons of serfs and freemen, so that they might come and sit on the same benches, to study grammar, music and arithmetic." Many a clever serf repaid this generosity by signal service in church and state.

Let us mark the founder of the school. Crowned and robed, he is seated upon his throne in the stately pillared hall; but you will need no regalia to recognize him. That form of heroic mould, with its instinctive dignity and grace, the dome-like head with its white flowing locks, its large and piercing eyes, with its grandly cut features, well express his intellectual power, and mark him out as standing in the front rank of the great men of all time; as soldier, statesman and scholar.

During his reign of forty-six years he carried on fifty-six campaigns, one, that against the pagan Saxons, lasting thirty years. He conquered the Avars (Huns) by the same piece of strategy that won for Napoleon the battle of Austerlitz—a double base of operations against the enemy. As a statesman, he won as much by his diplomacy, which was at once shrewd and generous, as by the sword; and it may be doubted whether he would have so completely subjugated the savage Saxons if he had not won over their able chief, Witikind, by his magnanimity and fair dealing.

But Charlemagne was not content simply to conquer, he determined to Christianize the rude pagans and to introduce law and order, and thereby to render his dream (a vain one) of a re-established Roman Empire, a solid and permanent fact. But he would make it a Holy Roman Empire. Therefore he built churches, monasteries, and cloistral schools among them; and when they destroyed them, and their inhabitants, with fire and sword and unutterable cruelties, he did the work over again, for there was no turning aside that indomitable will from its purpose. He was, however, a true German, and reverenced what was good in their old institutions, and respected, as far as possible, their sentiments and traditions; but, said he, "the Saxons must be Christianized or wiped out." It has been quaintly said, "he inflicted baptism upon them." The noblest men do not rise altogether above the spirit of their time.

As a scholar, his attainments were remarkable for that age; he was a good Latinist, and understood Greek. He was fond of the "joyous art," and brought musicians from Italy to improve it; and like Luther, 700 years later, reverently ordered the "service of song in the house of the Lord." He was also a diligent student of logic and astronomy. Only four of the winds had been named before him, but he distinguished twelve, and

gave to them and the twelve months of the year Germanic names, and drew up, with some scholars of his academy, a Germanic grammar. He collected and preserved the old heroic ballads, songs and verses, which are largely the foundation of the Nieberlungenlied. His grandfather, Charles Martel, on the field of Tours, 732, had inflicted a crushing defeat upon the Saracens, which defeat, it has been pithily observed, "settled the question whether the Koran or the Bible should be a text-book at Oxford."

His father, Pepin le Brèf, had by his protection of Pope Stephen, and his bestowal of the Exarchate of Ravenna laid the foundation of the temporal power of the Holy See. This gift, confirmed and enlarged by Charlemagne, led to his being crowned Emperor of the Western Roman Empire, 25th December, 800 A. D.

Henceforth, German barbarism was to be more and more softened by Italian learning and refinement. The kingdom left by Pepin was to expand into an empire stretching from the Ebro in the west to the Danube, and the confines of the Eastern Empire, and from the North Sea to the Mediterranean, and to embrace Italy from Aosta to Calabria.

The "school" justified itself, for we read of no fewer than twenty-three great dignitaries trained in it, eminent in Church and State, among them Pope Sylvester II, who was also an author.

At the head stands the director, Alcuin, who was an Englishman, a native of Yorkshire still famous for stalwart men, rich musical voices and shrewd business faculty. No doubt the tutor, trusted friend, and adviser of Charlemagne, exhibited to the full their fine wholesome characteristics. His writings, thirty in number, by their excellence and variety, attest his learning and industry. Our own Egbert, who had fled from Offa the Terrible, probably learned lessons of wisdom in the famous school of his protector.

Eginhard, considerably younger than Alcuin, received in the school the scientific instruction necessary to fit him for the position of "Chief of the Works to the Palace." He has left us interesting Chronicles and a biography of Charlemagne, and the only contemporary account of the heroic stand of Roland at Roncesvalles (Roncesvaux).

Hincmar afterwards Archbishop of Rheims, near the end of the century, gave a striking proof of his ability. Adalbert, Abbot of Corbie, and cousin of Charlemagne, had written a treatise, "De Ordine Palatii" (Of the Ordering of the Palace)

It contained a very full account of the "Missi Dominici," which institution has always been considered a mark of Charlemagne's genius. were officers appointed to visit every part of the empire, to look into the minutest details, and, if necessary, to take prompt and decisive action, and to report everything to the emperor, especially the causes of any trouble. His treatise also gave a full account of the national assemblies convened by him, stating their mode of proceeding, the due arrangement of clerics, laics, etc. The freest discussion was invited, but while the most absolute power was really exercised by Charlemagne, these deliberative assemblies must, by his wisdom, tact and liberality, have been wonderfully educating to a barbarous and disunited people. No fewer than thirty-five were held between 776 and 813, A. D.. Adalbert's work was lost, but Hincmar almost, perhaps entirely, gave its substance in a letter of instructions, when near the end of the century (ninth) he was applied to by the grandees of Carloman, the son of Charles the Stammerer, for an account of the government of Charlemagne. Quite an intellectual feat for so old a man, and, for posterity, a most valuable piece of work.

The Heads of the "Schools" took names from antiquity. Alcuin was Flaccus (Horatius Flaccus); Angilbert was Homer; Theodulph, Pindar; Charlemagne was David; Eginhard, most appropriately, Bezaleel, after the artist-nephew of Moses. Certainly those who took the names did not dim their lustre. But it was not all study. There were hunting parties and sports, and especially bathing in the tepid waters for which Aix-la-Chapelle has been famous from Roman times to our own day, a sport loved by the emperor. Sometimes as many as one hundred persons would be invited to disport themselves with the emperor, whose health was perfect, until his last short illness of plerrisy.

Some time before his death he had set aside twothirds of his property for religion and education, reserving one-third for disposal at his death. He had founded twenty-one Metropolitan Sees with monasteries and cloistral schools. His bounty to suffering Christians, even in far-off eastern lands, was unstinted. It may well indeed be doubted, whether any one man has done so much to lift Europe out of the slough of ignorance and barbarism as Charlemagne.

I find the Review a great help in my school work, and would not do without it. A. A. P.

### Our Rivers and Lakes - No. II.

### 1.—The River St. John.

BY L. W. BAILEY, LL. D.

Those readers of the REVIEW who may have perused the last chapter of this series of sketches will recollect that a river is therein shown to be comparable with a living thing, and as such to have a history, involving periods of youth, maturity and old age, each marked by well-defined characteristics. We may now proceed to see how this comparison finds illustration in the rivers and streams of Acadia.

We may naturally begin with the St. John as being not only the largest river in the Maritime Provinces, but also the largest to be found in eastern America south of the St. Lawrence. It is also the most varied, and in different parts of its course affords the best examples of the subject under consideration.

The St. John river is usually regarded as having a length of four hundred and forty-six miles, and a total drainage area of about 26,000 square miles, embracing considerable portions of Maine and Ouebec, as well as of New Brunswick. navigable by ordinary steamers to Fredericton, a distance of eighty miles, by flat-bottomed steamers to Woodstock, sixty miles above Fredericton, and by canoe from Woodstock to its sources in the St. John ponds on the western side of Maine. Many of its tributaries, including in New Brunswick the St. Francis, Green, Grand, Tobique, Nashwaak and Oromocto, are also similarly navigable when the water is at ordinary height. The head of the Tobique in Nictor Lake is ninety-two miles distant from its mouth, and a little over eight hundred feet above sea level. The St. Francis and Madawaska originate in the Province of Quebec, and north of the great St. Lawrence "divide;" the head of the South Branch is said to be 1,808 feet above sea level, and that of the Northwest Branch 2.358 feet. but where the river St. John enters New Brunswick at St. Francis, the waters are not more than 606 feet above tide level. Assuming this latter to be the case, and the distance from the sea to be as stated above, the average slope for the entire river within the limit of the province would be one and a half feet per mile; but as there is a descent of 117 feet in the Grand Falls gorge alone, and in the summer months practically no descent below Fredericton, the rate for the portion below the Falls becomes only eight inches, and below the city last named nearly nil. Thus the river becomes naturally

divided into sections, which must be considered separately, especially as these sections are otherwise in marked contrast.

The first section which is to be distinguished is that between the sources of the stream and Edmundston. The course of the river, as a whole, is here northeasterly, evidently determined by the course of the hill ranges between which it flows. It is what physical geographers call a "consequent" river, meaning that the direction is the consequence of a natural pre-existing valley and slope. probably also in this part an old river, as the valley alluded to is almost certainly of very ancient date. Indeed it is probably only the discovered head of a stream which originally formed no part of the modern St. John, but continued its north-eastward flow to connect with that of the Restigouche, and thus emptied into the Bay Chaleur. But the main St. John, working backward at its head, reached at last this old eastward flowing stream, and providing a new and easier channel for its waters, drew these off, leaving the Restigouche as we have it to-day, separated by a short carry only from the waters of the St. John. This is an illustration of what has been termed the "piracy" of rivers, or the "migration of divides." of which we shall presently notice some further illustrations.

But while in one sense old, the section of the river under review is also "young," for its current is swift, its channel often narrow and V-like, its bed strewn with numerous boulders, originating more or less dangerous rapids. These boulders are old moraines, dropped across the valley's bed by the melting ice of the glacial period, and the stream is now actively engaged in removing them. It is a rejuvenated stream, a stream in second childhood, striving for the second time to carve out for itself a smooth and unobstructed way.

Near Edmundston the main river begins to turn to the south, and we enter upon a second section extending to the Grand Falls. The wide, open character of the valley, the gentle slope of its sides, the comparatively slow current, and the extent of intervale and islands, all indicate maturity. On the other hand, at the Grand Falls, a sudden and marked change comes in. The old pre-glacial channel, plainly recognizable in the rear of the village, where it gives convenient passage for the rails of the C. P. R., having been completely obliterated by the debris of melting glaciers, the river has ever since been, and is now engaged, in making for itself a new passage. And the process is one well worth

study. The rocks to be traversed (calcareous slates which are almost limestones) are not very hard, but are of different degrees of hardness, therefore tending to determine irregularities both of course and descent. The stream is so narrow and the bluffs on either side so nearly vertical that in time of freshets the crowded waters are compelled to rise far above their ordinary level, then becoming a scene of wild commotion, at the same time that the height of the main pitch becomes materially reduced. This is ordinarily about eighty feet, while the total difference of level between the upper and lower basin, separated by about a mile of "gorge," is 117 feet. In the bottom of the gorge are the "wells," an interesting feature, being circular holes from one to ten feet wide, and sometimes twenty



GRAND FALLS GORGE - St. John River.

feet deep, made by the grinding action of pebbles driven by the whirling waters, and illustrating one of the methods, by which the whole gorge is being excavated.

Below the Grand Falls the character of the river again changes. It comes in now transverse to the hill ranges instead of with them, as in the upper portions; and here we find the most marked evidences of that former higher level of the waters without which these ridges could never have been crossed. They are in the form of terraces, steps or benches, lying along the sides of the valley and following its sinuosities, but composed of materials which, both in character and arrangement, show clearly that they must have been laid down by the river, as similar deposits are being laid down now.

Sometimes as many as six or seven of these ter-

races will be seen one above another, each marking a stage in the excavation of the present valley, and the highest perhaps two or three hundred feet above the level of the stream, as it exists to-day.

In this third section of the river, extending from Grand Falls to Fredericton, another feature is the deep and narrow character of the valley, the general scarcity of islands, and the rapidity of the current, all indicative of comparative youth. At the Meductic falls probably once existed, now represented by a somewhat dangerous rapid, and here again, as at Grand Falls and the Aroostook falls, we find evidence of old pre-glacial and now abandoned channels.

Not far above Fredericton the scene is againchanged, and quite abruptly. From a width of hardly quarter of a mile it becomes twice, and in places three or four times that amount. The bordering hills are lower and their slopes more gentle, while between their base and the river channels are extensive flats or intervales, some subject to annual overflow, others like that upon which the city of Fredericton is built, reached by the water only under such exceptional conditions as may result from an ice jam below. Here also begin the is ands which at once add so much to the beauty of the river, with their elm-fringed borders, and to the revenues of their owners by their exuberant fertility. These intervales and islands indicate that the stream is here dropping its load. Wear or corrosion is on the sides not upon the bed of the stream, and the tendency to fill up makes the employment of dredges necessary. The stream has reached the "bare level of erosion," and except in times of high water the outward flow is checked or even practically reversed by the inward flow of the tide. Here again we find evidences of a former higher level of the river, probably during the Glacial period. Beneath the surface deposits of the flat of Fredericton we everywhere reach in sinking beds of pure clay, the ascertained depth of which is over 200 feet, and from which remains of large fossil fishes have been re-Hence the river must in some former period have flowed through a channel 200 feet lower than the present one, and thus could only have been cut when the land stood that much higher. Having been cut, by water or ice, or both, during the period of glacial elevation, it was subsequently filled for several hundred feet with clay as the land subsided, and finally, with another, but less marked elevation, cut its present bed at least 200 feet, as stated, above its former one.

The condition of things sketched in the last paragraph continues from Fredericton to Hampstead, in Queens County, where, with the existence of rocks which are at once more enduring and more disturbed, another total change in the scenery of the river takes place. Without attempting to describe the new features in detail, I may note two or three points which are of special interest, either as exhibiting contrasts with the parts of the river already reviewed or as bearing upon its probable history.

Perhaps the most striking feature of the lower St. John is the fact that it here presents a series of long and narrow parallel troughs, connected by ducing them as a small map, a good illustration of what is known as "trellised drainage." on account of its resemblance to trellis work as employed by the gardener. It also suggests, what is undoubtedly true, that the valleys now connected were at one time distinct, each being occupied by its own stream, and with the direction of the latter "consequent" upon that of the bordering hills; but subsequently through the backward working of the main St. John these were successively tapped or "pirated," and their waters taken to swell those of the main river.

And here another and most remarkable feature



[ISLANDS ABOVE FREDERICTON - St. John River.

transverse depressions. The Long Reach, with its extension in the Belleisle valley, and the great Kennebeccasis trough, about twenty miles long, and in its western portions 200 feet deep, or more, are the most conspicuous examples, but to these may be added the depressions of the Washademoak and Grand Lakes, all parallel to each other, and to the great trough of the Bay of Fundy. The connecting transverse valleys are those of Wickham, prolonged southward in Kingston Creek, the Short Reach, a continuation of the Nerepis valley, the Grand Bay and the Narrows, while indications of the same north and south depression is to be seen in the soundings in and off of St, John harbor. We have in these features, best appreciated by repro-

comes in. At its mouth the waters of the great river, with a length of nearly 500 miles, and gathered from three provinces, are met by the phenomenal tides of the Bay of Fundy, the struggle between the two being at the same time mainly confined to an area less than a mile in length, and where narrowest, not over 200 yards in breadth. Here are the "reversible falls," with the waters falling either in or out, according as tide is high or low, while for a brief interval the turmoil which ordinarily characterizes the scene and makes the passage impossible, is replaced by a condition of repose, during which vessels of all kinds may safely move to and fro.

One point more. As the lower section of the

St. John river is below tide level, the waters being brackish for many miles above its mouth, while even at Fredericton there is during low water a "set back" of several inches, it follows that the valley must have been excavated when the land stood higher than now, and was afterwards depressed. It is therefore an example of a "drowned" river.

Indeed its old mouths, one at Manawagonish and the other through the Coldbrook valley, are now filled up, and the present channel through the Narrows is comparatively "young." Other provincial illustrations of "old" and "young" rivers, "rejuvenated rivers," "drowned rivers," "river piracy," etc., will be given in another chapter.



REVERSING FALLS - St. John River.

#### "The Schoolmaster Abroad."

In that admirable picture of Southern life, "The Autobiography of a Southerner," now running through the Atlantic Monthly, the following incidents occur:

I once read a letter written by a Southern planter to his business correspondent in Boston in the forties, asking him to send by boat "ten kegs of nails, a dozen bolts of cloth, and a well-conditioned teacher" for his children. The teacher lay in his mind along with cloth and nails.

And Professor Billy picked up a story that told more than all the school reports. Some one asked a country woman how many children she had. "Five,—two married, two dead, and one a-teaching school."

From my boyhood I had heard our public men praise our people as the most contented and upright under heaven, home-loving and God-fearing. But I encountered communities from which all the best young men had gone, and nobody could blame them; and many who were left had homes ill worth loving. Slatternly women, ill-fed, idle men, agriculture as crude as Moses knew,—a starving population, body, mind and soul, on as rich a soil as we have.

"'Pears dey gwine ter eddicate everybody, yaller dogs an' all," said one countryman to another. "Presen'ly dey'll 'spec' me and you to git booklarnin', John, an' read de papers.'

I'd lak to know who gwine ter wuk an' haul wood in dem days," said John.

"Yes; an' atter you larn to read, dat ain't all. It costs you a heap o' money den. Yer got to buy a paper; an' did you know dat a daily paper costs six dollars a year? Atter dey larn you to read, dey don' give you de paper, nor no books nuther."—Nicholas Worth, in the August Atlantic.

Yukon District is almost as large as France.

I enjoy the Review. I find it both interesting and helpful. M. S.

### After Vacation.

Most sincerely do we hope that your vacation will be in every way refreshing, restful, and delightful.

Vacation is never an end in itself, it is but a means to an end. Its joy and its usefulness are always involved in what comes after, in what results from it. Every conceivable privilege for enjoyment in July and August fails to provide a relish if one is fearful that the vacation will last the year round. The fact that it is to have an end, followed by opportunity for profitable employment, gives zest to the days of rest.

Assurance of an increase in salary and professional opportunity also materially adds to the joy of the long vacation. How much more joyous should a vacation be when there is a consciousness that because of it the teaching itself will be of increased value to the pupils to whom we go?

The rest feature of a summer school to a teacher of the right spirit comes from the fact that ever after she is to do better work for her pupils. She can rest better at work than at rest when her rest comes from the joyous consciousness of that which is to come after vacation.—Selected.

### Parts of Common Things.

Here is a language lesson that will stimulate a good degree of thinking and observing if rightly managed. It will also form a basis of pupil study on the part of the teacher; it may surprise the teacher to discover how little some of the children know about matters which are usually regarded as very simple and commonplace.

Let each pupil write a list of the parts of some of the objects named in this list and others, also the use or position of the various parts: A wagon wheel, a box, a shoe, a bicycle, a knife, a desk, a coat, a plow, a rake, a hat, a window, a carriage, a book, a chair, a boat, a stove, a clock, a gun.—Selected.

Dr. Harrison, president of the University of New Brunswick, has resigned to accept a pension from the Carnegie Fund, amounting to over thirteen hundred dollars a year. The trustees of the fund also testify to the high appreciation of the services which Dr. Harrison has rendered to the cause of education in New Brunswick, a testimony that will be cordially endorsed throughout the provinces.

A similar pension awaits Professor Bailey when he resigns, which it is said will not be this year.

### A Rainy Day.

The rain is falling very fast,
We can't go out to play,
But we are happy while in school,
Tho' 'tis a rainy day,"

sang sixty-five fresh little first-grade voices. And indeed it was a rainy day. It had literally poured since daybreak, but only a few of the babies were missing. They knew that rainy days were "happy days," and had begged to come to school; and the parents, knowing that special care was taken of them on these days, had sent them. Some had come in delivery-wagons or private conveyances; some in the arms of father or strong elder brother; not a few had trudged through the rain and mud,—but nearly all had come, and the array of rubbers and umbrellas in the hall suggested Psyche's task of sorting the grain in Venus's storehouse, and their restorations to rightful owners seemed likely to be accomplished only by the assistance of some superhuman agent.

And true enough it was, too, that they could not go out to play. Yet a look of bright expectancy was on every face. The janitor came in, bringing a pail of water and some cups, and paused in surprise as he was greeted by a clapping of little hands. They knew what was coming now. The janitor opened the windows, and as the signals were given all the children rose and filed past the water-pail, where each was offered a few swallows of water. After drinking, each ran lightly to his seat, or "flew" with gently waving "wings." It required but a few minutes, yet all'were in a glow of cheerful excitement. Then, a ladder was quickly sketched on the floor, and all who cared to—and who did not? —tried to hop over all of the rounds. Many of them hopped on, and proud indeed was the small laddic who "walked clear to my seat on one foot." Quiet? No. Orderly? Yes.

A few minutes were spent in games. One division playing at a time, the other singing "Pussy White," "Chick-a-dee," and "Poor Babes in the Wood." Then, as the bell rang and the triangle sounded for the older children, the first child in each division was given a flag and they were "brave little soldiers," marching through aisles and cloak-room and back to seats, rested and happy and ready for work.

All who did not ask to leave the room were dismissed a few minutes early, and went home wrapped up as carefully as when they came.—*Selected*.

Messrs, D. C. Heath & Company, Boston, announce the publication in September of The Select Poems of Tennyson, to be edited by Archibald MacMechan, of Dalhousie University, whose sympathetic editing of sundry nineteenth century masterpieces has given the literary world assurance of his skill,

### A Chemical Trick.

When we happen to witness a phenomenon which seems to violate natural laws, we are not likely to forget its cause if it be explained to us. The following experiment, which I devised for my students, helped them to understand as well as to remember some chemical data.

A white cat, made of flexible pasteboard and imprisoned in a glass jar, is shown to the audience. The lecturer announces that, without opening the jar or even touching it, he will cause the cat to undergo a zoological as well as a chemical transformation, He takes the support of the jar, and pushes it forward in full view of the students. The change occurs almost instantaneously. The cat takes a rich orange color on which black transversal stripes rapidly paint themselves. The cat has become a tiger.

The whole transformation is produced by emanations of hydrogen sulphide, which is generated in the jar itself without any visible apparatus. cat has been previously coated with a solution of chloride of antimony wherever the orange hue was to be produced, and with a solution of basic acetate of lead wherever the black stripes were to appear. Both solutions are colorless. After the coated cat has been introduced in his glass cage, a small piece of pasteboard is placed under the wooden support so as slightly to incline the jar forward. decigrammes of pulverized sulphide of iron folded in a piece of blotting paper are deposited behind the cat, on the elevated side of the bottom of the jar. Two or three cubic centimetres of diluted sulphuric acid are dropped with a pipette on the opposite side. When the performer wishes the transformation to take place, he takes the wooden support and pushes it forward as if he wanted to enable everybody to sec better what is going to happen. By so doing he suppresses the slight inclination which kept the iron sulphide beyond the reach of the sulphuric acid. The gas is evolved, and the formation of the orange sulphide of antimony and black sulphide of lead takes place in a few seconds.—Gustave Michaud, D. Sc., in Scientific American.

The iconoclasts who are so fiercely denonning the teaching of complex fractions and the greatest common devisor are reminded that the young lady who studies difficult music is more likely to play with ease simple melodies, and that the student who has conquered algebra is forever after master of arithmetic.—Western School Journal.

#### A Great Schoolmaster.

When Doctor Temple, afterward Archbishop of Canterbury, was head master at Rugby, writes one of his students in the memoirs of the archbishop, he relied but little upon punishment. It became the custom for the under teachers to sit with the dull and lazy boys, who had failed in their lessons, to hear them over again. Doctor Temple would try every other device before resorting to punishment.

Perhaps the most valuable lessons that the younger masters learned from him was to imitate that quality which more than anything else endeared him to the school—the love of justice. It was not only that the tradition, which dated from the time of Doctor Arnold, was insisted on that a boy's word should be taken, but even when there was what to a young master seemed overwhelming proof of some wrong-doing, as, for example, documentary evidence of dishonesty, he would stay his colleague's hand if the boy implicated declared his innocence.

It was better, he would say, that many a wrong deed should slip through unpunished than that a single act of injustice should be done.

He insisted, too, on the fullest allowance for the possible stupidity which might have led to the result; no boy was to be punished because he had misunderstood.

It is small wonder that one of his boys, who had been exhorted at home not to be led astray from the true faith, wrote home:

"Dear mother. Temple's all right; but if he turns Mohammedan, all the school will turn, too."

Canada is thirty-nine years old, dating from Confederation; is 147 years old, dating from the British Conquest of 1759; is 370 years old, dating from Cartier's first visit of 1535; leads Britain's forty-eight colonies; was the first colony to form a Confederation; is included in forty-two of Britain's Extradition Treaties; has over 700 legislators; has had 113 governor-generals since 1534; cast over one million ballots in the Dominion election of 1904; gives \$4,402,502 annually to the provinces as subsidies; comprises one-twelfth of the land surface of the globe; had \$15,000,000 surplus in 1904.

Canada contains one-third of the area of the British Empire; extends over twenty degrees of latitude, an area equal to that from Rome to the North Pole; only one-fourth of Canada's area is occupied.

Canada has enough land to give each individual 400 acres.

### A Lesson in Heroism.

The surgeons had removed the foot. It was a far more severe ordeal than Hugh had fancied, and he felt that he could not have borne it a moment longer. Though he slept a great deal in the course of the night, he woke often, such odd feelings disturbed him. Every time he moved in the least his mother came softly to look.

When she found he could not sleep any more, and that he seemed a little confused about where he was and how he came to be there, she let him talk, and thus gradually brought back the recollection of all that had happened.

"Oh, mother, I can never be a soldier or a sailor. I can never go around the world." And Hugh burst into tears, now more really afflicted than he had been yet.

His mother sat by the bedside and wiped his tears as they flowed, while he told her how long and how much he had reckoned on going around the world, and how little he cared for anything else in the future; and now this was just the very thing he should never be able to do. He had practiced marching, and now he could never march again.

There was a pause, and his mother said:—
"Hugh, do you remember Richard Grant?"
"What, the man who carved so beautifully?"

"Yes. Do you remember how he had planned a most beautiful set of carvings for a chapel? He was to be well paid, his work was so superior. But the thing he most cared for was the honor of producing a noble thing which would outlive him.

"Well, at the very beginning of his task his chisel flew up against his wrist, and the narrow cut that it made rendered his right hand useless for life. He could never hold a tool. The only strong wish that Richard Grant had in the world was disappointed."

Hugh hid his face in his handkerchief, and his mother went on:—

"You have heard of Huber?"

"The man who found out so much about bees?"

"Bees and ants. When Huber had discovered more than had ever been known before about bees and ants, and was more and more anxious to peep and pry into their tiny homes and their curious ways, he became blind."

Hugh sighed, and his mother went on:-

'Did.you ever hear of Beethoven? He was one of the greatest musical composers that ever lived. His great, his sole delight was in music. It was the passion of his life. When all his time and all his mind were given to music, he became deaf, perfectly

deaf; so that he never again heard one single note from the loudest orchestra."

"But were they patient?"

"Yes, in their different ways and degrees. Would you say they were hardly treated? or would you rather suppose something better was given them than they had planned for themselves?"

"It does seem hard," said Hugh, "that that very thing should happen. Huber would not have so much minded being deaf, or that musical man being blind, or Richard Grant losing a foot; for he did not want to go around the world."

"I think they found, if they bore their trial well, that there was work for their hearts to do far nobler than the head can do through the eye, and the ear, and the hand.

"And they soon found a new and delicious pleasure which none but the bitterly disappointed can feel."

"What is that?"

"The pleasure of rousing their souls to bear pain, and of agreeing with God silently, when nobody knows what is in their hearts.

"There is a pleasure in the exercise of the body,—in making the heart beat, and the limbs glow, in a run by the seaside, or a game in the play-ground; hut this is nothing to the pleasure there is in exercising one's soul to bear pain,—in finding one's heart glow with the hope one is pleasing to God."

"Shall I feel that pleasure?"

"Often and often, I have no doubt,—every time you can willingly give up anything you have set your heart upon. Well, I don't expect it of you yet. I dare say it was a long and bitter thing to Beethoven to see hundreds of people in raptures with his music when he could not hear a note of it. And Huber—"

"But did Beethoven get to smile?"

"If he did, he was happier than all the fine music in the world could ever have made him."—Harriet Martineau.

One of the most successful devices I have used to interest boys in the writing of business letters is to give each child an illustrated magazine, allowing him to answer any of the advertisements he wishes. This is much more interesting to the average pupil than the prescribed course on letter-writing given in most texts on language.

The rural teacher who finds it so difficult always to secure fresh material for busy work will find that she can put to almost innumerable uses, the glazed paper samples of paints and varnishes which one can secure at paint or drug stores for the asking. These come in all the bright colors that appeal to the children. They may be used for counting; for simple designs drawn on the board and the children copy on the desk with these; or simple designs may be made from them. Just give the children a handful of them and they will be quiet for some time.— Teachers' Magazine.

### Selected Readings

### Counting the Stars.

(From Stickney's Third Reader, by permission of Messrs. Ginn & Co\*, Boston. the publishers.)

Robert was offered a dollar by his grandfather if he would count the stars. The night was clear, and there was no moon. Robert thought he might as well begin at once. He had no special interest in the stars, but a dollar had great possibilities in it for him.

The boy lay on his back on the soft, cool grass, so as to see all the sky at once. He guessed there might be a hundred stars, and that there would be a cent for each star that he counted. An hour was allowed him for the work, as it was then eight He thought it quite sufficient. time was spent in deciding where to begin; but as Venus was the evening star at that time, it seemed a good one to earn his first penny upon. mother thought so, too. Mothers can usually be depended upon to encourage the efforts of their children, and he thought he would like to have his mother count also. Robert was an honest boy, and he was sure that he ought to count as carefully as his father had to count bills at the bank, not missing a single one. There was a long silent time.

Robert's mother had not believed he would be so persevering. She did not speak till she heard a sigh and knew that he had stopped counting. "Have you lost count?" she asked. "Yes," was the answer. "I'm all mixed up, I'm afraid I shall have to begin over again." "Oh!" said his mother in a sympathetic tone. "There are so many of the little ones," Robert added, "and there are no lines to go by. How did you get on?" he asked. worked in another way and counted till I reached a hundred; then I think I lost count also. I began, as you did, with Venus, and then looked for the other two planets, Jupiter and Mars. We do not always have three planet visitors in sight at the same time. [Mars is now visible and Jupiter is seen in the morning sky.—Editor.]

"Then I went all over the sky for the largest stars—stars of the first magnitude they are called. There were seven of them. That is a good many to have at once. The last time I looked for them there were only six, and in the whole year there would be only fourteen. It is not so easy to count the stars of the second magnitude, of which there are forty in all. I found about twenty, and then began back at Venus to count smaller stars."

"It will take another evening," said Robert, "to go all over the sky; I think I had better stop now." It was a month or two before Robert made his second attempt to number the stars. His mother had pointed out to him in the meantime the stars of first magnitude—he had learned to find Vega and the bright star Sirius himself, and had had Regulus and Castor and Pollux pointed out several times.

When Arcturus came first in sight in the eastern sky (it is now in the west), he was as much interested as his mother; so, when his grandpapa said one night at tea time, "I want you to have that star dollar, Robert!" he asked to be allowed to sit up till it was dark enough for the stars to be bright.

"Will you show me how to count your way, mamma," he asked. "We will take a better way," was the answer. "I showed you the Great Dipper, the Seven Sisters, Orion's Belt, and the Sickle. We will look for more groups of stars. Then if you have to stop, you will not need to begin at the beginning again.

"Groups that make figures in the sky are called constellations. There are a good many. The whole sky is overspread with them. When I was a little girl, grandpa taught me to find them, and may seem like old friends that meet me wherever I go. I think you will like to get acquainted with them. David, the shepherd boy of Bethlehem, knew them, and perhaps Moses did in Horeb."

Robert soon became so interested in tracing constellations that he forgot all about counting, till his mother reminded him that they had found six stars in the sickle in Leo and three in the triangle; the great square in Andromeda had seven, and in Orion he had found no less than thirteen; in the scorpion there were eighteen, and it took seven to shape the Great Dipper, all but one of them being second magnitude stars. Next was Draco, the dragon, with twelve, and close by the Little Dipper with seven. Cassiopeia, Bootes, Hercules and Gemini, which he thought he saw when his mother traced them out for him, easily made up the hundred he thought he was to count at the beginning; and his mother hurried him off to bed before he had time to wonder if his grandfather would think he had earned his dollar.

Arcturns, or the Dog Star, or the seven
That circle without setting round the pole.
It is for nothing at the midnight hour
That solemn silence sways the hemisphere,
And yet must listen long before ye hear
The cry of beasts, or fall of distant stream,
Or breeze among the tree tops, while the stars
Like guardian spirits watch the slumbering earth?

### Beauty of Nature.

Is it for nothing that the mighty sun Rises each morning from the Eastern plain Over the meadows fresh with hoary dew? Is it for nothing that the shadowy trees On yonder hilltop, in the summer night Stand darkly out before the golden moon? Is it for nothing that the autumn boughs Hang thick with mello fruit? Is it for nothing that some artist hand Hath wrought together things so beautiful?

Beautiful is the last gleam of the sun Haunted through twining branches; beautiful The birth of the faint stars, first clear and pale The steady lustered Hesper, like a gem On the flushed bosom of the West; and then Some princely fountain of unborrowed light.

#### Dawn.

I had occasion, a few weeks since, to take the early train from Providence to Boston, and for this purpose rose at two o'clock in the morning. It was a mild, serene midsummer's night; the sky was without a cloud; the winds were whist.

The moon, then in the last quarter, had just risen, and the stars shone with a spectral lustre, but little affected by her presence. Jupiter, two hours high, was the herald of the day; the Pleiades, just above the horizon, shed their "sweet influences" in the east; Lyra sparkled near the zenith; Andromeda veiled her newly discovered glories from the naked eye in the south; the steady Pointers, far beneath the pole, looked meekly up from the depths of the north to their sovereign.

As we proceeded, the timid approach of twilight became more perceptible; the intense blue of the sky began to soften; the smaller stars, like little children, went first to rest; the sister beams of the Pleiades soon melted together; but the bright constellations of the west and north remained unchanged. Suddenly the wondrous transfiguration went on. Hands of angels, hidden from mortal eyes, shifted the scenery of the heavens; the glories of the night dissolved into the glories of the dawn. The blue sky now turned more softly gray; the great watch stars shut up their holy eyes; the east began to kindle. Faint streaks of purple soon blushed along the sky; the whole celestial concave was filled with the inflowing tides of the morning light, which came pouring down from above in one great ocean of radiance, till at length the everlasting gates of the morning were thrown wide open, and the lord of day, arrayed in glories too severe for the eyes of man, began his course.

I do not wonder at the superstition of the ancient Magians, who in the morning of the world went up to the hilltops of Central Asia, and, ignorant of the true God, adored the most glorious work of His hand.—Edward Everett (Adapted).

#### Instinct in Insects.

Let us note for a moment a butterfly's egg-laying business, the most important of its life. To ensure the continuance of the species the ova must be placed where the young caterpillars will at once find proper nourishment on hatching out. average lifetime of a butterfly varies from two to four weeks (non-hybernating species). the latter end of this period the eggs have to be placed on the plant or tree peculiar to the species. Now this plant (as a rule) has no attractions whatever for the perfect insect in its winged outfit until the ova are ready for deposition; but, once the time has come, the mother butterfly never fails to find out the right plant, on which she deposits her eggs just when the young leaves are beginning to sprout. The performance is even more remarkable when, as is sometimes the case, there is only one species of plant suitable. Here, then, we have an instance of pure instinct; for seeing that the larvæ are sightless, they can form no observations of locality, nor even of the appearance of the food plant.—C. Bingham Newland, in Littell's Living Age of August 15.

#### The King.

The folk who lived in Shakespeare's day And saw that gentle figure pass By London Bridge, his frequent way— They little knew what a man he was.

The pointed heard, the courteous mien. The equal port to high or low, All this they saw, or might have seen— But not the light hehind the brow!

The doublet's modest gray or brown, The slender sword-hilt's plain device, What sign had these for prince or clown? Few turned, or none, to scan him twice.

Yet 'twas the king of Englands' kings! The rest with all their points and trains Are moldered, half-remembered things—Tis he alone that lives and reigns!

-T. B. Aldrich.

### Somebody's Mother.

The woman was old, and ragged, and gray. And bent with the chill of the winter's day; The street was wet with a recent snow, And the woman's feet were aged and slow.

She stood at the crossing, and waited long, Alone, uncared for, amid the throng Of human beings who passed her by, Nor heeded the glance of her auxious eye.

Down in the street, with laughter and shout Glad in the freedom of "school let out," Came the boys, like a flock of sheep, Hailing the snow piled white and deep. Passed the woman so old and gray Hastened the children on their way,

Nor offered a helping hand to her, So meek, so timid, afraid to stir Lest the carriage wheels, or the horses' feet, Should crowd her down in the slippery street.

At last came one of the merry troop— The gayest laddie of all the group; He paused beside her and whispered low, "I'll help you across if you wish to go."

Her aged hand on his strong, young arm She placed, and so, without hurt or harm, He guided the trembling feet along, Proud that his own were firm and strong.

Then back to his gay young friends he went, His young heart happy and well content. "She's somebody's mother, boys, you know, For all she's aged, and poor, and slow.

"And I hope some fellow will lend a hand To help my mother, you understand, If ever she's poor, and old, and gray, When her own dear boy is far away."

And "somebody's mother" bowed low her head In her home that night, and the prayer she said Was: "God be kind to the noble boy, Who is somebody's son, and pride, and joy."

—From Harper's Weekly.

### There's Work to be Done.

'Tis the song of the morning,
The words of the sun,
As he swings o'er the mountains:
"There's work to be done.

"I must waken the sleepers,
And banish the night;
I must paint up the heavens,
Tuck the stars out of sight.

"Dry the dew on the meadows, Put warmth in the air, Chase the fog from the lowlands, Stay gloom everywhere. "No pausing, no resting,
'There's work to be done.
It is upward and onward,
Still on," says the sun.

-Ella Wheeler Wilcox.

### Gleanings from New Books.

### First Steps in Arithmetic.

Counting should begin with quite small numbers, and should not proceed beyond a dozen for some time, but there is no object in stopping or making any break at ten. Several important facts (the facts only, not their symbolic expression) can now be realized: such as that 3+4=7, that 7-4=3, that two threes are 6, and that three twos are the same, without any formal teaching beyond a judicious question or two .... Formal teaching at this stage should be eschewed, since it necessarily consists largely in coercing the children to arrive at some fixed notion which the teacher has preconceived in his mind-a matter usually of small importance. The children should form their own notions, and be led to make small discoveries and inventions, if they can, from the first. Mathematics is one of the finest materials for cheap and casy experimenting that exists. It is partly ignorance, and partly stupidity, and partly false tradition which has beclouded this fact, so that even influential persons occasionally speak of mathematics as "that study which knows nothing of observation, nothing of induction, nothing of experiment." A ghastly but prevalent error which has ruined more teaching than perhaps any other misconception of the kind.

From "Easy Mathematics" by Sir Oliver Lodge, F. R. S. (The Macmillan Company of Canada, Toronto).

#### Two Methods of Training.

I have had opportunity to observe for a number of years the development of two families where different methods of training the young are followed. The five children in the first family have been continually repressed; they have been taught to sit still, and not to speak until they have been spoken to. They are compelled to be quiet in the house, and they are forbidden to play on the street. Their parents never think of indulging in a game with them. They are provided with no materials at home or at school by which they can indulge the constructive instinct. The parents are guided solely by the static ideal of good behavior.

In the other home the training is quite different. Spontaniety is indulged. The father and mother and governess themselves help to carry forward the enterprises of the young ones. Various devices are invented to counteract the unfavorable conditions of the city, so that the children may dig in the sand and climb and build and reproduce in various ways the activities that go on about them.

The effect of these different modes of training is apparent in the conduct of the children. In the first family the children "behave themselves" better than in the second.

### NEW BOOKS

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They "keep still" and "let things alone." Whenever they are thrown in with other children, though, they appear ill at ease, and often spend their time merely looking at others who are doing things. They seem quite reserved, timid, resourceless. Their faces show lack of originality, independence, freedom, But some of the neighbors say they are "well trained," "well disciplined" because they are not getting into mischief constantly.

The children in the second family, however, are active in any situation in which they may be placed. They conduct themselves as though the world existed to furnish them occasion for activity. They are never at a loss for something to do. The neighbors speak of them, though, as noisy and ungoverned, because they will not sit still and gaze at the world. Their parents find consolation in the belief that as they increase in experience they will have less desire to be testing everything. They expect them to grow more thoughtful and so more restrained. Already, indeed, the eldest child of nine spends of her own accord several hours every day over her story books and drawing and writing and various manual activities.

-From "Dynamic Factors in Education," by M. V. O'Shea. (Macmillan Company, New York).

### On the Advantages of Talking.

"I am a bit bothered in my mind on the question of talking," announces the precocious young lady whose career is recited in Barry Pain's delightfully humorous "Diary of a Baby," beginning in the September Defineator. "Shall I talk or shall I not? I suppose it has got to be one way or the other. In the place from which I came, the Herebefore, there was no talking. I remember that distinctly, though the rest of my recollections of the Herebefore are getting vague. In my younger days, when I was a fortnight old, I could have told you everything about the Herebefore, but most of it has slipped from my mind now. I suppose one's memory fails with advancing age. Still I remember distinctly that in the Herebefore we never talked. Why should we have talked? We understood one another perfectly without making noises. Even now, I could hold a long discussion with a babe of my own age or younger without making sounds. The trouble is with the grown-up people they seem to have lost the knack of it. They can't say things without talking. I shall have to talk. If you do not express what you think, grown-up people suppose that you can think of nothing to express. The experiment would be easier if the grown up people would only talk to

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me as they talk to one another. As a rule they use a special language for me. Papa is an exception. He always calls me Rosalys, and speaks to me as if I were a lady of his own age. Mama never calls me Rosalys and seems to perfer some elaboration or distortion of the word duck. She has called me a duckletina, which sounds something like a new disease. I know that Mama ought not to talk in this way. It is not right, and I should certainly correct her."

In 1867, Thomas D'Arcy McGee contested Montreal as a candidate for its representation in the House of Commons. He was bitterly opposed by the Fenian element among his own countrymen. Apparently his death was then decided upon, and a few months afterwards he was murdered. The assassin was discovered, arrested and condemned to death. A Fenian rescue was expected, and two hundred Ottawa citizens took the precaution to attend the hanging to see that justice was not interfered with. The details of the story are entertainingly told in the August Canadian Magazine by J. E. B. McCready, the veteran journalist, who was in Ottawa at the time.

#### CURRENT EVENTS.

A lake of quicksilver, covering two or three acres of land, is said to have been discovered in Mexico.

Most wonderful accounts of the richness of the ore continue to come from the Cobalt mining regions.

The manufacture of alcohol for fuel is likely to become an important business. It is already carried on to some extent in Europe, where potatoes are the chief source of supply.

The Russian cabinet has decided that the number of primary schools in Russia should be increased, and the salaries of teachers advanced. A bill for universal primary education will be laid before parliament at its next session.

The elections for the new parliament are now taking place in Russia, and it is reported that the results are such as to amply justify the government's appeal to the people.

Over two thousand physicians were in attendance at the recent meeting of the British Medical Association in Toronto. Some amusement was felt on receiving from England, on one of the very hottest days of summer, a case marked with the request that its contents should be protected from freezing.

There is fresh trouble in the Balkans. It arises from disputes between Greek Christians about the control of Greek churches and schools in Macedonia. The ecclesiastical authorities in Greece claim jurisdiction; but Roumanian and Bulgarian Christians

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A. MCKAY, SECRETARY.

who belong to the Greek church resist the claim, so far as it affects residents who are of Roumanian of Bulgarian nationality. Roumania is too far away for active interference; but bands of armed Greeks and Bulgarians are supporting claims of their respective partizans, while the Turkish government seems quite willing to let them fight it out among themselves, and declines to interfere.

A new metal, tantalite, is said to be so hard that a diamond drill makes no impression on it.

Farm laborers from the United States are flocking into Western Canada. They are all needed to harvest the abundant crops.

Wellman, the Chicago explorer who had planned to start for the North Pole in a dirigible balloon, has abandoned his purpose for the present.

Now that Jews are again permitted to settle in Palestine, a large influx from Russia and the Balkan States has begun. The immigrants are taking up land chiefly on the east of the Jordan, and finding it rich and productive.

A new constitution for the Transvaal gives equal rights to Boers and Britons. Either the English or Dutch language may be used in the transaction of public business.

An earthquake as great as that of San Francisco, and with hardly less appalling results, has visited the Pacific coast of South America. Half the city of Valparaiso, is in ruins, and many smaller towns have suffered severely. Valparaiso, with a population of 160,000, was the chief scaport on the coast, and the terminus of important lines of steamers. The Chilean government took immediate steps for the relief of the inhabitants, placing Valparaiso under military rule, and authorizing the provincial governors to expend all the public money needed for relief work in their several districts. The cold of midwinter adds to the sufferings of the homeless people.

Will the name of Acadia be restored to our maps? The Maritime Board of Trade has again passed a resolution in favor of the union of the provinces that once bore that name.

A number of mines in the Kootenay region of British Columbia which were abandoned as unprofitable, will resume operations this year, owing to the increased price of metals and the decreasing cost of mining and smelting.

It is now proposed to connect Newfoundland with Canada by a railway tunnel under the Strait of Belleisle.

Persia is to have a national assembly, for the first time in its history. It will meet at Teheran, and will have control of all civil laws, which will become effective on receiving the signature of the Shah.

A method of tempering gold has recently been discovered, and this metal will probably be used for surgical instruments, because of its being non-corosive.

It may be possible to predict earthquakes as surely as we can now foretell storms. The recent South American earthquake had been foretold by scientists some days before it occurred.

The Dowager Empress of China has called a convention to formulate plans for a constitutional government.

Newspapers in the United States, as well as elsewhere, are suggesting the possibility that the insurrection in Cuba may be made the occasion of intervention and the ultimate annexation of the island by the United States. To this neither party in Cuba would willingly submit; for the unfortunate inhabitants of Porto Rico have found that they are worse off under the government of the United States, of which that island is now a part, than they were when it formed a part of the Kingdom of Spain.

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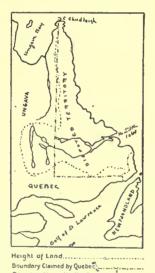
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For Calendar, address

MISS ETHELWYN R. PITCHER, B.A. Or MISS SUSAN B. GANONG, B.S., Principals.

The boundary dispute between Canada and Newfoundland is of more importance than might be The Quebec government claims that the Labrador littoral under the jurisdiction of Newfoundland is a narrow strip of coast extending about one hundred and fifty miles north from the southern end of the Strait of Belleisle. The extreme claims of the island colony are understood to be that all the country east of the Labrador watershed, or all the land drained by rivers that flow into the Atlantic, comes under its jurisdiction: or, if any definite boundary is to be recognized, the



portion of the peninsula of Labrador annexed to Newfoundland is bounded by a line running due south from Cape Chudleigh to the fifty-second degree of north latitude, thence easterly along the fifty-second parallel to the longitude of Blanc Sablon, thence southerly to the shore of the strait. The valuable timber land along the Hamilton River and its branches is the most important part of the territory in dispute; but it may be a matter of much consequence in the future whether the Ungava territory is to have Atlantic harbors, or is to be closed

Boundary Claimed by Newfoundland

in along the whole Atlantic coast of Labrador, as the Yukon is cut off from access to the Pacific by the narrow strip of Alaskan territory.

One of the largest irrigation schemes on the American continent is that of the Canadian Pacific Railway Company for the extensive area between the Red Deer River and the Bow River east of Calgary. Canals are already completed to furnish water for irrigating over a hundred thousand acres.

The electric smelting or iron ore having proved successful in Canada, the plan will be adopted elsewhere. Electrical smelting works are to be established in the United States and Mexico without

The Colorado River was to be in part diverted from its course, a few miles north of the Mexican line, to irrigate lands lying in the bed of the old lake; but the engineers failed to take proper precautions, and the entire volume of the river is now rushing through the artificial channel. It has washed away a small Mexican town, and is endangering miles of the Southern Pacific Railway. control is regained, which seems improbable, it will ultimately fill up the depression estimated to be some two thousand square miles in area; and when that is done, perhaps thirty or forty years hence, will find a new outlet to the sea.

Gold, silver, copper, nickel and iron ores of wonderful richness have been discovered in the Lake St. John region of the Province of Quebec. A railway will be needed to make the mines easily accessible.

A small insurrection has broken out in Cuba, and a more serious one in Santo Domingo, where the United States has stationed six war ships to prevent the success of the revolutionists.

The Canadian steamer "Arctic" has sailed for the Polar regions, and is expected to return in a vear and a half. Captain Bernier, who is in command, will plant the Canadian flag on all islands and mainland points which he may discover, claiming them as parts of the Dominion of Canada.

It is denied, apparently on good authority, that the ship "Birkenhead," which was built at St. Andrews, N. B., in 1841, was the troopship of that

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name that was lost on the coast of Africa. The REVIEW's authority for the statement thus contradicted was local tradition, confirmed by an assertion of the son of the master workman that the ship his father built was taken to England and sold as a troopship. Further inquiry may show that there were two ships of that name.

#### SCHOOL AND COLLEGE.

Miss Kate R. Bartlett for several years an efficient teacher in the St. John High School, has been appointed teacher of domestic science in the Halifax Ladies' College, after a full course at the Macdonald Institute, at Guelph, Ontario.

Mr. Roy D. Fullerton, B. A., of Port Elgin, N. B., has accepted the principalship of the Grand Forks, B. C., school.

Mr. W. H. Coleman, B. A., of Moncton, has been appointed to the position on the staff of Mount Allison Academy formerly held by Mr. W. A. Dakin, M. A.; and Mr. F. H. W. Holmes, graduate of the Ontario Business College, has been appointed head master of Mount Allison Commercial College. Another vacancy on the Academy staff has been filled by the appointment of Mr. Goldwin S. Lord, late principal of the school at Grand Harbor, Grand Manan.

Mr. L. H. Baldwin has been appointed principal of the St. George schools.

The school trustees of Hampton have received authority to borrow \$15,000 to build a consolidated school.

Mr. N. W. Brown has been appointed inspector of schools for York and Sunbury, to fill the vacancy created by the appointment of Inspector Bridges to the principal-ship of the Normal School.

Dr. H. T. Bovey, Dean of the Faculty of Applied Science at McGill University, has been elected an honorary fellow of Queen's College, Cambridge.

Miss McAdam, who has returned from a visit to Europe, will resume her duties as head of the primary department of the Charlotte Street School, Fredericton. Miss A. L. Taylor, of the same school, has asked for leave of absence.

Miss Pickle will have charge of the manual training department in the new consolidated school at Florenceville. The manual training department at Hillsboro will be in charge of Miss Keith, of Havelock; and that at Chipman in charge of Miss Currier, of Upper Gagetown.

Miss Mary E. Caswell has resigned her place on the staff of the St. Stephen school, for a needed rest, and will be succeeded by Miss Shaughnessy, lately teaching at Oak Bay. Miss Jessie Henry is to resume her place on the staff, after a year's leave of absence.

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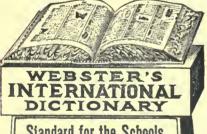
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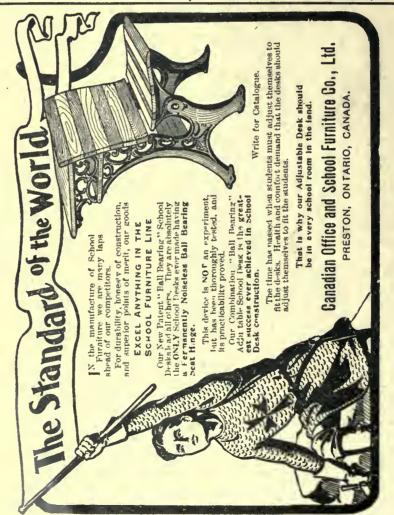
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THE EDUCATIONAL REVIEW St. John, N. B.

And so let us give thanks to God upon Chanksgiving Day. nature is beautiful, and fellowmen are dear, and duty is close beside us, and he is over us, and in us. What more do we want, except to be more thankful and more falthful, less complaining of our trials, and our time, and more worthy of the tasks and privileges he has given us.

- Phillips Brooks.

Thanksgiving Day, Thursday, October 18th.

Reports from county teachers' institutes are held over until the November number.

Our picture for this month—"A Scratch Pack" speaks for itself. It is sure to interest the children.

Dr. Inch's announcement concerning the Empire Day prizes offered by Lord Meath should have many interested readers among the school children.

Dr. A. H. Mackay's address at the opening of the Halifax Convention was a temperate and exhaustive argument against compulsory Latin, and a strong plea for an education in sympathy with the environment of the pupil. The fight over the Latin question ended in a compromise, in which a high school course of four years is recommended, with a choice to the pupil of six out of seven subjects a year; and one other languages than English compulsory after the first year.

Mr. Roosevelt is being sharply criticised by many educational and other papers, because he has approved of a list of some three hundred words whose spelling he proposes to change in printing the public documents of the United States. To do him justice. all the changes upon which he has set his seal of authority have been debated by orthographers and dictionary-makers the world over. But he has shown scant wisdom in issuing a ukase on the subject. English-speaking people cannot be legislated into how they shall spell their language. That comes from usage-that continuous, inexorable law which laughs at the fiats of princes or presidents who would put a whole system in operation instead of merely expressing themselves in favor of it, if it suits them to do so.

That industrious and accomplished student of local history, Rev. Dr. Raymond, has begun a series of articles on the early history of Woodstock, which are now being published in the Dispatch. The series promises to be of interest and value. The following extract shows that some sources of food among the Indians are still to be obtained in that locality, as in others throughout these provinces:

The roots used by the Indians for food still grow on the intervales and islands at Woodstock. Among them are the Apios tuberosa, sometimes called ground nuts or Indian potatoes; the plant comes up late in the season, the roots grow in clusters and are very palatable; they formed one of the staple articles of food among the aboriginal tribes. Another root used for food was that of the yellow lily (Lilium Canadense) which is still very alundant on the intervales and islands. Another edible root was that of the Claytonia Virginica, or "Spring beauty.'

Professor C. C. Jones, late of the chair of mathematics, Acadia University, has been appointed Chancellor of the University of New Brunswick and professor of mathematics. The appointment is regarded as an excellent one. The new chancellor, who has just entered on his duties, is a distinguished mathematician and is possessed of energy and executive ability. He is thirty-five years of age, a native of New Brunswick, and a product of its public schools and university, having risen step by step, taking in succession the degree of A. B. (1898), M. A. (1899), and Ph.D. in 1902, from the University of New Brunswick. In addition he has pursued his mathematical studies at Harvard and Chicago universities. He is a man of fine physique, of pleasing address, and scholarly attainments. High hopes are entertained that under his wise management the University will enter upon a fresh career of success.

It was with deep regret that all classes of people in New Brunswick learned that ex-chancellor Harrison's illness was likely to prove fatal. After his resignation of the chancellorship of the University of New Brunswick, in the latter part of August, his health quickly declined and he passed quietly away on the 18th of September, in Fredericton, the scene of his work for more than a third of a century. Dr. Harrison was of Loyalist descent and was born at Sheffield, Sunbury County, October 24th, 1839. He was educated at Trinity College. Dublin, taking honours in Mathematics and the degree of LL.D. In June, 1870, he was appointed professor of the English language and literature and of mental and moral philosophy in the University of New Brunswick. In 1885 he became its president. He was a man of a genial and kindly nature and held in high esteem by all who knew

### School Flags.

Premier Roblin of Manitoba in a recent speech at Winnipeg said:

The provincial government has decided that after the first of January, 1907, every school of this province must have a Union Jack flying during school hours. The government will provide the flag, and it will be the duty of the trustees to replace any such flag that may have become useless. The rule of the department will be that any school teacher or board of trustees that neglects or refuses to float a Union Jack in school hours will forfeit their right to the public grant. I trust that in making this move we will not be misunderstood. We welcome the various peoples that come to our province, who are born under foreign flags, who speak a different tongue, and we give

them the benefit of our civil laws; endow them with civil rights; the benefit of our criminal law; the free education of the schools, all of which are the outcome of the civilizations and benefits that follow the Union Jack, and I think that the man who comes from a foreign country in order to better circumstances, and objects to perpetuating the glories of our flag, who declines to have his children infused with British patriotism, is a man that is undesirable.

Many schools in these provinces are the proud possessors of flags, which are floated on public days and holidays. Such schools are generally those with some pretensions to architectural beauty in the school building and with grounds more or less well laid out. The flag and pole, having been purchased by the joint efforts of the teacher, scholars and rate-payers, it perhaps regarded with more affection and interest than would be attached to a "regulation" flag. But we should like to see the Manitoba practice become general—a Union Jack flying from every school in Canada during school hours.

### Address to Young Teachers.

The following is an abstract of the address of Dr. William Crocket, late principal of the N. B. Normal School, at the close of the recent session of that institution. The words are kindly, sympathetic and full of encouragement to young teachers, befitting the character of that distinguished teacher who for so many years has influenced the lives and destinies of the many men and women trained by him. Like other true teachers he has found his greatest interest in his work, and his greatest happiness has been in imparting that spirit to others.

After complimenting the students upon their deportment and general work, and wishing them success in their future career, Dr. Crocket spoke somewhat as follows:

"You are now about to assume the duties for which you have been here to prepare vourselves, and I hope that the promise which many of you have given by diligence and devotion to your studies, will in some measure at least be realized. You will, I trust, seek to give effect to those principles of teaching and school management, which have been discussed and practically illustrated. Whatever methods have been adopted in illustration of them, have been but the outcome of the principles themselves. A principle, as you know, does not vary, but the application of it may assume many forms. The form or method you adopt, however, must be such as shall meet the needs of you pupils and one which you yourself thoroughly understand and can readily apply. Inexperienced teachers very often

merely copy a method which they have seen, without apprehending the principle upon which it is based or considering its adaptation to the needs of their pupils, and hence their work becomes dull and mechanical. Let your method be founded upon well established principles and suited to the mental development of the pupil, in the very nature of things you will awaken interest, and thus arouse the mind activities, which is just what every true teacher aims at. Let this be your prime object and not the pouring in of knowledge which so many unthinking people regard as the chief end of school education. It is only by proper methods that that knowledge which is serviceable, can be secured, knowledge which the people can apply, knowledge which urges the pupil to ask, like Oliver Twist, for more.

"The Board of Education, as you are aware, puts a high value upon method. Among the important duties of Inspectors, it prescribes that they shall demand on the part of the pupil, an intelligent acquaintance with the subjects; this result cannot be attained without proper methods. It is further prescribed that they shall observe the methods of the teacher, and thereafter (privately of course) give him such counsel as they may deem necessary. The reports of their visitations are to be forwarded to the Education Office on the first teaching day of each month, when the Chief Superintendent is treated no doubt to a considerable amount of miscellaneous reading. Again the Board has prescribed that discussions at Teachers' Institutes shall relate chiefly to methods of teaching and management, and has also made provision for teachers visiting other schools for the purpose of observing the methods practiced therein. All this shows how important a subject method is, and how necessary it is that a teacher should practice right methods, and thereby train his pupils to become observing and thinking men and women.

"Important as method is, however, I consider that a teacher's manner has more influence over his pupils than the propriety of his methods. Method of teaching is an art and a valuable one, but the teacher needs to put a soul into it to bring out its value. It is the spirit that quickeneth; art without it deadens. When Dickens was shown a picture which many admired, he said, 'it wants that'—life and inspiration— 'and wanting that it wants everything.' So a dull, sullen, lifeless teacher, however proper his method may be, can no more impart life than a lifeless machine. By a bright lively manner, I do not mean a noisy bustling one which always reflects itself in the conduct of the pupils,

but that kind of energy which arises from a conscientious discharge of duty and makes its influence felt in every part of the school-room. A cheerful countenance—not glamour—but that cheerfulness which comes from the heart—casts its radiance all around, brightening up every face and making the pupils pleased with themselves and with every one else, makes the school a happy place and all school work pleasant.

"Of all the qualifications of the teacher, however, none exert more influence than sympathy. How readily we all respond to the wishes of those who we know sympathize with us. It is even more so with the young. They take pleasure in their school work because they know that it will please the teacher who takes such an interest in them. And, let me say, this interest should be taken not only with the pretty and well dressed boys and girls, but in those of forbidding aspect as well. Strangers they often are to kindly treatment even at home, and looked upon by almost every one as little Ishmaelites. In the schoolroom, let them come under the gentle touch, the pleasant smile and the influences of a kindly heart, and the chances are that they will grow up useful members instead of pests of society, and with fond recollections and with what heartfelt gratitiude will they look back to the days spent under your tuition. But, you will say, who is sufficient for these things? Not everyone, but those who have a lofty ideal of a teacher's duty, who are prepared to sacrifice their own interest for the good of others, will help the bringing of 'better manners, purer laws, the larger heart, the kinder hand.'

"Go forth, then, with a brave heart to the work which lies before you. Notwithstanding many discouragements, which all experience more or less in every sphere, you have much to encourage you. You have friends to cheer you on. You have the consciousness of being engaged in a useful and honorable calling—a calling which, with skill and devotion, will bring you reward. I do not say, material rewards—but rewards higher and more enduring in the grateful remembrance of pupils and their friends, and above all in the consciousness of duty well done.

"Finally let your aim be to give to the duties you have undertaken as you share in the world's work, the first and highest claim upon your time, your strength and your talent, carrying about with you the consciousness of an unseen and a higher power encompassing you, and your reward will be the reward of the faithful laborer. Go forth then in this spirit, and the blessing of God go with you."

### Our Rivers and Lakes.

By L. W. BAILEY, LL. D.

In a previous paper the St. John river was taken as illustrative, in different portions of its course, of what geographers mean by the "life of a river," i. e. the conditions of youth, maturity, old age and second childhood, of conflict with other streams, of struggle for existence, of survival or extinction. We may now seek to see how far these same features of river life find illustration in other streams of New Brunswick and Nova Scotia.

Most of the smaller streams in both provinces are "young"; naturally so because, as with living things, diminutive size is the natural accompaniment of beginning development, and such streams still have the greater part of their work before them. In New Brunswick they are the sources of supply and of power for all the larger rivers, and may be seen in every part of the Province, forming channels of communication for the canoeist or sportsman, water-ways for the driving of lumber, preserves for the delight of the angler. In Nova Scotia all the streams are young. Most of them probably have originated since the Glacial period; the larger part of them start in drift dammed lakes; their channels are shallow and difficult to navigate even for a canoe.

But portions of *large* rivers, as shown in connection with the St. John, may also be "young," and streams which are now comparatively small are in some instances the dwarfed and sunken representatives of those which in their earlier history may have been of far greater volume. A few illustrations may make this subject clearer.

Taking first the tributaries of the St. John, the Grand Green and Tobique rivers are for the most part young, with narrow valleys, steep slopes, rapid currents and few islands or intervales. Narrows of the Tobique and the lower portion of the Aroostook also show, like the gorge of the Grand Falls, examples of streams diverted from their original channel, and by the loss of the latter, compelled to carve new ones, a work in which they are still actively and vigorously employed. The Nashwaak also, from its source to Stanley, gives similar evidences of "youth." On the other hand from Stanley to Fredericton the river valley is broad, the current sluggish, the intervales broad and islands numerous, all signs of "maturity." The Keswick presents similar features, but here the present small stream shows a singular disproportion to the broad open valley which it traverses. The explanation of

this is to be found in the fact that what is now the course of a minor tributary of the St. John was formerly, in part at least, that of the main river. This is in accordance with what has been said in a previous chapter as to the changes which rivers often undergo in the course of their history and of which some other provincial examples will presently be given. As regards the remaining tributaries of the St. John it will only be necessary to say here that the Oromocto, especially below its forks, is a good illustration of a mature or even of an old stream, its deep waters flowing with hardly a perceptible current and with a valley subject to frequent submergence as the result of the freshets, and back flow in the main river. The Newcastle, with its expansion in Grand Lake and outlet by the Jemseg, presents similar features, as do also the Washademoak, Belleisle and Kennebecasis, streams, as before explained, once quite disconnected, but later united into a system of "trellised drainage" by "piracy" upon the part of the main St. John.

The streams of the southern coast, including the Magaguadavic, New, Lepreau, Musquash, Mispec, Salmon, etc., are all obviously "young"—their work of excavation being still in full operation and their valleys, especially to the eastward of St. John, having something of the character of canons, with rapids and falls innumerable. The Petiteodiac is an exception, but its peculiar features are, like some of those of the lower St. John, largely determined by its relations to the sea. It is a stream of which the lower half is twice a day "drowned" by the influx of the tide.

It remains to say a few words as to the streams which drain the eastern sea-board. Of these the Restigouche, to its junction with the Metapedia, is "young," occupying a valley which is almost like a gash in the great plateau or peneplane which it traverses, while from the Metapedia down it is much more mature, with an open valley, sluggish flow, numerous islands and broad intervales, the whole but little above tide level. The Upsalquitch and Nepisignit, with the intervening streams, such as Jacquet River and the Tattagouche, are also in the main young streams, with steep banks, rapid flow, few islands, and not a few falls or cataracts, some of which will be noticed later. In the case of the Miramichi, the upper portions of all its great branches are rapid streams, busily engaged in the work of excavation, and hence determining scenery of the wilder type, the delight of the adventurous canoeman, as well as of the finny tribes which afford him additional attraction, while their lower

portions, as from Boiestown to the sea, have all the distinctive features of streams whose work is well nigh done.

Upon this eastern side of the Province we again have some good examples of "piracy." It has been already pointed out that the Restigouche is only the remnant of a stream whose upper half has been "captured" by the upper St. John. Similarly the Nepisiquit has probably captured the upper waters of the Upsalquitch, these now constituting the South branch of the former stream. The waters of the upper Miramichi are believed to have formerly drained into the St. John, and possibly the same is true even of the upper Nepisiquit through a possible connection with the Tobique. Readers of the REVIEW who may be interested in this subject will find it discussed at length, with illustrative maps, by Prof. W. F. Ganong, in the Bulletins of the Natural History Society of New Brunswick, especially Vol. V., 1905.

If we now return to Nova Scotia, we find, as has been said, no streams of great size, the most important being the Avon, the Annapolis, the Sissaboo, the Tusket, the Rockaway or Shelburne, the Jordan, the Liverpool, the Port Medway, the La Haave, the Musquodoboit and St. Marys. They are also, as a rule, quite shallow, and much obstructed by rocky reefs or by morainic material, indicative of recent, i. e. post glacial origin. In these respects they do not differ greatly from streams of similar age and origin in New Brunswick, but two features remain to be noticed which, though not wanting in the latter Province, find here more remarkable illustration. The first of these is to be found in the enormous number of lakes, of every size and shape, which either lie at the heads of the tributary streams or interrupt their course. These lakes are in almost every instance very shallow, drift-dammed lakes, of which the rivers are the over-spill, and in some instances, where the outlet has been cut through, they have become greatly dwarfed or even converted into natural meadows. Rossignol, Fairy Lake (noted for the remarkable pre-historic pictographs which at a few points adorn the rocky ledges upon its sides) the lakes connected with the La Haave, Liverpool, and Roseway rivers, and the Tusket lakes in Yarmouth county, are among the largest and most interesting.

The second direction in which the Nova Scotian streams are noteworthy is in that of affording the finest illustrations of drowned or submerged rivers. This is to some extent true of all the streams draining into the Bay of Fundy, such as the Truro, Avon,

Annapolis, Bear River and Sissaboo, the lower portions of which are, like the Petitcodiac in New Brunswick, subject daily to conflict with the tides, which first oppose and finally temporarily overcome and drown the out-pouring waters. But the best illustrations are those of the southern coast, where the submergence of old river channels has become permanent, Reference has been made in an earlier chapter to the remarkable indentations of the southern sea board, giving it much of the fretted character of the coasts of Norway. It may, however, now be added that these numerous indentations, of which Shelburne Harbor and Port Hebert, Mahone Bay, and Chester Basin, Halifax and Musquodoboit Harbors are good illustrations, are in reality the drowned extremities of the several rivers, now often quite small, which enter their heads. In the case of the La Haave, not less than fifteen miles of the river, or all that portion south of Bridgewater, is now only an arm of the sea. But most wonderful of all, these submerged channels may often be traced by lines of soundings far beyond the present limits of the coast, showing that their former length and volume were much greater than at present and that they are indeed "drowned rivers." To cap the climax it may be added that there is good reason to believe that the great St. Lawrence itself was formerly an Acadian as well as a Canadian river, and that flowing across the now submerged basin of the Gulf of St. Lawrence, where its underwater channel is clearly marked, and where all the rivers of eastern New Brunswick were tributary to its flow, it passed out on one or both sides of Cape Breton to the Atlantic, where the old channel is now recognizable more than 200 miles to the east of the present mainland! Such facts go to show that Acadia has had a history far back not only of its European, but also of its Indian occupancy, a history of which some other features may be considered in a later chapter.

"She is working in a poor building, and with ordinary children of all ages, on a three-hundred and fifty dollars' salary. She has almost nothing to work with in the shape of helps, but such fertility of resources as she showed, and such clear teaching! How she wove the outside world into that teaching! Why, those children grew right before your eyes. She moved about among them quietly, neatly dressed, talking in just the tone she would use in ordinary conversation. She showed such a confidence in them that I never saw her look anxiously at one of them. And the way those boys looked at her!"—Ex.

### Play.

MRS. CATHERINE M. CONDON.

Play may be simply the spontaneous and outward expression by movement of the limbs, etc., of an instinctive feeling of comfort and well-being in the child. Later on, the desire to reproduce something which has been seen or heard strikes the fancy in such a manner that the child is impelled to reproduce it, with more or less crudity, in a concrete representation.

A more advanced stage of development, while it still deals in outward representation in tangible form, calls into intelligent action, forethought, memory, calculation, judgment, thereby arousing the very highest physical, intellectual and moral powers of the individual.

The educative value of play is unquestionable. The mere instinctive movements of the infant, not only improve in force, but also gain in directness and precision, and they also indicate the awakening of the intellect, and supply hints for its further development.

The next stage in which imitation and imagination, each helpful to the other, play so conspicuous a part, is so developing that in no other equal portion of human life does man learn so much of his own power, and his relations to the world around him, as in the first seven years of life, although they are almost wholly given over to play.

The social games of the boy and young man afford a field for the exercise and development of physical vigor, mental alertness, and fine, sound moral fibre, indispensable factors in human success, and that just in proportion as they are carried on with moderation, and in strict accordance with law and order, and received rules of the game.

These statements being true, it is certainly of good omen that the importance of play is more and more recognized in the philanthropic world, and among educationists.

The redeeming, elevating influence of play has been, and is, well illustrated in the recreation schools for girls, established by the Countess of Jersey in the cast end of London. They are play schools, pure and simple, and have amply justified their existence among a class who would have never entered their doors if catechism and books had been the bait offered. To those who have only seen the happy well-conditioned child, who, with a little kindly notice now and then, will play the live-long day so vigorously that he will often fall asleep in

the midst of it, the statement may seem strange that anyone should need to be taught to play. But life is so dull and hopéless, for many of these unfortunate London waifs and strayed, and they are so stupid and devoid of the upspringing self-activity of the ordinary child, that they either do not play at all, simply lounging, or, their plays are so vile and degrading in their parody of the wretched life around them, that they are simply a preparation for a criminal career. After a time, some of the fine lady slummers who had come to sneer at Lady Jersey's "fad," remained to help to teach the children to dance and sing, play innocent and amusing games, to tell fairy tales, and listen kindly to naive and admiring comments on their grace and beauty. One charming girl who was known as the "lady with the fevers" (feathers) in her picture hat, received almost the adoration of a goddess, and was a great lure to quiet good manners.

The light gymnastics, marching, circle games and dancing, soon corrected the slouching pose, and turned the shuffling walk into upright carriage and firm, measured tread; while the kindly treatment and absence of fear of ill-usage just as soon changed the down-cast eyes and shifty furtive glances into a straightforward look when addressed; often, too, into one of gratitude and affection.

Well-told stories developed the power of voluntary attention, and clean wit and wholesome humor, provoking happy laughter, soon taught the girls that they could be merry and gay without obscenity, profanity and vulgar license. Then, too, a long happy day at Ostermoor Park, Lady Jersey's estate near London, opens up a delightful view of life, such as they had never dreamed of, and must set in a stronger light the fact that the kindness they have been receiving all along, has been given from the purest motives of sympathy with them, in their cheerless life, and an earnest desire to raise them out of it.

This creates a sense of personal dignity and an honest pride to live up to this new and better atmosphere. When play has thus produced its humanizing effects, there are plenty of places open to them, where formal instruction is waiting to give them another uplift in the road to knowledge and efficiency.

If well-arranged play under conditions skilfully arranged will accomplish so much for these children so unfavorably placed, what a powerful and happy means of education it should prove in the development of children born and reared under happier auspices.

### Katharine Carl.

MISS A. MACLEAN.

Katharine Carl stands in the front ranks of the portrait painters of today,—an American, long a resident of Neiully, France, and an extensive traveller. She has painted many superior portraits in Europe and America, but her painting of the portrait of the Dowager Empress of China, being a unique distinction and illustrating her skill, will be her only work that I shall refer to now.

The Dowager Empress notified Mrs. Conger, wife of the American Ambassador, that she wished a portrait of herself, painted by an American woman, which portrait she intended should constitute her gift to the St. Louis Exhibition. Mrs. Conger notified Miss Carl and Miss Carl engaged to paint the portrait, and lived for nearly a year in the imperial-palaces of Pekin, seeing the Empress daily and associating constantly with the ladies of the She was present at all the religious and social functions and received many tokens of the favor of the Empress. Miss Carl was the first white woman to penetrate the mysteries of the Chinese imperial household. Throughout all history no other person from the western world had been received into the intimacy of the Chinese imperial palaces. Since Miss Carl's reception one other woman, Miss Alice Roosevelt, has been entertained in a imperial palace in Pekin.

Miss Carl expected to meet in the Empress an old woman whose appearance would bear out the character for cruelty and tyranny which the world has believed since 1900. Instead she met a charming little woman with a brilliant smile, very kindly looking and remarkably youthful, who extended her hand with a grace and cordiality which so won Miss Carl that she involuntarily raised the dainty royal fingers to her lips, though that was not in the programme.

Miss Carl was informed at the foreign office that the Empress would give her only two sittings, and when her first greeting was over she looked anxiously about to see under what conditions she must paint. The hall was large but the light was false, and the only place where a proper light could be had was in front of a great plate glass door, and the space there was so small that the large canvas on which the Empress wished the portrait painted had to be placed very near the throne where she preferred to sit. With so large a portrait as she was to paint this was a great disadvantage. However, her majesty having dressed herself in the

garments she thought fit, and having seated herself, Miss Carl began to sketch. She had been informed that her majesty would not understand any preliminary sketches, she must begin at once on the portrait and risk getting no more sittings, so she began. To use her own words:-"For a few moments I heard the faintest ticking of the eightyfive clocks as if they were great cathedral bells clanging in my ears, and my charcoal on the canvas sounded like some mighty saw drawn back and forth. Then, happily, I became interested, and utterly unconscious of anything but my sitter and my work. I worked steadily on for what seemed a very short time, when her majesty turned to the interpreter and said that enough work had been done for that day. She said she knew I must be tired from our long drive out from Pekin, as well as from my work, and that we must have some refreshments. She then descended from her throne and came over to look at the sketch. I had blocked in the whole figure and had drawn the head with some accuracy. So strong and impressive is her personality that I had been able to get enough of her character into this rough whole to make it a sort of likeness. After looking critically at it for a few minutes, she expressed herself as well pleased and paid me some compliments on my talent as an artist. She then called Mrs. Conger and discussed the portrait for a few moments, then turning to me she said the portrait interested her greatly and that she should like to see it go on. She asked me, looking straight into my eyes the while, if I would care to remain at the palace for a while that she might give me sittings at her leisure."

At first Miss Carl feared that the strangeness of her position and the sense of loneliness that at times crept over her, born of a feeling that she had somehow been transported into a strange world, would affect her work, but the cordiality of the Empress, who set aside a pavilion for her use, and told her not to hesitate to ask for anything she wished, and to make herself perfectly at home, soon placed her at ease and free from disquieting feelings.

"At the second sitting," said Miss Carl, "before the Empress was quite ready for me to begin, and before she had transfixed me with her piercing glance, I scanned her person and face with all the penetration I could bring to bear, and this is what I saw:

"A perfectly proportionated figure, with head well set upon her shoulders and a fine presence; really beautiful hands, daintly small and highbred in shape; a symmetrical, well formed head, with a good development above the rather large ears; fine broad brow, delicate well arched eyebrows, brilliant black eyes set perfectly straight in the head; a high nose, of the type the Chinese call noble, broad between the eyes and on a line between the forehead; an upper lip of great firmness, a rather large mouth, but beautiful, with mobile red lips, which, when parted over firm white teeth, gave her smile a rare charm; a strong chin, but not of exaggerated firmness, and with no marks of obstinacy. Had I not known she was nearing her sixty-ninth year I should have thought her a well-preserved woman of forty.

"After little more than one hour's work her majesty decided that enough had been done for the morning and that we both needed rest. She came over and looked at the sketch and it was easy to see that she liked it much better now that the color was being put on. She stood behind me discussing it for sometime and said she wished it were possible for someone else to pose for the face so that she might sit and watch it grow. She thought it very wonderful that on a flat canvas the relief of the face could be represented."

And so the sittings went on, the attendants and ennuchs came and went, the Empress took tea, conversed, smoked the graceful water pipe or European eigarettes which she never allowed to touch her lips but used in a long eigarette holder. She seemed to understand that she must not move her head very much, and would look apologetically whenever she moved it, but the artist preferred to have her move a little instead of sitting like a statue. And so at last in that strange old world palace there stood completed the picture of one of the most distinguished monarchs of today, and Katharine Carl's unique experience and pleasing task were ended.

#### Autumn Fires.

In the other gardens,
And all up the vale,
From the autumn bon-fires
See the smoke trail!

Pleasant summer over,
And all the summer flowers,
The red fire blazes,
The grey smoke towers.

Sing a song of seasons, Something bright in all! Flowers in the summer. Fires in the fall!

-Robert Louis Stevenson.

#### The Tides.

From the vast ever-plentiful sea Impelled by the heavenly host, Fresh, ever-flowing, resistless in power, Summer and winter, true to the hour, Come the tides with their gifts for the coast.

When the dark's at the flush of the dawn, And the tide mirrors day's rosy birth, Dimpling and sparkling it dances along, Laving the shores like a heavenly song, That cheers the sad hearts of the earth.

When the sun in the pride of his strength Pours his quivering glories abroad, Drying the grasses, stiffining the reeds To the fens, like a generous supply for all needs, In swings the tide, fresh from God.

Softly, like peace to a penitent soul,
When evening bends low o'er the sea,
And the clouds kiss the ripples good night,
In steals the tide over quicksand and shoal
When God blots a sin from his sight.

When the stately star-companies sail

The violet hollow of space—

Distant, like saints lost to mortals below—

Then through the dark earth-ways the tide currents flow

Full of stars—the fresh tokens of grace.

When the gale howls a dirge in the dark,
And the thundering surf shakes the land,
In foams the tide like a bosom of wrath,
Wreckage and terrible death in its path,
And yet—it is held in His hand.

At the dawn, at the noon, at the dusk,
In the calm, in the storm, what avail
Tears for the night or fears for the day?
Deep though the guilt-stains and devions the way
The flood tides of God cannot fail.
—Henry Turner Bailey, in the Congregationalist.

There are several good reasons why DeMille should be better known. He was, in his time, the widest read and most productive of Canadian writers. He is still in many respects the most remarkable. As a teacher, he was one of the most capable and best loved men that ever sat in a professor's chair. After the lapse of a quarter of a century his old students write and talk of him with deep affection and respect—an honour accorded to few.—From "DeMille, the Man and the writer," by Archibald MacMeachan in September Canadian Magazine.

A teacher, lately married, writes: "I took the REVIEW during my whole teaching career, and it was a great help to me. I wish for the editor and its contributors many successful, prosperous years."—E. L. M.

### September.

Now hath the summer reached her golden close,
And lost, amid her cornfields, bright of soul,
Searcely perceives from her divine repose
How near, how swift, the inevitable goal;
Still, still, she smiles, though from her careless feet,
The bounty and the fruitful strength are gone,
And though the soft, long, wondering days go on
The silent, sere decadence, sad and sweet.

In far-off susset cornfields, where the dry
Gray shocks stand peaked and withering, half concealed
In the rough earth, the orange pumpkins lie,
Full-ribbed; and in the windless pasture-field
The sleek red horses o'er the sun-warmed ground
Stand pensively about in companies,
While all around them from the motionless trees
The long clean shadows sleep without a sound.

Under cool elm trees floats the distant stream,
Moveless as air; and o'er the vast warm earth
The fathomless daylight seems to stand and dream,
A liquid cool elixir—all its girth
Bound with faint haze, a frail transparency,
Whose lucid purple barely veils and fills
The utmost valleys and the thin last hills,
Nor mars one whit their perfect clarity.

Thus without grief the golden days go by,
So soft we scarcely notice how they wend,
And like a smile half happy, or a sigh,
The summer passes to her quiet end;
And soon, too soon, around the cumbered eaves
Sly frosts shall take the creepers by surprise,
And through the wind-touched reddening woods shall
rise

October with the rain of ruined leaves.

-Archibeld Lampman.

### A Thanksgiving Reading.

A Harvest in Somersetshire in the Seventeenth Century.

Then the golden harvest came, waving on the broad hillside, and nestling in the quiet nooks scooped from out the fringe of wood. A wealth of harvest such as never gladdened all our countryside since my father ceased to reap, and his sickle hung to rust. . . . . All the parish was assembled in our upper courtyard; for we were to open the harvest that year, as had been settled with Farmer Nicholas, and with Jasper Kebby, who held the third or little farm. We started in proper order, therefore, as our practice is: first, the parson, Joshiali Bowden, wearing his gown and cassock, with the parish Bible in his hand, and a sickle strapped behind him. As he strode along well and stoutly, being a man of substance, all our family came next, I leading mother with one hand, in the other bearing my father's hook, and with a loaf of our own bread and a keg of cider upon my back. Beside us (sisters) Annie and Lizzie walked, wearing wreaths of corn-flowers, set out very prettily, such as mother would have worn if she had been a farmer's wife, instead of a farmer's widow. Being as she was, she had no adornment, except that her widow's hood was off, and her hair allowed to flow as if she had been a maiden; and very rich bright hair it was, in spite of all her troubles.

After us the maidens came, milk-maids and the rest of them. ..... There must have been three score of us, take one with another; and the lane was full of people. When we were come to the big field-gate, where the first sickle was to be, Parson Bowden heaved up the rail with the sleeve of his gown done green with it; and he said, that every-body might hear him, though his breath was short, "In the name of the Lord, Amen!"

"Amen! So be it!" cried the clerk who was far

behind, being only a shoemaker.

Then Parson Bowden read some verses from the parish Bible, telling us to lift up our eyes, and look upon the fields already white to harvest; and then he laid the Bible down on the square head of the gate-post, and, despite his gown and cassock, three good swipes he cut of corn, and laid them right end onwards. All this time the rest were huddling outside the gate and along the lane, not daring to interfere with parson, but whispering how well he did it.

When he had stowed the corn like that, mother entered, leaning on me, and we both said, "thank the Lord for all his mercies, and these the first fruits of his hand!" And then the clerk gave out a psalm verse by verse, done very well; although he sneezed in the midst of it, from a beard of wheat thrust up his nose by the rival cobbler of Brendon. And when the psalm was sung, so strongly that the foxgloves on the bank were shaking, like a chime of bells, at it, parson took a stoop of cider, and we all fell to at reaping.

Whish, the wheat falls! whirl again; ye have had good dinners! give your master and mistress plenty to supply another year. And in truth we did reap well and fairly through the whole of that afternoon, I not only keeping lead, but keeping the men up to it. We got through a matter of ten acres ere the sun between the shocks broke his light on wheaten plumes, then hung his red clock on the clouds, and fell into gray slumber,

Seeing this, we wiped our sickles and our breasts and forcheads, and soon were on the homeward road, looking forward to good supper, . . . . to harvest-song and festivity.—R. D. Blackmore in "Lorna Doon."

I have been much pleased with the supplementary art pictures and the description of the same, and have enjoyed the articles by Dr. Bailey.—R. B. M. Port Elgin, N. B.

The REVIEW improves with every number, I wish it renewed success.—G. M.

### The Bunco-Bird.

They tell the Spectator that the last of the south-bound birdlings has by this time taken wing—news at which he is unfeignedly glad. Now perhaps he may be able to turn off a little work. Since the last of August, when they began to pack their grips and consult time-tables, they have kept him in a state of perpetual unrest. Two fine old apple-trees beside his window have been full all day of restless little bunches of feathers, stopping over to break the journey from the far North. Every time he has taken up his pen some unfamiliar "tsip" or "cheep" from without has made him drop it and seize a spyglass and a bird book. From this it will be seen that the Spectator has fallen prey to the devastating epidemic of ornithitis.

It was not always thus. The Spectator well remembers when all birds looked alike to him; when you could cheat him with the alarm-note of a robin; when the song-sparrow passed with him for a dozen kinds of bird. In those good old days he could write in the midst of a musical festival. Nothing in feathers had power to train him from his work, charm it never so wisely. But last summer, in New Brunswick—a place much favored for summer residence by the more fastidious sort of bird—he fell into the clutches of a confirmed ornithomaniac, who never let him go until she had made him as mad as herself.

She did not accomplish it all at once. It was weeks before the Spectator could be got to forget his dinner, whereas the lady his instructor ignored hers altogether when there were strange birds about. She would sit petrified under a tree for hours together, she would stand rooted in a bog, she would prowl through leagues of dank and tangled underbrush, she would plant herself in the path of an oncoming train—and all for the sake of scraping acquaintance with some sliy songster as big as your two thumbs. Mosquitoes, cows, home, husband, country-all these were as nothing to her when once her eye had caught the flirt of unfamiliar feathers, or her ear the lilt of a new song. At such times it was as idle to talk to her as to try to gossip with the Sphinx. It is the Spectator's fixed conviction that had a ruffian menaced her with a gun while she was in the trance of bird-stalking, she would merely have raised that delicate hand of hers in an admonitory "S-s-sh !"

Now, the Spectator took his birds more philosophically—that is, at first—encouraged thereto by the ornithomaniac herself. That artful woman led him to believe that the life of a birdist was one of

appreciative otiosity. She installed him in a hammock in the sun-flecked shade of a clump of silver birches and coaxed him into watching the birds that skipped about among the branches over his She taught him the simplest of the songs which rang out continually from a little grove not a hundred yards away. And the Spectator liked it. He liked to watch a fiery redstart fidgeting through the leafage, dropping from twig to twig in his pitiless pursuit of fat worms. It pleased him to think how much easier dinner came to him than to this gorgeous black-and-orange "candelita." He had no objection to listening to the white-throated sparrow calling eternally, "Poor-Tom-Peabody, Peabody. Peabody!" or the red-eyed vireo repetitiously preaching, or the hermit thrush whistling clearly from the dusk of the grove. It was sociable and didn't interfere with cat-naps of the most satisfactory variety. But his instructor did not long indulge him in this sort of luxurious idling. When the Spectator had listened to bird songs until he could not hear a twitter without a spasm of curiosity, she tightened her toils. Bringing a low chair, she came to keep the Spectator company in his bird vigils under the birches, and boasted shamelessly of her own sharpness of eye, prating of "crowns" and "rumps" and "median stripes" and "wing coverts" and other things the Spectator had not known appertained to birds, until he grew jealous for his own powers of observation. In selfdefense he began to strain his eyes to recognize the. redstart's silent, olive-tinted little dud of a wife. He vexed his soul to make out the distinguishing marks of Madame Tom Peabody and Mrs. Preacher-bird. Before he knew it he was the hopeless slave of the spy-glass.

Then, indeed, was his subjugation complete. The ornithomaniac at once began her serious educational campaign. Routing the Spectator out of his comfortable hammock, she led him afield in the broiling sun. It was then that the Spectator met his arch-enemy, the junco-bird. "The junco is so easy," said his teacher, "and I can show you the nest. They're a trifle shy now, but when the young birds are out of the nest they'll hop about our very doorstep." So she led the way to a meadow, deep in daisies, which served her in lieu of a front lawn, and bore down cautiously upon a colony of little white spruces. When she was within six feet of the trees, there came a sudden whir of wings, and the Spectator caught a flash of white lightning. "There goes the mother bird!" cried the bird-fancier in a satisfied tone. "You got a splendid view of her. You'll know her again by the white tail-feathers!"

Then she made the Spectator kowtow while she lifted the lowest branch of the spruce and gave him a dim glimpse of five whitish ovals in a grassy nest underneath. Then, having made him acquainted with the alpha and omega of the junco, she took him for a walk.

They had not gone far when the Spectator spied a bird all by himself, a blackish bird with a pink bill. He referred it to the lady. "Why, that," she cried, "is a junco! Didn't you see the white tailfeathers?" "No," said the Spectator, a trifle abashed. "I think he was sitting on his tail. But I'll know him the next time." And they went on. The ornithomaniac kept stopping in the lovely woodland road to listen for invisible birdlings, and the Spectator found himself far ahead. He stood waiting, drinking in the fresh beauty of the wood-for New Brunswick in late June is like New England in May —when a queer kind of trilling began in a tree close at hand. Some bird—Demosthenes, it seemed was trying to sing with his mouth full of pebbles. The Spectator stood like a statute and raked with his eyes every tree in sight. And he was rewarded. Not only did his eye light on the singer, but the bird considerately sat still until he had time to mark its every detail of dress. When the bird flew, he dashed back to the authority in the road behind him. "I've found a bird," cried he, thereby putting to route a black-throated green warbler the bird-lady was studying; "I've found a bird, and I looked at her very carefully. She had a white front and a deep black yoke." The lady interrupted with a faraway look in her eyes. "It was a junco," she said. The Spectator used the most powerful language he allows himself. "Behold!" cried he, "all juncos are impostors, and all birds are juncos! No more will I call him junco—the name of that bird is the Bunco-bird from this time forth, and even for ever more!"

To comfort him the bird-fancier took him strawberrying on the top of a tall hill. But even here there was a little clump of conifers, and she thought she heard a chickadee discoursing among the highest branches. The question was, Is the bird a Hudsonian chickadee, or just a chickadee? and the fate of the nations appeared to depend upon the answer. The Spectator was set down on a pile of prickly twigs, with instructions not to move an eye-winker. He stood it awhile. But when his nose tickled and he wasn't allowed to scratch it, he rebelled and made a break for the open. Here he found strawberries, plump and luscious, half buried in little green mounds of moss. He made him a cornucopia out of a newspaper, and had

picked a generous cupful of berries when he was startled by a guttural hiss from the ground beside him. He looked down, and there at his very heels was an awesome fowl of some sort, all mouth and rumpled mottled grayish feathers, hissing at him as viciously as an angered snake. The Spectator was surprised. He got up so hastily that he spilled his berries and took a step or two in flight. Then it occurred to him that he might, like Falstaff, overestimate the strength of the foe, and he turned back to investigate. The bird, he then saw, was making the very most of itself, ruffling its feathers and drooping its wings like a belligerent sparrow. He guessed that a tape-line would show it to be not much longer than a robin, though with a much greater spread of wing. He thought he could cope with a thing like that, and determined to subject it to careful observation.

"Is it," he asked himself seriously, "by any chance a Bunco-bird?" He considered its mottled plumage and answered firmly, "No!" The bird by this time was trying to make off, hobbling and fluttering as if it had a broken wing. In the interest of science the Spectator followed. The unlucky bird stumbled and blundered painfully over the hillocky ground, but managed to keep just out of reach of the Spectator's wishful fingers. In this way it worked its way a dozen yards or so, when, without the slightest warning, it sailed leagues high into the air. And, lo! it was unmistakably a nighthawk! And no more an injured night-hawk than the Spectator was a gratified man. Then from a dizzy height it swooped down and just skimmed the top of the Spectator's head. A second later it was joined by two others of its noxious kind, and the three began to amuse themselves by seeing how near they could fly to the Spectator without putting out his eyes. The Spectator put his manhood in his pocket and fled for the protecting shade of the wood. Here he found his preceptor and retailed his woes. "I'shaw!" she cried, in obvious vexation. "You missed the chance of your life. You must have been within a few feet of the young. That old hen fluttered off to decoy you away. You've been egregiously taken in." So it was a Bunco-bird after all!-"Spectator," in N. Y. Outlook.

1. Model and draw a horse's hoof. 2. Model and draw a cow's hoof. 3. Model and draw a cow's horn. 4. Model, draw, sew various kinds of fishes. 5. Press, draw, sew ferns. 6. Paint, model, sew a frog. 7. Draw fishing hook. 8. Draw, model, sew straw hat. 9. Model, draw, sew turtle. 10. Draw bees. 11. Draw and sew beehive and bees. 12. Model and draw cocoons. 13. Model, draw, and sew butterflies. 14. Draw and paint mayflowers.

### A Contented Teacher.

Every college professor in writing his confessions seems to be giving an Apologia pro vita sua. His loudest complaint is about the salary. Small as mine is I sometimes think it is as large as it would be if I had gone into some other occupation; but, as I said before, I am so commonplace that my example has no bearing whatever on the argument for higher salaries for college men. In one of the most recent publications giving the woes of the professor there is a lamentation to the effect that his house is plainly furnished without even the luxury of an oriental rug, and that one of the pleasures of his family life is the annual ride out into the country. This is pathetic, especially as for many years his regular sålary has been \$2000 a year. Nor does he live in a large city. I must have a genius of a home-maker, for with a salary that averages less than his we can go driving into the country many times a year and we have the luxury of walking over several antique oriental rugs. For ten years I have been carrying ten thousand dollars of endowment insurance, which will mature when I am about fifty years old. And during each summer we can spend part of the vacation on a farm, paying our board, too, and some years we go even to the seashore. Without going into detail, I may be believed, I hope, in saying that our social life is not one of parsimonious barrenness. -From the September Atlantic.

### Opening Exercises.

Every teacher, I suppose, has some trouble in finding material for the opening exercises and in making such exercises interesting to all.

In my school the songs we all knew grew tiresome, stories lost their charm, and quotations dragged, so I decided to put the opening exercises into the pupils' hands and see if they could awaken new interest.

Nearly all of my older pupils knew songs, recitations, or dialogues which were new to the rest of the school, and the plan worked charmingly.

Helen recites unusually well, and I had but to announce that Helen would open school with a recitation on a certain morning to insure prompt attendance and the best of attention on that morning. It was the same in the case of Ella, who sings prettily. Even a little first grader sang such a pretty song that every child showed his pleasure and appreciation; but the dialogue given by two boys (which they had learned for an outside entertainment), was a surprise and delight even to myself.

I get three good results from this plan. It is a relief to the teacher, it helps in prompt attendance, and it is good practice for the performers themselves.—*Popular Educator*.

### Origin of a Famous Hymn.

A pathetic and yet charming story is told of the origin of the well-known hymn, "Blest Be the Tie That Binds," which was written by Rev. John Fawcett, an English Baptist, who died in 1817, having spent nearly sixty years in the ministry. It was in 1772, after a few years spent in pastoral work, that he was called to London to succeed the Rev. Dr. Gill. His farewell sermon had been preached near Moinsgate, in Yorkshire. Six or seven wagons stood loaded with his furniture and books, and all was ready for departure.

But his loving people were heart-broken. Men, women and children gathered and clung about him and his family with sad and tearful faces. Finally, overwhelmed with the sorrow of those they were leaving, Dr. Fawcett and his wife sat down on one of the packing cases and gave way to grief.

"Oh, John," cried Mrs. Fawcett at last, "I cannot bear this! I know not how to go."

"Nor I either," returned her husband, "and we will not go. The wagons shall be unloaded and everything put in its old place."

His people were filled with intense joy and gratitude at this determination. Dr. Fawcett at once sent a letter to London explaining the case and then resolutely returned to his work on a salary of less than \$200 a year. This hymn was written by Dr. Fawcett to commemorate the event.

#### The Fruit Tree.

The Tree's early leaf-buds were bursting their brown; "Shall I take them away?" said the Frost, stealing down.

"No, leave them alone,

Till the blossoms have grown,"

Prayed the Tree, while he trembled from rootlet to crown.

The tree bore his blossoms, and all the birds sung:

"Shall I take them away?" said the Wind as he swnng.

"No, leave them alone.

Till the berries have grown,"

Said the Tree, while his leaflets all quivering hung.

The Tree bore his fruit in the midsummer glow,

Said the little girl, "I may pluck your bright berries, I know?"

"Yes; growing is done;

Therefore for you every one,"

Said the Tree, while he bent down his laden boughs low.

-Bjornsterne Bjornson.

### For the Very Little Ones.

DOLLY'S LESSON.

Come here, you nigoramus? I'm 'shamed to have to 'fess You don't know any letter, 'Cept just your cookie S.

Now, listen, and I'll tell you— This round hole's name is O, And when you put a tail in, It makes a Q, you know.

And if it has a front door
To walk in at it's C,
Then make a seat right here
To sit on, and it's G.

And this tall letter, dolly, Is 1, and stands for me, And when it puts a hat on, It makes a cup o' T.

And curly I is J, dear,
And half of B is P,
And E, without his slippers on,
Is only F, you see!

You turn A upside downwards, And people call it V; And if it's Twins, like this one, W'twill be.

Now, dolly, when you learn 'em,
You'll know a great big heap—
Most much as 1—O dolly!
I believe you've gone asleep!

-The Youth's Companion.

### SUPPOSE.

Suppose, my little lady,
Your doll should break her head,
Could you make it whole by crying,
Till your eyes and nose are red?
And wouldn't it be pleasanter
To treat it as a joke,
And say you're glad, "'Twas Dolly's
And not your head that broke?"

Suppose you dressed for walking,
And the rain comes pouring down,
Will it clear off any sooner
Because you scold and frown?
And wouldn't it be nicer
For you to smile than pout,
And to make sunshine in the house
When there is none without?

Suppose your task, my little man, Is very hard to get,
Will it make it any easier
For you to sit and fret?
And wouldn't it be wiser,
Than waiting like a dunce,
To go to work in earnest,
And learn the thing at once?

HICKORY, DICKORY, DOCK.

llickory, Dickory, Dock,
'Tis nearly nine o'clock,
And ringing clear,
The bell we hear,
Hickory, Dickory, Dock.

Hickory, Dickory, Dock,
'Tis striking nine o'clock;
Obey the rule,
Haste into school,
Hickory, Dickory, Dock.

Hickory, Dickory, Dock,
'Tis just past nine o'clock;
Our prayers are done,
Work is begun,
Hickory, Dickory, Dock.

-Teachers' Magazine.

THE WATER DROPS

Some little drops of water,
Whose home was in the sea,
To go upon a journey
Once happened to agree.

A cloud they had for carriage, They drove a playful breeze, And over town and country They rode along at ease.

But, oh, they were so many,
At last the carriage broke,
And to the ground came tumbling
These frightened little folk.

And through the moss and grasses
They were compelled to roam,
Until a brooklet found them,
And carried them all home.

-Philadelphia Teacher.

#### WHAT THE WIND BRINGS.

"Which is the wind that brings the cold?"

"The North-wind, Freddy—and all the snow;
And the sheep will scamper into the fold,
When the North begins to blow."

"Which is the wind that brings the heat?"

"The South-wind, Katy; and corn will grow, And peaches redden, for you to eat,
When the South wind begins to blow."

"Which is the wind that brings therain?"

"The East-wind, Arty; and farmers know
That cows come shivering up the lane,
When the East wind begins to blow."

"Which is the wind that brings the flowers?"

"The West-wind, Bessy; and soft and low The birdies sing in the summer hours,

When the West wind begins to blow."

-Edmund Clarance Stedman.

### N. S. Educational Association.

On Tuesday morning, September 25, the large assembly hall of the Halifax County Academy was packed with teachers, when Dr. Mackay, Superintendent of Education for Nova Scotia, arose to give his address on Our Present High School Problem. In his opening remarks, Dr. Mackay referred to the generosity of the provincial government in providing annuities for teachers, and also referred to another parliamentary measure by which an advisory board to confer with the superintendent on educational matters was to be appointed; and announced that two of the members of the board were to be chosen by the teachers from among themselves before the close of the present convention.

He then gave a short history of our present course of study for high schools and academies, and spoke of the radical changes that the committee appointed last year to consider the relation between the high schools and the colleges would make in it, as outlined in their preliminary report published some He thought their suggestion to months ago. lengthen the course one year, and require all candidates for first-class license to complete it, if acted upon, might work injury to the schools by deterring capable young persons from entering or pressing forward in the profession. Many of our teachers, especially those of limited means, had to make great sacrifices to complete three years of high school work, and then attend the Normal School a year in order that they might obtain a first-class license. If they had been compelled to spend still another year in high school, they simply would not have done it; they either would not have entered the profession, or would have been content with a lower grade of license.

The demand for teachers is greater than the supply with the course of study as it is. A large number of permissive licenses had to be issued this year to persons who had not been able to fulfil the present requirements, and still there are schools without teachers, because none could be got. If the conditions on which licenses are issued are made more stringent, in all probability there will be a still greater scarcity of teachers.

The suggestion that persons applying for a first-class license be compelled to pass an examination on Latin, would, if carried out, have a like tendency to reduce the number of teachers. In his opinion, too, a knowledge of Latin was not the best equipment that a teacher could have. A person who had given the same time to the study of English or the natural sciences was, other things being equal, better prepared to teach his pupils to make the best use of their opportunities than the one who had given his hours to Cæsar. That this was the opinion of the most advanced school authorities of the day he tried to prove by an examination of the course of study in secondary schools in Prussia, England, United States and Ontario.

For several weeks previous to the meeting of the Association a heated discussion had been carried on in the Halifax papers between Prof. Howard Murray, secretary of the committee appointed to consider the relation between the high schools and the colleges, and Supervisor McKay, as to the wisdom of compelling candidates for first-class licenses to pass an examination in Latin. So much feeling was aroused among those interested in the matter that this became the dominant question of the convention. All were on the tip-toe of expectation as the time drew near to vote on the adoption of the report, as it was uncertain whether there was a majority in favor of it or not. Before the vote was taken, however, the motion to adopt the report was withdrawn, and in its stead what was called a "compromise" course, in which Latin was made an optional subject for candidates for 1st, 2nd and 3rd class licenses, was put forward. This passed with but little opposition, and a committee of sixteen was appointed to prepare a detailed programme for all the grades of both the common and high schools.

The public meeting. Wednesday evening, was held in the spacious hall of the School for the Blind, and as no time was given to business, it was probably more enjoyed than any meeting of the convention. Lieutenant-Governor Fraser, in an eloquent speech, urged that the three I's—Industry, Intelligence and Integrity—be given a prominent place alongside of the three R's. Dr. McCarthy, Archbishop of the Roman Catholic Church, expressed his belief that the day would come when all civilized people would agree as to what should be the scope of education, and likewise of religion. Education would doubtless take into consideration the child's physical, mental and moral natures. Without health, man is miserable; without intellect, he is helpless; without morals, he is dangerous.

Professor Magill, Justice Longley, Senator Poirier and Inspector Cowley, of Ontario, also addressed the meeting.

Other addresses were given by Professor F. H. Sykes, of Columbia University, N. Y.; Professor Sexton, of Dalhousie University, and by Professor MacKenzie. Dr. Woodbury and Dr. Johnson spoke of the needs of dental inspection of the pupils in our schools. Time did not permit hearing the paper of Professor Woodman on physical geography and of Miss A. Maclean on art, but these will be published in the proceedings.

A resolution was passed requesting the government to make the agreement between teachers and trustees binding for more than one term, or until three months after notice was given by either party to the other that a change was desired.

Principals B. MacKettrick, of Lunenburg, and E. J. Lay, of Amherst, were elected members of the advisory board.

I have found the Review a great help in the past seven years.—G. K. M.

### A Little Girl's Bright Story.

A girl seven years old has originated the following guessing story:

"Can you guess what I am?

I have two eyes.

Yet I am not a boy.

I am round, and an not a ball.

Some of my brothers have three and some have four eyes, and yet we have no heads.

We are carried, for we have no legs.

I am missed when lost,

Can you guess what I am?"
(A button.)

-C. W. Rundus.

### CURRENT EVENTS.

At the instance of the imperial government, an international commission has been called to meet in London during this month, to consider the subject of electrical units, with a view to securing uniformity.

The little Norwegian ship Gjoa has reached Bering Strait thus completing the northwestern passage. The Gjoa left Norway in 1903; and, having passed through channels where a large vessel could not follow, went into winter quarters last year at the mouth of Mackenzie River. She has now reached the Pacific, and is the first ship that has made the passage. Her commander, Captain Amundsen, believes that he has discovered the true magnetic pole.

Five thousand persons perished in a recent typhoon at Hong Kong, and an entire fleet of six hundred fishing vessels destroyed. The Chinese residents of San Francisco have sent ten thousand dollars for the relief of sufferers.

In view of the possible early construction of a line of railway to Fort Churchill, on Hudson Bay, the government has reserved land on both sides of the Churchill River, for ten miles from its mouth.

The Trent Valley canal it to be pushed through at once from Georgian Bay to Lake Ontario. It will probably be finished in 1908.

A British inventor has patented an uninflammable celluloid.

The Japanese residents in Hawaii complain of ill treatment by Americans, and have asked their home government for the protection of Japanese war vessels.

It is stated that sixty thousand elephants are annually slaughtered in Africa for the sake of the ivory.

The boundary line between Canada and the United States is 3,000 miles long—1,600 miles land, 1,400 miles water.

British Columbia, Canada's largest province, is equal to twenty-four Switzerlands.

A German inventor claims to have a wireless electric appliance by means of which steam will be antomatically shut off in two vessels approaching each other in a fog.

The railway commission at Ottawa has approved plans for tunnelling Detroit river. Two parallel tracks will be laid at a depth of sixty-five feet below the bed of the river.

The largest passenger steamship in the world is the new Cunard steamship Mauretania recently launched on the Tyne. She is 790 feet long; and her complement of passengers and crew will be more than 3000.

The Canadian Pacific Railway has proved that the Canadian route for English mails to the Far East is seven days shorter than the Suez Canal route; and most of the mail matter from the United Kingdom to Hong Kong and Singapore will hereafter be sent via Canada.

The insurrection in Cuba has led to United States intervention. As yet it is peaceful intervention, and seems likely to bring about peace between the warring factions; but Cuba is now more than ever to be regarded as a dependency of the United States. There is little doubt that the present uprising, like others, was planned and financed by interested persons in the United States.

A provisional government with Mr. Taft, United States Secretary of War, as governor, has assumed authority in Cuba. No disturbance of any kind occurred. The business interests are gratified at the change of government. A striking feature of the provisional government is the fact that the Cuban flag has not been lowered. This establishes a precedent in provisional governments and protectorates.

Every school in Manitoba, under a recent government regulation, must fly the Union Jack on every school day in the year, or forfeit the government grant. Perhaps there is no better way of nationalizing the children of foreigners, of whom there are so many in the west.

A new Finnish parliament takes the place of the old, in which the nobles, clergy, burghers and peasants sat in separate chambers. The new parliament will consist of one chamber only, and will hold its first session in February next. The Emperor, as Grand Duke of Finland, has been asked to open it in person. Its members are to be elected by universal suffrage. This means more than the manhood suffrage to which we are accustomed; for all adults, both men and women, will have the right to vote, paupers and criminals, of course, excluded. The Finnish and Swedish languages may be used in debates; and probably will be more freely used than is the French language in our Dominion parliament, for few of the people of Finland speak Russian.

Esperanto, the proposed new world language, is making wonderful progress. At a recent Esperanto congress in Switzerland might be seen thousands of

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TORONTO

people, from nearly every part of the world, conversing and debating in the new international tongue.

L'Etang is again coming into notice as a possible winter port. It was strongly recommended in an official report at the time of the Loyalist migration, as the best port for a stronghold on the north side of the Bay of Fundy; and a town was laid out there as a place of settlement for disbanded soldiers. But there was no business for the port, because there was at that time no means of inland communication, and the settlement was soon abandoned. The great disadvantage of L'Etang, in the want of a navigable river, can now be overcome by railway communication; and it is said to be easier of access, both by railway and by sea, than any other port on the bay.

It is the Emperor and not the Empress of China who has issued an edict looking to the future establishment of a constitutional form of government for the Chinese Empire.

The Sultan of Turkey is suffering from an incurable disease, and must soon die. With his death will come a critical period for the Turkish Empire, so far, at least, as respects its European possessions; for there is no acknowledged successor who can unite the factions that are now with difficulty kept from open conflict.

Fishguard, a port in the southwest of Wales, has been connected by railway with the great cities of England, and will immediately become an important port for Canadian trade, as it is nearer than Liverpool or Southampton. Mail steamers will probably make it their first port of call.

Farmers in New Brunswick and Nova Scotia will be surprised when they know that a Mr. Peter McKinnon. Pipestone, Manitoba, threshed out 10,000 bushels of wheat, an average yield of 30 bushels to the acre,—one tract alone, 165 acres, went 38 bushels of the very best No. 1 hard wheat. We cannot grow wheat like this, but at the present prices for butter and cheese there is no reason why these provinces should not raise ten times the

quantity of butter and cheese that we have been raising for the last five years.

The Dominion Manufacturers' Association meets at Winnipeg this week. Among the important questions discussed is that of technical education. We are informed that the Association intends to ask the Government to appoint a commission whose duty it will be to visit Europe to ascertain all the latest methods of technical training. The feeling is gradually growing throughout Canada that the Central Government should assist the different provinces in providing technical instruction both in agriculture and the trades, and thus equip the mechanics and the farmers of this country so they can compete with the skilled labor of the United States.

The investigation of the relations between the Union Trust Co., and the Order of Foresters, shows that several officials of the Foresters were acting with the United Trust Co. to borrow funds from the Foresters, and to use these funds in purchasing large tracts of land in the Northwest. Financial agreements like these between companies, which only take the great public into their confidence when they are forced to, are rapidly making the people look askance at all kinds of insurances companies, whether they are the Foresters or any other.

A late telegram shows a race war existing in Georgia where the militia had to be called to quell the disturbance. This is only one of the many deeds during the last ten years that have been a disgrace to the civilization of this country. Such conditions seem to be the result, of a low state of education.

The recent severe illness of the Hon. Jos. Chamberlain, will no doubt hinder further development of the policy known as Preferential Trade between England and her colonies. It is surprising, however, the great change that has taken place in Britain on this subject since 1902. The almost unanimous vote given in July at the Boards of Trade conference held in London, shows that the merchants and traders feel that Chamberlain has got hold of the right idea.

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When the Beaver Line of steamers came to St. John, in 1895, few persons dreamed that this was the nucleus of the steamship line which would within twelve years be able to take mails from Liverpool to Hong Kong, via St. John in the short space of thirty days. 'This is a fact, however, and the C. P. R. steamers (the Empresses), begin this work in December. These immense steamers, nearly seventy feet beam, and 600 feet long, will leave Liverpool during the winter for the Port of St. John. Passengers for Hong Kong will be landed by this steamship line and C. P. R. to Vancouver, and thence by C. P. R. S. S. to Hong Kong in less than thirty days from the date they left Liverpool. This shows that Canada is not only growing in the west, but also growing in the east.

#### SCHOOL AND COLLEGE.

That the people of Yarmouth take more than ordinary interest in their high school, is evidenced by the crowds of people who attended the exercises recently held in the Opera House, to witness the contests for reading and the presentation of prizes. Contests for reading always provoke a friendly emulation among pupils and are attractive to the people.

The teachers of York and Sunbury will meet at Fredericton on Thursday and Friday, October 11 and 12.

The annual convention of the Protestant teachers of the

Province of Quebec will meet in Montreal, October 11, 12 and 13.

Mr. S. W. Taylor, B. A., and Mr. Roy Hicks, B. A., (Mt. Allison), both of Westmorland County, have entered McGill College, Montreal, to pursue a medical course.

Netherwood, the Rothesay school for girls, opened in September. The pupils were entertained their first Saturday by the teachers. They were driven to Gondola Point, then crossed the ferry and walked through the beautiful wooded road to Clifton. After a corn roast on the beach, they were ferried back to the Point, and driven home. The school is now in full working order, with an attendance of day and house pupils of thirty-one. The spirit of the older girls in the school is one of loyalty and earnestness, and promises to make the year a very successful one.—The Globe.

After fifty years of active service in the cause of education, Dr. Crocket, of Fredericton, has retired, bearing the title of "Principal Emeritus of the Provincial Normal School," This mark of distinction was conferred upon him by the Board of Education.

Can any of our schools beat this record? "Dorothy Buhlmann is a pupil at the Sandgate National School, London, and for eleven years she has neither been absent nor late at her studies. She is fourteen years of age, and has made 4,500 attendances since she first went to the school. The Countess of Chichester has presented her with a book in recognition of her record. Two boys in this school have similar records."

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MISS ETHELWYN R. PITCHER, B.A. Or MISS SUSAN B. GANONG, B.S., Principals,

Rev. C. J. Boulden, M. A., late headmaster of St. Alban's school, Brockville, Ont., has been appointed president of King's College, Windsor, N. S. The appointment is re-Mr. Boulden garded as an exceedingly strong one. graduated with mathematical honors at Cambridge, and will take the professorship of mathematics, in the teaching of which he has been exceedingly successful.

The New Brunswick Normal School opened September 5th with a registration of nearly three hundred.

Mr. R. R. Gates, M. A., B. Sc., who formerly acted as Vice-principal of the Middleton Consolidated School, spent the summer in research work at the Marine Biological Laboratory, Wood's Hole, Massachusetts, on a scholarship from McGill University. He will spend this year at the University of Chicago, where he has been appointed to a fellowship in botany.

Professor Ernest R. Morse, teacher of mathematics in the Missouri State Technical College, has been appointed to succeed Professor C. C. Jones in the chair of mathematics at Acadia University. Mr. Morse graduated from Acadia in 1887, then taught four years in Horton Academy. He went to Harvard and graduated with mathematical honors, taught a southern college for two years and took two courses in mathematics at Chicago University. He is a valuable acquisition to the staff of Acadia.

Dr. Cox, principal of the Grammar School, Chatham, exhibited a peanut plant to his grammar school pupils which he raised in his garden this summer. He planted some nuts with the shells on and some unshelled as an experiment, and both produced plants, but those without the shells sprouted more quickly and grew faster. All the plants produced blossoms, but no fruit appeared. The doctor was surprised, and on pulling up ap lant, to find the fruit had grown and buried itself in the ground, a fullgrown peanut being attached to the plant. But that is the way peanuts grow-in the ground, like potatoes. doctor has several peanuts unearthed.—Chatham World.

Mr. W. J. S. Myles, A.B., late vice-principal of the St. John High School, has been appointed the principal in place of Dr. H. S. Bridges, whose duties as superintendent of city schools have been increased by the introduction of the compulsory school law in that city.

The Review extends its hearty congratulations to Mrs. Edith L. Kinread, née Mitchell, formerly of Moncton, now 35 Knappen Street, Winnipeg, and wishes her many years of happiness in her new home in the West.

#### RECENT BOOKS.

ELEMENTARY MATHEMATICS. By F. W. Merchant, Principal London, Ontario, Normal School. Cloth. Pages 25. Price, 65 cents.

This book is intended for upper classes in high schools, and the work aims to cover the course in elementary mathematics prescribed for those classes. The combination of the experimental with the mathematical treatment is decidedly successful. Through an error in engraving, the coils in fig. 190, page 236, are incorrectly numbered The error will be corrected in subsequent and placed. editions.

Successful Teaching. Cloth. Pages 198. Price, \$1.00. Funk & Wagnalls Company, New York.

This is a volume of fifteen prize essays by practical teachers on practical teaching, with an introduction by Supt. James M. Greenwood. The essays are on important subjects of school management and method, and are concise and full of excellent suggestions.

In the Guide to Practical Penmanship, the author, Mr. W. A. McIntyre, Principal of the Normal School, Winnipeg, has given that which will take the place of the copybook, while it does very much more. It sets before pupils correct ideals of form in figure, letter, word and page, gives full instruction and carefully graded exercises to develop proper movement, and indicates the order of lessons in detail. At every point the movement exercises are related to the form study. The directions to the pupils are clear and definite. Price, 20 cents. The Copp, Clark Company, Toronto.

A Manual of Common Butterflies and Moths; A Manual of Common American and European Insects; both reproduced in natural colours, with their common and scientific names. These are small pocket editions prepared under the supervision of a competent authority, and are undoubtedly accurate. We know of no better means to get children interested in the common insects. There are no descriptions: just the picture and the name. Price, 25 cents each. Funk & Wagnalls Company, New York and London.

Messrs. Blackie & Son, London, have published the following: An Introduction to Good Reading, price 1s. 6d.; A Small Collection of Good Poems, with notes on how to use them; The Complete History Reader, No. 7, price 2s, which deals with the history of the British Empire; the

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New Century Geographical Reader, price 1s. 6d., also gives glimpses of Britain and the Empire.

Geo. Philip & Son, Fleet Street, London, publish some suggestive little volumes on Geography: "Geographical Gleanings," price 1s. 6d., contains excellent hints on the teaching of geography; "Round the World," price 6d., is a useful primary reader in elementary geography. Philip's model duplex mads on card-board, price 1d. each, contain maps and exercises conveniently arranged for classes.

Messrs. Blackie & Son, London, have published in their "Story-book Readers," price 4d. each, the following tales and selections from well-known books: Manco, the Peruvian Chief (Kingston), Christian and Moslem, the Siege of Torquilstone, and The Tournament (Sir Walter Scott), Cornet Walter and The Young Captain (G. A. Henty), Prince Murough's Adventures (D. Deeny); The Water Babies (Charles Kingsley), price 6d., and The Last of the Mohicans (J. Fenimore Cooper), price 1s.

#### RECENT MAGAZINES.

Some time ago Professor Leacock wrote an article on the decline of poetry, and now Susan E. Cameron, a Montreal educationist of standing, and well known in the Maritime Provinces, takes up the cudgels on behalf of the poets in the Canadian Maguzine for October. She belabours the professor rather severely.

The October Atlantic Monthly contains the Autobiography of a Southerner—the fourth number of this suggestive contribution on Southern life. Two Memories of Childhood, by Lafcadio Hearn, and My Shakespeare Progress, by Martha Baker Dunn, with many entertaining stories, poems and essays, complete an excellent number.

One of the Quarterly Review's pleasantly discursive articles on The Literature of Egotism opens The Living Age for September 22nd. The article reviews critically but sympathetically some of the recent autobiographies or quasi-autobiographic fiction and reflection.

The September Chautauquan comes to its friends in a striking new form, easy-to-read, easy-to-carry, and easyto-file for permanent reference on the home-library shelves.

The strongest feature of the October Delineator, aside from the fashions, which are splendidly shown, is the opening of the Countess von Arnhim's new serial story, Fraulein Schmidt and Mr. Anstruther. It is now publicly announced that the Countess von Arnhim is the author of "Elizabeth and her German Garden."

#### Official Notice.

Lord Meath Empire Day Challenge Cups and League of of the Empire Prizes.

ESSAY COMPETITION FOR EMPIRE DAY, 1907.

The following are the conditions and subjects:

(a) Lord Meath Empire Day Prize (secondary schools) -a silver challenge cup, value £10 10s., presented by the Right Hon, the Earl of Meath, K. P., to be held by the school, and a personal prize of £5 5s., given by the League of the Empire, is offered for competition, inter-all secondary schools of the Empire, for an Empire Day Essay not exceeding 2,000 words. Age limit, 14 to 18 years old.

Subject: "The Conditions of Successful Colonization."

(b) Lord Meath Empire Day Prize (primary schools) --a silver challenge cup, value £10 10s., presented by the Right Hon, the Earl of Meath, K. P., and a personal prize of £3 3s., given by the League of the Empire, is offered for competition, inter-all elementary schools of the Empire for an Empire Day Essay not exceeding 1,000 words. Age limit, under 14 years old.

Subject: "The History of British India.

All essays must first be judged in the schools, and afterwards by the authorities kindly co-operating with the league in the different countries of the Empire.

Only those essays sent in through the authorized channels will be eligible for the final judging arranged for by the Federal Council of the League in London.

The essays which are entered for the final judging in London must reach the central office by the 1st of February next.

The names of the winning schools will each year be engraved upon the cups, which are replicas of the War-

The cups and prizes will be dispatched in time to reach the winning schools before the 24th May each year.

The essays must be sent to the Education Office, Fredericton, not later than December 25th, 1906.

> J. R. INCH. Chief Supt. Education.

Education Office, Sept. 9th, 1906.

### Isaac Pitman's

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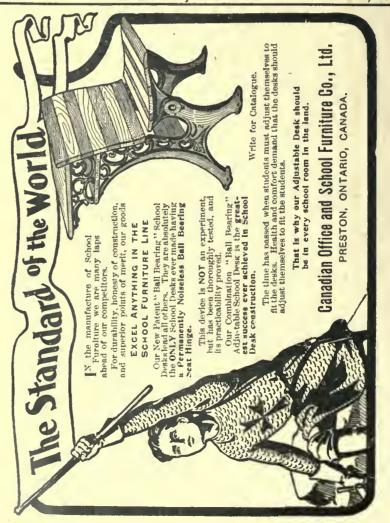
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THE EDUCATIONAL REVIEW, St. John, N. B.

ASIDE from the scientific value of Dr. Bailey's article on Waterfalls in this number, the easy and simple style of the writer and the graceful diction which he has ever at his command, will make it a delight to readers.

Hon. L. J. Tweedle, Premier of New Brunswick, stated at the N. B. Provincial Teachers' Institute at Chatham in June last, that he hoped before he retired from office, to increase the salaries of teachers and establish a fund for the superannuation of teachers who have served the public faithfully. Mr. Tweedie now sees the prospect of accomplishing this at an early day in view of the increase of the subsidy from the Dominion, which amounts to about \$130,000.

A BEAUTIFUL little missive came to the REVIEW office the other day enclosing an advance subscription, and with a kindly expressed wish for the prosperity of the Review for the coming year. Not that we do not receive many such letters, but this attracted by its simplicity and neatness. Written on delicately tinted note paper (not scented), the front page was surmounted by a single initial in gold, of choice design—that of the lady's surname, and the handwriting was easy and not too formal. material cost of producing such a letter is not great, but it makes a pleasant impression on the mind of the receiver.

### The Contact with Nature.

"It is good for a man perplexed and lost among many thoughts to come into closer intercourse with Nature, and to learn her ways and catch her spirit. It is no fancy to believe that if the children of this generation are taught a great deal more than we used to be taught of Nature, they will be provided with the material for far healthier, happier, and less perplexed and anxious lives than most of us are living."—Phillips Brooks.

People go to the country in summer, but comparatively few of them come into a close intercourse with Nature or "catch her spirit." They know little of Nature because they have never been taught to appreciate what is in the earth and sky around them.

Children are taught too frequently facts about Nature instead of being brought into contact with Nature herself. The dead plant, or insect, or bird, does not appeal to them. They are living and working creatures themselves, and it is only a living and working nature that appeals to them.

Children and grown people do not respect sufficiently the life that is in animals and plants. A canocing party of young people, as we read in one of our papers, surprised "a sweet little fawn" taking its bath in a lake. In attempting to capture it alive one of its pursuers struck it too hard with his paddle and ended its days. Now of all the beautiful woodland things, a fawn is the most beautiful; and if these young people had been trained to respect wild life they would have been content to watch this pretty little animal enjoying its life and liberty without attempting to kill or make it a prisoner.

Opposite a station on one of the railways leading out of St. John stood a small bilberry tree on a path leading into one of the prettiest little rural cemeteries to be found in the country. In June, when the white blossoms of this beautiful tree enlivened the fresh green of the foliage, it was attacked by a horde of young people and literally torn limb from limb. Thus, to gratify a destructive instinct, and win a few flowers that would soon fade, a tree was destroyed that was a picture on the landscape and that must have proved a source of pleasure to hundreds of railway passengers every day.

Instances might be multiplied of this thoughtless tendency to disregard the rights of others. Teachers can do much to check it by impressing on the children that harmless wild animals are as interesting to watch at their play, and have as much right to live, as the tame ones about their homes; and that in picking flowers, those that others are accustomed to see and enjoy daily should be spared.

The Winnipeg Free Press, whose editorials on educational subjects are always thoughtful and well written, closes an article on the need of good English with the following excellent suggestions:

"The remedy, if there is one for loose talking and worse writing, exists in the public schools. If the language in its purity is a precious thing, and if ability to make concise, intelligent written statements is worth striving for, then more attention must be paid to the study and use of language by those who are educating the young. One in a million, perhaps, might, like Abraham Lincoln, become a master of diction in its sublimest forms after a youth of scholastic neglect, but the average person can achieve good honest every-day English only after careful training in the plastic stages of youth. Thorough training in oral and written composition is an urgent need in our educational system. At the same time these are difficult subjects to teach, because many of those whose duty it is to instruct the children in these subjects are by no means free from the prevailing inability to speak and write good English.'

The schoolmaster asked the pupils: "Supposing in a family there are five children, and a mother has only four potatoes between them. Now, she wants to give every child an equal share. What is she going to do?" Silence reigned in the room. Every-hody calculated very hard, till a little boy stood up, and gave the unexpected answer: "Mash the potatoes, sir."—Christian Register.

### Our Waterfalls.

By L. W. Bailey, LL.D.

Who does not enjoy the sight of a waterfall? What boy or girl but will choose a waterfall as the objective point of his afternoon walk if there be one within reasonable distance, and especially if this be only an occasional pleasure, as determined by the melting of the snow in spring? Why, finally, does Niagara attract probably more tourists the year round than any other single locality, in America at least.

The interest in waterfalls may arise from various causes; partly, and no doubt largely, from their beauty, appealing in ever-varying aspects to our æsthetic sense, as hardly any other natural phenomenon can; partly, it may be, because they are beloved of the finny tribes as they are by us, and at their feet are often found admirable fishing grounds; partly, perhaps, because, having only an eye to the practical side of things, we become interested in them as possible means for the generation of power; but chiefly, I fancy, because they represent the energy of Nature in action, appealing to our imagination much as does any living thing in comparison with what is inert and lifeless.

Quite apart, however, from any or all of the above considerations there are other points connected with cataracts which, to the student of Nature, make them well worthy of careful study. Thus waterfalls are of many different types, and the causes which determine these differences are well worth investigation. Waterfalls, again, like the streams' with which they are connected or of which they form a part, have well defined histories, never exactly repeated. They are factors, not only in determining the limit of human navigation, but in affecting the geographical distribution of many forms of waterlife, such as fish, cray-fish, etc. Drenched by their spray are to be found many beautiful forms of ferns, mosses, liverworts, etc., to be sought in vain among other surroundings. Some of these points may now be illustrated by more particular references.

Waterfalls, as regards their origin, are usually due to some obstruction to the continuous easy flow of a stream, and may therefore be found in any part of the latter, though most common in its upper courses, where, owing to the "youth" of this portion of the stream, there has not yet been time enough to wear the obstruction away. In fact waterfalls, as explained in the last chapter, are one of the indi-

cations of the youth of a stream. As the latter begins to carve its way it meets with different degrees of resistance in the rock material over which it flows, and the more resisting beds, less rapidly removed than others, naturally play the part of dams, holding the waters back only to descend at a much steeper angle when the barrier is overcome. Such rocks as granite, trap, freestone, slate and limestone are quite unlike in their hardness and resisting power, and where there is a passage from the one to the other, and especially from slate to granite, or from limestone or slate to trap, falls are very apt to Thus at the Grand Falls of the St. John bands or "dykes" of black volcanic rock are seen at many points traversing the much lighter and softer calcareous slates, and have had much to do in determining the features if not the existence of the gorge and cataract; and similar conditions are repeated at the falls of the Aroostook, near Aroostook Junction, while the so-called Meductic Falls on the St. John, now artificially reduced to a rapid, the falls of the Miramichi and those known as the Pabineau falls on the Nepisiquit, and the Rough Waters near Bathurst, are the result of the existence at these points of hard granitic bands. In Nova Scotia a good illustration of a similar relation is to be seen in the falls of Bear River, three miles above the village of that name. But other factors may contribute to the result. Some rocks, like granite, are "massive"; others, like conglomerates, sandstones, slates and limestones, are stratified, i. c., arranged in layers or beds. These latter, moreover, may have their strata either horizontal, inclined or folded, often in a most complex way. Finally, all rocks, whether stratified or not, are marked by the occurrence of divisional planes, known as "joints" and "cleavage planes," which, by affording access for the eroding waters, hasten the process of removal as well as determine in large measure the character of the result.

Perhaps the simplest type of fall is that occurring in unaltered horizontal beds. Good illustrations are furnished in the falls of the Nashwaaksis and in Skoodewapskoosis, near Fredericton, both in nearly flat beds of the coal formation. In the Grand Falls of the St. John, on the other hand, and in the tidal falls at the mouth of the same river, the highly tilted, and in the former case greatly contorted character of the rocks, are conspicuous features, readily noticed by all visitors. The influence of joint planes is best seen in connection with granite rocks, as witness the Pabineau Falls on the Nepisiquit and

the Pokiok Falls in York county. In the former instance the rock is divided by two sets of joints into rectangular blocks, suggesting Cyclopean masonry, and from the edges of these one may look vertically downward into the deep channels to see perhaps three or four large salmon resting quietly, but beyond the reach of any but the privileged sportsmen. In the case of the Pokiok a similar structure has led to the production of a deep gorge, of which the

sides, though arranged in zigzag fashion, are still accurately parallel. This parallelism led our first geologist, Dr. Gesner, to suppose that the two sides of the chasm had been violently rent asunder, but in this, and all similar cases, the continuity of the rock across the bottom of the gorge and the fact that the



POKIOK GORGE, YORK CO., N. B.

sides show no downward convergence, as they would were the chasm due to an earthquake rent, show clearly that the result is due solely to the wearing action of water guided by the natural fissure planes in the rocks.

The effects produced by the varying nature and attitude of the rocks is well shown in the case of the Gordon Falls on the Pollet River in Albert county; just above the falls, named after a former governor of the province, the rocks are slates in a nearly vertical position, and here the stream occupies a deep gash so narrow as to be easily spanned by a highway bridge, while at and below the falls proper the rock is a coarse conglomerate, the wear of which, made more easy by the grinding action of loosened pebbles, at once leads to a considerable widening as also to another result characteristic of many waterfalls, the formation of "pot holes." These are quite conspicuous at the Gordon Falls, and may be seen in the accompanying cut, but are even more striking at the Pabinean Falls of the Nepisiquit and in the gorge of the Grand Falls of the St. John, Here every stage of their production may be witnessed from slight circular depressions containing one or more pebbles, the movement of which by the whirling

waters is the cause of the phenomenon, to great pits or "wells" perhaps twenty feet deep and ten wide,



GORDON FALLS, POLLET RIVER, ALBERT CO.

and which may or may not be connected with other similar holes by subterranean channels.

As regardsmagnitude the Grand Falls of the St. John and the reversible falls at the mouth of the river stand pre-eminent for breadth and volume of water, while in the former instance considerable height (74 feet in the main pitch, or 117 feet between the up-

per and lower basins) makes it a source of power likely soon to be availed of for the generation of electric energy. For mere height Hay's Fall, a few miles below Woodstock, and the fall on Fall Brook, a small tributary of the Southwest Miramichi, are the most noticeable, each having a vertical descent of about 90 feet, but having little water except in times of freshet, when each r well worth a visit. Among the most picturesque falls in addition to those already mentioned are the Grand Falls of the Nepisiquit, the falls of the Tete-agouche and Nigadoo near Bathurst, the Magaguadavic Falls at St. George, and the falls of the Salmon River in eastern St. John county. Minor falls in New Brunswick are numerous and often interesting, but do not require special notice here.

In Nova Scotia, where the streams are mostly small, waterfalls are comparatively few and of no great size, but those of the Sisseboo, near Weymouth, and those of Bear River are noteworthy, as is that which constitutes one of the scenic features in the park at Truro.

One other feature of our water-falls deserves notice. They all have a history. As their formation, explained above, is the result of wear, it is evident that both their position and their character are subject to change. Like the streams of which they form a part they have a beginning, and a life which may be a very prolonged one, while sooner or later, by the removal of the conditions which originate them, they must come to an end. The Meductic Falls, so called, has been reduced to the condition of a rapid;

the Narrows of the Tobique mark the site of what must once have been a cataract; the gorge of the Grand Falls is the result of the slow backward recession of the latter for a mile or more. In the case of the Niagara it is well known that the Falls have worked their way backward for a distance of seven miles, and a period of at least 10,000 years is believed, on good grounds, to have been required for the process. Probably a period equally long may have been needed for the formation of the gorge of the St. John at the Grand Falls and again for that of the Narrows above Indiantown, but in neither of these cases have exact calculations been made.

One remark more. Reference has been made to the fact that in the not distant future our grandest



FALLS OF BEAR RIVER, N. S.

cataract, the Grand Falls of the St. John, is likely to be employed as a means for the development of electric energy. This would necessarily mean the destruction of its scenic beauty. And possibly a similar fate awaits other waterfalls as well. Is it to be the case that the most interesting of the natural features of our country are, as in the case of Niagara, to be sacrificed to the utilitarian spirit of the age?

Professor David E. Cloyd, principal of the Spokane high school, has given out a statement that the percentage of boys registered in his school is greater than that of any other school in the United States. Four hundred and forty-six boys and seven hundred and twenty-nine girls are enrolled, this making a percentage of little more than 37.6 boys in the school, against thirty-one per cent, the highest known percentage in other schools.





### The Teacher as Director of Play.

BY MRS. CATHERINE M. CONDON.

The importance of play as a factor in education is now so generally admitted that the question naturally arises: Why have we not availed ourselves of it as a working force in our public schools? It will be said: We have done so, by providing spacious playgrounds, and, even in some favored localities, play-rooms under cover, for stormy days. But is this the only thing necessary to make a practical and efficient application of a well ascertained law of childhood? If play is so powerful a means of development, is it wise to simply send children into the playground at stated times, not only without direction, but even without any supervision?

The children are of different ages, and of very diverse physical conditions; some strong of body, often rough and overbearing, perhaps even disposed to cruelty; others, small and weak and so easily cowed that, although they may sometimes suffer severely from ill-treatment, they never dare utter a complaint, or bring an accusation against the offender. The teacher therefore remains ignorant of this state of affairs, which produces effects so demoralizing to character; the bully grows a still more insolent tyrant, while his victims, cringing and subservient, display all the mean vices of a nature warped by fear and the constant dread of ill-treatment. Nor is this all. The unbridled license of speech and manners, unchecked, because unobserved by the vigilance of those in authority, is such that parents have been heard to declare that they so dreaded the corrupting influence of the playground for their children that they had delayed sending them to school on that account. All these evils may be successfully dealt with by the simple expedient of the teacher going out on the playground with his scholars, not as a restraint on youthful fun and frolic, but as a genial guide in the art of bright and intelligent play.

The mere presence of such a one would protect the weak and timid and help them to bring out their value on the playground, by starting games, in which the weak and most timid would soon take an active part, and add to the interest of the play. By thus proving the usefulness of even the smallest child in adding to the interest of a game, a milder spirit and gentler manner would be induced towards the weak, for we are not apt to despise and injure those who add to our pleasures,

The petty tyrant would be taught that his method was not the best one to ensure compliance with his wishes, and that he who would rule others, must first learn to rule himself. He would also learn that to appeal to reason and self-interest, to the social instinct, and to the natural sense of pleasure that arises from well-concerted action *en masse*, throws mere brute force quite into the shade.

The aptitude for social games is not strong in children not yet well on in their teens, yet the social instinct is implicit in the youngest; but it needs cultivation or the child may grow up narrow and self-absorbed and incapable of harmonious action with his fellows.

Insight into character will be gained by the teacher far more surely on the playground than in the schoolroom alone, where the hand of discipline is, necessarily, somewhat repressive of natural impulses. But let no teacher flatter himself that he can be a power for good by simply sitting in a secluded corner, reading the morning paper, from the shadow of which he from time to time emerges to give a swift detective glance, or an admonitory shake of the head, or to point an uplifted warning finger at some mischievous urchin; for no mere spy will secure influence.

The teacher who would help his scholars to get the best results from play must be himself a real "Master of the Revels" and bring the joyous spirit of a true comrade. His advent should be the signal that something a little extra clever in the way of play is to be achieved.

Teacher and pupils would alike be refreshed and return to a room which, in their absence, has been wind-swept with fresh air through open doors and windows. No one should interfere with this health-giving process by remaining in the schoolroom during recess, except when the weather is inclement.

Too often the teacher is associated with the incidents of hard lessons, confinement in a room poorly lighted, insufficiently ventilated and warmed, and with rebukes, which, no matter how well deserved, are none the less impleasant. Why not offset all this by establishing the sympathetic relations of happy play?

The great schoolmasters have been noted for their keen interest in their scholars' sports, and have won respect and influence from them by the traditions of their own skill and prowess on field and river, and in all manly exercises.

Children will not resent wise supervision on the playground, for they appreciate order and arrange-

ment, and if the teacher has not left the spirit of childhood behind him, his help and suggestions will be eagerly accepted. A new proverb might well read: "Let me play with the children, who will may teach them."

Many a class might just as well, and, indeed far better, be taught out of doors—a happy reversion to an ancient custom. The three great Fathers of Greek philosophy,—Socrates, Plato and Aristotle,—did much of their teaching in the open air. And the 'Great Teacher far more often taught on the seashore and from the boat, the mountain and the desert than in the temple and the synagogues.

One of the most interesting lessons I ever saw was given in elementary surveying, the extensive grounds being measured and plotted, all the appliances being at hand, and the whole instruction given and received so clearly and so pleasantly, that, like all the *best work*, it was done so joyously that it was really play.

### The Misuse of Window Shades or Roller Blinds.

(From an Inspector's Note-Book.)

The New Brunswick Board of Education, in common with most educational authorities throughout the world, is endeavouring to improve the character of the schoolhouses in the province. Especially is this necessary in the rural districts where it is not easy to command the services of an architect skilled in school planning.

One of the points insisted upon in designing modern schools is that the windows shall be placed as near to the ceiling as possible. There are several reasons for this, but the chief is that the effective width of a room, as regards lighting, is 11/2 (one and a half) times the height of the windows. But in too many cases where the windows have been placed properly, the value of their height is wholly lost owing to the blinds being kept down about half way. Considerable questioning of teachers appears to show that this is due sometimes to inattention or ignorance on the teacher's part. In other cases it is from a regard for the outward appearance of the buildings, the housewife's general rule of keeping the lower edge of the blinds on a level with the meeting rails of the sashes being adopted by the teacher. Still more give as the reason the legitimate use of the blinds, namely, protection from the sun. In fact, this was the reason given the writer by a teacher in a north room quite recently.

But whatever the reason may be, teachers should know that unless the sunlight be streaming in directly upon the faces or books of the pupils, too much light cannot be admitted into a schoolroom. At the present advanced state of the knowledge of school hygicne, the reasons for this need not be enlarged upon here, but it must always be remembered that sunlight is the best preventive of disease. Also that working in a poor light tends to weaken and destroy the eye-sight and working in a good light to preserve it.

Therefore, either keep your blinds right to the top of the windows whenever possible; or, better still, have the blinds fixed to the sill of the window frame and raise them when necessary to shade the pupils. By this means the top of your windows will be free for the admission of light and, if necessary, for purposes of ventilation.

### From an Examiner's Note Book.

This is taken from the Kingston (Ont.) Whig, but it has the flavor of being a nearer-at-hand home-product: On the uses of food information was given as follows: "Food is a necessity and all who do not eat enough food will gradually become weak and feeble and in many cases take the fever and die. It helps to keep up the body and it is digested and goes to different parts of the body to build it up. Why, if it wasn't for food I wouldn't be here writing these exams, today. Food needs to be well digested and when you take a quarter of a pound of meat in one bite, it will do you no good except lay on your stomach and give you a stomach-ache."

### The Voice of the Wind.

The wind, when first he rose and went abroad Through the vast region, felt himself at fault, Wanting a voice; and suddenly to earth Descended with a wafture and a swoop, Where, wandering volatile from kind to kind, He wooed the several trees to give him one.

First he besought the ash; the voice she lent Fitfully with a free and lashing change Flung here and there its sad uncertainties: The aspen next; a fluttered, frivolous twitter Was her sole tribute: from the willow came So long as dainty summer dressed her out, A whispering sweetness, but her winter note Was hissing, dry and reedy; lastly the pine Did he solicit; and from her he drew A voice so constant, soft, and lowly deep. That there he rested, welcoming in her A mild memorial of the ocean cave Where he was born.

-Henry Taylor.

### The Song of the Pine Forest.

The pine forest is a wonderful place. The pine trees stand in rank like the soldiers of some vast army, side by side, mile after mile, in companies and regiments and battalions, all clothed in a sober uniform of green and gray. But they are unlike soldiers in this, that they are of all ages and sizes; some so small that the rabbits easily jump over them in their play, and some so tall and stately that the fall of them is like the falling of a high tower.

The pine trees are put to many different uses. They are made into masts for the gallant ships that sail out and away to distant ports across the great ocean. Others are sawn into planks and used for the building of sheds; for the rafters and flooring and clapboards and other woodwork of our houses; for railway sleepers, scaffoldings, and hoardings. Others are polished and fashioned into articles of furniture.

Turpentine comes from them, which the artist uses with his colors and the doctor in his medicines, which is used too in the cleaning of stuffs and in a hundred different ways; while the pine cones and broken branches and waste wood makes bright crackling fires by which to warm ourselves on a winter's day.

But there is something more than just this I should like you to think about in connection with the pine forest; for it, like everything else that is fair and noble in nature, has a strange and precious secret of its own.

You may learn the many uses of the trees in books, when men have cut them down or grubbed them up, or poked holes in their poor sides to let the turpentine run out; but you can learn the secret of the forest itself only by listening humbly and reverently for it to speak to you.

Nature is grander and more magnificent than all the queens who have lived in sumptuous palaces and reigned over famous kingdoms since the world began; and though she will be very kind and gracious to children who come and ask her questions modestly, and will show them the most lovely sights and tell them the most delicious fairy tales that ever were seen or heard, she makes very short work with conceited persons.

She covers their eyes and stops their ears, so that they can never see her wonderful treasures or hear her charming stories, but live, all their lives long, shut up in their own ignorance, thinking they know all about everything as well as if they had made it themselves, when they do not really know anything at all. And because you and I want to know anything and everything that Nature is condescending enough to teach us, we will listen, to begin with, to what the pine forest has to tell.

When the rough winds are up and at play, and the pine trees shout and sing together in a mighty chorus, while the hoarse voice of them is like the roar of the sea upon a rocky coast, then you may learn the secret of the forest. It sings first of the winged seed, then of the birth of the tiny tree; of sunrise and sunset, and the tranquil warmth of noonday; of the soft, refreshing rain, and the kindly, nourishing earth; of the white moonlight, and pale, moist garments of the mist, all helping the tree to grow up tall and straight, to strike root deep and spread wide its green branches.

The voice sings, too, of the biting frost, and the still, dumb snow, and the hurrying storm, all trying and testing the tree, to prove if it can stand firm and show a brave face in time of danger and trouble. Then it sings of the happy springtime, when the forest is girdled about with a band of flowers; while the birds build and call to each other among the high branches; and the squirrel helps his wife to make her snug nest for the little brown squirrel babies that are to be; and the dormice wake from their long winter sleep, and sit in the sunshine and comb their whiskers with their dainty little paws.

And then the forest sings of man—how he comes with an ax and saw, and hammer and iron wedges, and lays low the tallest of its children, and binds them with ropes and chains, and hauls them away to be his bond servants and slaves.

And, last of all, it sings slowly and very gently of old age and decay and death; of the seed that falls on hard, dry places and never springs up; of the tree that is broken by the tempest or scathed by the lightning flash, and stands bare and barren and unsightly; sings how, in the end, all things shrink and crumble, and how the dust of them returns and is mingled with the fruitful soil from which at first they came.

This is the song of the pine forest, and from it you may learn this lesson: that the life of the tree and of beast and bird are subject to the same three great laws as the life of man,—the law of growth, of obedience, and of self-sacrifice. And perhaps, when you are older, you may come to see that these three laws are after all but one, bound forever together by the golden cord of love.—Selected.

### The Wayside Inn.

I halted at a pleasant inn, As I my way was wending-A golden apple was the sign, From knotty bough depending. Mine host-it was an apple tree-He smilingly received me, And spread his sweetest, choicest fruit To strengthen and relieve me. Full many a little feathered guest Came through his branches springing; They hopped and flew from spray to spray, Their notes of gladness singing. Beneath his shade I laid me down, And slumber sweet possessed me; The soft wind blowing through the leaves With whispers low caressed me. And when I rose and would have paid My host so open-hearted, He only shook his lofty head-I blessed him and departed. -Johann Ludwig Uhland (translation).

### Feeding Birds in Winter.

Under the subject of "Feeding Birds in Winter" come two other subjects of even greater interest to the bird lovers, namely, "The Taming of Birds" and "The Changing of Both their Habits and Food."

The winter of 1903-1904, was an exceptionally hard winter for the birds; for this reason I thought it my duty to set a lunch-counter for the feathered tribe. I tacked suet to the trunk of a big black walnut tree that grew fifteen feet from my window, and it was not long before the birds began to patronize it. They seemed to tell all the birds in the neighborhood of their happy discovery, for many birds appeared that I had never seen around the house before this time.

Every day the downy and hairy woodpeckers, red and white-breasted muthatches, chickadees, brown creepers, and blue jays came to eat the suct, while the juncos and an occasional English sparrow ate crumbs I scattered on the ground. The birds were not the only ones to enjoy the suct; several gray and red squirrels came daily and carried away so much suct that I had to devise a new method for feeding the birds. I put out bread crumbs upon my window-sill, and the chickadees and nuthatches soon learned to come there for them. At first they were afraid of the open window, but they soon learned to eat without fear, while I stood near with the window open.

One cold morning I put some crumbs in my hand, and held it out of the window. A little chickadee

came along, flew nearer and nearer; then came to a wire close to my hand; looked at the crumbs, then at me. After picking my fingers to make sure they were harmless, he hopped into my hand, ate some crumbs, and flew away to tell his mate what a daring little chickadee he was. After this he came daily to my hand, and before long other chickadees and a red-breasted nuthatch followed his example. One day I succeeded in photographing my feathered friend, while eating crumbs from my hand. The nuthatches had a good deal of difficulty in getting to the window-sills. They could not grasp the smooth boards with their claws, neither could they keep their balance on the wire just beyond the sill. I took pity on them and made what I call a moving restaurant for them. I nailed boards together, which I suspended in mid-air by means of a wire. With a string and pulley I can move this from my window to the tree. Here I placed crumbs and water. The nuthatches soon learned to come here very gracefully, and before long they could stand up on their legs as well as any other bird. My nuthatch is now as much a perching bird as a creeping

The next year the brown creepers, juncos, an English sparrow and a downy woodpecker followed the example of the nuthatches and chickadees and came to the restaurant for food. I took several photographs of them.

The woodpeckers eat nothing but suet, while the juncos eat nothing but crumbs and seeds. The birds have a decided preference for doughnut crumbs, although they are very fond of bread crumbs. The brown creeper likes crumbs and suet, while the chickadees and nuthatches, although they will eat everything I give them, like nuts and squash seeds best. I crack the nuts for them and give them shells and all, while I simply break the squash seeds in two.

I shall continue my study of feeding and taming the birds this winter, and hope to discover many other new facts about them.

I advise the reader of *Bird-Lore* to set a table for the birds this coming winter, and to watch their habits closely. It is surprising how the birds will appear in a neighborhood where there were no birds, when they find food and protection there.

I begin to feed the birds the last of October, and keep it up regularly until the middle of April. The birds will not come to any artificial lunch-counter when they can get their natural food.—Samuel D. Robbins, Belmont, Mass., in Bird-Lore.

### Plans in Geography and Nature Study.

"Every man's chimney is his golden milestone," says Longfellow. That is true, and in the child's case it is the milestone from which all his measurements are taken. The geography of the neighborhood in an ever-increasing circle must be his starting-point-from the school itself, with its entrances, hall and classrooms, on to the playground, thence to the country beyond. The child's classroom is the place from which he starts on his tour of geographical discovery. Its length, breadth, height—all measured by himself or his classmates and drawn by him to scale on his paper-these form his first memoranda. And until he understands in this way the meaning of a plan, by making one of a place he actually knows, he can never be expected to have the most elementary notion of the meaning of a map. Then the school buildings-measured and drawn in the same way-each step being actually done by the children themselves before anything is put on paper, before any definitions are attempted. And one word as to the much-abused definition. Do relegate it to its proper place, and that is—the end of a lesson. Let it be formulated by the children themselves and be the outcome of their own experience. If your lesson has been clear, and given in an interesting, intelligent way, there will be no difficulty in getting definitions.

Now as to the geography of the immediate neighborhood. If you happen to be so fortunate as to live in a mountainous district near the sea, lessons on geographical terms will present no difficulty. Mountain, valley, river, lake, cape, bay—all can be exactly illustrated from the child's environment. But this is the exceptional case and not the normal, and it is the latter with which we have to deal.

But although only a few of us are provided with such rich material close at hand, let us not think that our own neighborhood is devoid of apt illustrations. The gutter of a steep street on a rainy day is an excellent illustration of the mountain stream from which the river grows. Its tumultuous, headlong race, as it dashes down the slope; the way in which it carries all light material down with it; its conduct when it meets a large stone or similar object in its course—all are truly illustrative of the characteristics of a river. And for further illustration there are few districts in "Merrie England" that cannot boast a stream of some sort. An excursion to a piece of rising ground near, noting exactly the difference between the view from the bottom

and that from the top, will form the starting-point for lessons on the horizon, hills, mountains, valleys, and plains. Lessons on the points of the compass should first be taken out of doors, where the children can make their own personal observations. In these outdoor lessons it is a good plan to provide the children with paper and pencil so that they can make rough sketches. No doubt these will be very crude, but the making of them will be invaluable in impressing the main facts upon the children's minds. We all know that the child often forgets what he sees, still more often what he hears, but rarely what he makes. The very co-operation of the muscles in reproducing on paper his ideas of what he sees will doubly insure him being able to remember those ideas. Our children have made at one time and another very creditable seaside sketches. Certainly there was some disproportion between the size of the islands and the ships sailing past them. The room taken up by the captain's telescope and the man at the wheel might slightly inconvenience any passengers on deck; the lighthouses bore a strong resemblance to the famous tower of Pisa; and the fish were first cousins to the whale of Jonah's acquaintance. But que voulez-vous? The pictures represented truly to them what they had seen, and that is of even more importance than an accurate sense of perspective and proportion. - From "Child Life in Our Schools." (Geo. Philip and Son, London).

### Chat About Plans Between Uncle Tom and His Two Nephews.

"We will first fix upon a scale," said Uncle Tom. "Suppose we say our new scale is to be one foot to a quarter of a mile."

"And can you really make a foot stand for a quarter of a mile?" asked Dick.

"Yes, that's easy," said his uncle, as he spread the paper on the table.

"But what things can you show in a plan like that, uncle?" asked Harry.

"You shall see," he replied, and he wrote the letters N. S. E. W. on the four edges of the paper, to show the four eardinal points.

"Now," he said, "you know Buttercup Farm, where we live, stands at the corner of the road.

"You know too that, when you stand at the gate, and look down the road at twelve o'clock, the sun is straight in front of you. Can you tell me from this which way the road runs?"

"South," cried both the boys at once.

"And you know that, if you turn your back to the sun at noon, you are looking towards the north," he added.

"Oh yes, uncle," said Dick. "So the other end of the road runs north."

"That's right," said his uncle. "Now think of the road, which crosses this one, at the corner of the farm."

"That must run from east to west, for it goes straight across," said Harry.

"Right again, boys," said Uncle Tom. "Now let us start with our plan. We will begin at this point in the middle of the paper. I will draw two lines, side by side, from north to south, and two others crossing them from east to west."

"I suppose those lines stand for the road, uncle," said Dick. "And the farm must be just here, where the roads cross."

"Good," said his uncle, "and I want to put in our house and the rest of the farm buildings next. They won't be very large, of course, on this paper, but our plan will show us where they stand.

"Now," he added, "I know it is just a quarter of a mile from our house to the church at the end of the village. So if I measure one foot along the road towards the south, I shall know where the church is to come. The Rectory stands facing it, you know, on the other side of the street. And the school is just half-way between us and the church. So we can put these in our plan now.

"A quarter of a mile along the road to the north is the chapel. The Park Farm is on the other side of the road, about half that distance from us. And behind it is the Manor House, where the Squire lives. We will put them in next, with the wood lying behind the Squire's House.

"And now I must go," he added, "But you may mark in other places for yourselves, such as the smithy, the butcher's shop, the baker's shop, the post-office, the Slade farm, Beck's farm, and so on.

"This, you see, is a plan of all the places for a quarter of a mile round us. We may call a plan of this sort a map."—MacMillan's Globe Geography Reader, London.

The little boy's father had come home from his office early and was lying down for a nap before dinner. The little lad's mother sent him upstairs to see if his father was asleep. He returned with this answer: "Yes, mamma, papa is all asleep but his nose!"

### The Arrow and the Song.

HENRY WADSWORTH LONGFELLOW,

I.

I shot an arrow into the air, It fell to earth, I knew not where; For, so swiftly it flew, the sight Could not follow it in its flight.

II.

I breathed a song into the air; It fell to earth, I know not where; For who has sight so keen and strong, That it can follow the flight of song?

III.

Long, long afterward, in an oak I found the arrow, still unbroke; And the song, from beginning to end, I found again in the heart of a friend.

#### NOTES.

This very dainty, beautiful poem is so simple it needs little talk or explanation. It needs to be quietly read, to be memorized, and not only recited in class, but to one's self alone, also. The teaching of the poem is very true, and told in various ways.

Mr. Longfellow uses a figure of speech—that is a form or way of speaking—that we call a simile. Look up this word in the dictionary. It comes from a Latin word, meaning like; we get our word similar from the same word. Read the first stanza, then the second; the first two lines of the third stanza, then the second two. Do you see the likeness or simile? In which stanza and pair of lines do we find Longfellow's meaning?

What does he mean by "a song" here? How did he breathe it—aloud? earefully?—how? Why didn't he know where it fell? What made him breathe it into the air?

There is an old song that says—

"Kind words can never die;
Cherished and blest
God knows how deep they lie
Hid in the breast."

May the same be true of beautiful words? noble words? One doesn't need to watch where such words fall. If his mind is full of them, he may keep speaking them and be sure he will find them again; only when one is most truly kind he thinks least of whether or not his kindness will be returned. It will be with them as with the "blessed of the Father" in what Jesus once told. (Read Matthew 31-40.)—School News and Practical Educator,

#### Signs of Rain.

- The hollow winds begin to blow; The clouds look black, the glass is low. Last night the sun went gale to bed, The moon in halos hid her head. Loud quacks the duck, the peacocks cry, The distant hills are seeming nigh. Low o'er the grass the swallow wings, The cricket, too, how sharp he sings. Through the clear streams the fishes rise, And nimbly catch the incautious flies. At dusk the squalid toad was seen Hopping and crawling o'er the green. The whirling dust the wind obeys, And in the rapid eddy plays: The frog has changed his yellow vest, And in a russet coat is dressed.

'Twill surely rain; I see with sorrow, Our jaunt must be put off to-morrow.—Anonymous,

#### Lines in Season.

A teacher, Miss Evelyn R. Bennett, Hopewell Cape, N. B., sends a few quotations and the way she uses them, which may be a benefit to others.

The quotations are placed on the blackboard. They are memorized by repeating in concert or singly, or by silent study. They are explained, and the good thoughts placed before the children.

Let your heart feel for the afflictions and distresses of everyone,—Washington.

Associate with men of good quality if you esteem your own reputation, for it is better to be alone than in bad company.—Washington.

Character consists in little acts well and honorably performed; daily life being the quarry from which we build it up, and rough-hew the habits which form it.

A friend called on Michael Angelo, who was finishing a statue; some time afterwards he called again; the sculptor was still at his work. His friend, looking at the figure, exclaimed "Have you been idle since I saw you last?" "By no means," replied the sculptor; "I have re-touched this part and finished that; I have softened this feature and brought out this muscle; I have given more expression to this lip, and more energy to this limb." "Well, well," said the friend, "all these are trifles." "It may be so," replied Angelo; "but recollect that trifles make perfection, and that perfection is no trifle."

The tendency to persevere, to persist in spite of hindrances and impossibilities, it is this that in all things distinguishes the strong soul from the weak.—Carlyle.

The men who try to do something and fail, are infinitely better than those who try to do nothing and succeed.— Lloyd Jones.

Failure after long perseverance is much grander than never to have a striving good enough to be called a failure.—George Eliot.

Blessed is he who has found his work; let him ask no other blessedness. He has a work, a life purpose; he has found it and will follow it.—Carlyle,

#### A Psalm of Praise.

- 1. Make a joyful noise unto the Lord, all ye lands,
- 2. Serve the Lord with gladness: come before his presence with singing.
- 3. Know ye the Lord he is God: it is he that hath made us, and not we ourselves; we are his people, and the sheep of his pasture.
- 4. Enter into his gate with thanksgiving, and into his courts with praise: be thankful unto him, and bless his name.
- 5. For the Lord is good; his mercy is everlasting; and his truth *endureth* to all generations,

#### NOTES.

What is a Psalm? This tooth Psalm does not look like poetry; but it is, as you doubtless will feel it to be as you read. Psalms were written to be sung, and sung responsively. If you will notice the Psalm above, you will see that each verse except the first has at least two parts, and, if more, they are arranged in pairs, for the most part. This was so that in the great temple the choir of priests might sing the leading part and the people respond by singing the second, thus (verse four):

Enter into His gates with thanksgiving And into His courts with praise:
Be thankful unto Him,
And bless His name.

All nations believed in a god. The Jews taught the world of the "one living and true God." They wrote many Psalms, and those so beautiful that the world keeps singing them. The One-hundredth Psalm is one of the most notable for simple dignity and beauty. To appreciate it you must think of it as sung in Solomon's wonderful temple, when hundreds of priests were about the altar and tensof-thousands of people were attending the worship. In Psalm cl. you will find a list of instruments in the orchestra. Read also Psalms exlviii, and exlix.

Thankfulness is one of the most noble feelings; and praise a most becoming form of expression. We should learn the Song of Praise by heart. Verse three gives the reason for verses one and two; verse five the reason for verse four. The Psalms are full of beautiful expressions like those of this one.— Selected.

A mother being asked if she had any trouble with her boys said: "No, I keep them busy and I have their confidence." Do you know of a better receipt for the teacher?

#### For the Little Folks.

FRIDAY.

It's heaps of fun to be a boy
When Friday comes along;
That day a boy don't mind a bit,
No matter what goes wrong.

Sometimes on Fridays we are good, A reg'lar model class. The teacher smiles at three, and says, "The first line rise and pass."

We get our hats; our books we strap; And whistling a tune, We hurry out. There's nothing like A Friday afternoon.

You say it's odd that Friday should
A part so noted play?
Just ask a boy. He'll tell you why:
The next is Saturday.
—Arthur H. Folwell, in The Youth's Companion.

#### FIRST LESSONS.

Priscilla went to school this week She's only five, you know, And for a very little girl, She has not much to show. The teacher gave her picture-books, With cats and mice and birds; She thought she knew them all by heart, But oh, those horrid words! She saw a big red cube Along with yellow blocks; She spelled out cube, but said it was "A little baby box." A frisky lamb was a speckled calf, The hammer was a hatchet, Whenever she was in much doubt, She took a word to match it. The spade she knew was a little hoe, The brook looked like a sea, And every coloured picture there Was as queer as queer could be, Next day she would not go at all, And I heard Priscilla say, "School may be nice for grown-up folks, But I'd much rather play." -M. S. Humphreyville, in The Youth's Companion.

#### AUTUMN LEAVES.

"Come, little leaves," said the wind one day, "Come over the meadows with me and play; Put on your dresses of red and gold; Summer is gone and the days grow old."

Soon as the leaves heard the wind's loud call, Down they came fluttering, one and all; Over the brown fields they danced and flew, Singing the soft little songs they knew.

"Cricket, good-bye, we've been friends so long; Little brook, sing us your farewell songSay you're sorry to see us go; Ah! you are sorry, right well we know.

"Dear little lambs, in your fleecy fold, Mother will keep you from harm and cold; Fondly we've watched you in vale and glade; Say, will you dream of our Joving shade?"

Dancing and whirling the little leaves went, Winter had called them and they were content— Soon fast asleep in the earthy beds, The snow laid a soft mantle over their heads.

#### The Old Mill.

Stream that hastens from the hill, Tarry here to turn the mill. Rainbow drops the seedlings knew In the shower and the dew, Once again your magic lend, Life into the mill wheel send. Nature, the all-bounteous mother, Beast and bird, and man their brother, Through the spring and summer weather Steadily have worked together. E'en the earthworms in the soil Give their share of patient toil. Sturdy oxen drew the plow Where the stubble standeth now. Horse and farmer reaped the grain From the sunned and watered plain. Now upon the old mill's floor Lies the yellow harvest store, Till the all-transforming wheel Turns the kernels into meal. All have helped to give the bread Over which the grace is said.

-Laura Winnington.

#### The Snow Flowers.

When birds to sun-land southward wing,
And chilly winds begin to blow,
The babies that were born in spring
Think all delights are ended so;
But Jack Frost laughs aloud, "Ho! ho!
There's joy ahead they little know,
They have not seen the snow!"

Then he begins to call his sprites
From the bleak, trackless north afar,
Where each one in the frozen nights
Has made from ice a crystal star.
And Jack Frost laughs in glee, "Ha! ha!
These shine like bits of glittering spar,
What flowers fairer are?"

And from the clouds he rains them down Upon the cheerless carth below;
So thick they cover field and town,
So fair the brooks forget to flow,
And Jack Frost laughs, well pleased, "Ho! ho!
Could summer whiter blossoms blow?
What think you of my snow?"

-Arlo Batcs, in St. Nicholas.

#### TEACHERS' INSTITUTES.

P. E. ISLAND, ASSOCIATION.

The P. E. Island Teachers' Association met at Charlottetown, October 10th and 11th. Among the many excellent papers read was that by Mr. C. J. McMillan, B.A., of Prince of Wales College, on The Teaching of English. Mr. McMillan contended that there ought to be a reformation in the order of teaching in the schools, and that at every stage the English language and literature should lead all English is the instrument of instruction. The reform should, he maintained, begin at the bottom, not at the top. The work of teaching good English ought to and must be continuous through all classes and grades. That of the primary years is the more important because it is the deepest and most lasting. In teaching English, poetry should precede prose. Begin with nursery rhymes and poems. Children are by nature imitative and they soon begin to appreciate the beauty and smoothness of good poetry. The teacher should be careful about manner of expression, for the teacher is the chief guide. But a taste for the study of the best literature in prose and poetry should be developed. Utilitarian methods are too much in evidence nowadays. There should be impressed upon the youthful mind more of hope, faith and love, together with earnestness, sincerity and refinement,-finding expression in thought, action and language.

Mr. A. E. Winship, of Boston, gave a fine address on Boys as an Asset, and Mr. Theodore Ross an-

other on The New Education.

The officers for the ensuing year are: President, Walter Jones, Pownal; Vice-president for Queens County, James Profit, New London; Vice-president for Kings County, J. L. Kennedy, Souris; Vice-president for Prince County, D. J. Mullin, Cape Traverse; Secretary-treasurer, R. H. Campbell, Charlottetown; Recording secretary, Charles McDuff, Wiltshire.

Additional members of executive, Mr. Landrigan, Miss Noonan, Mr. Scaman, Mr. Allison Cameron

and Miss Clarke.

Resolutions recommending the shortening of the school sessions to five hours all the year round, and asking an advance in teachers' salaries, were passed.

#### WESTMORLAND COUNTY INSTITUTE.

The twenty-ninth annual session of the Westmorland County Teachers' Institute was held at Shediac, September 27 and 28. Inspectors O'Blenus and Hebert were present, and over eighty teachers were enrolled. Much regret was expressed because of the absence through illness of Principal Oulton of Moncton, and a letter of sympathy was forwarded to him. President A. D. Jonah delivered an address on "The Teacher in Relation to the School:" Inspector Hebert, one in French on "General Topics." A paper both interesting and instructive on "The McDonald Institute, Guelph," was read by Miss

Smith, of Lewisville. It was discussed by H. B. Steeves, W. A. Cowperthwaite, the President, Miss Colpitts, Mr. Dole, Inspector O'Blenus and Rev. A. F. Burt.

A paper on Drawing, with blackboard illustrations, was read by Miss M. McBeath, of Moncton. An animated discussion took place on this paper with reference to the "Augsburg Drawing System." A lesson on Number was taught to grade two by Miss Horsman, of Upper Sackville.

The closing session took place on Friday afternoon when the institute was divided into sections and matters of general interest to those different

sections were brought up and discussed.

## United Institute of York, Sunbury and Queens Counties.

This Institute met at Fredericton, October 11 and 12, President Chas. D. Richards, A.B., in the chair. Over one hundred teachers were enrolled. The address of President Richards, now principal of the Woodstock, N. B., Grammar school, was carefully prepared and thoughtful. (We hope to publish this in whole or in part in a future number.—Editor.) Dr. J. R. Inch, Inspector N. W. Brown, Miss E. L. Thorne, Principal B. C. Foster and Mr. F. A. Good discussed the address. Mr. M. A. McFarlane, M. A., read a valuable paper on History, explaining how this study prepares pupils for the responsibilities of citizenship. It teaches accuracy, awakens an interest in books, and affords an opportunity for discussion which other subjects do not.

Mr. J. T. Horsman, M. A., of Gagetown, read an interesting paper on Arithmetic, emphasizing the necessity of more study of mental arithmetic.

Dr. Inch asked if it would be possible to complete the study of arithmetic in the eighth grade and do away with the subject in the High School curriculum. Messrs. Horsman, Page, Foster, Brown and Richards thought it could not be completed before entering the high school.

Principal Osborne, of the Fredericton Business College, read a paper on Writing, giving special importance to the technique of the subject, and Principal J. W. Hill, of Gibson, presented an excellent paper on the Teaching of Geography.

The claims of the New Brunswick Teachers'

The claims of the New Brunswick Teachers' Association were placed before the institute by Mr. Hughes, president of the Fredericton branch, and Mr. B. C. Foster, a member of the executive, and a summary given of the work it has done.

Principal Bridges, of the Normal School, gave an interesting address on the Training of the Memory. His paper was listened to with pleasure by all those

in attendance.

The following officers were elected: President, Mr. John E. Page, Fredericton; Vice-president, Miss Buchanan, Keswick Ridge; Secretary-treasurer, Miss Ella Thorne, Fredericton, Additional members of the executive, Miss Inch and Principal James A. Hughes.

#### VICTORIA COUNTY INSTITUTE.

The annual meeting of the Victoria County Teachers' Institute, took place at Andover on the 4th and 5th October. Twenty-three teachers enrolled themselves as members.

The officers elected were as follows: Guy J. McAdam, President; Miss Janet Currie, Vice-president; Miss Millie J. Goodine, secretary. The Misses Hughes and Horseman were appointed to

serve on the executive committee.

Unfortunately, the Inspector, T. B. Meagher was unable to attend. Miss Janet Currie read a paper on Discipline, which proved to be of exceptional merit. Mr. G. J. McAdam's paper on the Teaching

of Language was very interesting.

During the session on Friday morning, the Institute adjourned in a body to the school garden; where twenty minutes were very profitably spent in the inspection of the various flowers and vegetables which the early frosts had not entirely destroyed. Mr. McAdam explained what he considered the best way to set about acquiring a plot of ground, and how the land should be treated the first year.

Not the least interesting part of the meeting was the five minutes' discussions by each member of the Institute on the "Busy Work" employed in his or her school. This was a new feature in the usual proceedings and was voted a complete success.

The public meeting in Beveridge's Hall was well attended and proved what attention the cause of education receives in Andover. The speakers for the evening were Messrs, Baxter, Lawson, Elliot, and the Rev. Mr. Squires. Mr. Elliot's address was worthy of special notice. He spoke briefly of the general duties of teachers, and he urged the trustees not to allow the cream of the profession to seek situations elsewhere, but to raise the salaries of their teachers, and thus show by actions as well as words that they appreciated their efforts in their children's behalf.

M. J. GOODINE, Secretary of Institute.

Grand Falls, October 8th.

#### KENT COUNTY INSTITUTE.

The Kent County Teachers' Institute met at Harcourt, October 4 and 5, Inspector Hebert presiding, Thirty-one teachers enrolled. The president opened with an admirable address on the Thoroughly Qualified Teacher. Miss M. Alethea Wathen followed with a paper pleading for more attention to music.

At second session, Miss Minnie A, Buckley taught the idea of spherical form to pupils of first grade, her lesson being favorably criticized. G. D. Steel read a paper emphasizing the great importance of Definiteness in Teaching.

At 4 p. m., same day, the Kent Co. members of the X. B. T. A., held a meeting, A. E. Pearson, chairman. Of the twenty-eight active teachers entolled, twenty-two were, or became, members of the Union. The proceedings of Chatham Convention were ratified, and same salary schedule adopted. J. A. Edmunds was elected delegate to the Easter Convention, with H. H. Stuart, alternate.

The public meeting in the evening brought out strong speeches from Messrs. Pearson and Stuart, in favor of parish school boards, consolidated schools, compulsory attendance, houses for teachers

and a pension system,

At third session, J. A. Edmunds gave a helpful illustrated talk on Arithmetic, and Miss Ferguson read a timely paper on Spelling. At fourth session, H. H. Stuart spoke on the great Educative Value of Geography, and was supported in discussion by Messrs. Pearson, Edmunds and Rev. W. M. Townsend. Mr. Pearson followed with a paper on Ideality, showing how school grounds and houses can be improved at little expense. The last hour was given to the "question box." Most of the discussion was given to Grammar, our texts being roughly criticized.

The following officers were elected at close of best Institute held in Kent for a long time: President, A. E. Pearson, Bass River; Vice-president, Miss M. C. McInerney, Rexton; Secretary-treasurer, H. H. Stuart, Harcourt. Additional executives, G. D. Steel and Miss Agnes Ferguson, of Richibucto.

H. H. STUART, Secy.

#### KING'S COUNTY INSTITUTE.

The Kings County Institute met at Norton, on September 27th and 28th. Eighty teachers were enrolled. A number were present from the upper parishes of Queens. The President, A. E. Floyd, occupied the chair. The following papers were read: History, by A. C. M. Lawson, and Manual Training, by W. N. Biggar. Both were followed by interesting and profitable discussions. Excellent lessons were given by Miss M. A. MacVey, on Movements of the Earth; Miss Belyea, on Reading; H. A. Prebble, Grammar; and Miss Marion Moore, Latitude and Longitude. A good exhibit of work done in the schools was also shown.

A public meeting was held on the evening of the 27th. Rev. Mr. Perry presided. Speeches were delivered by the chairman, Inspector Steeves and D.

W. Hamilton,

The following are the officers for next year: H. A. Prebble, President; Miss Pearl Currier, Vice-president; H. H. Biggar, Secretary-treasurer, A. E. Floyd and Miss Margaret Belyea, additional members of the executive.

#### ALBERT COUNTY INSTITUTE.

The twenty-ninth annual meeting of the Albert County Teachers' Institute was held in the Superior School building, Elgin, October 4 and 5, the President, Geo. 1. Trueman, M. A., in the chair. Forty-two teachers were present. The president, in his opening address, called attention to the leaflets that had been sent for distribution by the New Brunswick

Teachers' Association. He stated that these would be distributed, but he thought further discussion of the work of the Association was foreign to the purpose of the institute. In discussing the question of low salaries, Mr. Trueman stated that the greatest injustice was done the experienced teacher. Girls and boys who went from the home schools to Normal school and spent there four or nine months, had not a great deal of money invested in education. They probably received as much salary at first as their companions who had gone at other work. Salaries, however, should increase year by year as the teacher becomes more valuable. Mr. Trueman believed that the Normal school course should be longer. A longer course could make the teachers more valuable and would probably decrease the numbr yearly entering the profession. This would lead to a natural increase in salaries.

Mr. G. R. Wortman, principal of the school at Harvey, read a carefully prepared paper on the Teaching of History. The paper was discussed by Messrs. Colpitts, Burns, Branscombe, Adair, and Miss Floyd. A paper was presented by Miss Clara G. Turner, teacher of Household Science in the Riverside Consolidated school. The writer made a strong case for her subject in the Common Schools, and her paper was greatly enjoyed by all. Mr. Trueman, in discussing this paper, said that Miss Turner was making a thorough success of the work in Riverside. Although not particularly enthusiastic about the manual subjects a year ago, he was now convinced that they were most valuable from every standpoint.

Miss Edna M. Floyd gave the outline of a lesson in Geography. This lesson aroused a good deal of interest, and in the discussion that followed the following took part: Inspector O'Blenus, Miss Bray, Mr. Branscombe, Mr. Burns, and Mr. Fitzpatrick. The present text in geography came for a good deal of unfavorable criticism. At the close of the discussion Inspector O'Blenus opened the Arithmetic question box, and proceeded to show how to meet many of the difficulties found in teaching this subject. This part of the programme was found to be most interesting and profitable.

Thursday evening a well-attended public meeting was held in the Baptist church. The speakers were President Trueman, W. B. Jonah, Inspector O'Blenus, and Rev. H. A. Brown.

Friday morning's session opened with a paper on Nature Study by F. Peacock, the Manual Training and Nature Study teacher of the Riverside Consolidated school. The paper was well received, and a motion was passed asking Dr. Inch to publish it in the educational report. The discussion was opened by Mr. G. A. Adair, of Hopewell Hill. Miss Rebecca Bennett then gave a practical paper on Composition in the Primary Grades. The discussion was opened by Miss Keith. Mr. Percy Fitzpatrick presented a paper on Spelling, which was well received. He believed in learning to spell by means

of the eye rather than the ear, and had little use for any extreme reform in spelling.

At the fourth session the officers for the ensuing year were elected as follows: George J. Trueman, President; Miss Edna M. Floyd, Vice-president; Percy A. Fitzpatrick, Secretary-treasurer. L. R. Hetherington and Miss Margaret Johnson, additional members of the executive. It was decided to accept the invitation of the Westmorland Institute, and, with the consent of the Chief Superintendent, to hold a joint meeting in Moncton next year. Votes of thanks were extended to Mr. Hetherington and Miss Johnson, the local teachers, who had done so much to make the meeting in Elgin a pleasant one; and to Inspector O'Blenus, for his ready and efficient help.—Com.

A certain learned professor in New York has a wife and family, but, professor-like, his thoughts are always with his books.

One evening his wife, who had been out for some hours, returned to find the house remarkably quiet. She had left the children playing about, but now they were nowhere to be seen.

She demanded to be told what had become of them, and the professor explained that as they had made a good deal of noise, he had put them to bed without waiting for her or calling a maid.

"I hope they gave you no trouble," she said.

"No," replied the professor, "with the exception of the one in the cot here. He objected a good deal to my undressing him and putting him to bed."

"Why," she exclaimed, "that's little foliumy Green, from next door!"—Ladies Home Journal.

Copenhagen, Denmark, is a city of canals and cleanliness—a land of pure delight, free from beggars, organ-grinders, and stray dogs. The inhabitants thereof are born courteous and seem never to have recovered from the habit. When a passenger boards a car in Copenhagen he exchanges greetings with the conductor; a gentleman, on leaving the car, usually lifts his hat in acknowledgement of a salute from the official. When a fare is paid, the conductor drops it into his cash-box, thanks the passenger and gives him a little paper receipt. He offers change with a preliminary "Be so good," and the passenger accepts with thanks. If, in addition, transfers are required, complimentary exchanges go on indefinitely. Yet there is always time enough in Copenhagen, -- Four-Track Neres.

"To teach a child to read and not teach it what to read is to put a dangerous weapon into its hands."—Charles Dudley H'arner.

#### N. B. Teachers Association.

From a late circular published by the New Brunswick Teachers' Association the following encourageing statements are made. It has now members in every city and in thirteen counties of the province, and is fast becoming a power for good in educational circles:

From 1884 to 1902, salaries of all elasses of New Brunswick teachers steadily declined; but since the N. B. T. A. was initiated in Albert County, September 26, 1902, salaries of every class have increased, the gains from June 30, 1902, to June 30, 1905, being for each class as follows: First class males, \$67 per year; second, \$30; third, \$15. First class females, \$24; second, \$16; and third, \$9. The aggregate gain to the profession in those three years was \$24,472, white the amount of dues paid to the N. B. T. A. and its subordinate associations did not exceed \$500—a yery good return for the investment.

The Association having succeeded so well during its first three years, when only a small part of the profession, mainly of the higher classes, were enrolled, what may it not accomplish when all, or the majority, of the unorganized teachers become members!

The National Teachers' Union of Great Britain, founded in 1870, includes over three-quarters of the profession, and has succeeded in bringing salaries and teaching conditions up to a respectable level, and is consulted by the British government before any important legislation respecting education is introduced. The Chicago Teachers' Union has since 1896 revolutionized conditions in that city. The Nova Scotia Teachers' Union, organized in 1896, has succeeded in securing from the provincial government a system of pensions for teachers. What other teachers have gained, we may gain if we unite and work together.

The total number of members in the British House of Commons is 670; in the House of Lords, 594. Probably the number in the House of Lords now is over 600, for several peerages have been created during the last few months.

#### CURRENT EVENTS.

Five hundred teachers of Great Britain and Ireland are coming to Canada and the United States to study educational conditions, and will remain here from four to twelve weeks. They are sent out at the instance of Alfred Moseley, M. P., the millionaire, who has already done so much for education. The expenses of all will be paid. This is a great opportunity. Who will do the same for a few hundred teachers of Canada. The Summer School of Science of the Atlantic Provinces, a few years ago, tried to formulate a plan to hold a travelling session in Europe. Has that scheme been abandoned? There is much to be said in its fayor.

It is expected that Herculaneum, the ancient Roman city, buried by the eruption of Vesuvius at the time of the destruction of Pompeii, will be 的部下。

excavated by the united action of the governments of Great Britain, France, Germany, Italy and the United States. Many valuable manuscripts and works of art undoubtedly are buried there; for Herculaneum was the place of residence of many wealthy Romans, and, unlike Pompeii, it was covered deep with earth, and not destroyed by fire.

An agreement made between the British government and the United States regarding the rights of United States fishing vessels on the Newfoundland coast, though it is of a temporary nature, has given much dissatisfaction in Newfoundland, as it confers upon the foreign fishermen certain privileges which the Newfoundland government has denied to resident fishermen in the interests of fishery protection. It is said that the United States fishermen will voluntarily relinquish these privileges; but that is so very unusual that it is hard to believe.

The military occupation of Cuba by the United States forces has taken place without disturbance. The disarmament of the insurgents has thus far been effected without resistance. The country is to be governed for the present by United States officers in the name of the Cuban people and under the Cuban flag. But the independence of Cuba is indefinitely postponed.

In Russia there is a large socialist party that will never be satisfied with any constitution which respects the right of private ownership in land. The socialists claim that every man should have as much land as he can cultivate unaided, and no more. The idea is not new in Russia, where communal lands are redistributed from time to time; but the socialists seek the abolition of all private property, and the application of this principle to all the land. Therefore, there is fear that the new Russian parliament, which is to meet in February or March, will but precipitate a threatened revolution instead of establishing a strong constitutional government under the present Czar.

The persecutions of the Jews in Russia, because of their disloyalty, has led to a rapid and very general emigration, which tends to remove one disturbing element. Most of them come to America.

The Canadian government is to take over the dockyards at Halifax, now the property of the Imperial government. The transfer will be made in a few weeks.

The British parliament has re-assembled, and a disturbance made by disorderly women marked the opening day. They were advocates of woman suffrage, who thought they were thus advancing their cause.

The Shah has opened the new Persian parliament in person, with a speech from the throne, which was received with the greatest enthusiasm. He believes that his people are ripe for constitutional government, and will support the constitution which he has given them.

Manitoba is asking for a portion of the old territory of Kewaytin, to extend the bounds of the province as far as Fort Churchill, on Hudson Bay.

An Austrian inventor claims that common marsh reeds are far superior to wood pulp for the manufacture of paper, and much cheaper.

Late statistics show Hong Kong to be the foremost port in the world in respect to import and export tonnage. Next comes London, with nearly the same amount of tonnage; followed respectively by New York, Hamburg, Liverpool and Rotterdam.

The rebellion against Turkish authority in Arabia still continues, the Arabs having recently won a victory over the Turkish troops.

The new British battleship "Dreadnaught" has proved faster and better in every way than was anticipated; but three armoured cruisers now under construction in Great Britain will be ships of equal power with the great battleship, and very much faster.

The native ruler of Barotseland, Central Africa, has abolished slavery in his dominious, setting free thirty thousand slaves.

Four thousand people, it is stated, have been put to death without warrant in the United States in the last twenty-five years. Ninety-five per cent of them were negroes, killed by their white neighbors. and many of them innocent of the crimes charged against them. The real cause of the race hatred is that the negroes claim equal rights under the constitution of the United States, which the whites are not disposed to yield. The same intolerant feeling, in lesser degree, is shown towards. Chinese and Japanese residents in some parts of the country; and strong resentment is expressed in Japan against the exclusion of Japanese children from the schools of San Francisco. All men have equal rights in Canada, without regard to race or color; but we may not boast that there is here no race prejudice. Asiatic immigrants are not very cordially received on our Pacific coast.

#### SCHOOL AND COLLEGE.

The Dalhousie College evening school and the King's College school of engineering have been amalgamated under the name of the Cape Breton Technical School, with Professor Dahl as principal. It opened on the 23rd October. While college work in the ordinary sense of the word will not be undertaken, this school will be affiliated with Dalhousie and King's Universities, and the work done in the classes will be recognized in both institutions in the cases of students afterwards pursuing engineering courses at either Dalhousie or King's.

The University of New Brunswick has a freshman class of forty-five students, the largest in its history.

Dr. Hall, of the Truro Normal School, has returned from his trip to England.

The following were elected as the executive of the Nova Scotia Teachers' Association at the recent meeting at Halifax: Principal J. II. Trefry, Halifax; Inspector H. H. MacIntosh, Lunenburg; G. D. Blackadar, Yarmouth; Dr. W. H. Magee, Annapolis; Principal W. J. Shields, Hants; Inspector Macdonald, Antigonish; Principal E. B. Smith, Port Hood; Principal Thomas Gallant, Inverness; Principal J. T. McLeod, Pictou; N. McTavish, Parrsboro; Vice-principal Stewart, Sydney.

Acadia University opened October 5 with seventy new students on its roll. No successor to President Trotter has yet been appointed. Professor R. P. Gray, who succeeded Dr. Kierstead a year ago as the professor of English language and literature, gave the opening lecture on Poetry and the Education of the Spirit, a finished production. Professor Ernest R. Morse, a teacher of experience, and a graduate of Acadia, takes the place of Dr. C. C. Jones as professor of mathematics.

#### RECENT BOOKS.

Messrs, Ginn & Company, Boston, have just published a revised edition of Myers's General History (mailing price \$1.70). This is a book of nearly 800 pages, attractively bound and illustrated. As it contains a complete history of the world from the time of the early Eastern nations to the present, it is a useful book for the library of the general reader, as well as for the student who would follow in sequence the events of the history of mankind. It has been a favorite book since its first publication, sixteen years ago, and the fresh chapters, new series of colored maps, many portions re-written, with suggested books and special topics for further study, make the compendium a most valuable acquisition to historical readers.

From the same publishers we have a small volume (138 pages, mailing price 85 cents) by the same author—Outlines of Nineteenth Century History—affording a rapid survey of events from the Congress of Vienna (1815) to the Peace of Portsmonth, and recent events in Russia and other parts of the world. The book is a model of concise statement and instructive unity.

Ginn & Company publish a series of standard English Classics, edited with introduction and notes adapted for college entrance requirements or for private readers. The books, carefully edited by scholars of taste and discrimination, are beautiful examples of binding and printing, and their contents such as may be read with pleasure. They are: Mrs. Gaskell's graceful story, "Cranford," (mailing price 35 cents); Matthew Arnold's "Sohrab and Rustum," with other poems by the same author (mailing price 30 cents); a condensed school edition of the Autobiography of Benjamin Franklin (mailing price 45 cents); Dickens's "A Tale of Two Cities" (mailing price 60 cents); and Selections from Browning's Poems (mailing price 35 cents).

Supt. of Schools O. J. Kern, of Illinois, has done a real service to country schools in his book, "Among Country Schools," published by Ginn & Company, Boston. The volume contains chapters on The Country Child's Rights, The Outdoor Art Movement, School Gardens, Art for the Country Child, The Work of a Farmer Boys' Experiment Club, Educational Excursions, The New Agriculture and the Country School, Consolidation, The Training of Teachers for the Country School. It is well illustrated, and

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there is scarcely a page in it that is not full of fruitful suggestions on the possibilities of greater efficiency of rural education. Referring to what Sir William Macdonald is doing for Canadian rural schools, the author says: "If millionaires of the United States would find it possible to do as this man is doing—doing something for the country child—a great educational uplift would come to the agricultural interests of our country, and, in fact, to all country school work." (Pages 366; price \$1.25).

Messrs. Blackie & Son, London, publish a First Course in Botany, by J. F. Scott Elliot, A. M., B. Sc., pages 344, price 3s. 6d. The book is a wholesome combination of theory, practice and observation, and the author names a great number and variety of plants for laboratory work. He begins with the flower and the seed, leaving germination and growth for a more advanced stage in the book. The notes on structure, environment and distribution are very useful, and to the whole forms a valuable compendium of plant study, though rather for the advanced student than for the beginner.

The same publishers issue an interesting and varied collection of Kindergarten Occupations for the School and Nursery, profusely illustrated, price 1s; also The Kindergarten Room, containing lessons, games, stories and occupation. These denote an advancing interest in Kindergarten work.

In their "Modern Language Series," Messrs. Blackie & Son publish an interesting series of stories and poetry:

Un Petit Voyage à Paris, by Marguerite Ninet; price 1s. 6d; Molière's Les Précieuses Ridieules (8d.); Bedollière's Historie de la Mere Michel et de Son Chat (1s.); also a Skeleton French Grammar (2s.), a useful guide to the beginner. In Blackie's "Little French Classics," price 4d. each, we have Alfred de Vigny's Historie de L'Adjudant, there is a delightful series, Petits Contes pour les Enfants, in paper covers, price 4d. each. All the above readers have vocabularies, and the more difficult are provided with notes.

In Latin, Blackie & Son, London, publish extracts from Livy's The Second Macedonian War, illustrated, with notes and vocabulary (1s. 6d.); in "Blackie's Latin Texts' we have Cæsar's Gallic War, Book I, (6d.), with an introduction on the author's character, works and style; a very convenient edition of Junior Latin Syntax, by J. A. Stevens, B. A. (8d.),—excellent for reference.

In the New Century Geographical Readers, Book V (1s. 6d.), Blackie & Son, London, deals with the physical, political and commercial geography of the countries of Europe, illustrated,—an interesting book, the matter being very attractively arranged.

The Geometry of the Screw Propeller (1s. 6d.) is a little book for the use of engineering students in technical schools. Blackie & Son, London.

Archibald Constable & Co., Ltd., London, are publishing a series of interesting books (1s. each) on "Religions,

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Ancient and Modern." Those we have received are: The Religion of Ancient Scandinavia, The Mythology of Ancient Britain and Ireland, Magic and Fetichism. The series is in convenient pocket volumes, printed in good type, and with foot-notes.

George Philip & Son, Ltd., London, publish a Progressive Course of Comparative Geography, which provides a full and definite course of geography teaching. The arrangement is admirable; nothing is seemingly omitted to make the book complete. It is illustrated by 177 pictures and diagrams, and 172 maps and diagrams in colour, with index.

A Rhythmic Approach to Mathematics is the title of a unique little volume, illustrated, from the same publishers. It shows how, with a few cheap materials and simple apparatus, the geometric instinct may be evoked in children.

Sir Oliver Lodge's work on Easy Mathematics, recently reviewed in these columns, is published by the Macmillan Company, of Canada, Toronto.

Wm Briggs, Toronto, publishes a Handbook of Canadian Literature (English), by Archibald MacMurchy, M. A. The author states that the reason of the book's existence was the need, as a teacher, of such a work on Canadian authors. It has biographical sketches of most of our writers of poetry and prose, with estimates of their place in literature, accompanied in most cases with extracts from their works. It is a valuable compendium, and will prove of distinct service to teachers.

#### RECENT MAGAZINES.

One of the most striking figures in the recent development of Japan, Admiral Togo, is the subject of a deeply interesting article by Mrs. Hugh Fraser in Littell's Living Age for October 27. A Negro on Efficiency, by Miss 11. C. Foxcroft, which the Living Age for October 13 re-prints from the Fortnightly Review, is a striking and sympathetic study of the career of Booker Washington, which, although written primarily for English readers, will be read with keen interest in this country.

The November *Delineator* treats of the established styles for autumn both in dress and millinery, and also devotes much space to the accessories of dress which women find so alluring. The three serial stories continue to hold the interest displayed in them from the start. Lida A. Churchill, in her Department of Real Life, discourses on Playing to the Upper Audience, George William Jordan gives good advice for When We are Face to Face with Trouble, and the fourth paper of Little Problems of Married Life treats of Making Marriage a Success.

From the Canadian Magazine for October: One hundred thousand immigrants in a single year was a good record. That was in 1905. The tale for 1906 is thirty-one thousand greater. To be striotly accurate the figures are 102,723 and 131,268. But were they as good, as desirable? This question is as easily and as favourably answered by the figures. The number from England increased by 16,288; from Scotland by 4,102; from Ireland by 1,020; from Wales by 27 and from the United States by 14,253. The continental increase was only 7,108. Therefore the class of immigrants improved. It is interesting to note that of the 131,000 immigrants, 78,106 were men, and 27,273 were women. The Canadian girl will have plenty of choice when it comes to the matter of a husband. Fifty-one thousand men without wives should seriously increase the competition.

The Atlantic Monthly for November is distinguished by the variety and excellence of its contents. The Ideal Lawyer, by Hon. Judge Brewer, is written by a leader of the bar who is now associate judge of the United States Supreme Court, some unpublished correspondence by David Garrick, by Professor George P. Baker, a foremost authority on some aspects of the English drama; and there are other notable essays with stories and poems, making an interesting number.

Acadiensis for October, D. Russell Jack, St. John, N. B., editor, completes an article on the union of the Maritime Provinces, by Reginald V. Harris. Its array of arguments and facts are carefully made and suggestive. Other noteworthy articles in this number are, Dr. Stockton's "Judges of New Brunswick and their Times," "Major Ferguson's Riflemen," by Jonas Howe, and "Major Thomas Hill," by D. Russell Jack.

### Isaac Pitman's

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WANTED — Teachers in Nova Scotia, preparing candidates for the Provincial examinations in science next July, to read my articles that have appeared during the last half-dozen years in the EDUCATIONAL REVIEW, or that may appear in Inture. The articles are suggested by experience gained in reading the answers of candidates, and I have endeavoured to help teachers and students in their work. Though there is, I believe, some imprevement, I feel sure that better work could be done in the schools and better results obtained at examinations if more attention were paid to the bints I have given. JOHN WADDELL.

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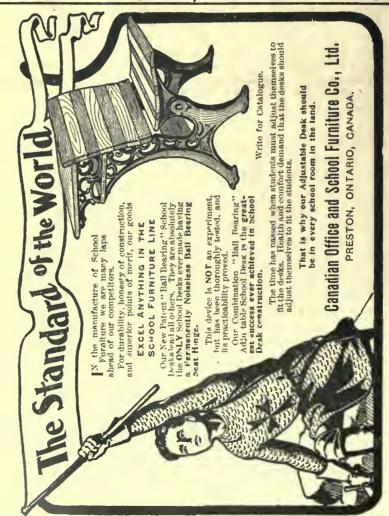
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THE EDUCATIONAL REVIEW, St. John, N. B.

"Come now! let us go unto Bethlehem, and see this thing which has come to pass, which the Lord made known to us." said the shepherds, when those angel songs had ceased to break the starry slience. Cheir way would lead them up the terrible hill, and through the moonlit gardens of Bethlehem, until they reached the summit of the grey ridge on which the little town is built. On that summit stood the village In the rude limestone grotto attached to it as a stable, among the hay and straw spread for the food and rest of the cattle, weary with their day's journey, far from home, in the midst of strangers, in the chilly winter night — in circumstances so devoid of all earthly comfort or splendour that it is impossible to imagine a humbler nativity -Christ was born. Canon Farrar—The Life of Christ

A HAPPY CHRISTMAS AND NEW YEAR to all the readers of the Review! May it be a season of great joy to teachers and pupils alike. Christmas is the birthday of the world's greatest teacher. Christ-child, such a one as our picture represents this month, that appeals to children. In all the joyousness of the season, in the giving and receiving presents, in all Christmas exercises, let the children constantly feel that Christ is the best gift of all. It was He who took children up in His arms and blessed them; who said, "Of such is the Kingdom of Heaven." How this gift surpasses every other! Let this thought pervade the Christmas spirit.

Children liked to be loved and remembered at this time, and the teacher can make the schoolroom a bright and happy place, directing the Christmas spirit so that it shall reach parents who are indifferent to the needs and wishes of children, enter homes where poverty is always present, and also homes where the abundance of gifts make children indifferent to the real meaning of the season and indifferent to the needs of poorer children. teacher can help rich and poor alike to share in the large bounty of love and good-will.

READ the "Business Notice" on another page.

MR. MATTHEWS' article in this number is an excellent introduction to geometry in the lower grades.

CHIEF SUPERINTENDENT Dr. J. R. Inch announces on another page that a new Drawing book has been authorized for New Brunswick schools, and also outlines the manual training courses for teachers for the next term.

THE Natural History Society of New Brunswick has recently moved its collections and library into a commodious building, opposite the high school, St. John. This live and useful society will now have the opportunity of doing much more effective work in displaying its valuable collections.

THE House of Lords has made so many drastic amendments to the British Education Bill that the Government has decided not to accept them. This means that the Lords will probably yield, and pass the bill in something near the form it went through the House of Commons.

SEATTLE is to have the next "World's Fair," in 1909, to be known as the Alaska-Yukon-Pacific Exposition. The site comprises 255 acres of the campus of the Washington University of that city, and the substantial buildings to be erected will remain as the property of the university, to be used for educational purposes after the fair closes.

DR. J. FLETCHER, Dominion Entomologist and Botanist, publishes in the last number of the Ottawa Naturalist a valuable contribution on School Exhibits of Pressed Plants. He points out that the proper selection and pressing of plants is an educational exercise of much importance, teaching patience, judgment, interest in and knowledge of one's surroundings. This is one of a series on Nature-study—now numbering thirty-eight—which embraces many excellent articles by Canadian naturalists.

THE next session of the Summer School of Science will be held at Riverside, Albert County, from July 2 to 19. Teachers and other students should early form their plans to take one or more courses, preferably one. The Secretary's announcement will be found on another page. If the teacher who has resolved to attend will lay out a course during the approaching vacation, and devote all the spare time possible to read and study for it, much can be accomplished during the session. The fine scenery, especially in the neighborhood of Riverside, and the varied resources of Albert County, will furnish a great object lesson to students.

"How to deal with the bad boy" is a perplexing question to those who have bad boys brought to them, charged with misdemeanours. Perhaps a note from Judge Lindsey, who has had much success in dealing with this problem in the West, may be of service:

Five boys under fourteen committed an aftermidnight burglary. Judge Lindsey talked with them for more than half an hour. It was not a lawyer's talk, nor a schoolmaster's, just chummy. He was nearly through before his purpose was apparent. Then he said to No. 1: "You are weak. It would be as easy for you to be good as bad if anybody would lead you. You come to my party for weak boys on——." To Nos. 2, 3 and 4: "You have weak streaks, but you are forming habits of strength along bad lines. I must see you at four o'clock Monday." To No. 5: "You are wicked, very wicked; you have gotten all these fellows into trouble," and then he took him in hand.

#### The Madonna of the Chair.

The subject of the Review's Christmas picture is the Madonna of the Chair, by Raphael. The Italian word Madonna, in old times used in addressing a lady, is now applied almost wholly to the Virgin Mary. The Madonna of the Chair represents the Virgin seated, holding her child on her knee and encircling him with her arms. By her side is the young John the Baptist, his hands clasped in prayer, and holding a cross, as if to herald the death of our Saviour. While the mother and child look at us out of the picture, his gaze is fixed in adoration upon the infant Saviour.

An old legend about this picture relates that Raphael, having come suddenly upon a beautiful family group, took them as a model, and sketched the figures rapidly upon the head of a cask, thus accounting for the circular form of the picture. The composition is marked by the exquisite beauty of the faces—the mother's head laid tenderly against that of the child looks at us with the peaceful, happy look of a mother. The rounded face and chubby limbs of the child denote perfect health, and in this he is like other healthy children; but in his large eyes there is an earnest, even grand, expression which painters always sought to give to the child Jesus to mark the difference between him and the ordinary children.

If one studies the picture carefully, it will be seen how curved and rounded are all the lines within the circle. The harmony of the lines thus make a perfect expression of the peaceful group, whose centre is the infant Saviour; and whether the legend above has any foundation or not, the home-like scene impresses us with its beauty and tenderness. Note the circles of light around the heads, used by painters to denote holy persons.

The mother wears a handkerchief of many colours over her shoulders, and another on her head.

The picture is suggestive of the happy Christmas season, when the eyes of the Christian world are centred upon Christ and upon home.

#### How One Teacher Uses the Pictures.

The following letter from Miss E. Rogers, principal of the Girls' High School, New Westminster, B. C., shows what may be done to decorate a school-room and at the same time be a means of discipline:

"May I tell you how I have made some of the pictures that come with the Review useful? Every month that I have no tardiness to record I give the school a framed picture as a prize. For this purpose many of these pictures are admirably adapted. Our walls are now made attractive with pictures, and tardiness in my division is almost unknown. Although the framing of the pictures is a little expensive, I have been repaid by the punctuality and increased interest among the pupils."

We would like to hear from others who are using these pictures. The cost in production and extra postage each month is considerable, but that would be cheerfully borne if we knew that the school-rooms are being brightened by their influence, and that the interest of the scholars is being newly awakened to their work, and that they are making the beginnings in the study of art.

The framing of the pictures need not necessarily be very expensive. In the December, 1905, REVIEW Mr. T. B. Kidner gave some very excellent drawings and suggestions, which, if followed out, would be a certain stimulus to manual work, and at the same time give the pictures a greater value, because the work could be done by the scholars themselves under the teacher's direction.

#### An Advisory Board.

During the late session of the Nova Scotia legislature a change was made in the Education Act, providing for the appointment of an advisory board. Its duties are simply to advise the Council of Public Instruction and the Superintendent of Education in regard to school books and apparatus; qualifications and examination of teachers; courses of study for the public school and the standard for admission to the county academies and high schools; the classification, organization and discipline of the normal school, county academies and the public schools; and other educational matters as may from time to time be referred to them by the superintendent or the council.

The appointment of this board has been completed, and their names will be found on another page. Five members of the board are engaged in educational work in the province, and their names are a sufficient guarantee of the wisdom of the choice. The two others, Messrs. Cameron and Donkin, are practical business men and leaders of

industry. The advice and assistance of such a board of experts cannot fail to add considerable weight to the educational councils of the province.

#### Kindness to Animals.

The minister of the interior of the government of Holland has sent out a circular to the heads of all schools in that country asking them to co-operate with the government in a movement to protect animals and birds. He wishes it to be impressed upon the minds of school children that it is mean and cowardly to be cruel to animals. To comply with the minister's request school principals and inspectors are holding conferences with all classes of teachers as to the best method of accomplishing the desired end. Laws are also in preparation to punish more stringently than heretofore all who are guilty of cruelty to animals.

The minister ordered large colored plates of the useful birds and of the insects they destroy to be distributed throughout the country with pamphlets showing the value of the birds in agriculture and forestry. It is explained how impossible it is for man to cope with the minute insects that prey on plant life, and that only the birds can save many valuable trees and much vegetation from destruction.—American Primary Teacher.

#### First Grade Number Games.

Ten or fifteen are the highest numbers that children in the first grade should work with. Simple counting games and games in adding and subtracting may be used with good results.

One very good plan is to take the nursery rhymes and fables that are familiar to nearly every child, and have them enacted by the children, bringing in, if possible, practice in counting. One of the rhymes which may be used in such a way is the one beginning "one, two—button your shoe; three, four—shut the door," etc. Have the children go through every motion indicated by the phrases. It will not take long for them to learn to count rapidly.

A simple game for practice in addition is this: A child may group as many as ten or fifteen children in two's, three's, one's, four's, etc. The object is for another child to add them by groups, giving results only as he goes along. For example, if the groups are in this order: three—two—four—one—three: the pupil adds this way, "three, five, nine, 10, 13." This is merely a suggestion, for the idea may he carried out in several ways.—School Education.

#### Our Climate.

#### PROFESSOR L. W. BAILEY, L.L. D.

The climate of a country is one of its most distinctive features, and, though we may at first fail to fully recognize the fact, is intimately associated with its entire history and development. Thus, climate necessarily controls, in a large degree, the natural products of the country, whether of the field or forest; it involves the conditions of temperature, both as regards the average and the extremes, and therefore the fitness of the region for human habitation and for the purposes of husbandry. It includes also the conditions of humidity, and is hence intimately connected with both the amount of rain-fall and its distribution. Through the latter it determines also the nature and distribution of plants and animals. It affects, favourably or otherwise, the physical and mental development of a people, and determines, to a large extent, the direction in which the efforts of the latter are to be employed.

The climate of Acadia is well worth some consideration, and is the result of the combined influence of many factors, which may be separately noted.

Of first importance, of course, is our geographical position. This, between the parallels of 44° and 46° north latitude; determines our relations to the sun, the obliquity of the latter's rays, the length of day and night, and the relations of our seasons. Our longest day (June 21) is one of about sixteen hours, our shortest (December 21) less than nine hours. Our seasons may be roughly divided into two of equal length-a cold season from November to May and a warm one from May to November. This corresponds to periods of general frost and its general absence, though such frost may, and often does, occur within any month of the year, The extremes of temperature are 100° Fahr., though rarely attained, and -40°, also of infrequent occurrence. Even when the days are hot, the nights are generally cool, and, especially during the winter season, great changes, in some instances amounting to 90°, may occur within twenty-four hours. These latter are usually the accompaniment of cyclonic storms, which will presently be more particularly considered.

A second element in our climate is that of humidity. No portion of New Brunswick is very far from the sea, and probably every part feels its influence. Of course this is especially felt directly upon the sea-board, where the excess of moisture is

so frequently emphasized by the prevalence of fogs. These are the direct result of the chilling influence of the coastal waters, a portion of the Arctic/current coming down from Baffin's Bay, upon the moistureladen winds blowing inward from the Gulf stream, and are almost sure to develop whenever southeasterly winds are prevalent. Their effects are to be seen in a marked reduction of temperature, giving to St. John and other points upon the coast a delightful coolness at a time when the inhabitants of the Atlantic cities farther south are sweltering beneath the scorching rays of the mid-summer sun. They also, but in a different way, tend to soften the severities of the winter season upon the coast, determining not only a more open fall and earlier spring, but a much warmer average winter temperature, with less marked extremes, than is to be found in the interior.

But that interior is also affected by the fact that it is nowhere very distant from the coast. Sea fogs, it is true, do not penetrate far inland, being confined to the immediate sea-board by the ranges of hills which lie along and parallel to the latter; but the winds are not thus stopped; and, as they blow northward, or, in the case of the Gulf shore, to the westward, they carry the moisture with them, even though no longer visible, and it is this moisture which is the source of supply for all our rivers, streams and lakes. It is this which makes New Brunswick such a well watered country, and which, indirectly, has had so much to do in determining the development and the occupations of its inhabitants. Indirectly, it determines the depth of our snows in winter (an average of about five feet in the forested portions when at its maximum), the alternations of flood and low water as the seasons succeed each other, together with the character and distribution of our native plants, the abundance of springs and many other important consequences.

A third determining factor in our climate is the irregularity of its surface features. Variations of altitude correspond in a general way to differences of latitude, and though no portion of Acadia can properly be called mountainous, there is sufficient difference of level to make quite noticeable a difference of temperatures in different places, as regards both the daily and seasonal variations, and the determination of extremes. These differences are reflected in both the character and course of vegetation about St. John. Spring flowers are to be gathered on the southern coast nearly a fortnight earlier than in the interior at Fredericton, the range

of the Nercois hills confining the influence of the sea-board to their southern side, while later in the season the clear skies and consequent greater warmth of the tract north of these same hills, stimulating plants to more rapid growth, enable them not only to make up for what time has been lost, but to continue to advance with much greater rapidity. Travellers by rail from Fredericton to St. John in the mid-summer months often pass in a little over two hours from a temperature of 98° to one of 50° or less, and the drop is distinctly, and sometimes quite suddenly felt in passing from one side to the other of the Nerepis hills. So, in the opposite direction, greater extremes characterize the climate of Woodstock than that of Fredericton, and of Edmundston as compared with Woodstock. The summer season also grows shorter as we go northward, though this, no doubt, is partly due to increase of latitude. Upon the highlands of Northern New Brunswick remarkable variations are also to be noticed in the temperatures of day and night, the heat at mid-day being such as to be almost unbearable, with the hot air actually quivering above the heated surface of rocky ledges, while the temperature at night may be not far above the freezing point.

Finally, the direction and character of the winds have much to do in determining the nature of the climate as regards both Acadia as a whole, and of one part as compared with another. It would not be in place, nor have we space to discuss here at length, the complicated subject of atmospheric circulation (for this the reader must consult some one of the several admirable text-books of Physical Geography, such as Davis, Tarr, Dryer or others, published within the last few years), but the main facts are briefly these. Air, as a highly attenuated fluid, is easily moved. It is also easily heated or cooled, partly by the direct action of the sun, but to a much greater extent by the surface on which it rests. Land surfaces, especially in summer, heat the air above them, while that resting on water surfaces is relatively cool. Heating of the air, by whatever means, makes it lighter by expansion, while cooling makes it, by condensation, relatively heavier.

Hence, warm air tends to rise, producing diminished pressure in the heated area, while cold and heavy air, with greater weight, produces increased pressure. Hence, a movement of the air, a wind or current, from the area of greatest to that of least pressure. It is by means of observations made on these variations of pressure, by means of the

barometer, that it becomes possible, as in the daily forecasts of the weather, to determine the origination and path of storms. By telegraphic reports received from every part of the continent, the officers of the meteorological bureau are able to parcel out the surface of the continent into areas of high and low pressure, and to issue daily weather maps exhibiting the latter. The movements in the position of these areas are also subject to certain definite laws which cannot be discussed here. The areas are commonly known as cyclonic and anticyclonic areas, as a recognition of the fact that, in addition to some general forward movement, there is also in each case something of a circular or spiral movement similar to that which is developed about the outlet of a bath-tub in the escaping water, or in the smoke discharged from a tobacco pipe or locomotive. In an anticylonic area the air, slowly descending from aloft, moves from a centre outwards in all directions, that centre being one of low but rising temperature and increased pressure. Any moisture present in the air is taken up, the sky remains clear, and, as dry air is heavier than damp air, it presses harder on the mercury of the barometer, and this rises accordingly. On the contrary, in the region traversed by a cyclone, the air moves inwards to a centre of relatively warm temperature, but diminished pressure. The air, saturated with moisture, becomes lighter and rises. Clouds and rain are determined, and the barometer falls. cyclonic and anticyclonic areas, or areas of low and high pressure, follow each other across the continent along approximately definite paths, either coming up the coast or crossing the region of the Great Lakes and passing out to sea. In North America the direction of the movement in the whirl, as a whole, is from west to east, following the direction of the hands of a watch. This explains a very common error. We commonly regard our storms as coming from the east; in reality they come from the west. The reason for this is readily understood. While the whirl, as a whole, is moving eastward, the easterly side will be the first to be felt, and here the flow, being towards the centre, will be from east to west, bringing with it the moisture from the ocean; but as the whirl passes on we soon experience the effect of the opposite side which is also moving towards the centre. while the area, as a whole, moves eastward, we experience first a flow from the east with fog and rain, followed later by a sudden change to a flow from the opposite side, with strong northwest winds and a clearing atmosphere. Such movements,

finally, may be slow and gentle, or they may be rapid and violent, determining storms. These latter rarely attain, in the Maritime Provinces, the magnitude of western or tropical cyclones, even in the winter, but "blizzards" are by no means unknown, and occasionally we have, over limited areas, and as the result of local conditions, storms which, in intensity and destructiveness, may well compare with those of less favoured regions. Thus, in the month of October, 1869, there occurred what was long known as the Saxby gale, occasioning a large amount of loss, especially in the forest lands and along the coast, in the former instances prostrating great numbers of trees along narrow, parallel bands, and on the latter, through the accompaniment of an extraordinary tidal wave, flooding the marsh lands of Albert and Westmorland counties. Somewhat later a storm of similar violence, but more local in area, was witnessed by the writer in the vicinity of St. Leonard's, Madawaska, when, in the course of a few minutes, nearly all the houses in a little French village were unroofed. A similar result occurred in the case of a storm which, not many years ago, passed over the settlement of "the Barony," in York County.

The foregoing remarks and illustrations have had to do almost exclusively with New Brunswick. In Nova Scotia the conditions are essentially similar, but modified by its more insular character and lower reliefs. Fogs reach almost every portion of the peninsula and characterize the coast even to a greater degree than in New Brunswick, statistics showing for a summer mean of two years (1864 and 1865) 6.7 foggy days for Halifax as against 5.3 for St. John, while the average number of rainy days was for the former 15.75, while that of the latter was only 7.8. The mean summer temperature of Halifax, as given in the Canadian Year Book for 1868 was 60.8, that of St. John 58.1.

The influence of barriers to atmospheric flow is well illustrated in the case of the North Mountains, and is alluded to by Longfellow in describing the village of Grand Pre,—

"Away to the northward Blomidon rose, and the forests old, and aloft on the moun-

Sea-fogs pitched their tents, and mists from the mighty Atlantic

Looked on the happy valley, but ne'er from their station descended."

It is this feature, combined with that of its soils (a subject to be discussed in a later chapter) which has made the Annapolis and Cornwallis valleys the "Garden of Nova Scotia."

#### Geometrical Drawing.

F. G. Matthews, Truro, N. S. Principal Macdonald Manual Training School.

This and the following articles have been prepared at the request of the Editor, with a view to assisting teachers to introduce geometrical drawing in Grades V, VI, VII and VIII of the common schools. The object in so doing is not only to give the pupils practice in mechanical drawing, which of itself is of great educational value, but to form an introduction to the study of geometry. Facts or principles learned through doing are likely to remain much longer in the memory than those obtained through reading. The pupil will, therefore, as a result, on commencing to study geometry, find the work very much simplified.

A number of exercises have been arranged for each grade, containing sufficient principles to cover a year's work. The accompanying sheet shows those intended for Grade V. The method of construction is briefly stated for the benefit of the teacher; but the teacher should, in teaching the principle of an exercise, apply it practically by making up some interesting little problem in plotting out or designing. This is most important, for, if taught otherwise, the object of the lesson will be beyond the child's comprehension, and therefore lost. The few examples given after the exercises will show what is meant, and the earnest teacher will find endless material in the schoolroom, playground or garden on which to base other problems. It will be seen that many of them can be given to the children in something of the form of puzzles, which, as we all know, have a great fascination for children. This feature makes the subject one of the easiest and most interesting to teach.

The methods of using the ruler, set squares and pencil have been fully explained in a former series of articles dealing with "Drawing in the Lower Grades," (Nos. 211 to 217, December, 1904, to June, 1905). The only new instrument introduced at this stage is the compass, which the children should be taught to use properly from the first. In drawing circles, no part of the fingers should touch either leg of the instrument, but the small, straight piece above the hinge should be held lightly between the thumb and first finger. When taking off measurements, both hands may be used, as with divides.

Great care should be taken with the drawing, given lines and resultants being drawn with firm black lines, while working lines should be subdued as much as possible. These can then, if necessary, be cleaned out afterwards.

All new terms, such as radius, arc, circumference, degrees, segment, etc., should be carefully explained, and simple definitions given as new figures are introduced, but no attempt should be made to prove the truth of any problem, except by optical demonstration, until commencing to study theoretical geometry.

Fig. 1. To bisect a straight line.—Place the point of the compass on A, and with any radius more than half of the line, describe an arc. With B as centre and the same radius, describe another arc. Join the points of intersection C and D by a straight line cutting AB in E. Then E is the middle point of AB.

Sample exercise on above. The line A——B represents a form to hold four children. Mark off an equal space for each child. (Bisect the line, then bisect each half).

Fig. 2. To bisect an arc or regular curve.—The same construction as in Fig. 1.

Sample exercise: The curve AB is the arch at the top of a door or window: Find the centre point from which to hang an ornament.

Fig. 3. To bisect a straight line by means of set squares.—Place a ruler under the given line, and rest a set square on it with one acute angle at A (30° is the most convenient). Draw the line AC. Keverse the set square, and with angle at B draw the line DB. Place the ruler above the line and with set square beneath, similarly draw AF and EB. Join GH. I is the middle point of the line.

Fig. 4. To draw a straight line at right angles to a given straight line, from a point at or near the middle of the given line.—With O as centre, and any convenient radius, mark off C and D equidistant from it. From C and D as centres, and radius greater than CO, describe arcs intersecting at E. Join EO, which will be at right angles to AB.

Sample exercise: The line AB represents a level piece of ground. At the point O we wish to erect an upright line for a flag pole.

Fig. 5. The same as Fig. 4, but from a point at or near the end of the line. With the given point O as centre, describe on arc nearly a semicircle. From C, and with the same radius, mark off D (60°). From D, with the same radius, mark off E (another 60°). Bisect DE (as in Fig. 2) by arcs at F. Join FO, which will form the right angle with AB.

FIG. 6. The same as Fig. 4 (Builders' method).

—Let AB be the given line and B the given point.

Divide AB into four equal parts, and produce AB

to C, making BC equal to one part. With B as centre and 3 parts as radius, describe an arc. With A as centre and 5 parts (AC) as radius, describe another arc intersecting at D. Join DB, which is the required line.

Sample exercise: AB is the front or street line of a house. Draw the side DB to be perfectly square with it.

Fig. 7. The same as Fig. 4, from a point over, or nearly over, the centre.—Let AB be the given line and O the given point. With O as centre and any radius long enough to cut the line, draw the arc cutting AB in C and D. With C and D as centres, draw arcs cutting at E. Join OE cutting AB in F. Then OF is at right angles to AB.

FIG. 8. The same as Fig. 4, from a point over, or nearly over, the end of the line.—Let AB be the given line and O the given point. From O draw any line OC towards A. Bisect OA in D. With D as centre and radius DO, describe a semicircle cutting AB in E. Join OE. Then OE is at right angles to AB.

Exercise: By drawing the semicircle in various positions the children may be shown that the angle in it is always a right angle, by applying the 90° angle of the set square. No further proof is required at this stage.

Fig. 9. The same as Fig 8. Another method.—With A as centre and radius AO, describe arc OC. With B as centre and radius BO, describe arc OEC. Join OC, cutting AB in D. Then OD is at right angles to AB.

Fig. 10. The same as Fig. 9. Point beyond the end of AB.

Construction the same as Fig. 9.

Fig. 11. To draw a straight line parallel to a given straight line at a given distance from it.—Let AB be the given line and C the given distance. Take any points near the ends of the line, and with radius equal to C, draw the arcs D and E. Join across the tops of the two arcs. Then DE is parallel to AB.

Exercise: Draw two straight lines three inches long and two inches apart. Between them draw two other lines, so that the four shall be equidistant and parallel.

Fig. 12. To draw a straight line parallel to a given straight line and through a given point.—Let AB be the given line and O the given point. With O as centre and any radius reaching nearly to B draw are CD. With C as centre and the same radius draw are OE. Measure OE with compass

### GEOMETRICAL DRAWING CRADE V.

Figil	F18 2/	Fig 3.	Fig 4.
A B	A C B	G B	A C O D B
Fig 5.	Fig. 6.	Fig 7	71g.8.
A C O B	A B C	A C F B B	A C E B
Fig.9.	Fig 10.	Fig. II.	Fig. 12.
A E B	A B	A	A E B
Fig 13.	Fig 14.	Fig 15.	Fig. 16.
E	C D	C D D	A D D
Fig 17.	Fig.18.	Fig. 19.	Fig. 20.
A C	F O B	E F A B	

and mark off CD equal to it. Join OD. Then OD is parallel to AB.

Exercise: AB represents the edge of a grass plot. I wish to set off another parallel to it commencing from O.

Fig. 13. To describe a circle with a given radius.

—From any point O with radius equal to E, describe the circle.

A good exercise at this stage is to start with a circle of about 1½ inches radius, and draw a series of concentric circles, lessening the radius by ¼ inch each time. The smaller they get, the more difficult to get a good even line.

FIG. 14. To describe a square on a given straight line.—Let AB be the given line. At A construct a right angle BAC cutting off AC equal to AB. With B and C as centres and radius AB, describe arcs cutting at D. Join CD and BD. ABCD is the required square.

Exercise: Demonstrate with set square that all the angles are right angles, and with compass that all sides are equal, and educe an easy definition.

Fig. 15. The same as Fig. 14. With set squares.—Place the ruler under AB, and with set squares draw right angles at A and B. Mark off C and D equal to AB and join.

Exercise: Join AD and BC. Measure them with compass. If correctly drawn, they will be equal.

Fig. 16. To inscribe a square in a given circle.

—Draw any diameter AB. At centre O erect perpendicular cutting circumference in C and D. Join AC, CB, BD and DA, which gives required square.

Exercise: O is the point in the middle of a garden. Lay out a square plot so that the corners shall all be equidistant from O.

FIG. 17. To construct an oblong. Length of sides given.—Let AB and C be the given sides. At A and B erect perpendiculars, making AD and BE each equal to C. Join DE, or follow the same construction as Fig. 14.

Fig. 18. To inscribe a regular hexagon in a given circle.—From any point A on the circumference, step off AB, BC, CD, DE, EF and FA all equal to the radius of the circle. Join the points with straight lines.

Exercises: 1. Make a six-pointed star. (Mark off points as above, and join alternate points AE, EC, CA, BF, FD and DB).

2. Draw a circle with six lenses.

Fig. 19. Construct a hexagon on a given base.—Let AB be the given base. With A as centre and AB as radius, describe arc BOC. With

B as centre and same radius, describe arc AOD. With O as centre and same radius, describe arc CEFD. Cut off CE and DF each equal to AB. Join BD, DF, FE, EC and CA.

Fig. 20. The same as Fig. 19. Set square method.—Place ruler under AB. With set square on ruler, 60° angle at A, draw AF. Slide set square to B and draw BC. Reverse set square and draw BE and AD. Draw verticals at A and B, cutting slanting lines at E and F. With 60° angle draw lines back from E to D and F to C.

The remaining dotted lines show the various positions of the set square.

#### Sunshine in the Shadows.

"Our idea has been to carry the good cheer into the home," writes Maud Ballington Booth in the December *Delineator*. "Christmas is pre-eminently a home festival. It may be good, under some circumstances, to call the poor to a great dinner, and undoubtedly much joy has been given to little ones by the decking of the Christmas tree, but so far as our effort is concerned, we feel that we can do the most by bringing brightness into destitute homes. However good the dinner, it is forgotten in the hunger of to-morrow; and the bright festival around the Christmas tree makes the fireless home the more dreary when the little ones return to it. This thought has prompted us to spend our Christmas funds in sending food, fuel, clothing and toys into the home, and adding all the comforts possible to these cheerless lives, not only on that one day. The oranges and but during the winter season. toys, the Christmas stocking and the turkey, together with a good supply of coal with which to cook it, mean warmth to the chilly garret and will gladden the children's Christmas day, but what a comfort during the remaining winter days will be the warnt overcoat and good strong shoes to the little ones who had before to shiver to school in broken shoes and thin cotton garments.

"Thousands of families are helped by the Salvation Army Volunteers in our big cities, and while they are thus caring for the many poor. I have undertaken in my special work the playing of 'Santa Claus's Partner' to the destitute families of the men in prison. In our Volunteer Prison Department we have chronicled the names and ages of all the little ones who are registered in our Christmas book, and it takes us a whole month to prepare for the eventful day. With the money generously sent in from many sources. I buy several thousand dollars' worth of warm garments. Last Christmas we used seventy-five dozen pairs of children's stockings. To all those families at a distance we send the Christmas boxes carefully packed, but to those in New York City we deliver personally from our express wagon on Christmas Eve the gifts that are

to gladden the little ones,"

#### Visualization.

MRS. CATHERINE M. CONDON.

Visualization has been defined as the local memory of the eye, although it really includes much more. The ability to make a voluntary and sustained use of this power-visualization-lies at the very foundation of a progressive intellectual life, and is indispensable to the artist. Like every other mental endowment, it varies, both in kind and degree, in Some, for example, never different individuals. forget a face once seen, whether it be the beloved features of a departed friend, or the living face itself, which is instantly recognized after, it may be, A swift comparison is made years of absence. between the object presented to the senses and the mental image stored up, and perhaps long dormant; the visualized image, in a flash, is compared with the friend's face and form, and this results in recognition. The process is as swift as it is subtle. But the recognition of an object presented to the sight is the simplest manifestation of this power, although it is not so simple as may at first appear. A child sometimes sees an object many times before he recognizes it at once, and with certainty, from the mental image - the product of visualization. How vague and defective the first visualized images in the mind of a child must be, may be gathered from the crude pictorial representations made by children. After making due and large allowance for the want of manual skill, lack of facility in the use of language, and general inability to express ideas, one is still surprised to find how blurred and incomplete mental vision is, not only in the child. but even in persons you would judge to be capable of visualizing, recognizing and reproducing, in some one or other of the expressive arts, their mental images with clearness and precision. instinctive and untrained use of visualization is very deceptive, and, by consequence, largely inoperative as an educational force.

Take the child who drew a mouse on his slate, for example; a circular motion of the pencil gave the eye. a straggling line the tail, and there you have the picture of the mouse; and what is so strange and thought-compelling is, that the child was satisfied with the crude production. It may well be that the glancing eye and tense, long-drawn tail were about all that impressed themselves on the child's brain, for however awkwardly drawn the other parts of the mouse might have been, had they been drawn at all, they could not have been repre-

sented without having left some trace on the mental retina.

Take now an example of splendid visualization in Turner, the famous painter, in his wonderful picture, "A great storm from a railway carriage." The incident was related by a young lady who was in the same carriage with the painter and his friend. The storm was a fearful one. Turner, who had been watching it, asked permission of the lady to open the window and to look out, so as to have a larger view of the storm. After gazing with great intensity on the tempest, by which the very heavens seemed gashed and rent asunder by the lightning flashes that were almost continuous, he drew in his head and shut the window, after allowing the lady, also at her urgent request, a brief survey, for it was now raining in torrents, then sat down, and, leaning back in his seat, closed his eyes for some time. What was he doing? He was, by an intense, conscious and combined effort of the intellect and will, reproducing the whole scene, and fixing it so vividly and so ineffaceably that it was possible for him to review it at pleasure; and from the stored-up mental image his marvelous sikll as an artist enabled him to give the splendid vision in concrete form for the delight of others-a supreme result of the trained power of visualization.

This power of visualization exists in kind, although differing in degree, in every one; but in the artist, poet, and in writers of marked descriptive ability, it is present in large measure, so that the reader is forced to see the picture as presented.

Who, in reading "The Ancient Mariner," has not felt the power of that cold, compelling eye that arrested and held the unwilling wedding-guest? And how plainly Goethe makes us see, scene after scene, in which Mephistopheles. Faust and Margaret figure.

To him who has raised visualization from the merely instinctive and casual to an art, practised at will, the life of the intellect is rich and glowing with vivid conceptions. Great inventions stand out, clear as crystal, in the inventor's mind long before they are fixed in material form, and things that are not are to him as though they were.

Now how shall we develop this amazing power of the human mind in our children so that it may be of real service in the practical business of life? How, in Freebel's words, shall we enable the child to make the outward, inward, and the inward, outward? How begin the process, keep it up. and render it cumulative? The retina receives the

image instinctively; but unless the object be observed, no clear abiding impression is left on the brain. It is bad enough to lose even one single impression of value. We will deal here with the child in the primary school. The teacher must understand that, in too many cases, he will have to do work that should have been the business of the nursery. Speech, the first of the expressive arts, must be clear, articulate and have definite meaning; this involves careful looking at some definite object of interest to the child, say a cat. Ask those who have a cat of their own to say so; select some of the brightest to tell all they have observed about their eat; then select a dull child, draw out what he knows, and delicately help him to express his struggling notions in words plainly spoken. helpful to his halting, incoherent speech. Let him feel the faint stirrings of his own mind, no matter how dull and feeble they may be, and let him express them in speech, even if, at first, he only repeats after vou, a little, easy sentence that you have framed. Remember, the first intelligent efforts of the child are purely imitative, and must be helped. Do not be afraid of asking questions that are too simple, for you have before you a rather complex problem, viz., careful observation to secure future recognition of the object, the forming of a clear image in the untrained mind, and the representation, in concrete form, of a concept in the young mind. The natural, and therefore the easiest method of expression, is by means of audible speech.

Ask questions about the cat's legs, its tail, how it differs from that of a dog, or a horse, or a pig; about its paws and claws, and what effect the temper of a cat has upon them; on the lay of the fur, whether it is kind to rub pussy un the wrong way; whether they are not vexed if their faces are rubbed up carelessly when they themselves are washed in the morning.

Now for visualizing; tell them to shut their eves and try to see a fine black cat. Watch the little faces and vou will observe striking differences in expression. Some will visualize the black cat so vividly that they will laugh right out with delight. Take pains to find out how much of the black cat they really see; others will have no mental vision of the black cat, or, indeed, of any other cat. These have been neglected and must be helped with patient kindness. Find out some object that they know well; let them talk about it till they are full of interest; then get them to shut their eyes and try to see it. If they can see it, let them describe it,

and help them to clear up any vague or incorrect impressions.

This exercise must not be kept up too long, or the tender brain may be unduly strained. Put a rough sketch of a cat on the board, without one unnecessary stroke, and let them draw it on their slates; it will not amount to much as drawing, but it will help them to a clearer mental image. Then write in plain script the word cat, and let them see it is a symbol so easily and quickly made. If you set about this in earnest, and succeed in interesting the children, you will have at least given them the power of calling up one clear mental image; the desire to make a representation (rough, it must be granted) of what appeals to them, in "the universal language of the eye," and also the power of expressing the idea in language more or less fitting, and later on in forms more or less artistic. This is but a small and feeble beginning in the art of conscious and voluntary visualization, but it is a beginning on sound principles suited to the mind of the child. Those principles may be applied to every subject at every stage of progress; the result will be to gain the power and habit of correct and vigorous thought.

#### A Lesson in Deceit.

She is the daughter of a grammar school principal in Colorado Springs. Her first day in school she whispered and was kept after school. The same on the second day. The third, the same. The fourth day she came home on time. No after school that day. She was beaming with delight. "Oh, mamma, I've learned how to do it. All I have to do is to whisper when teacher's back is turned."

"Three knots an hour isn't such bad time for a clergyman," smilingly said the minister to himself, just after he had united the third couple.

The publishers of Webster's International Dictionary have just issued a handsome thirty-two page booklet on the use of the dictionary. Sherwin Cody, well known as a writer and authority on English grammar and composition, is the author. The booklet contains seven lessons for systematically acquiring the dictionary habit. While it is primarily intended for teachers and school principals, the general reader will find much of interest and value. A copy will be sent, gratis, to anyone who addresses the firm, G. & C. Merriam Company, Springfield, Mass,

#### Some Criticisms of Our Methods of Teaching.

BY PRINCIPAL CHAS, D. RICHARDS, A. B.

[Read before the York County Teachers' Institute, Fredericton, October 11, 1906.]

One of the striking characteristics of present-day Canadian sentiment and Canadian expression is that of self-gratulation upon the wonderful advancement which we are making in all the various phases of life. This is especially noticeable in respect to our commercial and industrial activity. It is a favourite theme of writers and speakers, and everywhere it touches a responsive chord in the spirits of all loyal Canadians.

Co-existent with this commercial and industrial progress there is also an intellectual advancement, which, while receiving less general public attention, may be considered with an equal measure of pride and gratification.

We, as teachers and as a part of the educational life of New Brunswick, may reasonably claim that we are not behind in this general advancement. The schools of to-day are so far ahead of those of a quarter of a century ago that even the most blind and stubborn of our chronic grumblers cannot but admit their superiority.

But while thus in a broad and general sense we easily perceive a marked improvement, it is not fitting that we should calmly fold our arms, and, with pharisaical complacency, flatter ourselves that there is no further need of, or opportunity for, improvement. Because, on the whole, our schools are better to-day than twenty-five years ago, it does not follow that in all matters of detail they are superior. Far from it. And even were we thus inclined to rest contented with what has been accomplished, to let well enough alone—a supposition which I know is far from being true—such a course would not be possible. On all sides we meet with an array of critics, who are not sparing in their criticisms, those who are as ready to tear in shreds the fondest theories of our experienced leaders in educational thought, as are others to wound the feelings of our new and un-tried teachers with their frequently unreasonable and meddling criticisms.

It is my purpose now to consider more particularly some of our methods of teaching, and to point out in relation to them what are, in my judgment, our improvements, and, on the other hand, what are some of our chief weaknesses. I cannot, nor do I desire, to make reference to all of them, and

there probably will be no natural sequence in the order in which I place them.

First of all, then, I shall call attention to the training of the power of observation. Education has deen defined as the harmonious development of all the powers of child nature. We are concerned here, of course, only with the education of the child. Taking that definition as a criterion, I believe that it is only within the last twenty-five years that any very great effort has been made-I do not say how successfully-to meet its requirements, that is, to reach all the faculties of the child. The power of observation is one of the earliest faculties, as it is one of the last that we are systematically training. The natural sciences are the subjects which, more than any others, are instrumental in this development. The practical work which the examination of a buttercup or the preparation of hydrogen necessitates, is undoubtedly educative. In connection with this. I must say that I think we ought to welcome with pleasure the introduction of a comparatively new feature of school work, namely, Manual Training and Domestic Science. They provide a splendid training for the eye and hand, in neatness and accuracy, and, in addition, they have the advantage of being practical.

And yet we are all conscious of the strenuous opposition with which the introduction of these branches is being met. The opposition, also, is not altogether from outside; many teachers, if not actually opposed, are at least lukewarm in their support. This is but natural; they see in it an addition to the already crowded curriculum. But these subjects have come to stay, and all that can be done is to make a re-adjustment or correlation of the subjects so as to provide time for these.

In the second place, it seems to me that the one faculty upon which we are exerting our greatest attention is the reason. To-day we teach mathematics. We need only to compare the present Unitary Method with the old system of Proportion or the Rule of Three. From the earliest steps in number work to the most complex problems in geometry or algebra, every process is carefully reasoned out and explained. Not only in mathematics, however, are we applying the principles of reason. In grammar as well do we find scope for the use of this power. In my opinion, the analysis of a long and complex sentence affords nearly, if not quite, as good an opportunity for exercising the reason,

But it is in the realm of mathematics that reason is pre-eminently dominant. In the teaching of geometry, the deductive method is giving way to the inductive. This is a subject which, for at least seventy-five per cent of our pupils, will have no practical value. It is valuable only from an educative standpoint, and as such should indeed be taught in the way most fitted for the greatest development of power, of reason and of original thought. This surely is the inductive method. And yet, whether the inductive or deductive method is used, it is almost entirely reasoning. Algebra, again, has but little practical value. Here, also, the reason is developed.

Arithmetic, on the other hand, while affording opportunity for training in reason, has an eminently practical value, a fact which I fear we too often lose sight of in our teaching. We treat it much the same as we do geometry and algebra, forgetting that, in this subject, the "how" is of just as great, if not of even greater, importance than the "why."

It is in regard to this subject and the results obtained in its teaching that we meet with some of our greatest criticisms. We are all familiar with them: that the boys of to-day cannot add a column of figures correctly and quickly; that it takes them twice as long to work a simple commercial problem as their fathers, who had only two or three years' schooling, etc. And we know, too, that in many cases these are not idle or unjust criticisms. . . . .

I do not mean to say that we do not need to have solutions written out. I believe we should, and carefully written, also. But what I do say is, that we might very well give more attention to the teaching of practical arithmetic. I believe that it is right that pupils should understand the reasons for their various operations at some time or other. I can understand that a pupil ought not to be permitted to subtract 29 from 75 in the old way: 9 from 5 you can't, borrow 1 from the 7, makes 15, 9 from 15 leaves 6, and so on. But I believe that a great deal of time can easily be wasted in continual repetition upon the various reasons for things which might more profitably be spent upon drill in practical work. It may be all very well to manufacture two or three of the multiplication tables, but it seems to me a sheer waste of time to go thus through the whole list. And again, I do not see that it makes so much difference whether a pupil says the tables one way or the other, provided he can say them. The main object is that he should know them, and know them thoroughly; and once he does, it is of

little importance in using them which way he learned them. The great essential in arithmetic is to know how to work practical questions quickly and accurately; and to acquire this ability continuous repetition and drill is needed.

In what I have said in reference to the teaching of arithmetic, I do not wish to be understood as detracting from its value as a purely educative subject, as a means for the development of the reason. Much in the present method should meet with our heartiest approval. But at the same time I do desire to emphasize what seems to me a tendency to carry this method too far, and to emphasize also the need of a greater consideration of the practical side of the subject.

Further, I have felt that there is a growing tendency to apply the reasoning method almost exclusively to each and every subject of the school curriculum. This gives a splendid training for the one faculty, but it means a corresponding deficiency of development in other faculties. Chief among those powers of the pupil, which I believe are thus being sacrificed, is the memory. I am strongly of the opinion that our present-day school may well learn a lesson from the past. We are not making the demands upon the memory which formerly were made, and which I believe we ought to make.

Some of our subjects, such as History and Geography, while permitting the use of reason to a great extent, are primarily memory subjects. These subjects give us certain facts relative to the earth and man's existence upon it. A question naturally arises here: Considering the great number of facts which history and geography present to us, what ought to be the minimum to be required of our pupils who complete the ordinary school course? To read our newspapers and literature, to take an active interest in national affairs, to be an intelligent citizen, it is indispensable that one should have a wide and accurate knowledge of the world's geography, and, though possibly to a less degree, of the world's history. This, then, is the answer, and what does it mean? That our pupils should be expected to know accurately the most important physical features, political divisions, towns and cities, industries and products of all countries, and to know the history of their own country thoroughly, and of the world somewhat more generally, but still accurately.

Next we may ask: How is this knowledge to be obtained? And I would answer: I care not so much how it is obtained, provided it is obtained,

The reason may be brought into use in many instances, but the memory must be the main resort in the end. Constant drill in memorizing is the keynote.

Here, again, let us employ the reason, the eye, the hand, or any other power which may seem suitable; let us show the sequence of events when such a sequence is not beyond the comprehension of the pupil; but let us not forget the purpose to be aimed at in the teaching of these subjects, and the chief powers to be developed; let us not sacrifice results in order that we may adhere closely to the old time-honored maxim, a maxim which has become almost a fetich: "We must proceed from the known to the unknown.

Were it not that our powers at Teachers' Institutes are somewhat prescribed, I should like to say a few words regarding our text-books in history and geography. At any rate, I trust I shall not be overstepping my privilege to any very great extent in stating, in all deference to those who have chosen these books for our use, my own serious opinion, an opinion which I believe is shared in common with many teachers throughout the country and throughout the province, namely, that our present text-books in these subjects, far from being an improvement upon the old, are indeed inferior to them.

I am conscious that my suggestions regarding the place of reason and memory in the teaching of mathematics and of history and geography may not be entirely orthodox, may not meet with universal approval. But I believe that very few will be inclined to dissent when I say that in the domain of Literature our schools are sadly deficient in memory work.

The old Greeks and Romans were accustomed to memorize practically all of their poetry. Bright, the great English orator and statesman, could recite with ease Byron's "Childe Harold:" Macaulay knew by heart the greater part of English. and indeed a great deal of classical poetry. Ruskin, the greatest master of English, has said that his command of the language was due to having had to learn, when a boy, long passages of the Bible and of poetry. Scores of others might also be mentioned. However, I readily realize that what was a necessity with the Greeks and Romans, when writing was so little in use, what was a possibility in the last century in England, when the natural sciences were almost unheard of, and mathematics were as yet in their infancy, is scarcely possible with us in this day, when our energies are divided among so

wide and varied a range of subjects. But surely much more could be accomplished in this direction than is being accomplished.

Our literature abounds with poetry expressed with grace and charm of language, resplendent with exquisite beauty, glowing with lofty sentiment, or thundering forth in tones of stirring and powerful inspiration. And it is a fact, I believe, and a most regrettable one, that our pupils are woefully ignorant of these elevating and inspiring poems. They may have a dim and hazy knowledge of them, but they have not that accurate knowledge and personal appreciation of their heauty which is only derived from closest study or memorizing.

I have laid emphasis heretofore upon the practical element in teaching, but I do not wish to underestimate another purpose to be sought, namely, the ethical and moral training. And surely it is to the study of literature that we may look for the greatest aid in this development. Poetry provides us a means of learning and retaining much of the best and noblest thought which has ever been expressed. We cannot, at least so easily, memorize prose. There is in the very nature of poetry, in its rythmical flow, something which materially assists us in remembering.

Who of us does not feel better and stronger in being familiar with, in being able to recite, if you will, many of our best poems? We may read Southey's "Life of Nelson," with all its beautiful description; we may know thoroughly the history of Nelson's life; but these will never give us the thrill of pride and inspiration that we receive from those two short poems of Thomas Campbell, "Ye Mariners of England," and "The Battle of the Baltic." We may read the history of the rural life of England, but what can equal Gray's "Elegy" in its accuracy of description of this very life? And it would be difficult perhaps to estimate the ethical and moral value of this poem, aside from its purely literary merit. Can any history or story so vividly portray for us the peaceful lives and unhappy wanderings of those unfortunate people, the exiled Acadians as Longfellow's "Evangeline?" how many others we might add to these!

We occasionally hear the statement, that we have no Canadian literature. Fortunately this is, I believe, only partly true. We are developing a literature of prose. We have some writers of worldwide fame, such as Roberts, Sir Gilbert Parker and Ralph Connor. But as regards poetry, the criticism is possibly a just one. It is probably true that

poets are born, and not made; and it may also be true that the age of poetry is passing away. But may it not also be that a greater study and a more thorough knowledge of existing poetry would be an inspiration to succeeding generations to emulate the past? Is it not worth while making the effort?

There is just one other phase of school life to which I would invite your attention—a phase in which, I believe, lies one of our greatest weaknesses. It is summed up in the one word—"Work." If the school of the old days had one special merit, it was this,-that it was a serious place, it was a place for work. The birch rod and the leather thong of the schoolmaster may not have been the embodiment of the best educational methods, but they at least succeeded in turning out men who would work. To-day our schools are lacking in this spirit of earnestness. From the earliest days everything is made so easy and plain for the pupil, all the difficulties are so clearly explained, that he has come to consider school simply as a place where he may remain more or less passively still, and be filled, at least filled sufficiently to enable him to pass certain examinations, and receive at the end of his career a high school or other certificate.

I do not so much mean that more work should be done, though that, I believe, is very possible, as that more serious work should be done, and by the pupils. Teachers do too much; the pupils too little. The latter should be made to realize that there is a certain amount of hard grinding, and they should be expected to do this. It is not always necessary or important that they know why; it is sufficient that they do it. It will be a splendid training in diligent application such as will be of inestimable value to them in after life. They are not too young to begin. I believe we often err in making much of our work too easy, and not demanding enough work, simply for the pure work's sake. How much greater is our appreciation of that which we have obtained by hard, consistent plodding? Memory work in literature is applicable here. It does not matter that the pupil may not understand all that he is asked to memorize. He will retain it, and later he will understand, when he will not have the time or opportunity for learning. There are marked differences of opinion as to the amount of work to be required from the pupils. I am of the opinion that our demands are too small, rather than too great. Above all, let us impress upon the pupil the idea that school is a place not for play, but for work; let us begin the training which will fit

him to become an active and useful citizen. Milton has defined education: I call that a complete and generous education that which fits a man to perform skilfully, justly and magnanimously all the offices, both public and private, of peace and war. This has been generally accepted as a sound and comprehensive definition. To meet the requirements which it suggests, good, hard, earnest work is necessitated.

It is quite possible, indeed very probable, that some of the ideas which I have expressed are not altogether in harmony with accepted pedagogical principles. But I am little concerned as to that. My purpose has been to bring before the Institute some ideas which may be suggestive of thought and discussion, and thus lead, in some degree at least, towards that purpose for which we are assembled here—the improvement of our present methods of teaching.

#### Yussouf.

A stranger came one night to Yussouf's tent,
Saying, "Behold one outcast and in dread,
Against whose life the bow of power is bent,
Who flies, and hath not where to lay his head;
I come to thee for shelter and for food,
To Yussouf, ealled through all our tribes 'The Good'."

"This tent is mine," said Yussouf, "but no more Than it is God's; come in, and be at peace; Freely shak thou partake of all my store As I of His who buildeth over these Our tents His glorious roof of night and day, And at Whose door none ever yet heard Nay."

So Yussouf entertained his guest that night, And, waking him ere day, said: "Here is gold; My swiftest horse is saddled for thy flight; Depart before the prying day grows bold." As one lamp lights another, nor grows less, So nobleness enkindléth nobleness.

That inward light the stranger's face made grand, Which shines from all self-conquest; kneeling low, He howed his forehead upon Yussouf's hand. Sobhing: "O Sheik, I cannot leave thee so; I will repay thee; all this thou has done Unto that Ibrahim who slew thy son!"

"Take thrice the gold," said Yussouf, "for with thee Into the desert, never to return,
My one black thought shall ride away from me;
First-born, for whom by day and night I yearn.
Balanced and just are all of God's decrees;
Thou art avenged, my first-horn, sleep in peace!"

—James Russell Lowell.

I find the Review very helpful. I could not do without it now.

Nellie B. Croan.

Durham, N. B.

#### Suggestions for Christmas Exercises.

Appoint a committee, with the teacher as chairman, to decorate the schoolroom. Let everyone do something to help, however little. Borrow pictures for the day. Have a Christmas tree. The hints in this and previous numbers of the Review may be helpful in furnishing it; and also in providing readings and recitations for a public entertainment, to which the parents and friends of the children should be invited.

An exceedingly pretty custom in some primary rooms is to direct the children in the making of tiny Christmas baskets, which they place about the room on shelves and window-sills, to see if Santa Claus will fill them in the night.

When the baskets have all been made and placed, two or three children who most need the lesson are kept, and asked if they would like to be Santa Claus. A small package is produced. One child puts a raisin in each basket, and another a candy. These baskets are in sight, but above reach, and their examination makes part of the last day celebration.

In all work and exercises during the month, keep the significance of Christmas before the children. It brings before us the life of Christ; teaching us self-sacrifice and unselfishness; going about continually doing good. Let each resolve to do at least one kind act, and to speak at least one kind word to some one, every day, and to keep it up during the next. How such speaking and doing would change the world in a little time!

#### Empty Stockings.

Oh, mothers in homes that are happy
Where Christmas comes laden with cheer,
Where the children are dreaming already
Of the merriest day in the year,

As you gather your darlings around you And tell them the "story of old," Remember the homes that are dreary! Remember the hearts that are cold!

And thanking the love that has dowered you With all that is dearest and best, Give freely, that from your abundance Some bare little life may be blessed!

Oh, go where the stockings hang empty,
Where Christmas is naught but a name,
And give—for the love of the Christ-child!
'Twas to seek such as these that He came.
—Ladies' Home Journal.

#### The Christmas Spirit.

An elderly man was on the stage at the Five Points Mission one Christmas day. He addressed the audience thus: "Forty years ago I came in here on a Christmas Eve. I was ignorant, I was wicked, idle, and was wandering about. The room was full of just such fellows. Mr. Pease asked us what good we had done, saying that those who worked did good; and pretty soon he took us into another room, and we had quite a feast. After that he said he had shown us the way and we must do the same for our fathers and mothers and all who needed it.

"I went away and came back the next Sunday, as he asked, and he recognized me. What good have you done, John?' he asked. I said I had got some work and that the boss had praised me. He replied, 'If you keep right on you are a saved man; Christmas has got into your boots sure enough.'

"I kept on, right on. I went to evening school in Marion street; I dropped my old bum acquaintances and learned the engineering business and am now an engineer on an Atlantic steamer. I have come here to tell you to have the Christmas spirit; try to help some one to get the Christmas spirit."

There is power in the Christmas spirit. Its influence may make a new life dawn in the heart.

#### A Christmas Scene.

In our efforts to cultivate a spirit of unselfishness and of willingness to give and make others happy, we must be careful not to overdo and make the Chrismas story seem prosy to the child. If so, we are apt to destroy the spirit that we aim to cultivate. We must not ignore what has been, perhaps, his whole pleasure and thought heretofore, that is, the Christmas tree and Santa Claus. Last year while we were studying the story of Christmas, we made a Christmas scene in the sand table.

We got some evergreen branches and arranged them to form a tree. We fastened this tree securely in one corner of the sand table. The pupils made pink and white paper chains, to decorate the tree with. This was to be a play Christmas tree, so we cut apples, oranges, stockings, stars, etc., from colored papers and hung these on a tree. In our construction work, we had learned to make boxes, baskets, and sleds, so we made these for presents also.

When the tree was completed some one suggested that we have a Santa Claus. I drew an outline of Santa on heavy paper. One of the pupils cut this out and with the assistance of several others, Santa was appropriately dressed. His clothes were made of colored paper and pasted onto the form. Then a standard was pasted at his back so that he could stand by the tree. Now we wanted a ladder. The making of this ladder furnished busy work for two pupils during a recitation. The ladder was one foot long and the steps were two inches apart. We made it of blue blotting paper, and we placed it so that it leaned against the tree.

Now we needed a reindeer and a sled. We made a large sled similar to the small sleds that we made and filled it with presents, such as dolls, horns, balls, etc., which the pupils cut from paper. For some time we couldn't get any reindeer, but the pupils were on the lookout and finally two were found and answered the purpose very well. They cut these pictures of the reindeer from covers of two December magazines, then pasted them on heavy paper. They then cut them from the heavy paper, and pasted a standard to the back of each. They placed the reindeer in line, in front of the sled, and hitched them to the sled with red paper harness. This completed the scene in the sand table.

The making of this scene furnished material for a great deal of busy work and a great deal of pleasure. Of course this was a real play tree; we did not give the presents to any one, but we played that we were making them for some one. Whenever a child made anything for the tree he had the privilege of telling us for whom he made the present. Sometimes the present was made for some one of the family. Again, something was made for some character in a story. Several presents were made for the "Little Match Girl." One little pupil always made her presents for a little colored girl who had lost her mamma.

In addition to this work, each child made two real presents to give away, but I think the play tree was a help in cultivating the real Christmas spirit.—Primary Education.

#### 'Tis Christmas Day.

'Tis Christmas Day and we are far from home, But not so far as He, the Child, who came That winter night down from the starry dome To give us life who call upon His name.

'Tis Christmas Day—the East repeats the word And then forgets the meaning of His birth, Forgets the carols that the shepherds heard— How Heaven itself proclaimed Him to the earth.

'Tis Christmas Day, and those afar we love
Send messages of peace on earth and cheer,
But He who brought these with Him from above—
Our guest from Heaven—found cheerless welcome here.

'Tis Christmas Day, the welcome long delayed
Is ours to give once more: Come, little Child,
And dwell within our hearts, for they were made
To be Thy home all sweet and undefiled!

-Chautauquan for December.

#### The First Christmas Tree.

Once upon a time the Forest was in a great stir, for the wise old Cedars had told of strange things to be. They had lived in the Forest many, many years; but never had they seen such marvelous sights as were to be seen now in the sky, and upon the hills, and in the distant village.

"Pray tell us what you see," asked a little Vine.

"The whole sky seems to be aflame," said one of the Cedars, "and the Stars appear to be dancing among the clouds; angels walk down from heaven to the earth and talk with the shepherds upon the hills."

"How I should like to see the angels and the Stars!" sighed a little Tree near the Vine. "It must be very beautiful. Oh, listen to the music!"

"The angels are singing," said the Cedar.

':And the Stars are singing, too," said another Cedar, "and the shepherds on the hill join in the song."

The Trees listened to the singing, a strange song about a Child that had been born.

And in the early morning the angels came to the Forest singing the same song. They were clad in white; and love, hope, and charity beamed upon their faces, and their song was about the Child, the Child, the Child that had been born. And when they left the Forest one angel remained to guard the little Tree. No danger, no harm, came to it, for night and day the angel watched the little Tree and kept it from evil. So the years passed, and the little Tree became the pride and glory of the Forest.

One day the Tree heard some one coming from the

"Have no fear," said the angel, "for He who comes is the Master."

And the Master came and stooped and kissed the Tree, and many times He came and touched its branches and went away. And the Tree loved the Master for His beauty and His goodness,

But one night alone into the Forest came the Master, and He fell upon His knees and prayed. In the morning there was a sound of rude voices and the flashing of swords, and strange men with axes cut the Tree down. And the Trees of the Forest wept.

But the Night Wind that swept down from the City of the Great King that night stayed in the Forest a while to say that it had seen that day a cross raised on Calvary—the Tree on which was laid the body of the dying Master.— Eugene Field.

#### The Christmas Tree.

The Christmas tree is of German origin. As early as 1632, the little German children enjoyed the Christmas tree. The usual German Christmas tree is decorated with tiny colored candles representing stars, while in the very top nestles the figure of an angel, typical of the holy Christchild.

The German parents will make many sacrifices that their little ones may enjoy a Christmas tree.

The raising of evergreens for Christmas trees has become an active industry in Germany, and for weeks before Christmas the shops are bowers of greenery.

This German custom has reached far across the sea, and now no Canadian boy or girl thinks Christmas complete without the beautiful Christmas tree.

#### Winter Pictures.

Down swept the chill wind from the mountain peak, From the snow five thousand summers old; On open wold and hill-top bleak

It had gathered all the cold,
And whirled it like sleet on the wanderer's cheek;
It carried a shiver everywhere
From the unleafed bough and pastures bare;
The little brook heard it and built a roof
'Neath which he could house him, winter-proof;
All night by the white stars' frosty gleams
He groined his arches and matched his beams;
Slender and elear were his crystal spars
As the lashes of light that trim the stars:
He sculptured every summer delight
In his halls and chambers out of sight;
Sometimes his tinkling waters slipt
Down through a frost-leaved forest-crypt,

Long, sparkling aisles of steel-stemmed trees
Bending to counterfeit a breeze;
Sometimes the roof no fretwork knew
But silvery mosses that downward grew;
Sometimes it was carved in sharp relief
With quaint arabesques of ice-fern leaf;
Sometimes it was simply smooth and clear
For the gladness of heaven to shine through, and here
He had caught the nodding bulrush-tops
And hung them thickly with diamond drops,
Which crystalled the beams of moon and sun,
And made a star of every one.

Within the hall are song and laughter,

The checks of Christmas grow red and jolly,
And sprouting is every corbel and rafter

With the lightsome green of ivy and holly; Through the deep gulf of the chimney wide Wallows the Yule-log's roaring tide; The broad flame-pennons droop and flap

And belly and tug as a flag in the wind; Like a locust shrills the imprisoned sap,

Hunted to death in its galleries blind; And swift little troops of silent sparks,

Now pausing, now scattering away as in fear, Go threading the soot-forest's tangled darks

Like herds of startled deer.

-James Russell Lowell-The Vision of Sir Launfal.

#### Busy Work for December Days.

Try, for the morning exercise, reading one of the fascinating stories of the Bible and then have the school repeat some favorite Psalm or a chapter from Proverbs.

For quick work see how many words can be written in a minute, about Winter Plays, Snow Storms, a Sleigh-ride, Trees in Winter, etc.

See who can write the longest list of authors in two minutes.

Let the school learn such pieces as "Lines for the Christmas Season," "Winter Pictures," and others in this month's Review. Very few children are so young they cannot see the beauty of good poetry.

#### A Christmas Enigma.

I am composed of thirty-one letters. The answer to each question is given in the letters represented by numbers, which follow it.

- 1. What is the chilly season when right merry you hope to be? 27-10-17-12-29-5.
- 2. And when the Christmas eve is here, what do you long to see? 7-20-31-10-15-12-2-19-11-12-31-3-26.
- 3. How do you feel when your tasks are o'er and the holiday time is here? 8-16-23-22-28.
- 4. And what is the lovely emblem of this season of joy and cheer? 11-12-30-4.
- 5. What do you hope in your stocking to find in a beautiful, bountiful horn? 7-21-25-18-24.
- 6. How do you feel, when with shouts of glee, you welcome the Christmas morn? 13-29-9-4-24.
- 7. And what is the day when your friends you meet, with wishes loving and kind?—17-3-27-6-29-14-9-15-18-1-28.

Now put these letters together, and there our greeting sincere you'll find.

#### Lines for the Christmas Season.

'Tis the time of year for the open hand
And the tender heart and true,
When a rift of heaven has cleft the skies,
And the saints are looking through.

---Margaret Sangster.

For they who think of others most, Are the happiest folks that live.

-Pheobe Cary.

Ring and swing
Bells of joy! On morning's wing
Send the song of praise abroad!
With a sound of broken chains
Tell the nations that He reigns,
Who alone is Lord and God!

-Whittier.

The journeyers to Bethlehem,
Who followed trusting from afar
The guidance of that happy star
Which marked the spot where Christ was born
Long years ago one Christmas morn!

-Frank Dempster Sherman.

Still in memory undying,
Stands afar the lowly shed,
Where a little child is lying
In His manger-bed.
Still the promise of love's dawning
Deepens into perfect day;
For the joy of Christmas morning
Shall not pass away.

-Selected.

As we meet and touch, each day, The many travellers on our way, Let every such brief contact be A glorious helpful ministry—The contact of the soil and seed, Each gives to the other's need. Each helping on the other's best, And blessing each as well as blest.

-Susan Coolidge.

"Three good cheers for old December!"

Month of Christmas trees and toys,
Hanging up a million stockings.

For a million girls and boys.
O. dear December, hurry on;
Oh, please—oh, please, come quick;
Bring snow so white,
Bring fires so bright,
And bring us good Saint Nick."

-Selected

Oh! who can tell the brightest month,
The dearest and the best?
We really think December is
The crown of all the rest.
For that's the happy month that brings
The Christmas joy and mirth,
And tells us of the little Child
Who came from heaven to earth.

-Selected.

Love is the secret sympathy,

The silver link, the silken tie,

Which heart to heart, and mind to mind,

In body and in soul can bind.

—Scott—Lay of the Last Minstrel.

Sing, Christmas bells!
Say to the earth this is the morn
Whereon our Saviour-King is born;
Sing to all men,—the bond and free,
The rich, the poor, the high, the low,
The little child that sports in glee,—
The aged folks that tottering go,—
Proclaim the morn
That Christ is born,
That saveth them and saveth me.

-Eugene Field.

#### The Christmas Baby.

"Tha'rt welcome, little bonny bird,
But shouldn't ha' come just when tha' did:
Teimes are bad,"
—English Ballad.

Hoot! ye little rascal! ye come it on me this way, Crowdin' yerself amongst us this blusterin' winter's day, Knowin' that we already have three of ye, an' seven, An' tryin' to make yerself out a Christmas present o'

Ten of ye have we now, Sir, for this world to abuse; An' Bobbie he have no waistcoat, an' Nellie she have no shoes,

Heaven?

An' Sammie he have no shirt, Sir (I tell it to his shame), An' the one that was just before ye we ain't had time to name!

An' all o' the banks be smashin', an' on us poor folk fall;
An' Boss he whittles the wages when work's to be had at
all;

An' Tom he have cut his foot off, an' lies in a woeful plight,

An' all of ns wonders at mornin' as what we shall eat at night;

An' but for your father an' Sandy a findin' somewhat to do.

An' but for the preacher's woman, who often helps us through,

An' but for your poor dear mother a-doin' twice her part. Ye'd 'a seen us all in heaven afore ye was ready to start!

An' now ye have come, ye rascal! so healthy an' fat an' sound,

A-weighin', I'll wager a dollar, the full of a dozen pound! With yer mother's eyes a flashin', yer father's flesh an' build,

An' a good big mouth an' stomach all ready to be filled!

No, no! don't cry, my baby! hush up, my pretty one!

Don't get any chaff in yer eye, boy—I only was just in fun,

Ye'll like us when you know us, although we'er cur'us
folks;

But we don't get much victual, an' half our livin' is jokes!
Why, boy, did ye take me in earnest? come, sit upon my knee;

I'll tell ye a secret, youngster, I'll name ye after me. Ye shall have all yer brothers an' sisters with ye to play. An' ye shall have yer carriage, an' ride out every day! Why, boy, do you think ye'll suffer? I'm gettin' a trifle old. But it'll be many years yet before I lose my hold; An' if I should fall on the road, boy, still, them's yer brothers, there,

An' not a rogue of 'em ever would see ye harmed a hair!
Say! when ye come from heaven, my little namesake dear,
Did ye see, 'mongst the little girls there, a face like this one
here?

That was yer little sister—she died a year ago,
An' all of us cried like babies when they laid her under the
snow.

Hang it! if all the rich men I ever see or knew
Came here with all their traps, boy, an' offered 'em for you,
I'd show 'em to the door, Sir, so quick they'd think it odd
Before I'd sell to another my Christmas gift from God!

-Will Carleton—Farm Legends.

#### Hilda's Christmas.

Standing apart from the childish throng, Little Hilda was silent and sad; She could not join in the happy song, She could not echo the voices glad. "What can I do on Christmas day? I am so little and we are so poor," She said to herself in a dreary way; "I wish there was never a Christmas more. "Mother is sick and father can't know How children talk of their gifts and joy, Or he'd surely try, he loves me so, To get me just one single toy.' "But Christmas isn't for what you get," She heard a small, sweet, tender voice,-"It's for what you give," said wee Janet, And the words made Hilda's heart rejoice. "It isn't our birthday," went on the mite, "It is Christ's, you know; and I think he'd say If he were to talk with us to-night That he'd wish us to keep it his own way." A plan came into Hilda's head; It seemed to her she could hardly wait. "I can't give nice things," she bravely said, "But I'll do what I can to celebrate." "I can give the baby a day of fun; I can take my plant to the poor, lame boy; I can do mother's errands—every one; And my old kite I can mend for Roy. "I can read to father and save his eyes; I can feed the birds in the locust grove; I can give the squirrels a fine surprise; And Grandma shall have a letter of love." Now when that busy day was done, And tired Hilda crept to bed, She forgot that she had no gift of her own,-"What a lovely Christmas it was!" she said. -M. A. L. Lanc.

#### The Great Guest Comes.

"While the cobbler mused there passed his pane A beggar drenched by the driving rain, He called him in from the stony street And gave him shoes for his bruised feet. The beggar went and there came a crone Her face with wrinkles of sorrow sown. A bundle of faggots bowed her back, And she was spent with the wrench and rack. He gave her his loaf and steadied her load As she took her way on the weary road. Then to his door came a little child, Lost and afraid in the world so wild, In the big, dark world. Catching it up, He gave it the milk in the waiting cup, And led it home to its mother's arms, Out of the reach of the world's alarms.

"The day went down in the crimson west
And with it the hope of the blessed Guest.
And Conrad sighed as the world turned gray:
'Why is it, Lord, that Your feet delay,
Did You forget that this was the day?'
Then soft, in the silence a Voice he heard:
'Lift up your heart, for I kept my word.
Three times I came to your friendly door;
Three times my shadow was on your floor.
I was the beggar with bruised feet;
I was the woman you gave to eat;
I was the child on the homeless street,"

-From a poem by Edwin Markham, in the December Delineator.

#### The Months.

January brings the snow, Makes our feet and fingers glow. February brings the rain, Thaws the frozen lakes again. March brings breezes sharp and chill, Shakes the dancing daffodil. April brings the primrose sweet, Scatters daisies at our feet. May brings flocks of pretty lambs, Sporting round their fleecy dams June brings tulips, lilies, roses, Fills the children's hands with posies. Hot July brings thunder showers, Apricots, and gilly-flowers. August brings the sheaves of corn: Then the harvest home is borne. Warm September brings the fruit: Sportsmen then begin to shoot. Brown October brings the pheasant, Then to gather nuts is pleasant. Dull November brings the blast-Hark! the leaves are whirling fast, Cold December brings the sleet Blazing fire and Christmas treat.

-Sara Coleridge.

He—"Why do we do the meanest and most hateful things to those we love the best?"

She—"I presume it is because no one else would stand it."—Lippincott's.

#### A Clock Song.

Tick, tock! ten o'clock!
Little New Year
Is almost here.
Tick, tock! tick, tock!
Tick, tock! eleven o'clock!
While you sleep
In he'll peep.
Tick, tock! tick, tock!
Tick, tock! tick, tock!
Tick, tock! twelve o'clock!
Happy New Year
To you, my dear!
Tick, tock! tick, tock!

-Youth's Companion.

#### For the Little Folks.

FILL IN THE BLANKS.

My hunter is a graceful ——,
With ears alert at every ——,
And eyes that keenly glance ——,
And feet that scarcely touch the ——
O'er lofty mount and lowly ——,
And field, he runs with fleetest ——,
Wherever bird or hare is ——,
His worth, untold by pence or ——,
If lost to me how deep the ——,
(The nine words left out all rhyme.)

An ill-natured teacher who was in a perfunctory way conducting a development lesson was seeking to lead the class up to the word "breathing." "What did I do the moment I came into the world," she asked. "What have I kept doing ever since? What can I not stop doing without ceasing to be myself?"

The class was listless, and nobody tried to answer for a while. Finally one surly-looking boy raised his hand.

- "What is it?" asked the teacher.
- "Finding fault," was the reply, and all the class showed signs of animation.—School Bulletin.

Always talk over a pupil's misconduct alone with him. One good private talk with a pupil is worth twenty reprimands in the presence of the school. It is worth everything to get the pupil's point of view, to let him state his side of the case fully and freely. Listen to all he has to say, and tell him frankly and kindly where he is in the wrong. He will trust you after such a talk as he never will if you "jump on him" before the school for every misdemeanor. Half our disciplinary troubles comes from the outraged feeling of misguided pupils that they never had a chance to tell their side of the story.—Western School News.

#### Recreations and Suggestions.

MYSTERIOUS CITIES.

1. A city used on a handkerchief. 2. Ferocious beasts. 3. To wander. 4. A place of worship. 5. Fine leather. 6. A pebble. 7. Result of contact with fire. 8. Part of a fowl. 9. A term used in speaking of young men. 10. A part of a human body and a small body of water. 11. A cooking utensil and a great weight. 12. An extremity of the human body and a musical instrument. 13. Ground meats. 14. Part of a hog and a fortified 15. A portion of a week and a unit of town. measure. 16. Air in motion and a conjunction. 17. Christ's beloved disciple. 18. A stream of water and a species of tree. 19. Thorough cleansing of the body. 20. A weekly duty and 2,000 pounds. 21. A great German statesman. 22. A martyr president. 23. The Lord's Supper and an exclamation. 24. A welcome visitor and the price of admission.

Answers next month.

It is never wise to ask children at school for contributions of money or other gifts for any purposes whatever. There is no danger in being too careful in avoiding anything that may expose children to humiliation among class-mates. Children are by nature cruel. The girl who is able to contribute twenty-five cents is as likely as not to impress that fact upon those who have given less, or nothing. Let us try to keep alive by every means in our power the feeling of fellowship among the young. Differences of station and material advantages will be brought home to them altogether too soon after the doors of the school are closed behind them.— Teachers' Magazine.

In the work of teaching, as in every other work, the only successful workers are those who are conscious of their shortcomings. What can be expected from teachers who are not only not conscious of their shortcomings, but conceited as to their ability—full of the opinion that they've reached the summit. We find such teachers everywhere, and will continue to find them everywhere, until we act fairly and wisely enough to grant just compensation for teaching. Higher salaries will bring to the schools those who know enough to know that they know but little, and those with this splendid knowledge should supplant those who know so little that they think they "know it all."—Public School Journal.

#### Points for the Teacher.

Talk but little.

The recitation is an opportunity for the child to talk

Speak kindly to an angry pupil.

See nothing, yet see everything.

Let the rule, "Do right," be your only rule.

Know your lesson so thoroughly that a text-book is unnecessary in the recitation.

Some pupils expect you to scold them. By all means disappoint them.

Sarcasm is a dangerous weapon. Use it not.

Have something interesting to tell your pupils every day. They will enjoy it.

Be slow to anger and plenteous in mercy.

Be cheerful. Let a smile speak the joy, peace and contentment that fills your heart.

The schoolroom is a home. Be sure that its mission is not a failure.

Expect good lessons, good behaviour, cheerful obedience, prompt and accurate work.

It takes pluck to be wise and courageous.

Every child needs the teacher's individual care and attention.

Know each child's home life. It will open the way to his heart.—School Education.

Encourage children to make, with their own hands, the gifts which they offer to their friends. They should be the outcome of personal exertion, not merely something given to them to be given away again, which has cost them nothing in pains or labor. If they cannot give their own handiwork, they should, at least, be required to earn the money which they spend in presents. It gives them some idea of the value of money, and teaches them in a degree how difficult it is to get and how fatally easy to spend.

It has seemed to me that the jugglery of figures is often thrust upon the little ones before they have much real idea of number. At first they need to express their views about things in good, plain English. No time need be wasted upon zero, or one; not much on two. All that there is can soon be compassed; three and four present few difficulties. The pupils should be encouraged to talk, and talk freely, not in any set phrase, and have their mistakes pleasantly corrected.—George Howland.

## The Northumberiand County Teachers' Institute.

The thirtieth annual meeting of the Northumberland County Teachers' Institute was held in the grammar school, Chatham, October 25th and 26th. There were present about eighty teachers, representing the various districts of the county, and a good degree of interest was manifested throughout the proceedings.

On Thursday, after the opening business, the President, B. P. Steeves, gave a carefully prepared paper upon Spelling Reform, of which the Institute showed its appreciation by unanimously passing a resolution favouring the use of the simple and more phonetic forms of words. Following this was a paper by W. T. Denham, B. A., upon Composition in Grades VII and VIII. On Friday morning the Institute listened to instructive papers by Miss Laura A. Mills on Patriotism, and Dr. Cox on The Progressive Teacher. In the afternoon W. J. Young gave an illustrated lesson to pupils from Grade VIII on Trade Winds.

The following are the officers for the ensuing year: President, Jas. McIntosh; Vice-president, Miss Kathlene I. B. McLean; Secretary-treasurer, W. J. Young. Additional members of executive, Miss Muriel Ellis, W. T. Denham.

W. T. DENHAM, Secretary.

"Bachelors can be found roaming at large in all parts of the world. They inhabit apartments, clubs, open fields, bodies of water and music halls. They are also seen behind the scenes. They hover at times near front gates, and have been found in back parlors with the aid of a searchlight. Bachelors are nomadic by nature and variable in their tastes, never going with one girl long enough to be dangerous. Bachelors make love easily, but rarely keep it. Rich bachelors are hunted openly and shamelessly, and are always in great danger. Those who finally escape are, as a rule, useless ever afterwards."—Tom Masson, in the December Delineator.

A theological student was sent one Sunday to supply a vacant pulpit in a Connecticut valley town. A few days after he received a copy of the weekly paper of that place with the following item marked: "Rev.——, of the senior class at Yale Seminary, supplied the pulpit of the Congregational church last Sunday, and the church will now be closed three weeks for repairs."—Cleveland Leader.

The Italian government has approved of plans for the excavation of Herculaneum.

Fifteen thousand New Brunswick trees will be destroyed this year by one man, who will ship them to New York to be sold for Christmas trees.

#### CURRENT EVENTS.

The passengers and mails for the Orient which left London on Friday afternoon, November 16, reached Vancouver Tuesday morning, Nov. 27, in less than eleven days by the C. P. R. steamship "Empress of Ireland," and by train from St. John to Vancouver Truly the world moves:

With the opening of traffic on the Tehuantepec National Railway across Mexico in January, the trade route between the West Indies and British Columbia will be shortened by two thousand miles. The railway itself has been completed for some time. Terminal facilities have now been provided on both coasts; and the line will be double tracked immediately.

The French government is building a telegraph across the Desert of Sahara. French explorers have found that the great desert is not such a terrible place as it was represented to be; and that much of it can be reclaimed by means of artesian wells at comparatively little cost.

The new C. P. R. steamship "Empress of Ireland" arrived at Halifax on the 22nd November and delivered the English mails on board a tender. These were at once conveyed to Montreal by a special train, making the run to that city in the unprecedented time of nineteen hours and fifteen minutes. The "Empress," without docking at Halifax, proceeded at once to St. John with passengers for the Orient and China mails, and twenty-four hours later these were on the special train for Montreal on the way to the west. This is the first time that St. John has been tested as a mail port with mails for the Far East.

The despatch of French and Spanish warships to Tangier seems to indicate new dangers in the Moroccan situation.

Captain Bernier, of the steamer "Arctic," has taken possession of several islands in Baffin's Bay, and raised the Union Jack. The steamer is wintering in Baffin's Bay, and next year will push as far north as possible along the west coast of Greenland.

The ninetcenth day of this month is the three hundredth anniversary of the departure of the first English colonists for Virginia.

In addition to what has already been done in behalf of the peasants, the Russian government proposes to submit to the new parliament, when it assembles in February, a law limiting the hours of labor in factories, and restricting the employment of women and children; a law establishing compulsory insurance of workmen against disease and accident, and providing for old age pensions; and a law for the sanitary inspection of factories and workmen's dwellings.

The Emperor of Russia has issued a remarkable decree, which makes all persons equal before the law, abolishes the poll tax, and releases the peasants for the communal system, so that they will be allowed to dwell where they

please. Heretofore the peasants, who form a very large proportion of the inhabitants of Russia, were not free to go from district to district in search of employment; but each was obliged to remain in his own community, unless he went to foreign parts or engaged in some other pursuit than that of agriculture. There was a sort of alien labour law for each community. Now the protection or restriction is removed, and an agricultural labourer can go wherever his labour is in most demand.

An edict has been issued in China forbidding the cultivation of the poppy and the importation and use of opium after a period of ten years. Imperial sanction has also been given to the plans for introducing a system of constitutional government in China. Each of the eighteen provinces into which the empire is at present divided is to have a constitution and a legislative assembly of its own.

The forecast of political events in Cuba is not reassuring. A new fight for Cuban independence is threatened, should the United States take permanent possession. On the other hand, there is a conspiracy to bring about an uprising whenever the United States forces are to be withdrawn, and so compel them to remain. The matter is largely one of class interest, the wealthy Cubans and foreigners who are interested in Cuban investments thinking that their property will be safer under United States protection, and the populace wishing to have the government of the country in their own hands, and hoping to improve their own condition at the expense of the large property holders and men of business. And so, it would seem, the natural resources of one of the richest countries in the world must still remain undeveloped for want of a settled government.

Japan's new battleship, the "Satsuma," is the largest battleship in the world. It excells the British ship "Dreadnought," both in speed and in power; and, as in the case of the latter, its construction has been very rapid.

Captain Amundsen, the Norwegian explorer who has sailed through the Northwest Passage, is now returning to his home in Norway, where a great reception is awaiting him. It will take two or three years to work up the results of his observations, which are believed to be of great scientific value.

The return of Commander Peary from his Arctic voyage was announced from Newfoundland on November 2nd. He had failed to reach the North Pole; but had gone a few miles farther north than any previous explorer.

The Keewatin conference at Ottawa has not resulted in an agreement for the partition of the territory among the adjacent provinces. The Province of Ontario asks that the eastern boundary of Manitoba be extended northward to Churchill River, and follow that stream to its mouth, where is situated the only good harbour on Hudson Bay; and that all the Keewatin territory east and south of that line

be added to Ontario. Saskatchewan asks that the territories of that province and of Manitoba be extended eastward to Hudson Bay, and that the Nelson River be made the boundary between them; thus giving to Saskatchewan the good harbour at Fort Churchill, and half the inferior harbour at York Factory. So each of these two provinces is willing to take a part of the District of Keewatin, and to give Manitoba the rest. But Manitoba claims the whole. A decision will be given later.

Armorial bearings have been assigned to the Province of Saskatchewan by royal warrant. They are described as follows: Vert, three garbs in fesse, or; on a chief of the last, a lion passant guardant, gules. This, being interpreted, means that the shield shall be green, with three golden sheaves of wheat in a line across it; and that the chief, or upper third of the shield, shall be of gold, with a red lion, like the chief in the arms of the Province of New Brunswick, but with the colours reversed.

The soldiers in the British army are being taught to sing, and regimental choral societies will be formed. The idea is taken from the German army.

The flow of the Colorado River into the Salton variey, in Southern California, has been stopped, by building a dam nine miles in length. This was a great engineering feat, and was supposed by many to be impossible. The river is now, however, flowing in its old channel, and the new Salton Sea will probably soon be a thing of the past.

The world's supply of platinum is so much less than the demand that the price has increased four-fold. It is now much more valuable than gold. The mines of Russia have heretofore been the chief source of supply; but the metal is found in several places in the Rocky Mountain region, and search is being made there for deposits that may be profitably mined.

Part of the city of Toronto is now lighted with electricity from Niagara.

Recent improvements in the wireless telephone seem to promise that it will ultimately be of more importance than the wireless telegraph. A French electrician has succeeded in sending a wireless telephone message from Toulon to Ajaccio, a distance of one hundred and eighty miles.

It is no longer a question whether an airship can fly without being lighter than the air. Recent experiments in France have been so successful that a flying machine for practical use is regarded as one of the possibilities of the near future. It is predicted that air ships will be faster, safer and cheaper than automobiles.

Commander Peary, of the steamer "Roosevelt," arrived at Sydney, Saturday, November 24, after sixteen months exploration and battling with the rigours of the Arctic regions. The Commander and his crew, after undergoing many dangers in his trip to and from the north, reached the highest point yet attained by explorers—87 degrees 6 minutes north latitude.

#### SCHOOL AND COLLEGE.

Rev. Dr. Thompson, who has been president of St. Francis Xavier College, of Antigonish, for the past eight years, has resigned to accept the pastorate of the parish of Glace Bay, Cape Breton. Rev. H. P. McPherson has been appointed president,

Mr. Ernest Robinson, late principal of Kings Co. Academy, Kentville, has been appointed to the position of vice-principal of Amherst Academy, in succession to Mr. N. D.

McTavish, who has gone to Wolseley, Alberta.

Kings College, Windsor, N. S., has a freshman class of

fifteen, with nearly thirty students in residence.

The St. Andrews, N. B., Beacon suggests that town as a good place for the permanent location of the Summer School of Science. Several places have been mentioned in recent years where the school might "settle," with advantage, such as Parrsboro, N. S., and Shediac, N. B. St. Andrews has many advantages to offer the school, except the important one of geographical position.

One of the neatest collections of school work displayed at the recent Exhibition held in St. John, and that which took a first prize, was from the Convent school at Bathurst Village, N. B. The collection was the work of childrei in grades IV, V, and VI. It consisted of written quotations from their readers, with pencil illustrations in drawing, drawings in pen and ink, water-color paintings of Canadian wild flowers, Canadian birds in water-color, with a short description in writing of the bird.

The Kentville, N. S., school board has made the principal of the Academy in that town a member of the board; and many of the teachers are also invited to be present at its meetings, and confer with the members on the condition of the schools,—a most excellent practice, and one which has been attended with good results in Kentville and other towns of Nova Scotia.

Mr. F. C. Squires, B. A., is principal of the new consolidated school at Florenceville, N. B.

Mr. H. P. Dole has succeeded R. C. Colwell, in the Moncton high school, as teacher of mathematics and botany. In the same schools, Miss E. A. Davis, takes the place of Mr. G. Fred McNally, who has gone to the West.

At the meeting in September last, of the Provincial Educational Association of Nova Scotia, Principals Mc-Kittrick and Lay were elected members of the Advisory Board, to assist the Council and Superintendent of Education. Recently the government made the five additional required appointments as follows: Prof. Howard Murray of Dalhousie University; Mr. A. G. MacDonald, Inspector of Schools, Antigonish; Principal Kempton, of Yarmouth; Mr. Hiram Donkin, C. E., Glace Bay, and Mr. William Cameron, B. A., Merigomish.

Miss Marshall Saunders, of Halifax, has won the \$300 prize offered by the American Humane Educational Society for the best essay on "What is the cause of, and the best plan for stopping, the increased growth of crime in our country." There were 57 competitors. This is the second time Miss Saunders has won a prize from that society. the first being \$200 for a humane story entitled "Beautiful Joe."

Mt. Allison University has received an additional bequest of \$100,000, from the estate of the late Jairus Hart, Halifax.

The address of Superintendent Dr. A. H. MacKay, at the opening of the N. S. Educational Association is printed in full in the Nova Scotia *Journal of Education* for October. The Journal also contains much that is valuable to teachers.

Hearty congratulations are extended to Miss Gladys-Whidden, who was married to Mr. Ralph Jones in August last. This is Miss Whidden's second certificate in domestic service.—Acadia Athenaeum.

#### RECENT BOOKS.

Wm. Briggs, Toronto, publishes a beautifully illustrated work, entitled Studies of Plant Life in Canada, by Mrs. Catherine Parr Trail, a new and revised edition with eight reproductions in natural colours, and twelve half-tone engravings, from drawings by Mrs. Agnes D. Chamberlain. The effect produced in glancing over the pages is one of pleased surprise, that so many of the beautiful wild flowers of Canada are grouped with such exquisite skill and taste, and that it is possible to publish such a book in Canada. The binding, letter-press, and illustrations are admirable. The familiar style used by the author in her descriptions of the plants she knew and loved so well heightens the interest in her book, which will find many loving and admiring readers throughout Canada. The great majority of the plants figured and described are found in the Atlantic provinces. The poetic description and reverent attitude of the author towards the flowers of the field and forest will do much to make the book popular, while the careful revision of Dr. James Fletcher, of Ottawa, ensures its accuracy. No more acceptable and beautiful Christmas present than this could be made to a young person interested in plant life.

If "Greek must go" its spirit may remain with us, and enrich modern life and thought. Messrs. Auden and Taylor of the Upper Canada College, Toronto, have shown us an admirable way in which Greek may be retained and still used as an instrument of culture, in this little book-A Minimum of Greek. When the writer remembers the toilsome and roundabout way in which he acquired his "little Greek," (which he cherishes, though, as an inestimable possession), he wishes that such a book might have seen the light earlier. In a compact and really interesting book of less than two hundred pages the authors have reproduced the essentials of the Greek language, at least sufficient for the busy general student and man of affairs, and given a well ordered plan to secure an elemental knowledge of a language so valuable, especially in science and art. Its explanation of derivatives which occupies the larger part of the book is mainly useful. No one should lay claim to a liberal education without as much knowledge of Greek, at least, as this valuable little book teaches. Morang & Co., Toronto, publishers. Price 75 cents.

The Macmillan Company, of Toronto, have published three books which form a valuable series to the student of English language: (I.) Emmerson's Outline History of the English Language (75 cents), a clear and concise record of our language, and the changes it has undergone; (2) Mitchell and Carpenter's Exposition in Class-room Practice (70 cents), a practical guide to clear writing,—the large space devoted to outlines of subjects and the unfailing interest of the material for this purpose being especially

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noteworthy; Carpenter's English Grammar (75 cents), contains the amount and kind of grammatical theory and practice most suitable for secondary school pupils. All of these books are neatly printed in large clear type, and are strongly bound. Buchanan and Stubenranch's Country Reader, number one (40 cents), offers much good material suitable for object lessons on domestic animals and farm life.

In Blackie's Story Book Readers (Messrs Blackie & Son, London): Ballantyne's "Coral Island;" Sir Walter Scott's "Claverhouse," from *Old Mortality*; G. A. Henty's "A Highland Chief," and Henty's "An Indian Raid." In red cloth covers, 4d. each.

In Blackie's Modern Language Series: Voyage autour de ma Chambre, (1s. 6d.) and Vie de Polichinelle, (1s.) in red cloth; suitable and easy reading for beginners, with notes, questions and vocabularies. Le Chateau de Vie, a fairy story (6d.), and LeBaron de Fourcheoix, (8d.) from Blackie's Little French Classic Series, provided with notes, vocabularies and exercises. La Petite Charité, a delightful little story for Christmas times (4d.), Cendrillon a fairy-scene in one act (4d.), Grossvaterchen und Grossmutterchen, a merry children's play in one act, (6d.)—Blackie & Son, London.

The Teaching of Modern Languages, three lectures by Cloudesley Brereton, M. A., is a comprehensive criticism on the methods used in teaching these and the so-called classical languages (15); Sir Joshua Reynold's Discourses (in part) on Art, a work of the first rank in literature,

(2s.); Bacon's Essays with introduction and notes; Scott's Quentin Durward, with introduction and notes (2s.)—Blackie & Son, London.

The British Empire, (2s. 6d.), a series of descriptive readings in geography on the various portions of the Empire, from original resources; those relating to Canada being of special interest to our teachers; Old Testament History, (3s.), a capital synopsis of parts of Old Testament History, especially useful to teachers who wish to present to fairly advanced students an introduction to biblical times; Arithmetical Exercises for junior forms, with easy oral exercises and problems. Messrs. Adam and Charles Black, London.

Philip's Model Atlas (1s.), with fifty maps and diagrams in colour, of great clearness and beauty; accompanied with an index. Messrs. Geo. Philip & Son, London.

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Willkommen in Deutschland, with beautiful print and illustrations, is designed for the student in his second or third year's course in German, with grammatical exercises, notes and vocabulary. Messrs. D.C. Heath & Co., Boston.

Messrs, Ginn & Company publish a very useful Field Laboratory and Library Manual (mailing price \$1.15). It contains seventy exercises adapted to the ability of students

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in the first and second years of high schools, normal schools, and academies, and is written in accord with the latest and best thought on the subject. Its aim is to direct pupils in their first attempts at scientific investigation and research.

From the same publishers we have a strongly written book on The Moral Damage of War, published for the International Union. (Price 75 cents.) It traces in successive chapters the moral damage of war to the child, to the soldier, to the politician, to the journalist, to the preacher, to the trader, and to the patriot. Wherever the work is read it will be a wholesome call to a better way of arbitrament among Christian nations than the brutal way of war.

#### RECENT MAGAZINES.

The Acadia Athenaeum appeared in November with a new and choicely designed title-page. The University Monthly has been enlarged and improved. The November number contained excellent likenesses of Chancellor Jones and the late Chancellor Harrison.

The Atlantic Monthly celebrates its jubilee this month with contributions by the three ex-editors still living-W. D. Howells, T. B. Aldrich and Walter H. Page, with other article apropos to the occasion. The New York Evening Post takes the initiative in offering jubilee congratulations. The Post pithily remarks that the motto of its Jubilee number might well be "qualis ab incepto," for the Atlantic has, in the main, held consistently with its ancient ideal-refinement and strength. "It is," says the Post, "the ablest of our magazines, standing on a level above even the most attractive of the New York illustrated magazines whose aim is to flatter the taste of l'homme moyen sensuel. Taking all things into consideration, we are inclined to regard it as the best of the general magazines published in the English language to-day "

The two most important of recent contributions to the discussion of reformed spelling may be found in The Living Age. The issue for November 3, contains an article of criticism and suggestion apropos of The President's English, by William Archer, one of the best-known English writers upon literary questions; and the number for November 17, opens with an article on Modern English Spelling, by Professor Walter W. Skeat, than whom there is no higher authority on the subject.

The December Delineator is a typical Christmas number It will assist Christmas-makers with its hints for Christmas gifts and holiday entertainments, besides containing an abundance of seasonable literature calculated to fit in from now until New Year's Day. Christmas stories for adults are: Evergreen Trees, and The Shoplifter at Satterthwaite's; and those for children: The Blue Kimono, and Betty Evolves a Christmas Idea, by Elizabeth Preston Badger.

### Business Notice.

We are sending out in this number reminders to many of our subscribers. Others will be sent in the January or February numbers if our patrons do not anticipate us by remitting in the meantime without waiting to be reminded. The Review has been promptly sent during the year to its many hundred of subscribers. A prompt remittance now will be very acceptable.

Remember that the date on the mailing wrapper of your journal shows the time to which your subscription is paid.

#### Wanted.

Teachers in Nova Scotia, preparing candidates for the Provincial examinations in science next July, to read my articles that have appeared the last half-dozen years in the EDUCATIONAL REVIEW, or that may appear in future. The articles are suggested by experience gained in reading the answers of candidates, and I have endeavoured to help teachers and students in their work. Though there is, I believe, some improvement, I feel sure that better work could be done in the schools and better results obtained at examinations if more attention were paid to the hints I have given.

JOHN WADDELL.



# Educational Review Supplement, January, 1907.



MISCHIEF BREWING.

M. Wunsch.

# Educational Review.

Devoted to Advanced Methods of Education and General Culture.

PUBLISHED MONTHLY.

ST. JOHN, N. B., JANUARY, 1907.

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THE EDUCATIONAL REVIEW,

St. John, N. B.

THE REVIEW thanks its readers for the many expressions of kindness and good-will it has received from them during the past year and especially during the Christmas season. We wish for all of them A Happy New Year, every day of which may have some blessing and achievement in store for them.

Our picture this month represents one boy telling another a great secret. Whether there is "Mischief Brewing" or not may be left to the fancy of children. It is a good picture from which to draw forth impressions from pupils and to let them write these impressions in the form of a story.

Belcher's Farmers' Almanac, 1907, for the Maritime Provinces, is a compendium of useful information on a great variety of topics, arranged in a form ready for immediate use. Price 25 cents. McAlpine Publishing Company, Halifax.

Those who are accustomed to snowdrifts in the east will appreciate the conditions prevailing in Alberta referred to by our correspondent, Mr. W. B. Webb, who writes under date of December 10: "We have had great quantities of snow here, perhaps two feet on the level. It is almost always perfectly calm in the Edmonton district during the winter, so that drifts are rare. When the snow melts it will be a great he'p to next year's crop. The snow-fall has been so light during the last two winters that this will be all the more needed next summer."

Love of children, skill in teaching, and knowledge are three great requisites for teachers. The first is born in nearly all human beings and is susceptible of cultivation. It is the great requisite for teaching. Knowledge, and the skill in imparting it, come from earnest pleasant toil which has its stimulus in love for children and a desire to awaken their interest and self-activity. Teachers who simply hear recitations and teach with text-book in hand usually fail to arouse the minds of their pupils.

ONE effect of Carnegie's large gifts to the Scottish universities is that teachers and students, where these gifts have been received, have become less earnest. This is not to be wondered at, Many of Scotland's most famous scholars have won their education in spite of poverty and by self-denial, and have preserved their self-reliance under difficulties. It is this character and self-reliance which counts. If it is sapped at the outset of the student's career the results cannot but be lamentable; and this is true the world over. There is perhaps wisdom in giving to universities where their effectiveness is increased by endowments and other additions to their resources; but such gifts to persons may be looked at with some suspicion.

# Glimpses into Schoolrooms.

BY THE EDITOR.

A few weeks ago I visited a country school of two departments. The principal's room was large for the number of scholars in it, well ventilated and looked out upon a charming rural scene, with well kept houses and barns, acres of upland and meadow, in some cases carefully tilled, in others with evidence of neglect. The primary room was small and on occasions, the teacher told me, crowded. Above this was a room that had just been fitted up for manual training, and near by a plot of ground had been secured for a school garden. Teachers and pupils were rejoicing in the new order of things where pleasant occupations were in future to relieve the monotony of school studies.

I remembered the place. As a boy I had trodden the familiar roads and paths on my way to and from school. As a young man I had taught the school there. Many of the old landmarks had disappeared, among them the early schoolhouse, and afterwards the old hall that had served for a schoolhouse. In their place stood a more pretentious building of two departments; and now manual training and the school garden have come and will add to the pleasures and activities of school life. As I looked over this neighborhood and saw where old houses had given place to newer and more comfortable homes, I saw with gladness that the spirit of progress had also entered the school, which, so far as I could judge, was vastly superior to that of my own boyhood and youth. But school officers, parents and teachers have yet much to learn and to do in reaching out for still better things.

My next visit was to a school of five departments, in the neighborhood of a large city. The buildings are on a commanding site overlooking a picturesque country,—a glad prospect for little eyes wearied of poring over the printed page. The rooms were neat and attractive, hung with pictures, and in the principal's department was a reading table with a good selection of magazines and books. The scholars were all attentive to their work and happy. Evidently the "whining school boy" of Shakespeare's time is a rarity in schools like those of to-day.

In one of these rooms where I spent a longer time than usual, I remarked on the excellent discipline. The teacher told me that it gave her no trouble. Her scholars were interested in their work and there was the evidence of good order and sympathy between teacher and pupils. That was the secret. The teacher, a bright young woman, told me that she walked to her school every morning, a distance of two miles, and back in the afternoon, in all weathers, and had not missed a day from school for five years. I thought of the good air and exercise and of the opportunity such a walk afforded of making many little plans for school work; and I thought this, too, had something to do with helping to make up a happy, well disciplined school.

The class of fifth and sixth grade pupils was engaged in a number lesson. The work was chiefly done with pencil and chalk, and with large numbers. This led me to think that such work can best bedone (I make the simple suggestion) up to the eighth grade without chalk or pencil. The important thing in teaching arithmetic is skill and quickness in the manipulation of numbers, and small numbers are better than large ones for this purpose. More alert, mental work in arithmetic and less figuring with pencil, which serves to divide the attention of the child, should prevail in all the classes, at least as far as the high school.

I dropped into a city school a few days ago, not with the purpose of hearing a lesson, but to consult with one of the teachers. I found the principal's room, and was impressed with the good order prevailing, the neatness of the room, and the spirit of industry that seemed to prevail. This building, too, is situated on a hill which commands a broad look over hills and valleys, with a considerable river view. In the other rooms visited I noticed some excellent work in writing. The letters formed were neat, large and clearly cut, no evidence of a cramped hand. What a relief it is to see writing of this character!

In future visits to schools I hope to describe more fully some impressions of the work that is being done.

### Answers to Questions.

The following are the names of the "Mysterious Cities," in answer to questions found on page 161 December Review: 1, Cologne; 2, Lyons: 3, Rome: 4, Christ's Church: 5, Morocco: 6, Little Rock: 7, Berne: 8, Brest: 9, Ghent: 10, Liverpool: 11, Canton: 12, Leghorn: 13, Bologna: 14, Hamburg: 15, Dayton: 16, Windsor: 17, St. John: 18, Brooklyn: 19, Bath: 20, Washington: 21, Bismarck: 22, Lincoln: 23, Sacramento: 24, Santa Fe.—Thereachers' Gazette.

# Field Clubs and Nature-Study.

We are glad to notice that the Picton Academy Scientific Association has been reorganized, and has already published two bulletins giving interesting details of collections of local fauna and flora of the neighborhood. This association has done some excellent work in years past, work that has helped to make the scientific resources of Pictou county better known than of any other county in the province. It was organized in 1882 under the supervision of A. H. MacKay, then principal of l'ictou Academy, whose scientific work in earlier numbers of the REVIEW is still gratefully remembered. The birds and plants of Pictou county have been especially well studied, and the names of former members of the association, as Dr. MacKay, W. A. Hickman and C. B. Robinson, are among those who have done important work in science. The revival of the association and the re-issue of the bulletins speak favorably for the prospects of nature-study in Pictou county.

This is a good example for every academy and school in these provinces. Every teacher with some push and a little ability could organize an out-door club for the study of the physical features, the plants and animals of the neighborhood. It would add zest to the other school studies; it would be a useful recreation; it would make nature-study a living subject in every school, and it would make pupils pleasantly acquainted with their surroundings. If only a few birds, plants and insects each year were found out and studied in their native haunts, it would be a great gain.

Try it! if only for the pleasure there is in some active field work that will take one out of doors with a purpose in view.

## Shirking Work.

Many grown people as well as school children do not like to work. It is much easier to drift into habits of laziness, to take things easy, to expect big returns on no investments, than to get down to hard work and through it achieve success. Great plans usually come to naught because of personal laziness. Most people believe in this doctrine for their children, and endeavor to practise it,—to have them do as little work as possible. They want them to be free from drudgery. This seems to be natural to many a parent; but it makes the child flabby, helpless, and a parasite in the community. Success in life depends more on ability to do honest work, whether in the school, at home, or in the busy

industries of the world, than all other characteristics combined. Children need to have their courage developed and trained, so that whenever they go at whatever is set them to do, they will stick to it till it is finished. Quickness of mind and vigor and strength are all required. Courage to do is of a high moral quality when it is directed to worthy objects.

To have confidence in one's self, to be cheerful in doing, to have a defit i e purpose and to keep moving forward toward its accomplishment, will bring victory in the end. The best gospel is work; work physical, work mental, and work moral. Work is the very condition of the enjoyment of life. Every good thing in this world is the product of work. Every parent who brings up his child to eschew work, to be indulged in idleness, to fritter away its time and its life in mere frivolities, hates his child and is preparing it for an idler or a tramp,—a fungus growth for the state to take care of. Coddling children in school leads them to the same dire consequences later in life. All sensible persons feel a contempt for the idlers, the useless, and the counterfeits of society.

Since the school is one of the greatest forces in the manufacture of human character, as teachers we must see to it that we are not blameworthy. A teacher who is always grumbling about the weather, the schoolroom, the drudgery of his work, and a thousand other things, is preparing his pupils for idleness, dissatisfaction, and to become a sort of human shadows walking aimlessly about. A good teacher will cultivate in his pupils the power of sticking to a thing till the end is reached. Steady industry and diligence will bring rich results to one of ordinary gifts. Self-independence, to be quier and steady, to be cheerful, not to be hysterieal, not to have others continually bracing one up —arc some of the qualities that are admired by right tranking people. A strong, self-reliant spirit is always an inspiration to others.—Superintendent J. M. Creenwood.

Mrs. Tompkins went to visit her mother for a few days, leaving her husband to get his own meals. Entering the kitchen, he found she had

—left a little note,
And this is what she wrote:
II Kings, xxi, 13.
When he himself had fed
This is what he read:
Find for yourself what he read.

GEOMETRICAL DRAWING. GR. VI. Fig. 4. Fig. 1. Fig. 2. Fig. 3. Fig.8, Fig. G. Fig. 7. Fig 5 Fig.12 , Fig II. Fig. 10. Fig. D. Fig. 16. Fig. 15. Fig. 14. Fig. 13. Fig. 17. Fig. 20. Fig. 18 Fig. 19. D Fig. 21.
One inch to a foot. (%) and a half inches to a foot (\$) Two unches to a foot (6) One inch to a yard. (50)

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# Geometrical Drawing.

F. G. MATTHEWS, TRURO, N. S. Principal Macdonald Manual Training School.

The exercises presented this month are designed for grade VI. It will be noticed that the new principles introduced are not many in number, as those given for grade V are constantly recurring, and also a certain space is given to exercises in which extreme accuracy is necessary. As several of the exercises have reference to angles and degrees, it is advisable to introduce the protractor at this stage. It need not be used so much for construction as to prove the truth of the angles made by compass methods.

For the benefit of teachers in grades VI, VII, or VIII, it should be stated that if they wish to commence work along these lines without any having been done in grade V, they should commence at the beginning, and take up the main principles. Also in response to some enquiries already made, it would be well to mention here, that this is not intended to supplement freehand or ruler drawing, but to be taught in conjunction with both.

FIG. 1. To construct an angle equal to a given angle.—Let CDE be the given angle, and A the point at which it is required to make a similar angle. From A draw the line AB. With C as centre and any convenient radius, describe the arc DE. With A as centre and the same radius, describe the arc FG. Measure DE with the compasses and cut off FG equal to it. Join AG. Then GAB is the required angle.

For an exercise let the children make an angle equal to a given one, but making the legs twice as long as the original. This will give an opportunity for showing that angles are not measured by the lengths of the sides, and therefore a good introduction to a lesson on degrees and the protractor.

FIG. 2. To bisect an angle.—Let BAC be the given angle. With A as centre and any radius described the arc BC. With B as centre and any radius more than half BC describe an arc. With C as centre and the same radius described another arc cutting the first in D. Join AD. This line bisects the angle.

Exercise.—The two lines forming the angle represent two of the fences bounding a piece of ground. The owner wishes to make a path across the land beginning at B and keeping equidistant from the two fences. Lay out the path.

Fig. 3. The same as Fig. 2.—Set square method. Mark off a point on each leg equidistant from B.

Place the set square with one edge on BC, and the corner at E and draw the line EG. Similarly from D draw DH. Join B to the point of intersection F.

Fig. 4. To trisect a right angle.—From A as centre and with any radius describe are BC. From B and C as centres and the same radius describe ares cutting the first in E and D. Join AD and AE. Most children will solve this exercise without any instruction. If not, a few questions on degrees will have the desired effect.

Fig. 5. To construct angles of 15°, 30°, 45°, 60°, 75°, or 105°. Draw the right angle BAC. Mark off D and E as in the previous exercise. Bisect CE for 15°. CB or ED for 45° and DB for 75°. For 105° mark off BK equal to BL.

This is simply a combination of exercises 2 and 4, and can also be solved by the children without assistance.

Fig. 6. To divide a straight line into any number of equal parts.—Let AB be the given line. It is required to divide it into 7 equal parts. Draw AC at any angle with AB. Make the angle ABF equal to the angle BAC (Ex. 1). Step off 7 equal divisions of any convenient length on AC and BF. Join A to 7, 1 to 6 and so on as shown in the diagram. These lines will divide AB into 7 equal parts.

This exercise may be varied in form, such as:— Cut off 1-5 of AB; or, AB represents the length of a piece of land owned by two persons. One owns 2-5 and the other the balance. Show their portions.

Fig. 7. The same as Fig. 6.—Set square method. Draw AC at any angle. Step off seven equal divisions on AC. Place the set square in a position to join B 7. Before moving the set square, place the ruler under it as shewn. By sliding the square along the ruler, parallels can be drawn through 6, 5, 4, 3, 2, and 1, dividing AB into 7 equal parts.

Fig. 8. To construct an equilateral triangle on a given base.—With A and B as centres and radius AB describe arcs cutting at C. Join AC and BC.

By applying the set square shew that the triangle is also equiangular, and that the three angles are together equal to 180°.

Fig. 9. To inscribe an equilateral triangle in a circle.—Draw any diameter AB. With B as centre and radius BO describe are COD. Join AC, CD, and DA.

This exercise may be made the basis of several designs. For example, if the working be repeated starting from A as centre, we get a six pointed star, a favorite shape for flower garden plots.

FIG. 10. To describe an equilateral triangle about a given circle.—Draw any diameter AB. With A as centre and radius AO, draw are COD. With B, C and D as centres and radius CD, draw ares cutting at E, F and G. Join EF, FG and GE

This also forms a good exercise in design.

Fig. 11. To construct an equilateral triangle, given the vertical height.—Let AB be the vertical height. At A construct angles of 30° on each side of AB. Through B draw HK at right angles to AB, to meet AH and AK.

FIG. 12. To construct a rectangle, the diagonal and one side given.—Let AB be the diagonal and C the side. Bisect AB in O. With O as centre and radius OA describe a circle. With A and B as centres and C as radius draw arcs cutting the circle at D and E on opposite sides of the diagonal. Join AD, DB, BE and AE.

Exercise.—A rectangular field is divided by a fence 200 yards long joining opposite corners. One of the sides is 80 yards long. Complete the drawing of the field.

FIG. 13. To construct a rhombus, side and one angle given.—Let AB be the given side and C the given angle. At A construct an angle equal to C. Cut off AD equal to AB. With D and B as centres and radius equal to AB, draw arcs cutting at E. Join DE and BE. This exercise may be given in the form of plotting out ground, using scales as in Fig. 21.

Fig. 14. To construct a rhomboid, two sides and the included angle given.—Let AB and C be the sides and D the included angle. Construct the same as Fig. 13.

FIG. 15. To inscribe a regular octagon in a given circle.—Draw any diameter AB. Draw another CD at right angles to it. Bisect angles AOC and COB. Produce bisecting lines to form diameters EF and GH. Join AE, EC, CG, etc. This gives required octagon.

Exercise t.—Join every other point AC, CB, etc., to form an eight pointed star.

Exercise 2.—Join every third point AG, GD, etc. to form another shape of star.

Fig. 16. To construct a regular octagon on a given base.—Let AB be the given base. By means of set square, protractor, or compass, make angles of 45° at A and B. Cut off AC and BD each equal to AB. Erect lines perpendicular to base from C, A, B, and D. Cut off CE and DF each equal to AB. Join EF. At E and F draw EG and FII, making angles of 45° and cutting the perpendiculars in G and II. Join GH.

FIG 17. To inscribe a regular octagon in a given square.—Draw the diagonals AC, BD. With A as centre and AO as radius, draw arc EOF. Similarly at BC and D draw arcs GOH, JOK and LOM. Join GM, EK, LH, and JF, which together with the middle portion of each side, form the octagon.

Fig. 18. To inscribe a circle in, and describe a circle about a given square.—Draw the diagonals AC and BD. From O drop perpendicular OE to side of square. With centre O and radius OE inscribe circle. With centre O and radius OA describe circle.

This exercise and the two following are samples of a number that may be inserted to give practice in the foregoing principles. It will be noted that to get correct results the utmost accuracy is necessary in every detail.

FIG. 19. To inscribe four circles in a square, each to touch two sides and two other circles.—Draw diameters and diagonals. Join FG, GE, EH, and HF. Join LK. With K, L, M, and N as centers and radius KP draw required circles.

Fig. 20. To describe six equal circles about a given circle.—Divide the circumference of the given circle into 6 equal parts, producing the diameters.

With AD as radius and O as centre describe circle GKM. Where this circle cuts the produced diameters will be the centres of the required circles; the radius to equal AO.

Fig. 21. The construction of plain scales.—This has been placed last for the sake of convenience in arranging the drawings for the plate, but in practice they should be spread over the year's work, so that they may be utilised in any plotting-out problems. Four only are shewn, but others of similarly easy nature may be taught.

To make a scale of one inch to a foot.—Draw two parallel lines about 3-16 of an inch apart and divide them by vertical lines into one inch divisions. Divide the left hand inch into twelve equal parts, number them as shewn, the first division from the left always being marked O (zero). The divisions to the right will now represent feet, and those to the left inches, and may be labelled as such. To use this scale, suppose a line three feet five inches is required. Stretch the dividers from the third division to the right of O to the fifth to the left. This will give the required length. As this scale gives a drawing 1-12 of the original size, it is said to be a scale of 1-12 and this fraction is called the 'Representative Fraction.'

The other scales are made in the same way. In the fourth the inch divisions represent yards, The one on the left is therefore divided into three parts to represent feet, that being the next denomination below yards.

If rulers with sufficient scales to mark the subdivisions of the left hand division be not obtainable, the method of exercise 7 may be adopted.

# Personality of the Teacher.

Personality is what wise employers of teachers try and secure above all else. People with mean natures and small souls never ought to try to teach. Still, personality is greatly capable of cultivation. It is largely an affair of our own making. Five great schools of teachers tried to find a solution of this problem. They were the Epicurean, the Stoic, the Platonic, the Aristotelian and the Christian. Whoever follows the teachings of all these schools will become a popular and successful teacher, and anyone defective in a majority of them is unfit to teach.

The Epicurean idea was that one should get at all costs as many pleasures as possible. Teachers should have good food, no hurried meals, a comfortable room in which to be quiet. In the long run these are half the battle. Teachers should not deny themselves these. Restful quiet and good food are necessary. Next is needed wholesome exercise. The teacher shut up for five or six hours must have one or two hours under the open sky every school day, care free. The teacher should do a lot of outdoor things in vacation and the one who doesn't is falling away even from this low ideal.

The Stoic teaches one to keep the mind free from all worry and anxiety; the mental state makes the man. The teacher's troubles can be reduced by reducing the mental worries. The blunders once made should be left behind, not brooded over. There is no situation in which we can not be masters, is the Stoic's lesson. Every teacher must sometime learn it. The teacher's life is more full of general discouragements than any other profession, but the Stoic formula, faithfully applied in reasonable limits, will overcome them. Teachers abould live in care-proof compartments.

Platonism bids us rise above this world. Platonists were not the most agreeable people to live with. Much that passes for Christian religion is simply Platonism in disguise. Still, it contains some truth that every teacher ought to know and sometimes apply. A teacher would hardly keep his poise without these Platonic resources, but moderation is necessary.

By the Aristotelian school man was to find his

end here and now on earth, not in heaven. Teaching is an extra hazardous profession as far as nervous energy is concerned. The teacher's problem is one of proportion—what to select, what to leave out. The essentials to the main end ought to be taken, the others left. The teacher must say no to calls good in themselves, but not for themselves. Amateur theatricals, church fairs, dancing and dinner parties, ought to be taken part in only in great moderation. One service Sunday is as much as one can well attend, and Sunday school teaching is the one thing that the conscientious public school teacher must rigidly refrain from. Physical health and vivacity of spirits must be maintained at all costs. Teachers should be sure what they do is best for them and then never mind what people say. Teachers should have their own individual ends in view.

The counsel of the greatest teacher remains. Christ says to the teachers to make the interest and aims of each pupil their own. Where the un-Christian teacher's work ends, the Christian teacher's work begins. Teacher and pupil are engaged in a common work. The attitude of the Christian teacher is, "Come, let's do this work together, I'm ready to help you and want you to help me." The un-Christian is not concerned with the home-life of the pupils, the Christian teacher knows his pupils and their homes. The successful teacher looks forward to the pupil's future. Teachers learn to see with pupils' eyes, share their work, rejoice in their success, be more sorry than they at their failures, lead them, never drive.. Any teacher who can combine the five qualities I have mentioned will find of Address by President William DeWitt Hyde, in New York School Journal.

There is probably no country in the world where nature has been more lavish in the stores of fertility provided in the soil, or where the land has greater capacity for the production of food for mankind than Canada. While the resources of the Dominion in its minerals, its forests and its fisheries are very great, it is in the soil that the greater wealth of the country lies. The immensity of the area of fertile land in Canada is very imperfectly understood, even by those who have travelled through the country, and but a very small proportion of the arable land has yet been brought under cultivation.—Dr. Wm. Saunders—Report Experimental Farms of Canada.

The old man said to the young man: "My son, I have had a great many hard times in my life, and most of them didn't happen."

# Manners the Morals of the Heart.

By Mrs. C. M. Condon.

In the Victorian era, among the items in the bills rendered from Ladies' schools, was always one set down to "Deportment." Great stress was laid upon training and instruction in this subject, which embraced table manners; behaviour at church, on the street, and other places of public resort. It also prescribed the different forms of salutation according to the rank, age or position of the person saluted; the correct method of entering and leaving a room; also the art of entering and alighting gracefully from a carriage, to which was frequently added equestrian practice and etiquette at a good riding school. Special pains were taken with the different curtsics, made by the ladies, from the simpler forms, up to the three sweeping reverences made to Her Majesty on presentation at Court.

Sometimes with narrow-minded people, there was an unbending adherence to rules that degenerated into an ungraceful formality; but, on the whole, this careful training in the minutiæ of social convention fully justified itself.

The mother of our late beloved Queen, the Duchess of Kent, was the careful trainer of the young Princess in a high-bred courtesy, at once simple and sincere.

At her coronation Victoria beautifully exemplified her exquisite courtesy. Lord Rolles, a very aged peer, when about to swear fealty to the Sovereign, stumbled on the steps of the dais; instantly the young Queen rose and extended a helping hand to the feeble old man, involuntarily shewing that respect for old age which was a strong point in the teaching of the day.

There was, undoubtedly, at times undue repression of youthful spirits, and when out of range of the eyes of authority nature asserted itself, and manners might not then be so commendable. But no greater tribute can be paid to the training, as a whole, than the delightful manners of some of the best specimens of those whose parents paid for this item of "Deportment."

One who loves children cannot but be glad that they have so much freedom and scope for expression of their individuality; one cannot but regret when freedom degenerates into a license that ignores the just claims of age and authority to respect and courtesy. It is to be feared that the present age is not strong in reverence, and the gentle manners that spring from that great quality. Many causes contribute to this; the rush and hurry

of daily life, the keen competition, the insatiable curiosity to which nothing is sacred, especially if its objects are raised somewhat above the level, either in rank or fortune.

Even the press, unmindful of its high mission, as the guide of public opinion, sometimes sets a bad example, by indulging in reckless statement, attacking personal character, and dragging into unseemly publicity incidents which have no real bearing on the point at issue, simply to mortify and wound an opponent. Criticism is necessary, but it gains in point and effectiveness when it disdains personalities and deals only with the merits of the question, in a spirit of fairness and good will.

But laying aside the consideration of those merely conventional rules, necessary to the smooth working of social intercourse, let us see what are the principles that will always secure good manners if reduced to practice. We may as well place, first, a profound reverence for man as man, made in the image of the Creator, a reverence quite irrespective of all accidents of birth or fortune. If parents, teachers and all who are in authority will heartily recognize this supreme fact, it will revolutionize manners and clevate the whole tone of society. Then there must be recognition of the fact that every one has a right, not dependent upon our moods and feelings, to fair and civil treatment.

How many parents and teachers, to the great detriment of the children, make sickness, pressure of business, and every disagreeable happening, an excuse for ungentle behaviour, and even for positive discourtesy.

How greatly children, even babies, suffer in this uncongenial atmosphere is well known to the sympathetic observer. As the practice of this infraction of the rules of good manners in generally confined to children and inferiors, it is as mean as it is immoral. A great aid to agreeable manners will be found in that intelligent sympathy which springs from the head as well as the heart, and finds in the limitations of the individual, nay, even in his very depravity, such a strong appeal for help, that self sinks out of sight, and the morals of a generous heart shows itself in perfect manners.

The refinement and grace of Elizabeth Fry won insensibly upon the hardened criminals of Newgate, and influenced them to listen to her prayers and preaching; for who could be obdurate in a presence so sweet and genial?

Another help to good manners will be secured by the determination to cultivate, as a matter of duty, cheerfulness and good humor, and under no circumstances of personal discomfort, to look sullen, or unpleasant, to speak with unbecoming harshness, or to treat an offender with contempt, or wither him with sarcasm.

Let our teachers ponder seriously this question in regard to the children whom they have, for the larger part in their waking hours, under their care. The hurry and drive of our daily life, keen competition, free discussion of public affairs, and the too free and easy manner of speaking of those in authority, are not marks of that good breeding which gives honor to whom honor is due. Judicious and temperate criticism is the right of every citizen, but a becoming reticence should be observed in the presence of children and immature youth, whose manners will not be improved by invective, often crude and ill-considered, against "the powers that be."

Some formal instruction in what constitutes good manner should be given by the teacher, but the repose, the self-restraint and the charm of good-breeding, may be best illustrated in the behaviour of the teacher himself. Set before pupils good models, and what better than that of the Divine man whose manners were so perfect that a mediæval chronicler quaintly speaks of him as "That gentleman Jesus." The courtesy, too of "the great Apostle" was so inbred that in the most trying circumstances it never forsook him.

Let not teachers imagine that an autocratic, repellent manner is an aid to discipline; on the contrary, it arouses opposition in the bold, and so overcows the timid that they cannot do and be at their best.

"Good manners make the man," says William of Wykeham; he uses the word "make" as opposed to "mar" (spoil), and as he was a man of affairs he spoke from a wide experience, plainly seeing that good manners build up character, and also help to make the success of the man in the practical business of life.

Out of Danger.—Dr. Whipple, long Bishop of Minnesota, was about to hold religious services near an Indian village in one of the Western states, and before going to the place of meeting asked the chief who was his host whether it was safe for him to leave his effects unguarded in the lodge. "Plenty safe," grunted the red man. "No white man in a hundred miles from here."—Woman's Home Companion.

## Girls I Have Known.

The liveliest girl I ever met
Was charming Annie Mation;
Exceeding sweet was Carry Mel;
Helpful Amelia Ration.

Nicer than Jennie Rosity
It would be hard to find;
Lovely was Rhoda Dendron, too,
One of the flower kind.

I did not fancy Polly Gon,
Too angular was she;
And I could never take at all
To Annie Mosity.

I rather liked Miss Sarah Nade, Her voice was full of charm; Hester Ical too nervous was, She filled me with alarm.

E. Lucy Date was clear of face, Her skin was like a shell;Miss Ella Gant was rather nice, Though she was awful swell.

A clinging girl was Jessie Mine, I asked her me to marry, In vain—now life is fall of rights, For I'm joined to Millie Tary.

-Boston Transcript.

# Hand Work in a Country School.

At a country institute this summer I saw displayed a collection of excellent hand-work done by the children of a rural school. The paper-cutting and raffia work-mats, baskets, holders, and other conventional pieces—were as well done as the products that I have seen of many city schools; in fact, some of the raffia pieces will bear comparison with the best. Upon enquiry I found that the teacher who had accomplished all this is a young man-a young man, moreover, who has himself had no training in manual work, learning all that he knows of the subject by observing several classes at a state normal school last summer. Being further interested at this, I found that he had bought the necessary materials himself, at a cost of \$3.75 for the raffia and of forty cents for the colored paper; and that the children had done the work altogether outside school hours, before school, and at recess on rainy days, with the exception of the smallest children who were permitted to use this as seat work. Although the teacher conducted this manual training merely for its educational value in the school, it is interesting to know that for next year he has the best paving country school in this county.—Thomas II. Briggs, Charleston, Illinois.

## Memorable Days in January.

MISS ELEANOR ROBINSON.

[It is proposed to publish in each issue under the appropriate heading an article dealing with the days of the month that are celebrated in tradition, in literature and in art. Our readers will be glad to know that Miss Robinson, whose writings on English Literature have helped so many readers of the Review, will have charge of this department. Editor.]

#### January 6th Epiphany, or Twelfth Day.

This day has always been closely associated with Christmas Day, and the Armenian Christians still keep Christmas on January 6th. The word Epiphany means an appearance, or manifestation, and since the fourth century the special event commenorated on this day has been the manifestation of Christ to the wise men from the East, as narrated in the second chapter of St. Matthew's Gospel. Tradition, probably influenced by such passages as Ps. 72: 10, and Isaiah 60: 6, has called the wise men Kings, and declared them to be three in number. The names usually given to them are Melchior, Balthazar and Gaspar. In pictures they are generally represented, respectively, as an old man, a man in the prime of life, and a youth. The significance attached to the gifts is expressed in the words of the well-known hymn:

> "Sacred gifts of mystic meaning, Incense doth their God disclose, Gold the King of Kings proclaimeth, Myrrh His sepulchre foreshows."

The adoration of the wise men has been the subject of many beautiful pictures. Reproductions of some of these are to be found in Farrar's "Life of Christ in Art." An old legend says that the star, on its first appearance to the wise man, had the form of a radiant child bearing a sceptre or a cross, and in some early Italian paintings it is so depicted.

An interesting memorial of the offerings of the three kings is kept up in England by our sovereigns, who still, on this day, make an offering of gold, frankincense and myrrh at the Chapel Royal in the Palace of St. James. George HI was the last king who offered these in person, and the presentation is now made by an officer of the royal household.

"In the days of King Alfred a law was made with relation to holidays, by virtue of which the twelve days after the Nativity of our Saviour were made festivals."—

Collier's Ecclesiastical History.

The whole twelve days seem to have been devoted to feasting and jollity. The social customs varied in different parts, but all showed some reference to the Eastern Kings. One famous fashion was

to have a Twelfth cake, rich with spices, which contained a bean. Whoever drew the bean was made King or Queen for the evening. Other characters, such as maids of honor, lord chancellor, courtiers, etc., were assigned by lot, and each person was required to act his or her part throughout the feast. In later times, these games seem to have come down to children. Thackeray, in his preface to that delightful children's story, "The Rose and the Ring," refers to them as follows:

"It happened that the undersigned spent the last Christmas season in a foreign city, where there were many English children. In that city, if you wanted to give a child's party, you could not even get a magic-lantern, or buy Twelfth-Night characters—those funny painted pictures of the King, the Queen, the Lover, the Lady, the Dandy, the Captain, and so on—with which our young ones are wont to recreate themselves at this festive time."

So the great novelist, who loved children, himself drew a set of Twelfth-Night characters, and then composed a story about them to amuse the little people.

## January 21st - St. Agnes Day.

In the year 306 A. D., there was a terrible persecution of the Christians under the Emperor Diocletian, and among many other martyrs there perished a beautiful young girl named Agnes. The story is that the son of an important Roman official loved her and wished to marry her; she refused, saving that she would not marry anyone as her affectious were set on heavenly things. She was then asked to offer incense to the Roman gods, and when she refused she was put to death. Eight days afterwards, her parents going to lament and pray at her tomb, saw a vision of angels and their daughter standing among them, with a snow white lamb by her side. In pictures she is often represented with a lamb beside her, and she is always held up as an example of innocence and constancy.

It used to be the custom in different parts of England for girls to go to bed fasting and silent on St. Agnes' Eve, in the belief that they would see their future husbands. The following lines have been handed down in the county of Durham:

"Fair St. Agnes, play thy part.
And send to me my own sweetheart,
Not in his best or worst array,
But in the clothes he wears every day.
That to-morrow I may him ken
From among all other men."

Two great English poets, Keats and Tennyson, have made use of this tradition in poetry. The former, in his famous poem, St. Agnes' Eve, tells

the story of how "ages long ago," the two lovers, Madeleine and Porphyro, fled away on one stormy St. Agnes' Eve, after Madeleine had tried the spell.

The opening lines of the poem are a fine description of the cold of the January night:

"St. Agnes' Eve!—ah, bitter chill it was!
The owl, for all his feathers, was a-co'd;
The hare limped trembling through the frozen grass.
And silent was the flock in woolly fold."

In Tennyson's "St. Agnes," the speaker is a nun, who also seeks to have a "vision of delight," but her thoughts are not of any earthly love, and through faith and prayer she wins a vision of the Heavenly Bridegroom.

# January 25th - St. Paul's Day.

This day has been observed since the 12th century in commemoration of the conversion of St, Paul. For some unknown reason, it is considered to foreshow the weather and events for the whole year. "If it be a fair day, it will be a pleasant year; if it be windy, there will be wars; if it be cloudy, it doth foreshadow the plague that year." And nearly the same prediction is found in verse:

"If St. Paul's day be fair and clear,
It doth betide a happy year;
But if it chance to snow or rain,
Then will be dear all kinds of grain;
If clouds or mist do dark the skie,
Great store of birds or beasts shall die;
And if the winds do fly aloft,
Then wars shall yex the kingdom oft."

The well known superstition about the effect of rain on St. Swithin's Day, may be compared with these prognostications. But the poet Gay, writing in 1715, says:

"Let no such vulgar tales debase thy mind; Nor Paul nor Swithin rule the clouds and wind."

Even in so remote a period as 2,000 years ago, in the Jewish schools, a teacher was appointed for every twenty-five pupils, and when the number reached forty an assistant-teacher was given. Here are the qualifications which the Tahmud says a teacher should possess: He—the teacher—should be slow to anger, courteous in his language, free from conceit, loving criticism and not exalted by his knowledge, sedate in study, widely observant, eager to extend knowledge and to make others learn; above all, he must be God-fearing and free from worldly ambition. These requirements and qualifications would not be out of harmony with the year 1907. Western School Journal.

# A Little Known Waterfall.

To the Educational Review:

DEAR SIR,—While reading "Our Waterfalls" in the November Review, a wish came to me that I could give an adequate description of the falls in a little brook which empties into the Southwest Miramichi, about sixteen miles above Boiestown, N. B.

I was up this river on a fishing trip with some friends during last summer's vacation. When we came to the mouth of the brook called Fall Brook, we left the boats on the shore and walked up along the side of the brook about eighty rods to the falls. Those of us who had never been there were not expecting to see much, as all the sign of a brook that we could see at the mouth was a little water, trickling between some large rocks, the water being down to the summer depth. But the fall was magnificent; the water comes over a perpendicular wall which we were told is ninety-five feet high. At the top, a shelf of rock projects out about four feet, and the water pours down over this shelf in a thin sheet. The straight wall is from ten to twelve feet wide, and the rocks curve around it on each side like the walls of a cave. When the spring freshets occur, the water also pours over the curving sides. We could see the marks where it had been, and the men who had seen it in the spring told us of the volume of water that pours down when the stream is full. The pool at the fall was alive with trout.

MARGUERITE MARIE NORRAD.

Taymouth, N. B., Dec. 12, 1906.

The first thing to do in the study of English literature is to read it intelligently, to hear the very voice of it speaking to us directly and without impediment, to make its thought pass through the minds of those who created it, to make its thought our thought. There must be no half knowledge, no vague concepts. The words of it should not convey hazy notions. If we are to know the full force of it we must know that the words that the author chose were the only ones that he could have chosen. The turns of expression must be happy ones, fitting the thought like a glove. It is the perfectness of form that makes it literature and gives it a claim to our attention.

Without a historical knowledge of our language, such a full appreciation of much of our best literature is impossible. Criticism with the best of intentions cannot make up by any æsthetic fervor for what it lacks of such knowledge.

#### Murderous Millinery.

Do you ne'er think what wondrous beings these?
Do you ne'er think who made them and who taught
The dialect they speak, where melodies
Alone are the interpreters of thought?

—Longfellow—Tales of a Wayside Inn.

One of the most pitiful sights in London is the sale of thousands of birds of paradise, humming birds, parrots, owls, terns, kingfishers, finches, swallows, crown-pigeons, tanager, cardinals, golden orioles, and other bright tropical creatures, besides hundreds of packages of the long, loose, waving "osprey" plumes taken from the backs of various species of small white herons and egrets. Last year, in London alone, to give only two conspicuous instances, the feathers of 150,000 herons and egrets were sold, and over 40,000 birds of paradise.

Steadily, year after year, this appalling waste of bird-life goes on, not for the purpose of food or warmth, or any wise economic reason, but solely to minister to a "fashion" in millinery that consists in the wearing by women in their bonnets and hats of the dead and mutilated bodies of one or more birds. The very existence of the beautiful bird of paradise is endangered so that a fashionable woman may flaunt from toque or picture-hat a bunch of its plumes. The most beautiful and wonderful species are rapidly being exterminated, many are on the verge of extinction, whilst others have entirely disappeared. In our own country some thirty species of British birds are named by Mr. W. H. Hudson, a noted authority, as either having been extirpated or in a fair way of becoming so in recent years.

The trader, who waxes fat on this infamous trade, and the feathered woman, vain and heedless, or ignorant and thoughtless, as the case may be, are jointly responsible for this state of affairs. The fashion of wearing birds and their plumage is in itself indefensibly cruel. Nothing can excuse the wanton destruction and the wearing of any bird, not killed for the purpose of food, other than the ostrich, which sheds its feathers naturally. Every lover of nature, every person of humane feeling. every thinking woman, once she knows the facts, must regard this traffic as infamous. It is hardly credible that any woman who once realizes how and when an "osprey" is procured could bring herself to wear one. It cannot be too often repeated, or too widely known, that to secure these graceful plumes not only is there wholesale slaughter of the adult birds, but, as these feathers are worn by the white herons and egrets during the breeding season only, and by both sexes, their death ensures that

of thousands of young by the most horrible of fates—that of slow starvation. These "nesting" plumes then, are the outward and visible sign of man's inhumanity and woman's criminal ignorance and, alas! heedless vanity and indifference to cruelty.

The late Queen Victoria was so impressed by the knowledge of these facts when they were brought to her notice that an order was issued for the substitution of ostrich plumes for the "ospreys" then worn in the head-dress of officers in certain regiments of the army. The present Queen also desires it to be known that she never wears osprey feathers herself and discountenaces their use whenever possible. Many ladies of high degree, including the Duchesses of Portland, Northumberland and Somerset, are avowed enemies of the fashion, and there is hope that, with wider knowledge of the cruelties practised in securing these plumes, the good taste of the vast majority of women will become apparent and they will cease to be parties to it.

The only hope of stamping out this fashion lies in the force of public opinion. Once let it be understood that it is "bad form" to wear dead birds, or portions of them, and particularly ospreys, on one's person, even only from the æsthetic point of view, then there is a chance of this horrible fashion dying out. The men must help by forwarding wise legislation on the subject of the protection of birds, and by constant supervision of the millinery of their feminine belongings; but it is to the women themselves we must look for any real result. If women decided that feathers should not be worn, always excepting the ostrich feather, they would soon cease to be worn. All honor to the women who refuse to wear them-and they are many-and thus lift a little of the reproach that sits so hardly on the socalled gentle sex.—The Speaker, London,

"Picking" at pupils—telling them to "sit up," "to keep quiet," "to study,"—does little or no good. In a short time the disregard for the oft repeated injunction is seen in increased restlessness and disorder. When pupils learn that the injunction is only formal—a sort of habit—they do not even hear it, for pupils hear only what has meaning. The remedy is in the teacher—in the recitation. Get the pupils to work, and there will be little use for phrases which only irritate. Or, stop the recitation, say nothing, and stand still until the room is quiet. Stop the work of the school whenever necessary to give meaning to your general regulations. A teacher who cannot command and maintain order is a failure.—Patrick's Pedagogical Pebbles.

# Natural History Stories for Little Folks.

#### The Little Fawn.

The fawn was born in a quiet valley in the great forest, and where the bushes grew thickest he had his nursery. Here his mother, the doe, found for him a soft bed of moss and dried leaves and fed him on milk.

He was the prettiest little creature, with his brown fur coat dappled with white, and his little slim legs which were still so weak that he could hardly stand on them, and could only take a few feeble steps at a time. Before the doe left the cover to look for her food in the forest glen, and to drink a fresh draught at the brook, she pushed him gently down upon the soft moss bed with her muzzle, and made him understand that he must lie there obediently till she came back, so that she might be sure of finding him again in the midst of the great forest. After a few days his legs became a little stronger, and he tried some pretty gambols, but he was not nearly strong enough yet to gallop with his mother over hill and dale, and to jump over bushes and ditches.

Some children came into the forest one day to hunt for berries, and men and women came close to the cover to gather wood. When the doe saw them she stamped her fore-leg, and the fawn instantly understood that this was an order for him to lie down and hide under the leaves and high bracken. When the children and wood-gatherers saw the mother deer they ran after her. At first she trotted on slowly a little way ahead of them, at times, even stopping a moment, pretending to be lame and unable to run fast, and all the while the people followed her she was leading them further and further away from her little fawn in the cover. At last, when she thought all danger of their finding him was over, she trotted along quicker, so that the people soon lost sight of her in the thicket. Then, choosing a round-about path, she returned to her little one, and found that the fawn, meanwhile, had been obedient to his mother's teaching, had lain absolutely still in the same spot, and his obedience had saved him from discovery. So you see it was best for the fawn to obey his mother without questioning, and of course a child should do so too, for it should be at least as sensible as a little fawn.

# The Crow as a Gardener.

Jim, the black crow, has long been the favorite of everybody in the house, and as soon as the

children are out of bed they can hear him croaking his "good morning" to them. He knows quite well that they will throw him bits of bread from the breakfast table.

But the children have often had to scold their black friend for carrying off bright bits of stuff from the girls and glistening trifles from the boys, which he hides away under the tiles of the roof or in some dark corner. He came to be called a "rascally thief," and deserved the title, but, after all, this very love of prying into hidden corners and his trick of hiding things are useful at times.

Near the house is the kitchen garden, and behind this lies the beech-wood, and this is where Master Crow likes to be. At night there come crawling from the woods crowds of snails, making shiny tracks towards the vegetable beds. As long as the wet dew is lying the little gluttons eat one leaf after another, but before the sun rises and dries their tracks they are hidden away again. Some stick to the under side of the large cabbage leaves, others hide themselves in the shadow of the hedge behind stones and moss, or between the thickly plaited branches. They have withdrawn into their hard shells and think themselves safe, but here comes Master Crow, and with his beak he seizes one by one. He carries them off to a big stone, and against it he knocks the hard shells till the splinters fly about, and then he gobbles up the juicy snail inside. And so, like a carfeul gardener that he is, he draws out one thief after another from its hiding place, and in a few days there is quite a heap of broken snail shells all round the stone.

Besides snails, the crow will also hunt for worms and mice, and so, filling his own beak, he destroys many vermin that spoil the useful plants of the garden.

#### Tea.

The weather was rainy and cold, but we sat by the cosy fire, and were delighted when mother ordered tea to warm and cheer us, and while we drank it she told us where it came from.

Far away in China, where gold-fish and golden pheasants live and camelias grow in the hedges like the briar-rose does at home, it is hot, and the peasants till the ground by the sweat of their brows. In the valleys they sow rice and cotton, but on the slopes of the hills they plant tea. The ground is dug deep and well manured, and the seeds of the tea plant are then sown and covered with earth. From the seeds grow little shrubs, from which the plant-

ers break off the middle shoot, that the plant may not grow up too tall, but spread out into abundant branches round the stem.

As soon as the tea shrub is three years old the leaves are picked off, and this is done twice, and in very fruitful places, even three times a-year. The most delicate heart leaves from the points of the branches are sorted from the rest, and from these you get the finest and most delicate tea. The next best leaves are again put together, and the lowest, oldest, and hardest leaves give a third kind, the coarsest and cheapest sort.

The tea leaves are first dried in the sun, and then heated in iron cauldrons over a slow fire and kneaded with the hands. They are rolled and finally dried, whilst to some sorts of tea the Chinese add the sweet-smelling blossoms of different flowers. Finally, the leaves are packed in stone jars, in tin boxes, or in well-sealed cases.

The Chinese use a great deal of tea themselves, for in China everyone drinks tea, from the Emperor himself to the meanest beggar, but made without sugar or milk, with water only. What they do not keep for themselves they sell to the merchants, who bring it to us in England and other countries of the world.

The tea plant also bears pretty white blossoms that look almost like little white roses, and turn into brown, dry, fruit capsules with dark seeds.

The Chinese value their tea plant very highly, for, although they can use neither its blossoms nor its fruit, they praise it because of its precious leaves.

-RICHARD WAGNER.

## Spelling Reform.

A most imposing document has come to hand this week urging the newspapers published in Toronto to reform their spelling, and the petition is signed by nearly one hundred professors and lecturers in the University, high and public schools and business colleges. It is no small tribute to the press that all these authorities on education should make their appeal to the newspapers down town, rather than to each other, for they write our text-books, they control our institutions of learning, and if the editors and reporters mis-spell the words they write, these are the men who misled them, mistaught them, hammered error into them when they were young and helpless, and would have taken to "fonetik speln" with cagerness. One of those signing the petition that lies before me is Mr. James L. Hughes, who may be said to have nearly 40,000 school children in this city at his mercy. Little boys and girls after their first lesson in spelling, return to their homes sputtering, contorting their countenances and coughing up sounds from their tender interiors in a manner that has alarmed many a mother. To see a child in the throes of spelling a word looks more like the symptoms of a fit than a first step in learning. The little one is taught to spell a word by sound, rather than by sight, as for instance, "cat" is "keh-ah-teh," and these sounds are produced by using a part of the throat that the child will ultimately employ only in swallowing food or in gargling when ill. After a year the child is taken to one side and told that it was all a hoax, and he learns that you can spell cat "c-a-t," as the housemaid contended from the first. It is rather odd that our authorities on education who can of their own accord, introduce a system like this, should feel compelled to appeal to the press in any thing. They suggest that silent letters be dropped, although silent letters, like silent persons, are often more worthy than their noisier companions. This journal will be slow to adopt dehorned spelling. Having learned to spell correctly, we do not propose to lightly abandon this advantage over many of our contributors.—Toronto Saturday Night.

#### An Unfortunate Statement.

Dr. Wm. T. Harris, U. S. Commissioner of Education, stated in a signed article recently, that in discussing the salary question in this country we should not take into account those who receive less than \$500 a year, as "they are make-shift teachers," have not prepared themselves for teaching, and are not studying to advance themselves, but go from school to school as opportunity offers.

Dr. Harris has certainly overshot the mark this time. There are thousands of excellent teachers, and many of them well-schooled and trained, who are receiving less than \$500 a year, and who will continue to receive no more if they are to have no more encouragement than this, and if the people they serve are to be told that their teachers are only make-shift teachers, anyhow.

On the other hand, there are teachers who receive \$500, yes \$1,000 a year, who are poorer make-shifts than many of these noble women who are serving their State nobly and conscientiously for less than \$500—yes, less than \$300 in many cases. The poor teaching is not all done in the "little red schoolhouse on the hill." Oh, no! Some of the deadest, dryest, most unskilled and unpedagogical teaching to be found anywhere is to be seen in schools where the teacher receives more than \$500 a year.—Ohio Teacher.

# Hints for Studying a Play.

BY REV. THOMAS MACADAM, OUEBEC.

I.-THE STORY.

Be prepared to give:

1.-A sketch of the author's life and character.

2.—A concise and clear narrative of the events in the play.

3.—The construction of the Play—number and subjects of Acts and Scenes, object of prologue and epilogue; a full narrative of the events of any Act or Scene that might be asked.

4.—A list of the Dramatis Personæ their relation to each other, and the part played by each.

5.—A description of the general plan, main plot, sub-plots, and special incidents.

6.—The different kinds of Dramatic literature and the class to which the play belongs.

7.—Sources, date, and history of this play.

8.-Names and dates of his other plays.

#### 11.—THE LANGUAGE.

- 1.—Note peculiarities in words, phrases, idioms and grammar.
- Give etymologies of word, with an interesting history.
   Note any specially felicitous words, epithets or phrases.
- 4.—Note and name all the chief figures of speech employed; note also adages, proverbs, maxims introduced.
- 5.—Be prepared to scan any line, to name the metre and point out metrical peculiarities or faults; state the kind of poetry and of stanza to which any passage belongs.
- 6.—Give a list of anachronisms in the play (if there are such),
- 7.—Note and explain all allusions to events or persons (a) of the Author's time, (b) of History, (c) of Mythology, (d) of Literature; also allusions to popular beliefs or traditions, or usages.
- 8.—Quote lines or passages illustrating each of the points above mentioned.
- Be prepared to name the person who utters any line, phrase, or passage that may be given.

10.-Be prepared to cap any line.

- 11.—Be prepared to supply the right word or epithet, when asked.
- 12.—Be prepared to note all the Saxon, Latin, or other foreign words in a passage of, say, 100 lines in length.

#### III. DRAMATIS PERSONAE.

- 1.—Individualize each character by describing his, or her, function (real or imagined), personal appearance, mental and moral qualities, views of life and men, contrasts and resemblances with other characters of this or other plays, social position, style of speech of each, etc.; sustaining every point by apt quotation.
- 2—Show the historical accuracy, or otherwise, of the portrayal of any historic characters (whether the character is true to history, whether a foreigner or ancient is made to speak and act like an Englishman of the author's day, etc.)
- 3.—Show originality or otherwise of the conception of any

character; whether true to nature, and suited to the situation.

#### IV .- THE AUTHOR AND IS TIMES.

- Show with the aid of quotation what the Play reveals, either directly or indirectly, regarding the Author in respect of:
- Age at time of writing, education, worldly position, tone of social surroundings and formative influences.
- 2.—His attitude towards religion; wholesomeness of moral tone; his general view of life and men; his character generally; love of nature, of truth, of books; estimation of women; and relation to the great, to the oppressed or poor.
- 3.-His knowledge of human nature.
- 4.—The kind of theme that appears most to interest him.
- 5.—The breadth and variety of his sympathics,
- 6.—The subjects that show him at his maximum, and at his minimum of easy strong movement, or of dainty gracefulness.
- 7.—The compass of his power, versatility, range of general knowledge.
- 8.—The bent of his genius—to the sublime (as Milton), to the humorous, ludierous, hopeful, gloomy, etc.
- 9.—11is own sentiments put into the mouths of his characters; power of imagining, by intellectual sympathy, sentiments not his own, but su'table to the situation of his characters.
- 10.—Compare his language and style with that of the time in which he lived.
- 11.—Estimate his influence on English style, and on the Drama.
- 12.—Explain the Dramatic Unities, and show how far he conforms to them.
- Observe whether his prevailing habit of mind is objective or subjective.
- LL—Note passages easting light on the manners, usages, etc., of the different classes of society in his time.

#### V.-QUOTATION.

- 1.—Be able to quote, when asked, what any character says to another on any specified occasion.
- Quote passages containing ideas or language apparently borrowed from other writers, with the counterpart passages.
- Quote from the same author, or other writers, passages illustrating the thought or situation in any parts of the play.
- 4.—Quote all the weak passages and point out their de-
- 5.—Quote the best passages of this Play, in single lines, complets and larger sections, aiming at variety of sentiment and literary form, say 100 lines in all.
- 6—Point out wherein the excellence of each of these passages lies (c. g. melody, various kinds of force, pathos, humour, sublimity, feeling, brightness, insight, suitability to speaker, etc., etc.)
- 7.—Quote passages casting light on the life and manners of the author's time.
- 8 Quote passages illustrating launan life, moral points, or any other matter of interest.
- 0.— Quote all the expressions in this Play that have come into every-day use.

## Children and Poetry.

The late Horace E. Scudder—who said many wise things on education—in an article on The Primer and Literature, remarked: "Of all the literary forms at the service of the teacher who wishes to lead the child by natural ways into the richest pasturage, verse must be given the precedence in time at least."

Its melody, its swing, its rhymes, its brief lines, its form, as distinct from ordinary speech, all appeal to the youngest child and awaken his interest, and if we look at the matter a little more deeply we shall see that the young human being is attracted by all these things just as man was attracted in the childhood of the world, for in the history of literature, poetry invariably precedes prose. To repeat rhymes to the baby, rhymes for his fingers, rhymes for his toes, rhymes for his little snub nose, his red buttoned up mouth, his shell-like ears, his wide, wondering eyes, is natural for every natural mother, and never vet was baby known to fail in delighted response. Nor ever yet was seen the little child who did not feel the charm of Mother Goose's melodies, the begining of juvenile literature, lyrics which have survived because they were fitted to survive.

So far most of us go in the training of children, but here, when a few more steps would bring us over the threshold and into the domain of real poetry—here we frequently stop, and largely because we are ignorant of what to do next. Yet the task is easy now, while later on it becomes in many cases a burden we can scarcely lift. "Once let genuine poetry possess a child," says Mr. Scudder again, "and the hardness of later life will not wholly efface its power; but let the cultivation of the love of poetry come late and it comes hard."

Why, then, says the practical parent whose eye has never rested on a line of verse since he read of the lamentable adventures of Tom, the Piper's Son—why, then, insist upon teaching poetry at all, since it seems to be a juvenile taste, outgrown like a love for hobby horses and mud pies

Because, in the first place, to be equally practical and yet sublime, "Poetry is the real and true state of man; the proper and last ideal of souls, the free beauty they long for, and the rhythmic flow of that universal play in which all life would live." This, in general, and as a preface to the detailed reasons, which are all simple enough.

First, we must cultivate a love of poetry in the chi'd because it is the smoothest, most seductive

pathway to literature—to great literature, to that in which is crystallized the hopes, the fears, the loves, the struggles, the conquests, the ideals of the race. A narrow pathway, you say, which begins with, "This little pig went to market," and "Pussy in the well!" A narrow one, indeed, we answer, but how wide is the artery that leads to the heart, out of which are the issues of life?

Second, familiarity with poetry is an invaluable aid to the use of good English, for it accustoms the child to beautiful words, beautifully set. The poet necessarily uses artistic language; that is, "words chosen for their clearness, force and beauty, as vehicles for the communication of conceptions and emotions." The parrot easily acquires a forcible vocabularly, you know, if he lives in suitable surroundings, and even the canary can learn to sing a tune if he hears it often enough. Let the child hear and read good poetry daily as a part of education, and you shall see how his diction shall gain in strength and beauty.

Third, poetry is of supreme worth in the cultivation of the imagination, and the children of this country especially need food for this faculty in the midst of all the practical tendencies of the times.—

Nora Archibald Smith, in Congregationalist.

#### There are Other Instances.

Little Johnny Sleepyhead was spending his vacation with his grandpa. One night grandpa heard a thud in the direction of Johnny's sleeping room. "What's the matter?" said the solicitous grandpa. "I jist—jist felled out of bed," was the reply. "Well, why did you fall out of bed, my little man?" "Dunno, 'less I went to sleep too near where I got in," was the significant reply.

Going to sleep too near where one gets in, is a dangerous malady, and is contagious among teachers. There are many who are immune to it, but the onslaughts of the disease are noticeable among teachers who could easily become immune if they would take the treatment. The vaccine consists of a liberal injection of professional zeal, applied early in the development of the young teacher. Teachers of much experience often forget that age alone is not a safeguard against the disease. "Going to sleep too near where one gets in" in not so much of a youngster's disease as one of early maturity—too early.

Those teachers who have gone to sleep too near where they got into the profession are pretty hard to arouse even by a thump occasioned by falling out of the band wagon. You occasionally meet such a teacher, and he is usually rubbing his eyes, sometimes his fists, and declaring that there has been unjust discrimination against him in throwing him overboard. While he stands and rails at the youngsters who crowded him out with diplomas in their hands, the whole procession moves on, leaving him to entertain himself with the echoes of his solitary complaints.

Young friend, be careful lest you fall into the slumber of self-satisfaction too near your entrance into the teaching profession.—The Ohio Teacher.

#### If You Are Lost.

Find a mature tree that stands apart from its fellows. Even if it is only slightly separated it will do. The bark of this tree will be harder, drier, and lighter in color on the south side. On the north it will be darker, and often at the roots of it will have a clump of mould or moss. On the south side of all evergreen trees, gum, which oozes from wounds or knot-holes, will be hard and amber-colored. On the north, this gum is softer, gets covered with dust, and is of a dirty grey. In fall or winter, trees which show a rough bark will have nests of insects in the crevices on the south.

A tree which stands in the open land will have its larger limbs and rougher bark on the south side. Hardwood trees-the oak, the ash, elms, hickories, mesquits, and so forth-have moss and mould on the north. Leaves are smaller, tougher, lighter in color and with darker veins on the south. On the north, they are longer, of darker green, and with lighter veins. Spiders build on the north side. Any sawn or cut stump will give you the compass points, because the concentric rings are thicker on the south The heart of the stump is thus nearer to the north side. All these things are the effects of the sun. Stones are bare on the south side, and if they have moss at all it will be on the north. At best, on the sunny side only a thin covering of harsh, half-dry moss will be found. On the south side of a hill the ground is more noisy under foot. On the north side, ferns, mosses, and late flowers grow.— Selected.

[It would be well for teachers and pupils to try to verify some of the above statements.—ED].

In teaching, as in other things, look up, and the stars guide you; look down, and the gutter beckons.

—Thos. E. Sanders.

# Carleton County Institute.

The annual session of the Carleton County Teachers' Institute met at Woodstock on the 20th and 21st December, President H. F. Perkins, Ph.B., presiding. Eighty-six teachers were enrolled. The presence of the Chief Superintendent, Dr. Inch, and of Dr. C. C. Jones, Chancellor of the University of New Brunswick, was highly appreciated and added to the interest and profit of the meetings. The first session opened with a thoughtful and inspiring address by President H. F. Perkins. The key-note of his address was "Keep Growing." Inspector F. B. Meagher, W. B. Belyca, Chairman of the Woodstock School Board, Principal C. D. Richards, B.A., and Principal F. C. Squires, B.A., followed with well chosen remarks. An interesting paper on Drawing occupied the remaining time of the session.

The time of the second session was occupied by a masterly paper on Literature by Mr. C. D. Richards, and a visit to the Sloyd room where a most interesting lesson to a class of seventh grade boys was given by Miss Louise Wetmore.

On Friday morning Mr. F. C. Squires delivered an excellent address on Geometry, and Dr. C. C. Jones another on Mathematical Study and Teaching. Mr. Isaac Draper read an interesting paper on Spelling, and Mr. A. E. Rideout opened the discussion.

On Friday afternoon the Institute listened to two excellent papers, Composition was discussed by Mr. Jas. O. Steeves, and Geography by Mr. Geo. N. Belyca.

A cordial invitation from the trustees at Florenceville to hold the next meeting of the Institute in the new consolidated school building was accepted, and the time for the meeting was set for the first week in October. The following officers were elected: Chas. D. Richards, President; F. C. Squires, Vice-President; R. E. Estabrooks, Secretary; Miss Helena Mulherrin and Miss Marion R. Thompkins, additional members of the Executive.

R. E. ESTABROOKS, Secretary.

Woodstock, N. B., Dec. 26, 1906.

Teacher—"Which is farther away, England or the moon?"

Pupil—"England."

Teacher—"Why?"

Pupil—"Because you can't see England and you can see the moon."

the pupils.]

## Problems in Rhymes.

Ι

Some frisky little squirrels found Two pecks of chestnuts on the ground; Now, let the wisest child declare How many pints of nuts were there.

H

Hidden in the fragrant hay, Harry found, one autumn day, 4 dozen eggs, and 12 eggs more; In all these eggs how many score?

I1I

Minnie, and Jack, and Grace, and May, Nine year old Charlie, and two year old Ray, 3 pounds of candy the six must share, And I must divide it true and fair; What part of a pound shall I give each one? Now tell me quick and the problem's done.

IV

2×1 is the baby, 2+3 is Lou, 6×5 is dear mamma, 20+15 is papa, And 3×3 is Sue; the sum of their ages?

What is the sum of their ages? Tell And we'll declare you've answered well.

V

For Elsie's birthday mamma made A gallon bowl of lemonade, To every lad and every lass, She gave a half pint in a glass The number of the children name Who unto Elsie's party came.

VI

Here is a riddle for you to guess, There are twenty rosettes on dolly's dress, In each rosette, Maid Mary said, She put eighteen inches of ribbon red; How many inches of ribbon gay Did Mary use? Come, who will say?

VII

Hickory, dickory, dock! It is just nine by the clock. How many minutes must pass away, Ere half-past ten the clock will say?

VII

Add 59 and 34, Take 66 away, The number left divide by 3; What answer comes, I pray?

IX

4 flags has Jack, and, on each one, 7 stripes of red and 6 of white; How many stripes on those four flags? Now tell me quick if your are bright. Х

Multiply 45 by 2,
Divide the answer by 3.
Take away 6, and add 14;
What number, then, will you see?
—Virginia Baker, in Primary Plans.
[These may be cut out, pasted on cards and given to

"Oh, a trouble's a ten,
Or, a trouble's an ounce,
And it isn't the fact

That you're hart that counts, But only how did you take it?"

One night Paganini was going to the Paris opera house, where he was to astonish every one by playing on one string. Being late, he took a cab, and when he arrived at his destination, the cabby wanted ten francs. "What," he exclaimed, "you are crazy, I have only had you five minutes." "I know it is much," said the other, "but for you who make a fortune by playing on one string it must be ten francs." "Well," said Paganini, handing him the right fare, "when you can make your cab go on one wheel come to me and I will give you ten francs."—

La Caricaturista.

Canada's proportion of population is only 1.5 to the square mile (England has 558 and the United States 21 persons to the square mile); population by her first census of 1665 was 3.251; population in 1763 was 70 000; population at Confederation, 1867, was 3½ millions; population in 1901 was 5.371.315; population, estimated, on June 30, 1904, was 5.604.328; began the twentieth century with the same population as the United States began the nineteenth.

Fully one-half of the movements of pupils and classes should be indicated by a motion of the head or the hand. Every movement that can be indicated by a sign or a gesture should be so directed. Fully one-half of the oral commands should be avoided. Quiet not only saves time, but it induces thought.

It was the first time Nan had seen any one husking corn. "Do you have to undress every single ear?" she asked, soberly,—Judge.

The length of the Siberian Railway is 6.677 miles. The length of the Cape to Cairo Railway, when finished, will be 6,500.

#### ASLEEP.

The sun is gone down,
And the moon's in the sky;
But the sun will come up,
And the moon be laid by,

The flower is asleep,
But it is not dead;
When the morning shines,
It will lift its head.

When winter comes,
It will die,—no, no;
It will only hide
From the frost and the snow,

Sure is the summer,
Sure is the sun;
The night and the winter
Are shadows that run.

-George MacDonald,

#### CURRENT EVENTS.

The British House of Commons has approved of bills granting constitutional government to the Transvaal and Orange River Colonies.

From the Lake-of-the-Woods westward, as far as the Red River, the boundary between Canada and the United States is marked by iron posts, similar to those which mark the boundary between New Brunswick and Maine. These pillars are eight feet in height, and are eight inches square at the base, tapering to four inches square at the top. West of the Red River valley, the line is marked by mounds of earth or stone, or by wooden posts, until it reaches the mountain region, where in some parts shafts of granite are used.

Wallace, the explorer of Labrador, believes that this little known part of our territory contains great mineral wealth.

English weavers look to West Africa as the source of their future supply of cotton. A railway is proposed to assist in the development of the country; and it is predicted that before many years there will be a political union of Sierra Leone, the Gold Coast, and Northern and Southern Nigeria, which will bring into existence a great West African dominion.

A new alloy, a compound of silver, nickel, bismuth and gold, can be used by electricians as a substitute for platinum, at about one-thirteenth of the cost.

The United States House of Representatives has ordered that the government printing office shall "adhere to the standard of orthography prescribed in the generally accepted dictionaries of the English language," instead of following the "simplified spelling" advocated by President Roosevelt.

Great Britain, France and Italy have signed an agreement for the maintenance of the integrity of Abys-inia.

Sir Hiram Maxim is reported to have said that we shall not have balloons in the future; we shall have flying machines. The flying machine, he thinks, will be a sporting affair at first, just as the automobile was; but he looks for startling developments within the ensuing year, and the balloon will soon be a thing of the past. We can hardly estimate at present all that this means in the practical affairs of nations. It is sufficiently startling to know that any of the wild imaginings of what might happen if men could fly are coming true.

German experiments seem to show that deep sea fishesmay be gradually accustomed to living in fresh water, and will remain active and healthy in their new surroundings.

The Japanese prepare from soy beans an agreeable substitute for milk.

The extensive use of scaweed in Japan gives employment to whole villages. More than fifty varieties are utilized either for food or as raw material for manufactured products. The Japanese government encourages the industry, and has offered a reward for the best method of producing iodine from sea plants.

A repair ship, called the "Cyclops," is among the latest additions to the British navy. She will be fitted up with foundries and workshops, and will carry three hundred men, mostly workmen, and be ready for service sometimeduring the present year.

Cheap postage on British periodicals is promised us. Unfortunately we now get United States publications postage free, and have to pay postage on those that come from the United Kingdom; but the present arrangement with the United States is to be discontinued, which, with the promised reduction, will give us no longer a postal preference in favor of foreign literature.

A chair of protozoology has been established in the University of London. This new branch of science treats of the minute organisms known as protozoa, many of which are now known to exist as parasites in the bodies of higher animals, and some of which are recognized as the causes of infectious diseases, such as malaria in man, and the Texas fever in cattle, formerly supposed to be of vegetable origin.

Flying-fish fly. An English naturalist has determined that they do not merely jump from the water, guiding their flight through the air by their extended wing-like tins; but that there is a rapid vibratory motion of the wings while in flight, sustaining them longer in the air than if impelled only by the movements of the tail and fins in leaving the water.

The separation of church and state in France has taken place without any serious disorders. There has been on both sides an effort to avoid violence, and the result has shown that in the French Republic a great revolution can be effected quietly.

The provisions of the Algeeiras conference giving to France and Spain police powers in Morocco seems to have come in force not before it was needed. The Sultan's authority has been openly defied in Tangier, where the French and Spanish fleets are assembled to enforce it.

The Mexican government has taken over the principal railways of that country, fearing that the great railway corporations of the United States might otherwise get possession of them.

The new Canadian tariff provides for a general schedule of rates and for a British preference as before, and for

an intermediate tariff, to be conceded to non-British countries which make trade concessions to Canada. The latter is at present ineffective, as there is as yet no foreign country in a position to claim its advantages.

The President of the United States has issued a proclamation, calling upon his people to contribute to the relief of famine sufferers in China, where crops have been destroyed by floods and millions of people are on the verge of starvation. The past year has been a year of great disasters, including the carthquakes in San Francisco and Peru, the eruption of Vesuvius and the typhoon at Hong Kong; but the present distress in China, in which whole provinces are involved, is so widespread and so terrible that its cause must be considered the greatest disaster of all. In Canada, the year has been one of great prosperity and progress, and we have been able to send large contributions to the help of the needy in other lands.

#### SCHOOL AND COLLEGE.

Mr. H. H. Biggar has been appointed principal of the graded school at Sussex Corner, N. B.

Mr. John G. McKinnon, who has had charge of the Black River school during the past term, has been appointed principal of the Douglas Avenue school, St. John.

Miss Frances Prichard, who has had charge of the manual training department in the consolidated school at Florenceville, N. B., has accepted a similar position in the Owen Sound, Ontario, school.

Canadian school children are to raise a monument to the memory of Alexander Muir, author of "The Maple Leaf Forever."

The pupils in the Woodstock, N. B. grammar school gave Principal C. D. Richards a magnificent china tea set on the eve of his marriage with Miss Grace Bolton, until recently matron of the hospital there.

Dr. G. R. Parkin, of London, the Rhodes scholarship commissioner, will visit the principal educational centres in Canada early in the new year.

Mr. H. Stuart, principal of the Harcourt, N. B., superior school, has resigned his position to become editor of the Newcastle *Advocate*.

Chancellor Jones has recommended the establishment of a law department in connection with the University of New Brunswick.

# RECENT BOOKS.

Messrs, A. & W. MacKinlay, of Halifax, have published a second edition in a neat book form of the sketch of Hon. Joseph Howe, written in 1875 by the Rev. G. M. Grant. The publishers very properly think that the ment ry of this distinguished Nova Scotian should be kept alive among his fellow-countrymen, and to that end have brought out this re-print, which is in a convenient form for preservation. The ready sympathy of the Rev. D. Grant in dealing with his subject is apparent on every page of the memoir, which should find its way into every home and school in the province. Added to the sketch is Howe's Essay on the Organization of the Empire, and a chronological list compiled by Mr. Joseph A. Chisholm, barrister, Halifax, of his writings and speeches, the who'e forming

a handsomely bound volume of 110 pages; price one dollar in cloth binding. (See advertisement on another page).

Much credit for compiling and bringing out this sketch is due to Mr. J. W. Logan, classical master of the Halifax Academy, and the profits from the sale are to be devoted to replenishing the academy library, a very worthy object.

The Psychological Principles of Education: A Study

in the Science of Education, by Herman Harrell Horne, Ph. D., Dartmouth College. Cloth. Pages 435. Price \$1.75. New York: The Macmillan Company. Toronto: The Macmillan Company of Canada, Limited.

This volume is the attempt of a teacher to lay the scientific foundation of the art of teaching, so far as these are concerned with psychology. Principles of pure psychology are transformed into educational principles for the teacher, who may not have the skill or knowledge to do so for himself. In the first part the aim is to get bearings in the field of the science of education. The remainder of the book sketches such a science from the standpoint of psychology, treating education as viewed from the physical, intellectual, emotional, moral and spiritual standpoints, The book is divided into five parts, and at the end of each there are numerous references to educational authorities on each of the above divisions. The book is a timely contribution to education as a science, and is worthy of a thoughtful consideration by teachers.

From the same publishers, there is the First Book in Latin, by Inglis and Prettyman (price 60c), which provides as a first year Latin course a sufficiently adequate preparation, the authors think, for the reading of Cæsar; The Kipling Reader (50 cents), with selections from the prose and poetry of Kipling, embracing such stories as Wee Willie Winkie, Mowgli's Brothers, The Lost Legion, and others; Emerson's Representative Men (25 cents), in the Pocket Series of English and American Classics, which includes besides the Representative Men an epitome of Emerson's writings in general.

Messrs, A. S. Barnes & Company, of New York, make a New Year's contribution to education in the form of a half dozen books of a convenient form for use in the schoolroom. These are: Mary Kingwood's School, a real story of the experience of a primary teacher, Miss Corinne Johnson, who becomes the observer of her own school, idealizing it from the standpoint of sympathy; Hints and Helps from many schoolrooms, being the plans and devices of many teachers who have used them; Little Talks on School Management, a suggestive and helpful book on the various problems of school work; Composition in the Elementary School has many good ideas in making composition interesting to the earlier grades: Simple Experiments in Physics, in two volumes, the first dealing with mechanics, heat, fluids, and the second with sound, light, magnetism, electricity.

Messrs. D. C. Heath & Co., Boston, have published Victor Ilugo's Quatre-ringt-treize, with introduction, notes and vocabulary. While omitting many details, the substance of this thrilling novel is retained, and in the words of the author, who was over seventy years of age when he wrote the book but with powers of delineation and description unimpaired. It will prove attractive and useful to students of French. From the same publishers there is Sudermann's Teja, a one-act drama, the hero of which

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(Teja) is a King of the Goths in their decline. It is a delineation of the workings of a noble nature under difficulties, supported by the sympathy of a wife, who has an intelligent appreciation of his ambition and the unhappy situation in which he is placed. With introduction, notes and vocabulary

Ginn and Company, Boston, publish Good Health, (mailing price 45 cents), by Frances Gulick Jewett, designed for children of ten or twelve years of age, and treating almost exclusively of hygiene rather than of anatomy or physiology. It presents facts rather than dogmatic conclusions. Among the subjects presented are pure air, ventilation, cleanliness, the care of eyes, ears, finger nails, hair, teeth, skin and lungs, the importance of exercises. bathing, etc. Its treatment of alcohol is vivid but not The author deals with the results of its pathological. use upon the individual as a whole rather than with its disease effects upon the stomach, liver, etc.

Munchausen's Reisen and Abenteuer (price 30 cents). published by D. C. Heath and Company, Boston, a few selected stories from the famous Baron Munchausen's journeys and adventures, edited with introduction, notes, vocabulary and exercises for composition; very suitable for younger German readers.

From Blackie and Son, London, we have Charles Dicken's The Cricket on the Hearth. (price 6d.); Scenes from "Cranford", (6d.), arranged from Mrs. Gaskell's novel for acting by girls; and Blackie's South African Handbook of English, (price 9d.), a series of practical exercises in English composition, with poetry for reading and recitations; designed for grade six.

#### RECENT MAGAZINES.

The Christmas number of the Canadian Magazine is beautifully illustrated, and the reading matter interesting and appropriate to the season. The Canadian is improving with each number and is keeping pace with the rapid growth of the Dominion.

Horace G. Hutchinson, whose success as a writer of historical novels was assured by his stirring story, A Friend of Nelson, now turns his clever pen 10 fiction of a different type. His new story, Amelia and the Doctor, is a charming succession of pictures of village life and character, reminding one at times of that exquisite classic, Cranford. It is now appearing in The Living Age in serial form, and began in the number for December 8.

The Christmas number of the Atlantic Monthly is distinguished by the excellence and variety of the good reading which it presents from a host of able contributors. A fitting tribute to that eminent teacher and scientist, the late Dean Shaler, is found in the essay-The Measure of

The serial story, The Chauffeur and the Chaperon, now running in the Delineator, combines very well the features of interest of that remarkable country. Holland, and the developments of a good story. The Value of Rest is a helpful article, advising how to obtain healthful repose of mind and body.

I am much pleased with with your paper. I do not think I ever spent one dollar more wisely. Rosevale, N. B. L. Annie Steeves.

# Educational Review Supplement, Jebruary, 1907.



"THE SNOWBALL"-GUILTY OR NOT GUILTY?

Published in Pears' Annual, 1900.

One of the three plates given away with the 1000 Annual.

# The Educational Review.

Devoted to Advanced Methods of Education and General Culture,

PUBLISHED MONTHLY.

ST. JOHN, N. B., FEBRUARY, 1907.

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G. U. HAY, Editor for New Brunswick

A. McKAY, Editor for Nova Scotia,

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THE EDUCATIONAL REVIEW,

St. John, N. B.

THE REVIEW regrets, owing to a cause not foreseen in time to remedy, that no picture is sent out with this month's number. The March Review will contain the usual attractive picture supplement.

THE seventh annual meeting of the Canadian Association for the Prevention of Consumption and other forms of Tuberculosis will be held in Ottawa the 13th and 14th of March next. A public meeting of the members of the association and of the citizens generally, at which His Excellency will preside, will be held at the Assembly Hall of the normal school, Ottawa, Wednesday evening, March 13th, at which Dr. Sheard, the chairman of the Ontario Provincial Board of Health, will deliver a lecture upon "Home Treatment of Consumption."

A daily paper is in error when it refers, in bold headlines, to Supt. Dr. A. H. MacKay, of Nova Scotia as a recent convert to simplified spelling. Supt. MacKay has been an advocate of reformed spelling for a quarter of a century past. It is but just to say, however, that in practice Dr. MacKay is still in the ranks of conservative spellers.

THE Dominion Educational Association will meet in Toronto, July 9-12 of this year. The programme is now being arranged, and the readers of the REVIEW will be kept posted on the details of the meeting in future numbers. Special railway rates will be secured. The meeting promises to be one of great interest. Principal W. A. McIntyre, of Winnipeg, is the president, and Dr. D. J. Goggin, Toronto, the secretary.

Some months ago the Review received a large number of subscribers, each one of whom was to pay his or her subscription directly to the office at a certain specified time. It is a pleasure to note that the agreement was faithfully kept in nearly every This is mentioned simply as a matter of recognition on the part of the Review toward these teachers, not as a measure of justice to them. The word of a teacher should be as good as a bond.

THE January number of Acadiensis, beginning Volume VII, is one of the most interesting numbers yet published of that magazine so ably conducted by Mr. D. Russell Jack. It is full of valuable historical articles, prominent among which is the History of Pokemouche, one of a series of North Shore (N. B.) Settlements, by Professor W. F. The spirit of the author is admirably shown in these words, to which we would invite the attention of all desirous of rescuing fragments of our local history from oblivion: "It is my aim to collect the essential facts while yet there is time, and to preserve them thus for the future generations of New Brunswick men and women who will eare for these things."

THE REVIEW is indebted to Mr. G. F. Chipman, formerly a teacher of Canning, N. S., now on the staff of the Winnipeg *Free Press*, for extracts containing late educational news of the Prairie provinces. There seems to be a strong demand there among school boards and inspectors for compulsory attendance. Nor do they stop there. If there is to be compulsory attendance of schools, there must be schools worth the attending, and ample provision for all the children. Many advocates of compulsory education forget this corollary.

#### Better Salaries.

From all parts of Canada comes a strong protest against the injustice of the present meagre salaries of teachers. The *Free Press* of Winnipeg, one of the most influential papers in Canada, has recently devoted considerable space to the subject and has strongly emphasized the pressing need of more remunerative pay. At the close of the Normal school recently in that city, Principal W. A. McIntyre, after showing the insufficient salaries of teachers compared with other wage earners, said:

"I am not complaining that the salaries of beginners are not high enough. They are often too high. Some teachers are worth \$500 a year less than nothing. The pity is that we should be forced to supply them. But the complaint is that higher qualification and length of service are ignored.

"The only remedy possible is, (1) That the municipal and legislative grants shall be graded, so that service and experience shall be recognized; (2) That the local school board shall give way to the municipal school board."

Principal McIntyre brought forward several instances to show that the novice in teaching is almost as well remunerated as the teacher of experience. It is much the same in the east.

While a novice may occasionally be worth more than the one who has had a long experience, it must be that service and experience, with some teaching ability to start with, are the only true standards to gauge advancement. And to make teaching a profession that shall attract and retain the best talent it is necessary to recognize that the central fact in the school system is the teacher, and that remuneration should advance in proportion as the teacher advances.

A superintendent of schools draws attention to the fact that \$600 ten years ago had the purchasing power that \$750 has to-day. But in spite of twenty-five per cent increase in the cost of living, teachers' salaries have not increased. A teacher compared that few recently in the St. John Daily Telegraph that few

women teachers in that city get more than \$300 a year, a sum that is no way adequate to secure a respectable living. There are many—perhaps more than half—of the teachers in the Maritime Provinces who do not get that much. Is this justice? Governments, school boards and parents should think of it, and exert themselves to remedy a matter that will soon grow to be intolerable. Comfortable living salaries should be the measure of appreciation that people render to good teachers for their services. It is admitted that teachers do not work for salary alone; but it is a mean thing for people to impose on them because they teach from a sense of duty.

## A New Drawing Course.

The announcement, contained in recent numbers of the Review, that the Board of Education had prescribed a New Brunswick edition of Augsburg's Drawing Course, must have been hailed with satisfaction by the teachers of the province. The absence hitherto of a graded and suitable course in drawing has been one of the greatest wants in the schools of New Brunswick. Thanks to the efforts of the Board of Education and Mr. H. H. Hagerman, of the Normal school, who has revised Augsburg's graded practice books and made them suitable to our needs, the teachers and pupils have a system of drawing which, with some enthusiasm and endeavor, should produce excellent results.

Augsburg's Drawing System is embraced in three books, and is designed for use in graded and ungraded schools. Each subject is treated topically and is arranged so as to give the widest latitude and the greatest flexibility in teaching.

Book I is a teacher's hand book, showing simple and effective methods of teaching drawing, including color work, in the first, second and third grades. An additional book on drawing with colored crayons is published with the set.

Book II is a regular text-book, containing the essentials of free hand drawing. It may be placed in the hands of the pupils of the fourth, fifth, sixth, seventh and eighth grades, and used the same as a text-book in arithmetic or other subjects. It may also be used in connection with a system of copy or blank books or drawing pads.

Book III contains short, yet complete, courses in brush drawing, wash drawing, water color drawing, pen drawing, the drawing of the human head and figure, decorative design and constructive drawing.

The practice books are designed for pupils of the earlier grades, but until some facility in drawing is acquired they may be used as far as grade eight. A set of cards, to aid in the teaching of action

drawing in the primary grades, form a valuable addition to the course.

The books are published by the Educational Publishing Company of Boston, and are for sale by C. W. Hall, Fredericton, to whom orders should be sent.

## Color in February.

Some day after a snow storm we want you to try to see color in the landscape. Do you think an artist would paint a snow scene perfectly white? What colors do you see in the shadow of the tree trunks? Look at the tracks you made across the yard or field; can you see any color in them? Do not be discouraged if you fail in the first attempt. Look often and at different times in the day.

Perhaps in your school work, you have painted trees trying to represent the fresh green of spring, the rich color of summer, or the bright tints of autumn. Did you ever think to look for color in the bare trunks and branches of the trees in winter? See that mass of trees at a distance; another nearer by. Look in the morning, in the middle of the day, and just at sunset. Look on a bright day and on a "gray day." What colors do you see? Are they always the same? Watch the changes in the color of the twigs as spring comes on.—Abbie E. Comstock.

#### About Plans.

The following, taken from an exchange, shows that there is nothing like a good brisk walk in the open air to form and perfect plans for the school-room:

"She's an earnest soul with a determined face. She is on her way to school where a room full of eager faces are in waiting. Over an unprotected rough country road she is walking, with her head full of thoughts on a perplexing problem. Mary is a firm believer in a plan before she attempts to work. This walk of a mile has cleansed her lungs. The peach bloom is in her cheek and there's a sparkle and lustre in her eyes which show she is harry in the thought that she's going to help somebody. In spite of thirty daily recitations, in spite of the poor equipments, in spite of the lack of co-operation of trustees and patrons, Mary resolves that on this very day the plan must be tried."

Gross ignorance is 144 times as bad as just ordinary ignorance.

# Glimpses into Schoolrooms - II.

BY THE EDITOR,

It was a country school,—not in a poor district, nor by any means a wealthy one. The children were plainly but neatly dressed. This caused me to look at the teacher. Aftired in a plain grey dress, a neat white collar with a touch of red about her throat, her hair attractively arranged,—suggested that the girls had found in her a pattern of neatness. Her quiet orderly movements also suggested the cause of the good order which prevailed in the schoolroom.

As I approached the building a few minutes before. I noticed some boys and girls hurrying towards the entrance, talking and laughing as they went. They bade me a quiet, pleasant "Good morning," as they passed. There was no loitering at the door. They entered quietly as if impressed with the notion that serious work was before them, and that they intended to be partners in it. The teacher had been writing at the board when I entered, and stepped forward to welcome me as an old friend, assigned me a seat, and continued her work. The scholars did not stare at me; they looked, indeed, in my direction; a few to whom I was known gave me a pleasant smile and a nod of recognition which made me feel quite at home. They seemed to be all busy at something, and east frequent looks at what the teacher was writing on the board.

A touch of the bell and instantly all filed to their seats, quietly, and with no show of doing anything in a way different from their usual custom. The teacher introduced me to the school, but did not ask me to make an address. Instead—a much better custom—we talked easily a few moments on off-hand topics such as the bright morning, the school and attendance. In this brief conversation the scholars joined, not obtrusively, but in response to some remark or question of the teacher. In short, they conducted themelves as well-behaved people do on such occasions; and they seemed like one happy family.

One of the familiar Psalms was read; another—the twenty-third—was recited in unison; the teacher in a few short simple words asked for a blessing on the day's work; and the school sang two stanzas of "My Own Canadian Home."

"This is our morning for Canadian history," said the teacher, turning to me. "We always have a little song, appropriate if possible, before we take up each lesson."

An excellent plan, I thought.

"But do you always begin the day with Canadian History?"

"Not always. In fact we change the order of our lessons nearly every week. Sometimes we take arithmetic first; sometimes a language lesson; and sometimes a nature-lesson, which the scholars always enjoy, as it gives them the opportunity to recall what they have seen in their walk to school, while it is yet fresh in their minds. Then this changing about relieves the work of monotony, and the scholars seem to enjoy the lessons better."

"History is very often a tedious subject for children," I ventured to suggest, but careful to speak loud enough so that the scholars should hear. A smile of incredulity passed over some faces; in others the eyes actually twinkled with ill-concealed merriment.

"It is not so here, I am happy to say. We find history one of our most interesting subjects," said the teacher quietly; and approving nods came from every quarter of the room.

Turning to the blackboard in the rear of the platform she said, "Here we have an outline map of Eastern Canada which I draw afresh for every lesson. It only takes a few moments; and you see we have none too much blackboard space. Then we have here certain dates, 1492, 1497, 1534, 1579, 1604, suggesting names of explorers in Canada. These dates and the outline map suggest the basis of the early exploration of Eastern Canada. As we study each explorer we draw lines on the map with colored crayon, following his line of travel, using different colors for different explorers. In order to fix the travels of explorers in their minds after we have gone over them in class, I give one explorer to each child and have him look up all the facts possible, from pictures, books, and conversation at home, about his dress, looks, birthplace, the style of vessel, crew, etc. Then I call upon him in class and he tells the story as though he himself were the explorer. If he can dress himself, or at least wear some token to make his personation the more real, so much the more vivid is his narrative.

"You would hardly believe," said the teacher, her animated face turned to me, "how interested the boys and girls are in these exercises. A few days ago as they were starting off on a snow-shoe tramp after school, one of them said, 'Come, let us be Columbuses, Cartiers, and Champlains today, and go to places where we have never been before.'

"Sometimes when we have a few minutes to spare

at the close of a lesson, one scholar volunteers to represent Cartier or some other explorer, and he is ready to answer questions about the Indians, or other experiences he has met in coasting along the eastern shore of New Brunswick or up the St. Lawrence river.

"Some days, to vary the lesson, we take the history as a reading book, and a few paragraphs are read in turn followed by questions and explanations. The pupils very often volunteer information that they have gained from other books or from conversations at home; and the lesson is conducted in a free and easy manner.

"We are always on the lookout for pictures of persons and scenes in Canada, which may be cut from illustrated papers, calendars, tourists' guides, magazines, etc. These we mount on cardboard or manila paper and distribute to the members of the class. If a pupil finds out a good deal about a picture or writes a very good story on it, he is allowed to keep the picture as his own on condition that he is to bring it to the class on any day it may be required for general use.

"We have a good way, I think, of allowing a member of the class to put a question on the board each day, of his or her own devising, indicating where or in what book the answer may be found. Each pupil is expected to look up the answers. One question the other day caused considerable searching and trouble before it was answered: 'Who sailed to Newfoundland in the ship called the Golden Hind?'

"Oh, there is no end to the interest which can be aroused in a history lesson," said this enthusiastic teacher. "The scholars are not required to memorize anything; but they remember everything." And the proof was in the lesson that followed.

"May I come in again, Miss ——?"

"Oh, yes, we shall always be glad to see you."

The day before St. Valentine's, draw on the blackboard, or get some one to do it for you after school hours, a large valentine; heart-shaped is the prettiest. Decorate it in colors according to your taste, and write on it, in ornamental lettering, "To my school, from its teacher." Then watch the faces of the children as they file into the schoolroom the next morning. I know how they will look, for I tried the effect of a blackboard valentine upon my pupils.—Hints and Helps for the Schoolroom.

# February and Its Noted Days.

ELEANOR ROBINSON.

The name of February is derived from the Latin verb februare, to purify; or from Februa, the Roman festival of purification, which was celebrated during this month. The old sayings and proverbs concerning February and its weather commemorate it as a moist month, and also betray the superstition that a fine February augurs ill for the weather to come. For example:

"All the months in the year Curse a fair Februeer."

"If Candlemass Day be cold and clear, The worst of the winter is yet to appear."

A German proverb says that the shepherd would rather see a wolf enter his stable on Candlemas day than the sun. Another German saying is that the badger looks out of his hole on Candlemas day, but if he sees the sun he goes back.

"February, fill the dyke Either with the black or white."

-is an English saying, and the poet Spenser writes:

"Then came old February, sitting In an old wagon, for he could not ride, Drawn by two fishes, for the season fitting, Which through the flood before did softly slide, And swam away."

The second of February, commonly called Candlemas day, is a church festival, commemorating the events recorded in the second chapter of St. Luke's gospel, the presentation of Christ in the temple, and the purification of the Virgin. The popular name keeps in memory a very ancient custom, that of walking in procession with candles, and singing hynms. A description of this ceremony is given by a writer of the twelfth century, as follows:

"We go in procession, two hy two, carrying candles in our hands, which are lighted, not at a common fire, but at a fire first blessed in the church by a bishop. They that go out first, return last; and in the way we sing, 'Great is the glory of the Lord.' We go two by two in commendation of charity and a social life; for so our Saviour sent out His disciples. We carry lights in our hands; first, to signify that our light should shine before men; secondly, this we do this day especially in memory of the Wise Virgins that went to meet their Lord with their lamps lit and burning. And from this usage and the many lights set up in the church this day it is called Candelaria, or Candlemas. Because our works should all be done in the holy fire of charity, therefore the candles are lit with holy fire. That they go out first return last, to teach humility. in honour preferring one another. Because God loveth a cheerful giver, therefore we sing in the way."

In 1539, King Henry VIII proclaimed:

"On Candlemas Day it shall be declared that the bearing of candles is done in memory of Christ, the spiritual light, whom Simeon did prophesy, as it is read in church that day."

In the time of Charles I, when candles were brought in at nightfall, people would say, "God send us the Light of Heaven."

In Scotland, Candlemas day is one of the four quarter days. It was an old custom in that country for children attending school to make small offerings of money to their school masters on that day. The boy and girl making the largest gifts were chosen king and queen of the day; a holiday was given, a procession, led by the king and queen, and a bonfire lighted, called the "Candlemas blaze."

The snowdrop, which appears in England about this time, is called the "purification flower," and also the "Fair Maid of February." Tennyson's St. Agnes prays:

"Make thou my spirit pure and clear, As are the frosty skies, Or this first snowdrop of the year That in my bosom lies."

The teachers of the early church had a wise plan of substituting Christian festivals for heathen ones, and, where it was possible, even allowing the newly made converts to follow the old customs by giving them a Christian meaning. It is generally thought that the observance of Candlemas day is an instance of this. February was the Roman month of purification, and an especial feast was the Lupercalia, held on February fifteenth (see Julius Cæsar, Act I, Sc. I, line 72), and one of the rites of this festival was the lighting of candles in reference to those used by the goddess Ceres when she was seeking her daughter Proserpina. The ceremonies also included a drawing of lots by the young men and women, and this is supposed to be the origin of the old custom of drawing lots for Valentines on the fourteenth of the month. Pepys tells us in his Diary how this fashion was followed in England. Each gentleman was expected to give treats and presents to the lady whose name he drew and whose Valentine he was. On February 22nd, 1661, Mr. Pepys writes:

"Sir W. Batten yesterday sent my wife half a dozen pairs of gloves, and a pair of silk stockings and garters, for her Valentines."

And on St. Valentine's day, 1667, we find the following entry:

"This morning comes little Will Mercer to be my wife's

Valentine; and brought her name writ upon blue paper in gold letters, done by himself, very pretty; and we are both well pleased with it. But I am also this year my wife's Valentine, and it will cost me five pounds."

The sending of verses to the person chosen, or assigned by lot, as a "Valentine," is also a very old custom. This pairing off of couples is sometimes said to be in imitation of the birds, who were thought to choose their mates on St. Valentine's day. In "The Parlement of Foules," Chaucer says:

"For this was on Seynt Valentyne's day, when every foul (fowl) cometh ther to choose his make (mate)."

And the same poet has many other references to this saint. Michael Drayton (1563-1631) wrote some charming verses to his Valentine, beginning as follows:

"Muses bid the morn awake,
Sad winter now declines,
Each bird doth choose a make,
This day's Saint Valentine's.
For that good Bishop's sake
Get up and let us see
What heauty it shall be
That Fortune us assigns."

On the occasion of the marriage of the Princess Elizabeth, daughter of James I, and ancestress of our present royal family, on St. Valentine's day, 1613, the poet Donne wrote a marriage hymn beginning:

"Hail, Bishop Valentine, whose day this is, All the air is thy diocese, And all the chirping choristers And other birds are thy parishioners."

No connection has ever been traced between the Roman bishop and martyr, St. Valentine, and the popular ceremonies with which his day is observed.

The great function of the public schools is to establish character. One of the essential elements of character is a sympathetic attitude towards the rights, privileges, and feelings of others. When a child has learned to sympathize with the feelings of animals, he has made a long step towards the recognition of the rights of his fellow-beings and has made a substantial gain in his education. Any effort looking towards an increased appreciation of the birds and animals around us is a legitimate part of public school work.—Supt. Stratton D. Brooks.

The Review has been exceedingly helpful to me in my work. The picture supplements meant much to my school. After careful study they were passepartouted and hung on the walls.

Hamilton, N. Y. MISS A. W. WARREN.

# Geography Match.

A pleasant and profitable game which often helps out in a Friday afternoon programme or in a regular geography class, is this. Have the class choose two captains, as in a spelling match. The captains then take turns in choosing their companions. When all are ready, the teacher writes as many names of rivers, lakes, mountains, cities, etc., as she thinks best on the blackboard, these names suggesting the lessons studied during the week.

The captain of one side begins with the first word on the board, and tells one fact about it. If the word is the name of a river, he may tell its source, what direction it flows, into what body of water, or some interesting thing about it. The captain on the other side takes the second name and does the same with it. The next in order takes the third, and so on, until all the words have been gone over. When one fact has been told about each, the list is gone over again, and a different fact is told the second time. The object is to be able to tell as many different things about the various places, rivers, etc., as possible, without repeating any fact. If this should occur; that is, if any one should happen to mention a point that has already been spoken of, he must take his seat. Thus the game goes on until all have been compelled to resign their places, or all has been told that can be. In order to be good geography matchers, it is necessary that the pupils study their every day lessons thoroughly; and this they are very likely to do for the sake of the Friday afternoon geography match.

In place of having pupils take seats on making a mistake, which deprives them of any further benefit they may receive from the exercise, a mark may be placed after their name showing that they have failed.

A pleasant variation of the regular reading lesson is this. Ask each pupil to pick out a story in his reader that he likes particularly well. Each one has a different story, this is in order to break the monotony. Have the children prepare their stories carefully, that they will be able to tell them well. The pupils in studying should jot down on a small piece of paper the subject of each paragraph, to be used if necessary. While pupils are telling their stories, the teacher should take a seat with the rest of the audience and leave the pupil to depend entirely upon himself. The children are all anxious to tell a good story, and so do their best to express themselves clearly and well.—Ex.

#### About Numbers.

Our readers may be interested in the extract below, taken from Victoria, B. C., Colonist. Verifying some of the results may form an exercise in arithmetic as a relaxation from severer problems:

For a first illustration, let us add up any column of figures, say:

Now add 1, 9, 0 and 4 together and you get 14, and adding the t and 4 together and you get 5. Now add the figures in the lines in the column crosswise, thus, 4, 7 and 6, equal 17, and so on with the others. You get as the result 17, 14 and 19; and if you add these three sums together you will get 50, and 5 plus 0 is 5, which is the same as you got by adding the digits in the first total. There is doubtless some reason why this is always the case, no matter what figures are used or how many enter into the calculation. But what is it?

For a second illustration take the following: Take any number, the digits of which added make 19. Thus 289, the digits which added make 19, and 1 and 9 make 10. Now subtract 289 from 1,000 and you have 711, and add these digits together and they make 9. And you will get 9 as your answer no matter what number you start with, provided its digits add up to 10, and the amount from which you subtract it is either 100 or some multiple thereof by 10, that is to say 1,000, or 10,000, and so on. There must be some reason why this is so, but it is not very apparent.

Take another series of figures, the digits of which, when added, will make 6, say 87. Thus 8 and 7 make 15, and 1 and 5 make 6. Now divide 87 by 6 and you have three for a remainder. Turn the digits around and you have 78, which divided by 6 leaves no remainder. Thus we reach the rule that any number, whose digits when added as above give 6 as the result, is divisible by 6 without a remainder if the last digit is an even number, and with a remainder of 3 if the last digit is an odd number. This rule, as well as that immediately preceding it, is of some use in making mental calculations.

Take a number divisible by 3, without a remainder, say 8754. This number is divisible by 3 without a remainder no matter in what order you place the digits. Thus 7845, 4785, and any other combination of these figures is divisible by 3 without a remainder. Now take 8754, and instead of 8 write any numbers which, when added, are equal to 8, and so with the other digits. Thus for 8 put down 521, for 7, 52, for 5, 14, and for 4, 31. Placing these in a row, you will have 521521431, which is divisible by 3 without a remainder just as the original number 8754 is. The variations of this exercise are very many, and it seems as though the rule deductible from them may be of value.

Perhaps you know that any number made up of three repetitions of the same number or series of numbers is divisible by 3 without a remainder. Thus 777, or 555, or 262626, or 131313 are all divisible by 3 without a remainder.

This, if not generally known, ought to be, for it is a little bit of very useful knowledge. In fact the last three rules come in quite handily in making hurried calculations.

A good deal of amusement can be extracted from all the above arithmetical curiosities, if one only takes the trouble to study out the results that can be obtained by becoming familiar with them. They enable seemingly impossible results to be obtained from the statement of some single number. Working out some of the calculations possible by their use is very excellent mental exercise. There are very many other curious things about numbers, and the more one investigates them, the more evident it seems that there is an undiscovered side to the science of arithmetic.

# Questions on Any Pine in Your Locality.

What is the general shape of the tree, and where does it grow?

What is the shape of the cone?

What is the character of its bark?

How long are the needles, and how do they compare in length and thickness with any other species of pine in your locality?

How many needles grow together in a bundle?

Is this bundle enclosed in a little sheath at the base? (In the white pine the sheath drops off very soon,)

Are these bundles grouped in distinct tassels, if so, how many constitute a tassel?

What shade of green is the general color of the foliage?

Cut a pine needle in two and look at the end with a lens, and note its shape. The white pine differs decidedly from the others in this particular.

How can you tell this year's from last year's and from next year's cones?

How old is the cone when it opens and scatters its seeds?

How many seeds are there under a single cone scale?

How many kinds of flowers does the pine tree have and where are they borne?

How is the pollen carried?

What is the most important commercially of our pine trees?

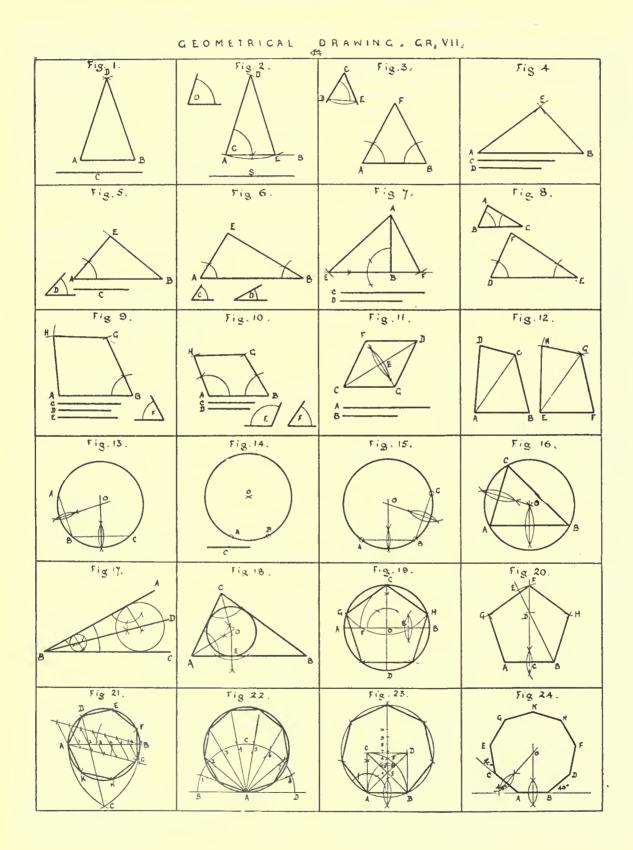
What is the pine wood used for?

What is resin? Of what use is it to the tree? To

What is the difference between resin and rosin?

—Home Nature Study Course.

It is not enough to have earned our livelihood \* \* \* the earning itself should have been serviceable to mankind.—R. L. Stevenson.



#### Geometrical Drawing - III..

PRINCIPAL F. G. MATTHEWS, TRURO, N. S.

The following exercises have been prepared for grade VII. They will be found to be easily graded, repeatedly bringing in principles already learned. Space has forbidden the drawing of more scales, but these should be continued and increasing in difficulty. In the early attempts with the problems in triangles and quadrilaterals, it is a good plan to use inches with decimals to one place. For this purpose, if the ruler does not shew tenths of an inch, the children can easily make a paper scale, dividing the inch into ten parts as in the problems 6 and 7 for grade VI. The protractor should also be constantly used in the construction of angles, as these are now required of all sizes.

It will be noticed that exercises have not been placed after every problem. These have been omitted to save space, and because they are so easy to formulate,

Teachers requiring more exercises can find numerous examples in one of the books prescribed for Nova Scotia, viz. "Mechanical Drawing." by S. A. Morton. (T. C. Allen & Co., Halifax.)

The remainder of the regular polygons have been included in the work for this grade, because they are favorites with children, and yet require such accuracy that they induce careful work.

FIG. 1. To construct an isosceles triangle, the base and sides given. Let AB be the base and C the length of sides. From A and B as centres, and radius equal to C, describe arcs enting at D. Join AD and BD,

For an exercise this may be given to scale, thus, base 1,3 inches and sides 2,6 inches; and the children then required to determine the angles with protractors.

Fig. 2. The same as Fig. 1, the sides and base angles given. Let S be the length of sides and O the base angles. Draw any base line AB. At A make the angle BAD equal to the angle O. Cut off AD equal to S. With D as centre and DA as radius, draw are AE. Join DE.

For exercise give the sides in inches or centimetres and the angle in degrees,

Fig. 3. The same as Fig. 1, the base and vertical angle given. Let AB be the base and DCE the vertical angle. With C as centre and any convenient radius, draw are DE. Join DE. At A and B make the angles BAF and ABF equal to the angle CDE. Produce the sides till they meet at F.

Fig. 4. To construct a triangle, having given

the three sides. Let AB, C and D be the three sides. With A as centre and radius equal to C, draw are at E. With B as centre and radius equal to D, draw another are cutting the first. Join AE and BE.

This and the following exercises in triangles and quadrilaterals may be given to various scales. Example:—A man has a triangular shaped piece of land. The boundaries are respectively 215, 180 and 135 yards. Draw a plan of the plot to a scale of 100 yards to the inch.

Fig. 5. The same as Fig. 4, two sides and one angle given. Let AB and C be the sides and D the given angle. At A make the angle BAE equal to D. Cut off AE equal to C. Join EB.

Fig. 6. The same as Fig. 4, the base and two base angles given. Let AB be the base, and C and D the given angles. At A construct angle BAE equal to C, and at B make angle ABE equal to D, producing the sides to meet at E.

Fig. 7. The same as Fig. 4, the perpendicular height and two sides given. Let AB be the perpendicular height, and C and D the sides. Through B draw EF at right angles to AB. From A as centre, with radius equal to C draw are cutting base at E, and with radius equal to D another are cutting at F. Join AE and AF.

Fig. 8. The same as Fig. 4, similar to a given triangle. Let ABC be the given triangle. On a base of any suitable length copy the two base angles just as in Fig. 6.

FIG. 9. To construct a quadrilateral, four sides and one angle given. Let AB, C, D and E be the given sides and F the given angle. At B copy the angle F. Cut off BG equal to C. From G as centre and radius equal to D, draw are at H. From A as centre and radius equal to E, draw another are enting at H. Join AH, HG.

Fig. 10. The same as Fig. 9, three sides and two included angles given. At A and B copy the required angles cutting off the sides equal to those given. Join HG.

Fig. 11. To construct a rhombus, having given the diagonals. Let A and B be the diagonals. Draw CD equal to A. Bisect it at E, and draw FG, making FE and EG each equal to a half of B. Join CF, FD, DG and GC.

Fig. (2. To make a trapezium or any rectilineal figure equal to a given one. By drawing diagonals cut the figure into triangles, and copy each triangle as in Fig 4.

Fig. 13. To find the centre of a given circle. Draw any two chords AB, BC (these chords must not be parallel to one another). Bisect each chord and produce the bisecting lines till they meet in O, which is the centre of the circle.

This may be worked by drawing one chord, bisecting and producing the bisecting line to form a diameter, and again bisecting the diameter.

FIG. 14. To describe a circle of given radius which shall fass through any two given points. Let A and B be the points and C the radius. From A and B as centres and radius equal to C, draw arcs cutting at O. O is the centre of the required circle.

Fig. 15. To describe a circle which shall pass through any three given points. Let A, B and C be the given points. Join AB and BC. Treat these as chords and bisect as in Fig. 13. From O as centre and radius OA describe the required circle.

Fig. 16. To describe a circle about a given triangle. Bisect any two of the sides and complete as in Fig. 15.

Fig. 17. To find the locus of the centres of all circles which shall touch two given inclined lines. Let AB and BC be the given lines. Bisect the angle ABC by line BD. All circles touching the two lines have their centres on BD.

FIG. 18. To inscribe a circle in a given triangle. Bisect any two angles and produce the lines till they meet in O. Drop perpendicular OE from O to line AB. With O as centre and radius OE describe the circle.

FIG. 19. To inscribe a regular pentagon in a circle. Draw two diameters AB and CD at right angles. Bisect OB in E. With E as centre and EC as radius, draw arc CF. With C as centre and radius CF, draw arc GFH. Then CG and CH are two sides of the pentagon. Cut off the others on the circumference.

Exercise. Join alternate angles to make a five pointed star.

FIG. 20. To construct a regular pentagon on a given base. Bisect the base AB and erect perpendicular. Cut off CD equal to the base AB. Join BD and produce to E, making DE equal to ha!f the base. With B as centre, and radius BE, draw are cutting the perpendicular in F. From A, B and F as centres, and radius AB, draw arcs cutting at G and H. Join AG, GF, FH, and HB.

FIG. 21. To inscribe any regular polygon in a given circle. Draw the diameter AB. Divide it into as many parts as the figure is to have sides, in this case seven. From A and B as centres and AB radius draw arcs cutting at C. Draw a line from C through the second division cutting the circumfer-

ence on the farther side at D. AD is one side of the polygon. Step off the rest.

This and the three remaining exercises require extreme accuracy to get correct results.

Fig. 22. The same as Fig. 21. Another method. Draw any straight line touching the circle at A. From A as centre, draw any semicircle. By trial divide this semi-circle into as many parts as the figure is to have sides. Join AI, A2, etc., producing the lines to cut the original circle. Join the points where they cut the circle to form the polygon.

Fig. 23. To construct any regular polygon on a given base. Let AB be the given base. Bisect it and erect perpendicular of indefinite length. On AB erect a square and draw diagonals cutting at E. Also on AB erect an equilateral triangle with apex at F. Now E is the centre of a figure of four sides equal to AB, and F is the centre of a figure of six sides all equal to AB. Bisect EF in G. This will be the centre of a figure of five sides all equal to AB. Take the distance EG, and step off from F, giving the points 7, 8, 9, 10, etc. These will be the centres of figures of the corresponding number of sides. For instance from 7 as centre and radius 7 A, describe circle. With compasses step off the sides all equal to AB on the circumference to form a regular heptagon.

Fig. 24. The same as Fig. 23. Protractor method. Divide 360 by the required number of sides to find the exterior angle. By means of the protractor construct angles at A and B as shewn. Cut off AC and BD equal to AB. The figure may be completed by the protractor, but a better plan is to bisect two of these sides, and produce the lines till they meet in O. From O as centre and radius OA describe the circle. Step off distances equal to AB on the circumference.

#### Two Little Fellows.

I know a little fellow whose face is fair to see:
But still there's nothing pleasant about that face for me:
For he is rude and selfish, if he can't have his way,
And always making trouble, I've heard his mother say.

I know a little fellow whose face is plain to see, But that we never think of, so kind and brave is he; He carries sunshine with him, and everybody's glad To hear the cheery whistle of that dear little lad.

You see it's not the features that others judge us by. But what we do, I tell you, and that you can't deny: The plainest face has beauty, if its owner's kind and true, And that's the kind of beauty, my boy and girl, for you.

—Our Little People.

#### Comenius, Pestalozzi and Froebel.

MRS. C. M. CONDON, TRURO, N. S.

Three bright particular stars shed their light over the educational world from the time when Comenius, justly called, "The Father of Modern Education," began to teach in the year 1614, until the death of Froebel in 1852. John Amos Comenius was born at Nivnitz, in Moravia, in 1592, and died at Naarden, near Amsterdam 1671. Although fully prepared, his youth prevented him assuming the pastoral office until 1618. In the interim he was rector of the school at Preran, from which place he proceeded to the parish of Fulneck, where he remained six years.

From Fulneck, in common with all the evangelical pastors in the Empire, he was driven out in 1624, loss of wife, child, less books and all his possessions, by the cruel edict of Ferdinand II. He took refuge at Lissa, in Poland, where in 1628 he was invited to take office in the faculty of the Academy. During all these years he responded to invitations from Princes and Nobles to organize and re-organize, on his own sound principles, their system of education. His labors were so abundant, and bestowed in so many different quarters, that it is almost impossible to follow him minutely. Meanwhile his fame as a pedagogist spread abroad.

His Janua Linguarum (The Gate of Languages) which appeared in 1631, was at once translated into twelve European languages, and several Asiatic. Among other copies in the British Museum, is a 4th edition, 1640, in French, Italian, Latin and German, arranged in parallel columns. In 1642 an edition was also published in Greek and Latin. This important book greatly improved the teaching of Latin, by using the mother-tongue, as the medium of instruction.

In 1641 he was invited by the English Parliament to come to England, and to settle a national system of education. He was received with distinguished honor by the Universities of Oxford and Cambridge. Later on, they gave a very tangible proof of their esteem, by sending him the sum of nearly £6000 stg. to aid him in his educational enterprizes. One cannot but speculate, in view of the present chaotic state of English educational affairs, on what would have been the result of Comenius babors, if the Civil War had not frustrated the design. Oxenstiern, the famous Chancellor of Gustavus Adolphus, more fortunate than England, secured his services in 1642, and

Comenius drew up the scheme of a system of education for Sweden.

In 1648 he went to Hungary by invitation of one of the Princes to organize schools. In 1652 the Poles burned Lissa, to which he had returned, when losing for the second time everything he possessed, he narrowly escaped with his life. After many perilous wanderings, he reached Amsterdam, where he was accorded the generous welcome due to his genius, learning and piety.

In 1648 he had been made a bishop of the Bohemian Church, which, however, by the destruction of Lissa, was brought to an end as an organization; so that he was the 20th and last bishop of the Bohemian Brothers, the Episcopate of which had lasted 204 years. In Amsterdam he continued his life-work, and this truly great man, who bore his sorrows with fortitude and pious resignation, turned them to account by his writings. One, The Labyrinth of the World and the Palace of the Heart," is said to be equal to the Pilgrim's Progress; but this, and most of his religious writings, are overshadowed by his renown as an educationist and his Orbis Pictus, which lead the child by pictures and descriptions, to a knowledge of "the principal things in the world and the principal occupations of man.". This ideal demands early training of the infant by the mother to prepare for the school; observation, perception, reflection and expression of knowledge, as fast as gained, influent and accurate speech, and in little works of skill. wisdom, knowledge, virtue and piety are the results to be aimed at. He complains that instruction is too much like "a load of wood well piled; whereas, it should be a growing plant." "Give knowledge as a seed to be developed by the mind of the child himself, not as a grown-up plant."

In his plea for nature-study, he says;" Everyone sits, as it were, in the amphitheatre of God's wisdom, the poorest and meanest may see something thereof, and should relate it." He deprecates severity in discipline, then rife, but would by firmness, gentleness and reason, "treat children as reasonable beings." Body, soul and spirit are to be trained for life here, and life hereafter, and no amount of learning can compensate the lack of virtue and piety.

He is separated from us by 250 years, but the more closely you study his doctrines and life-work, the more clearly you perceive how noble and true is his idea! of education, the blessings of which he would offer to all, without regard to rank or sex.

Pestalozzi was born in 1746, seventy-five years after the death of Comenius. He died 1827, sad, lonely and depressed by the sense of failure; yet he had sown seeds that have germinated and borne rich fruit all over the world. As long as men value education, his name will be held in honor.

Early in life he lost his father, and his loving mother. The faithful servant who had promised never to leave him, brought him up so tenderly that they made him weak in body, and gave him no freedom for self-activity. It is always well for a human being to make his mistakes early enough to retrieve them. Childish errors are seldom fatal; and are necessary for self-revelation. This advantage, Pestalozzi lacked to the detriment of his adult life.

His ignorance of the world, his want of sound training and instruction, and the late period of life at which he became an educator, fill us with wonder that he should have accomplished so much.

He was the connecting link between Comenius and Froebel, in his enthusiasm of humanity, and his self-sacrificing devotion to the cause of education. The children, left orphans by the Napoleonic wars, hungry, naked and forlorn, filled him with compassion. He gathered a few of them into his own house." I was father, nurse, teacher; I lived with them, was their constant companion." Think what this association with filthy, half-savage creatures meant to the man brought up so daintly. An old convent near Stanz, was given up to him by the Cantonal Government to house the increasing numbers. His aim was to "teach the harassed poor to live like men."

His teaching of arithmetic, and object lessons attracted the attention of the civilized world, to a study of his methods, and in the fine Borough Road Schools of London, his methods were illustrated and carried out in a logical sequence, of which Pestalozzi himself was incapable. His discipline in which love ruled, raised the whole moral tone of school-life. But unlike Comenius and Froebel he could not explain, and set forth in due order, the principles on which his practice rested. "When asked to do so he would say;" watch my teaching. and you will see." The noblest tribute to Pestalozzi has been paid by Froebel, who, with his own two pupils, spent two years at Yverdon, in Switzerland, studying and teaching in his institution. This inability of Pestalozzi to discern the operations of his own mind was a constant trial to Froebel, whose clear and logical acumen enabled him to disentangle, arrange and re-arrange a concept and view

it in its action and re-action and interaction with other concepts. But such power is the possession of few. The clue to Pestalozzi's success, lies in his oceanic heart of benevolence."

Froebel, was born 1782, and died 1852. Like Comenius he was a thoroughly educated man. He had had already a most chequered career, and a wide experience of men and things, when in 1805, he took the situation in the model school at Frankfort on the Main, offered by Dr. Gruner, the principal, himself a disciple of Pestalozzi.

When Froebel stood before his large class of boys, he says; "I found my vocation; the fish was in its native element, the bird was in the air." He spent his vacation of a fortnight with Pestalozzi, and in 1808, passed two years at Yverton. In 1812 he enlisted in Lützow's famous Black Corps, for he felt that one who was not prepared to defend his country, was unworthy to instruct and train the young. There in camp, he became acquainted with his future faithful co-workers, Middendorff and Langethal, two divinity students, who gave up their profession, that they might help him in his ideal of raising man, through and by education, to a true conception of their relations to nature, humanity, Many other faithful laborers have thrown light upon the problem of education, but, by general consent, these three men stand pre-eminent in the grandeur of their conception of man; in the soundness of their methods for his development; and in the sagacity with which they have brought down visions, floating in the air, and made them realities by means, skilfully adapted to the nature and needs of the infant, the child, the youth and the man.

#### Winter Nests.

O piteous nests of winter-time, Disclosed to every careless eye, In hedges dark with dripping rime. Where is your Summer secrecy, Your green pavilion of the prime?

Poor little nests, that hang forlorn
In bushes almost reft of leaves,
And naked thickets of sharp thorn,—
Robbed of your shelter by those thieves
The frosts, and made a mark for scorn!

Nests that so cunningly were thatched With fibres made to interlace.—
In which the brittle brood were hatched.
In your once cherished hiding-place.
By Winter's harpies rudely snatched!

-The Spectator

#### The Music of Poetry.

By D. F. FRENCH,

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Music is the expression of emotion without words and may, therefore, arouse feelings of sadness, joy, peace, etc., without involving the conception of any definite ideas. Poetry is the expression of emotion in words, and an attempt is made to produce, as nearly as possible within the limitations of ordinary speech, the effects of music. This attempt is the basis of all forms of metre.

Almost any one can recognize the difference between the slow, solemn tones of the Dead March and the quick, cheerful movement of an Irish Jig: the dreamy music of the waltz is readily distinguished from the "ragtime" of the negro melody. The difference in effect is caused by a difference in the length of the notes used and the number grouped in each measure, and a consequent variation of the accent. The fewer and longer the notes in a bar the more solemn and stately the music, while several short notes in succession produce a lively effect.

We find precisely the same thing in poetry: long vowels and short measures are in keeping with verse of dignity and deep thought; longer measures with shorter vowel sounds produce a form of metre suitable to lighter themes. We need only to read aloud the lines:

"Break, break, break, On thy cold, gray stones, O Sea;"

and:

"So this is your cradle, why, surely, my Jenny, Such cosy dimensions go clearly to show," etc.

—to tell from the movement of the voice alone that the theme of the former is full of deep, serious emotion, and that the latter is an extract from something light and humorous.

Examine the metrical form in these quotations: the first line of the first extract has but one syllable to a measure; in the second line two syllables is the rule; the vowels are mostly long. In the second quotation there are three syllables to a measure and the vowels sounds are mostly short.

You may refer to any poetical selections from good authors and you will find that our rule invariably holds true. Wordsworth, in his disregard for form, gives us his sweetly serious "Reverie of Poor Susan" in lively dance time and thus spoils the whole effect. How can one feel serious in reading:

"At the corner of Wood Street, when daylight appears.

Hangs a thrush that sings loud; it has sung for three years."

The imitative harmony of poetry is usually the musical effect resulting from the variety in arrangement of long and short vowel sounds, changes of accent, and difference in the number of syllables used in the measure.

Every lover of poetry can collect abundant examples of musical effect in poems. We will, however, cite here a few quotations which will further illustrate the points mentioned.

In Tennyson's Lullaby we find an exact imitation of the rocking of the cradle.

Sweet and low, sweet and low, Wind of the western sea.

Observe carefully how the monosyllabic foot and what we might call the curve of sound, produce a rythmical movement which, aside from any idea conveyed by the words, impresses a mental picture of the rocking cradle by imitating its sound.

In Longfellow's "Old Clock on the Stairs" the ticking of the pendulum is imitated by a similar device:

"Forever, Never, Never, Forever."

Tennyson in the "Northern Farmer" makes the old man speak of the canter of his horse thus:

"Proputty, proputty, proputty, that's what I hear 'em say."

Can't you hear the hoof-beats on the hard road? The use of long vowels to give a slow movement to the verse corresponding to the sense, is shown in:

"The long day wanes; the slow moon climbs; The deep moans round with many voices."

Compare with the above the movement of:

"Haste thee, nymph, and bring with thee Jest, and youthful jollity,
Quips and cranks and wanton wiles,
Nods, and becks, and wreathed smiles."

In Tennyson's "Bugle Song" the arrangement of accent changes in the last two lines of each stanza. First we have:

"The splendor falls on castle walls."

Then in closing:

"Blow, bugle, blow, set the wind echoes flying, Blow, bugle, answer, echoes dying, dying, dying."

In the refrain the gradual falling of the stress of voice in the pronunciation of the words in each measure imitates the dying away of the echoes. With the stress falling on the word at the end of the measure this effect could not have been produced.

While in much poetry the element of music is greatly subordinated to the meaning, in none-except such as Walt Whitman's—is it entirely absent. Tennyson and Swinburne are masters of the art of infusing subtle music into verse, while Dryden and Pope give us a minimum of musical effect. The poetry of the latter appeals more to the intellect, yet that of the former has a deeper effect since it touches the chords of human sympathy and through its music wakes to life our tenderest emotions.

A Canadian poet—Bliss Carman—says, "The measure of verse has an influence on us beyond our reckoning. The simplest statement of truth, thrown into regular verse, comes to us with new force."

#### Lines in Season.

Roll your ball of snow, children,
Roll your ball of snow.
The more you roll your snow ball up
The bigger it will grow.
Roll a kind thought around, children,
Roll it all around,
Until it gathers all kind thoughts
That loving hearts have found.

-Midland Schools.

Let us be content to work,
To do the thing we can, and not presume
To fret because it's little.

—Browning.

The talent of success is nothing more than doing what you can do well, and doing well whatever you do.—Long-fellow.

The optimist sees the doughnut and the pessimist sees the hole.—The Lyccumite.

Count that day really worse than lost You might have made divine, Through which you scattered lots of frost, And ne'er a speck of shine.

-Nixon Waterman.

I am little February,
Shortest month of all the year.
Short my days are, too, and few,
Cold, maybe, but very merry.
Not so many, it is true,
As my sisters bring to you,
But such good days and so dear.
I'm the month of February,
Short and cold, but full of cheer.

May every soul that touches thine,
Be it the slightest contact, get therefrom some good,
Some little grace, one kindly thought,
One inspiration yet unfelt, one bit of courage
For the darkening sky, one gleam of faith
To brave the thickening ills of life,
One glimpse of brighter sky beyond the gathering mist
To make this life worth while,
And heaven a surer heritage.

—The Outlook.

#### I Love the Winter.

First Child-

I love the winter, Now, don't you? There is so much A child can do.

Turns toward the other three children,

Second-

I love to coast, and
Skate, and slide,
Or from some "pung man"
Beg a ride.

lmitates the motions of skating and sliding.

Third-

I love to tunnel
Out the snow,
I love to see a
Snow man grow.

lmitates using a shovel.

Fourth-

But best of all is Snow to take And press until fine Balls you make.

Imitates making a snowball.

All-

And then to throw them One by one; In snowball game is Jolly fun!

Imitate throwing snowballs at one another.

-Primary Education,

#### A Brace of Valentines.

A Scotchman whose name was Isbister

llad a maiden giraffe he called "Sister;"

When she said "Oh, be mine,

Be my sweet Valentine!"

lle just shinned up her long neek and kissed her.

A hip-po-po-ta-mus named Amos
Was loved by a chorus girl famous;
All the other girls sighed
As they looked on, and cried,
"Please tame us a hip-po-po-ta-mus."
—The Delineator for February.

[This last innocent jingle reminds one of the wag who stopped his friends in the street on one of the recent cold days, and inquired, with a look of anxious concern:

"Have you seen Amos to-day?"

"Amos who?"

"A mosquito!" and then he vanished.]

"On a dark cold night, not long ago,
Came a little child all clad in snow;
Small was he as he hurried along,
Singing to himself this funny little song:
'Ho! ho! does every one know
1 am little February from the land of snow?'"

#### Natural History for Little Folks.

FROM "STORIES FROM NATURAL HISTORY."

#### The Caterpillar and the Fly.

The gardener had planted a cabbage, had dug and manured the ground, watered the young plant, and cleared away the weeds. And the cabbage grew lustily, bearing young and juicy leaves, and growing bigger and stronger, whilst the gardener watched it and was glad.

But one night, when all the world was asleep, a greedy caterpillar came that way and crept up the stem of the plant. What did it matter? There was no one to see. All night long she never ceased eating, first the young and tender leaves, and then the others, and when daylight came she hid beneath the foliage. So the caterpillar grew fat and big on the cabbage which did not belong to her, and which she had neither planted nor cared for. What did it matter if she was living on other people's property? There was no one to see.

But with the bright sunshine came the little ichneumon, or caterpillar-eater, a tiny fly, that is so small that she can hardly be seen, but who, with busy wings and quick little legs, skips from flower to flower, and from leaf to leaf. And so she came to the poor half-stripped cabbage stalk, and to the hidden caterpillar. With her sharp sting she bored a tiny hole into the body of the sleeping gormandiser, and into this she laid an egg, so minute that, most surely, there was no one to see it, so what did it matter? Then she flew away.

The greedy caterpillar paid no attention to the sting of the fly, and went on eating, till the cabbage stalk stood quite bare. Then, round and fat, she hurried to the wall of the house and climbed up to the roof, where she turned into a chrysalis and remained hanging. And now do you suppose that a beautiful winged butterfly came out of the chrysalis to fly away over the cabbage bed, where the gardener was standing looking sadly at the naked cabbage stalk? No, indeed, no caterpillar ever came out of that chrysalis. For though no one saw the mischief done by the caterpillar, no one, likewise, saw her punishment. The cocoon opened, and, instead of a butterfly, came out a young ichneumon fly armed with a sharp sting, to fly away and quietly work out the punishment of other greedy caterpillars, who think it does not matter what mischief they do so long as no one sees them.

#### The Work of Ants.

In a pine forest, on a dry, sandy hillock, there was an ant heap, nearly as high as a child, with swarms of active little ants hurrying up from all sides and creeping into it. Why do you suppose the ants had built this high heap, and what were they so busy about? You may think it was a palace of pleasure, with dining halls and play rooms, and fine fun going on all day, for they were nearly all dragging into the heap something to feast upon, one tugging at a dead caterpillar, whilst another had a dried-up fly, or some other dainty.

Now, let me tell you, the ant heap is no holiday house, for the ants only built it for their little sisters. It is a big nursery, in which the young ants are nursed and brought up by the old ants, their sisters. They bring together pine needles, blades of grass, and wood splinters, lay them carefully on each other, stick them together with mud and grains of sand, and so make halls and passages, rooms, and closets. They cover the outside of this wonderful structure with leaves and pine needles, making a close, slanting roof, from which the rain runs off, leaving the inside warm and dry.

The ant mother lays tiny eggs, no bigger than fine grains of sand, and from each egg there will come a young ant. The old ants carry the delicate eggs deep down into the earth at night, into the lowest halls of the building. There they remain nice and warm throughout the night, and when the sun shines brightly on the heap by day, they drag the eggs up again into the topmost room, in which they are hatched by the sun's rays. But the ant eggs must not only be kept warm like the bird's eggs, to bring the young inside to life, they must also be tended. The old ants lick them daily, covering them with a sweet juice which they bring in, for without this the eggs would dry up and perish.

Out of the eggs slip little, white, helpless grubs, that can neither walk nor seek their own food. The old ants carry the little creatures up and down in the heap, in just the same manner they did the eggs, fetching them food from the wood and putting it into their mouths. The quite young grubs only get sweet honey, but as soon as they are big they get stronger food. The grubs are also carefully licked and cleaned every day, so that no speck of dust remains on them, otherwise they would sicken and die.

When they have grown up they weave a fine web

round themselves and sleep in it as in a little bed. Even then they are carried up and down daily by their elder sisters, who always find the warmest places to lay them in. Should someone disturb the ant-heap so that a chrysalis lies uncovered, the ants never think of themselves, but in all haste seize it and carry it into safety, whilst others defend the little ones or try to catch the disturber of their peace and bite them viciously.

Inside the cocoon the grub becames an ant. The elder sisters listen carefully every day to hear if the little one is moving and ready to emerge, for she cannot get out of her web by herself. When they hear a knocking inside they cut the web open with their pincers and help the young sister to step out. Now look! This young ant has four delicate wings. In early autumn, when the weather is warm, thousands upon thousands of such winged ants come out of the earth. They buzz up into the air, dance about a while, and then sail far away like a cloud to make new ant-heaps in other places.

The industrious elder sisters can only sit and watch, but they have never expected thanks or reward from their young charges. They found their whole happiness in the care of their young sisters, and when the ant mother lays her eggs again next summer, they will take the same care of the new brood.

#### The Story of a Wax Candle.

When in the cool forest the trees are flowering, thick yellow clusters of pollen-covered blossoms hang from the pine and fir trees, and on the ground below many different kinds of flowers open their coloured bells. The stamens of blossoms burst open in the warm sunshine and the delicate pollen peeps out of them like fine, yellow powder.

The ever busy bees are buzzing through the forest. They have to found a new home for a young queen who has arisen at the head of a swarm of bees, and her faithful followers are hunting for building materials. They come to the blossoming trees and flowers and crawl into them. To reach the honey at the bottom of the tube they must pass the pollen-covered stamens, and this pollen adheres to the brown fur of their bodies, so that they are covered with powder when they come out.

The bee will then pause awhile on the glossy leaf of a tree to brush herself carefully with the stiff bristles of her feet, roll up the gathered pollen into neat little balls, and fasten them to her legs, where, for this purpose, she has little hollows, called pollen baskets. Then, arrayed in baggy pantaloons, she flies away home.

The pollen bids farewell to the forest trees and flowers, and becomes food for the bees. In the stomach of the bee it changes into the finest wax, which exudes in delicate flakes from beneath the body of the worker bee. The folds between the hard scales of the body are the bee's pockets, for storing building materials. With their feet they pull off the flakes of wax, knead them together with their jaws, mix them with saliva, and build with this mixture the loveliest six-angled cells. In these cells they tend the young bees, their foster children, feeding them and tending them until their charges finally throw off their cocoons.

But in other wax cells the bees store a rich provision of sweet honey. In the winter they crowd close together to keep each other warm, and sleep through the cold winter, so that when spring comes with new blossoms and new honey the cells are still mostly filled. The bee-keeper takes the full honey comb from the hive, and we give the honey to children to eat with bread, but what becomes of the wax? Why, that comes into the candle.

When Christmas comes and the children are asleep, father and mother fasten a number of candles en a fir tree which the wood-cutter has cut down in the forest. And so at Christmas time these parted friends come together again after a long time of separation. The pollen, after many wonderful adventures, has come, in the shape of wax candles, on to the evergreen branches of a fir tree, and who knows if they did not spring from the self-same forest? The bright flames on the tree are then its blossoms, and have more to do with it than you would think at first sight, for have they not come from the same home?

#### Query for Review Subscribers.

Mrs. A., Mrs. B. and Mrs. C. and their daughters bought laces. Each paid as many cents per yard as she bought yards, and each lady paid 63 cents more than her own daughter. Mrs. A. bought 23 yards more than Jane, and Mrs. B. 11 yards more than Eliza. The third girl was named Ann. How many yards did each buy, and whose daughter was Jane, Eliza and Ann respectively?

Answer next month.-C. E. L.

I have read the Review with profit from its first number; and though not engaged in teaching for many years, I still appreciate its increasing usefulness.

C. E. Lund.

Sackville, N. B.

#### Rhymes for Little Folks.

#### The Pebble's Lesson.

How smooth the sea-beach pebbles are!
But do you know,
The ocean worked a thousand years
To make them so?

And once I saw a little girl
Sit down and cry
Because she couldn't cure a fault
With one small try.

-Selected.

#### Two New Scholars.

They'd never been to school before,
They'd never been near a schoolhouse door,
Those bashful little boys.
Mamma had taught them all they knew—
She was a lovely teacher, too—
But now—just hear the noise!

Though to each other close they kept,
One bent his golden head and wept,
And the other, he wept, too.
Around each neck a dimpled arm,
As though to keep them safe from harm,
A sweet child gently threw.

"The corner seat's enough for three; Come over there and sit with me," She sweetly said; and—my! They like the school so much to-day, I know if they were taken away They'd both tune up and cry.

-Golden Days.

Rainy days and sunny days—
What difference makes the weather,
When little hearts are full of love
And all are glad together?
—Selected.

The Song of the Wind.

I've a great deal to do, a great deal to do;
Don't speak to me, children, I pray;
These little boys' hats must be blown off their heads,
And these little girls' bonnets away.
There are bushels of apples to gather to-day,
And, O! there's no end to the nuts;
Over many long roads I must traverse away,
And many by-lanes and short-cuts.

-Selected.

#### The Fox and the Squirrel.

Two squirrels on an oak-tree sat, Engaging in a social chat, When one—the younger of the twain—Of his accomplishments quite vain, Began to boast of what he'd done, How all his mates he could outrun; And if but half he said was true, He could outjump a kangaroo.

Now, as it chanced, the jagged rocks Beneath the tree concealed a fox, Who, overhearing what was said Among the oak-leaves overhead, Bethought him of a sly design, Whereby he might on squirrel dine; So up he sat and clapped his paws, Loud shouting, with a mock applause:

"Bravo! Bravo! my agile friend,
Your wondrous skill I must commend,
But really, I should like to see
You jump from out this tall oak-tree
To yonder ash ten feet away."
('Twas twenty, I am bound to say),

"The feat will please my children well, When I their bed-time story tell."

"Nay," said the elder to young Frisky,

"Don't undertake a jump so risky,"
To which the younger one replied,
Puffed up with flattery and pride:

"Though you may lack ability
I'll show you my agility."
Then wildly leaped with aim so blind,
That—Mr. Fox on squirrel dined.

#### A Winter Piece.

But Winter has yet brighter scenes,—he boasts Splendors beyond what gorgeous Summer knows; Or Autumn with his many fruits, and woods All flushed with many hues. Come when the rains Have glazed the snow, and clothed the trees with ice; While the slant sun of February pours Into the bowers a flood of light. Approach! The incrusted surface shall upbear thy steps, And the broad arching portals of the grove Welcome thy entering. Look! the mossy trunks Are cased in the pure crystal, each light spray, Nodding and tinkling in the breath of heaven, Is studded with its trembling water-drops That stream with rainbow radiance as they move. But round the parent stem the long low boughs Bend, in a glittering ring, and arbors hide The glassy floor. Oh! you might deem the spot The spacious cavern of some virgin mine Deep in the womb of earth—where the gems grow, And diamonds put forth radiant rods and bud With amethyst and topaz-and the place Lit up, most royally, with pure beam That dwells in them.

I have been a subscriber to the Review from its first issue. It has taught me much; it has encouraged me when I have been discouraged, and made my work a pleasure when there was danger of thinking it a toil. I venture to wish the Review and its editor many happy years in working for the benefit of others.

Very sincerely yours,

Margaret S. Cox.

Cornhill, N. B.

#### Aunt Mary's Four Guests.

"The table is all set, Aunt Mary."

"All right," Aunt Mary answered, "we will have dinner as soon as the outdoor table is ready, too."

"Why," exclaimed Sue, "it's dreadful cold. Who would want to eat outdoors to-day?"

"I know it is cold," Aunt Mary replied, "and for that reason I must be all the more particular to spread a nice feast outdoors, for I have four guests who come to eat there every day."

"Sue was very much puzzled, and she watched curiously while Aunt Mary brought out a piece of suet and a slice of bread, and cut them into small pieces.

"The table is under the elm tree, just outside the dining-room window, and the guests are a squirrel, a blue jay and two little birds called sapsuckers."

"Oh!" exclaimed Sue, beginning to understand.

"I like to feed them at dinner time," Aunt Mary continued, "because then I can watch them while I eat my own dinner. They have been lots of company for me this winter."

"Oh, I should think it would be nice!" exclaimed Sue. "Can I help set their table?"

"Yes, indeed," answered Aunt Mary; and then they went out together to the little shelf under the elm tree, and there they scattered the bits of bread and suct.

"The suct helps to keep them warm in the cold weather," Aunt Mary explained, as she placed the last piece upon the board.

Then they hurried in, for it was cold, as Sue had said, and in a moment more were ready for their own dinner, for Aunt Mary lived alone, and Sue had come to spend her holiday vacation with her.

It was only a few minutes before one of the little sapsuckers appeared, and began to peck eagerly at the suet. He was working busily away, when down the tree came the squirrel. The little sapsucker hastily caught a bit of suet in his bill and flew back to the limb of the tree.

"Oh, that is too bad," exclaimed Sue. "Won't they eat together?"

"No," said Aunt Mary. "Sometimes the squirrel and the bluejay will eat together for a time, for the bluejay is nearer the squirrel's size, but the little sapsuckers are afraid of them both, and usually the squirrel is king of the feast."

Just then a gorgeous bird, which Sue knew from the color of its feathers must be the bluejay, came boldly down beside Mr. Squirrel. He fluttered his

wings as though for a sign to the squirrel to leave, but the squirrel did not think he had had his share, and nibbled away on his bit of bread. Pretty soon he took another piece and ran with it up the tree. The bluejay flew off with a piece of suet, and in a twinkling the two sapsuckers flew down and began to eat.

"It's just too funny," said Sue, "the way they take turn about. I wish they would all come and eat peaceably together."

"I wish they would," said Aunt Mary, "but they have not become that friendly yet. Perhaps they may before the winter is over, but I am afraid not. I notice, though, that each one seems to get his share of the feast."

Just then Sam, Aunt Mary's cat, jumped upon the sewing machine which stood in front of the window.

"Oh!" said Sue in alarm, ready to run and take him down; but to her astonishment the two little birds went calmly on eating, and paid no attention to Sam, while Sam himself sat quietly by and watched the birds at their dinner.

Aunt Mary noticed Sue's look of amazement, and laughed.

"I don't wonder that you are surprised," she said, "but both Sam and the birds have learned that there is a good thick pain of glass between them. When they first began coming Sam was quite excited. He jumped upon the machine, scratched upon the glass, and of course frightened both birds and squirrel away. Then when they came again, he tried jumping for them, but he found that he only dashed his foolish little head against a very hard window pane. The birds, too, soon found that he could not reach them, and now they eat, as you see, while he sits and watches them."

Sue had almost forgotten her own dinner in her interest in the small visitors in "feathers and fur" just outside the window, and during all the rest of her stay with Aunt Mary she enjoyed her dinner more than any other meal, for she never tired of watching these small guests who seemed to find something different to do for her amusement every time they came to their outdoor table.—J. D. Corcles. in Kindergarten Magazine and Pedagogical Digest.

Messrs. L. Higgins & Co., Moncton, N. B., are sending out a very attractive advertisement, having as a centre piece the pictures of the "Founders of the Dominion." It is sent by mail, pre-paid, to any address for forty cents.

#### Talks With Our Readers.

"Subscriber" thinks it would be charming to start a literary correspondence club on some page of the Review, to which literary people, students and teachers could send questions regarding the author, (whoever is selected), and his poetry and writings. Also that a number of competitive questions on the author and his work be submitted every month to the corresponding editor, these questions to be answered by the members of the club. "Subscriber" adds: "I think that either a Browning or Tennyson club would make a very strong appeal to the readers of the Review."

The idea is a good one, and the editor would be glad to consider details personally or by letter, if "Subscriber" will favor him with her address.

A "HIGH SCHOOL TEACHER" who has been especially interested in the efforts of the Nova Scotia teachers to remedy the defects of their high school course, suggests that the high school of New Brunswick is in as serious a condition as that of the sister province. He asks, "when will the educational authorities here have the courage to grapple with the questions?"

The two greatest needs in the high school at present are, to lessen the pressure by reducing the number of subjects taught, and to provide optional courses. The latter would entail considerable additional expense, and would perhaps be out of the question in any but our largest communities. How to secure the best results from efforts and the money spent on our high schools is worthy of consideration, and the columns of the Review are open to our correspondent or to those who have something tangible to offer.

A correspondent would like to see Dr. A. II. MacKay's address on the study of Latin published in the Review, and adds: "I think those great debates on school questions, as that for instance which occurred last summer in Nova Scotia, stir up people and have a great educational effect on the community."

Dr. MacKay's address is published in full in the N. S. Journal of Education for October last.

"Subscriber":—"I have had considerable difficulty in teaching Hay's History of New Brunswick to my pupils. It seems too difficult for them to understand. Do you know of any way by which it could be made easier and more interesting to the pupils? If so, I hope you may have time to publish it in the Review, so that this difficulty may be remedied by your kind help."

It should not be difficult to arouse the interest of children in the story of their country. That was the special aim in view in writing the history, and many children have read it with the same zest as they would any other story. "Subscriber" may be helped in reading on another page how one teacher interested her children in history.

#### CURRENT EVENTS.

Alzen is the name given to a new metal composed of two parts of aluminum and one part of zinc. It is as strong as iron, takes a high polish, and does not rust as quickly as iron.

Esperanto is making greater progress than did any other proposed international language, and it is expected to come into general use as a means of communication between men of different nations who do not understand each other's native tongue.

English capitalists have closed a contract with the government of Newfoundland for a fast steamship service between St. Johns and a port on the Irish coast.

Russia will begin the withdrawal of troops from Manchuria without waiting for the 25th of April, the date fixed by the treaty of Portsmouth.

The greater part of the city of Kingston, Jamaica, was destroyed by earthquake on the 14th of January. Fire followed the earthquake, and many lives were lost. The Dominion government has given \$50,000 towards the relief of sufferers, and the United States government sent prompt assistance.

Much indignation was felt when it was reported that the admiral in command of the United States ships at Kingston had taken matters in his own hands, landing armed men on British soil and raising the United States flag; but it has been explained later that he landed men under arms at the request of the local police inspector to overawe the convicts in the penitentiary who were supposed to be on the point of rising, and that he recalled them on the same day at the governor's request. The naval officer in command of a British ship, which arrived later, offered to send men ashore If needed, but his offer was delined.

Nearly one hundred thousand immigrants from the British Isles, over fifty thousand from the continent of Europe, and over sixty thousand from the United States were added to the population of Canada in 1906.

Lord Strathcona has agreed to give \$2,500 a year for five years for excavations among the Hittite ruins in Asia Minor. Two thousand inscribed tablets have been found in the ruins of one of the Hittite cities. Important discoveries in ancient history are expected.

Recent discoveries in Central Asia include some ancient manuscripts on birch bark, together with paper manuscripts probably belonging to the eighth century of our era.

A German inventor is able to send messages over a distance of twenty-five miles by wireless telephone, and be

lieves that the possibilities of extending the distance are almost limitless.

A new electric light filament has been invented which requires less than one-fourth the energy to give the same light as given by the earbon filaments now in use.

The Shah of Persia died on the 8th of January, and was succeeded by his eldest son, Mohammed Ali Mirza. The new Shah is familiar with European affairs, and is said to have approved the great political change which marks the close of his father's reign, the calling of a National Assembly. The new Assembly met on the 3rd of January, but five days before the death of the late Shah. It has control of financial matters and public works, but only an advisory voice in matters of administration.

A projectile that takes photographs is another German invention. It is in the form of a shell enclosing a camera, the shutter of which works automatically as the projectile begins to descend, thus obtaining a picture of a broad expanse of country.

Pneumatic locomotives in use in German mines have an air tank in place of a steam boiler. The air is stored at high pressure; and its expansion gives a safe, reliable and cheap power.

#### SCHOOL AND COLLEGE.

Mr. Elmer E. King, for twenty years principal of the Loggieville, N. B., school, and a native of Kings County, died recently after a short illness of pneumonia. He was an estimable citizen and a competent instructor.

Among the candidates at Acadia University for the Rhodes scholarships to be awarded this month is Arthur Estey, of Fredericton, nephew of Mr. J. W. Spurden, manager of the People's Bank.

Mr. J. V. Lynn has resigned his position as instructor in manual training at the N. B. Normal School to assume a similar position at Calgary.

Mr. C. J. Merscreau, M. A., has recently been appointed principal of the Horton Academy, Wolfville, an institution in which he has taught with distinguished ability for several years.

Dr. Ernest Rutherford, Macdonald Professor of Physics at McGill University, has resigned to accept the post of Langworthy Professor and Director of Physical Laboratories in the University of Manchester.

Principal W. B. Shaw, recently of the Bristol, Carleton County, superior school, is at present teaching in the Industrial School near Red Deer, Alberta, and finds the work quite interesting.

Principal E. B. Smith, of the County Academy, Port 1100d, C. B., is receiving deserved commendation for his excellent management of the schools of that town. *Greetings*, the local paper, says: "Parents and children here and elsewhere in the County of Inverness who have pupils attending must certainly appreciate the good, substantial educational work which is being done here."

On Friday evening, December 21, the students of Guysbero, N. S., academy called upon their principal, Mr. W. W. Herdman, and presented him with a complimentary address and a handsome sterling silver writing set. Mr.

Herdman replied, thanking the students for their kindness and good-will. The attendance at the Guysboro Academy this year is the largest on record, many students coming from different points of county. Mr. Herdman is a Pictou boy, a splendid teacher, and well regarded by those of whom he has charge.

The Fredericton Board of School Trustees have decided to introduce regular musical instruction in the public schools under their charge—a wise and progressive measure which it is hoped may be speedily followed in other communities.

Mr. Wm. R. Shanklin, recently a member of the staff of the School for the Deaf, Lancaster, has been appointed principal of the Newman street school, St. John. Mr. Shanklin has had considerable experience, and has shown much skill in teaching.

Mr. John G. MacKinnon has been appointed teacher of grade six, Leinster street school, St. John; not of the Douglas Avenue school, as stated last month.

#### RECENT BOOKS.

One of the great needs at this and all seasons of the year is the Canadian Almanac for 1907, published by Copp. Clark & Company, Toronto. The writer inquired for it at several of the city bookstores about the tenth of January, and the reply was, "All sold out; another lot ordered." Everybody seems to need the concise summary that is found in this invaluable publication—the astronomical and meteorogical calculations, commercial reports of Canada, short history of the Dominion, Canadian banks and other public institutions, forms of government throughout the world, British army and navy, Canadian militia, post offices and railroad stations in Canada, officials of all grades, and the clergy, lawyers, et als, of the Dominion and the provinces, educational institutions, societies, Canadian tariff, and information of various kinds such as one needs every day from the first of January to the thirty-first December.

Messrs. Ginn & Company, Boston, publish two books that will prove of great benefit to students who wish a brief but clear view of history from the earliest times down to the present. The first is Myers's Short History of Ancient Times (388 pages, mailing price \$1.25), containing the first part of that author's General History. brought down to the period of Charlemagne. The second is Myers's Short History of Mediæval and Modern Times (438 pages, mailing price \$1.30), the companion volume to the History of Ancient Times, containing the record down to modern times. These books should be in every school library, furnishing as they do an interesting authentic and concise account of the world's doings, available to every student.

Messrs. Geo. Philip & Son, London, publish an Outline Elementary Atlas of Comparative Geography (price. one shilling), containing a series of 32 outline maps on drawing. The series forms a very useful set of outlines for map drawing.

Messrs. Blackie & Son, London, publish a Nature-Knowledge Diary, compiled with notes on nature-study by W. Percival Westell. These notes are very simple and concise, and the Diary is an excellent vade mecum to the n Neverence and an entransmission of the servence and an entransmission of the servence and the servence and

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young nature student. The publishers announce their intention of giving six prizes each year, each a beautifully illustrated natural history book, to those sending in the best kept Nature-Knowledge Diary, on the plan of their own publication. Some of our young nature-students should be competitors.

Messrs. Blackie & Son, London, are publishing the greater plays of Shakespeare in neat red cover editions, without notes, price 4d. each. The three of the series which have already appeared are The Merchant of Venice, As You Like It, King Henry Fifth. The text omits everything undesirable in class reading.

Messrs. Blackie & Son also publish in their "Little library of Pedagogics" John Dewy's The School and Child (price 1s.), edited by J. J. Findlay, Professor of Education in the University of Manchester.

#### RECENT MAGAZINES.

That grand old magazine, the Atlantic Monthly, which celebrates its Jubilee this year, begins 1907 with an excellent number, varied to suit the tastes of its readers. No stories recently published in the Atlantic have met with greater success than those by S. Carleton, a resident of Halifax, Nova Scotia. "The Lame Priest," "The Sound of the Axe," "The Frenchwoman's Son," and "The Whale" will be recalled with pleasure. The January Atlantic has an article by Professor Archibald MacMechan of Dalhousie University which all readers and teachers of Longfellow's Evangeline should read. It is corrective.

Eight illustrated articles and four articles without illustration, all by specialists and writers of note, together with six short stories by leading writers of fiction in Canada, besides a liberal insertion of poetry and light material, is the programme furnished by the Canadian Magazine for the first month of 1907. Canadian Artists Abroad is an appreciation of the work of two eminent Canadian artists -Morrice and Hill, the latter a sculptor.

The persecution of the Prussian Poles, in connection with the attempt to Germanize the people of Prussian Poland by forcing them to use the German language in the schools for religious as well as secular instruction, has not attracted the attention in this country which its importance deserves. The article on this subject by "Posen" in The Living Age for January 5 describes the great school strike of Polish children to which this attempt has led.

The Delineator for February contains much lively reading matter in addition to its fashion plates: The Making of a Charming Woman, by an "Old Bean;" The Funniest Valentines, by the Funniest People; Talks on Homemaking, by Alice M. Kellogg; The Miller and the Mouse, by Grace MacGowan Cooke, and other bright articles and stories.

The Chautauquan is publishing a series of articles, of which numbers one and two have appeared in December and January, entitled "A Reading Journey in English Counties." The journey begins with the border and lake counties and will end with Cornwall. The articles are fully illustrated, and so far have been of decided interest.

## The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

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G. U. HAY, Editor for New Brunswick.

A. McKAY, Editor for Nova Scotia.

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St. John, N. B.

In the sudden death of Lieutenant-Governor Snowball, following so soon after the equally sudden death of Hon, A. G. Blair, New Brunswick loses two of her eminent sons, men of character and influence , who have left their impress on their generation.

· Hon. L. J. Tweedie, Premier and Provincial Secretary of New Brunswick, has been appointed Lieutenant-Governor of the province in place of the late Hon. W. B. Snowball. Hon. Wm. Pugsley has been called to the leadership of the provincial administration.

THE official notice on another page from the Superintendent of Education in Nova Scotia contains some important announcements. Principal W. R. Campbell, M.A., after twenty years successful work as principal of Colchester Academy, Truro, N. S., has been appointed inspector of

schools for the newly-created district Number Twelve — the county of Colchester. Hitherto the inspectorial work of Colchester, Cumberland and Pictou was found to be too heavy for the present inspectors, Inglis C. Craig and E. L. Armstrong, so the council of public instruction decided to make Colchester a separate inspectorial division, and Principal Campbell, after some hesitation, has accepted the position. Truro Academy has been one of the leading academies of Nova Scotia under the successful administration of Mr. Campbell, whose experience and abilities serve him well for his new position.

Mr. STANLEY S. Bruce of Shelburne Academy succeeds Mr. James H. Munro as inspector of schools for Yarmouth and Shelburne counties. Mr. Munro retires after many years of faithful and efficient service. Mr. Bruce has proved himself a competent and successful teacher, and for many years has been a diligent student of the natural history of Shelburne County.

A federal conference on education will be held in London from May 24th to June 1st. Its object is to promote the furtherance of the federation of the Empire in education. Representatives from all parts of the Empire are expected to take part in this important meeting. Chief Superintendent Dr. Inch of New Brunswick, and Dr. MacKay, Superintendent of Education for Nova Scotia, have accepted invitations to be present.

Dr. A. H. MacKay in an article in the Federal Magazine of London urges the desirability of a uniform system of nomenclature in connection with the ages and grades of pupils in primary and secondary schools, not only throughout the Empire, but in all English-speaking countries. This, Dr. MacKay says, can only be brought about through the influence of some central agency, such as the proposed convention, which, if it originate such a general co-operation, would be sufficient of itself to justify its assembling. Dr. MacKay is also contributing to the same magazine a series of articles on education in Nova Scotia.

## Glimpses into Schoolrooms — III. By THE EDITOR.

A correspondent considers this series of talks on "Glimpses into Schoolrooms," as one of the most helpful and encouraging features of the Review, because few teachers have the opportunity to visit other schools, and "because many teachers, from long meditating on their own troubles in school, sometimes imagine that they are the only ones who have any difficulties. So, in your account of visits to schoolrooms do not give us only the bright side of the picture. Tell us some of the trials and troubles, and how they are overcome."

These records of visits to schools are intended to help teachers, and if the editor has so far strayed into the good schools, it was not intentional to do so, but rather to take them as they come, and to afford glimpses not only of those recently visited, but to call up pleasant impressions—or otherwise—of school work seen in the past. It is much more pleasant to jot down the impressions produced by visiting a school where everything is in "apple pie order" than the reverse picture. There are two difficulties in the way in presenting the latter: In very many schools teachers and children do better work when visitors are present; if both are placed at a disadvantage and obviously embarassed by the presence of a visitor, the lessons drawn from failure may not be either happy or accurate. Again, the bad schools with harsh, unsympathetic teachers and impish, noisy children are rare,—at least the evidence points that way. If any correspondent will tell the Review of such a school it will be visited, if not too far away.

During a visit to a school a few months ago there was a recitation in geography. The pupils had their books open before them. The teacher asked questions; the pupils answered after consulting their maps or books. There was no interruption to the cross fire of questions until the visitor volunteered one, which was answered readily enough. But it mattered little whether the question was answered correctly or not. The class had no evident interest in the work; there was no opportunity to think, compare, observe, for which the right study of geography is so well fitted; there was no history, current events, travel, incident, or other companion subjects of geography to enliven the lesson. It was geography pure and simple, and so crudely conducted that it was charitable to suppose that teacher and

pupils were merely putting in the time—it was the last half hour of the day.

No subject has been more changed in its methods of presentation during the last decade or two than geography. Instead of memorizing a mass of details, consisting of names of capes, islands, rivers, boundaries, etc., it is now recognized as a distinct branch of science and an important adjunct of nature-study. Its aim is first to make the pupils acquainted with home and its surroundings, and using these as a starting point to proceed to a knowledge of the world—its features, inhabitants, products.

A lesson given to a fourth grade class at a normal institute, which I attended in Eastern Nova Scotia a few years ago, will illustrate how interesting this subject may be made to young children, and how it may be used to train them to habits of observation and reading. The lesson was carefully prepared by a teacher and given as a model to other teachers present.

The teacher had not met his pupils until that morning. A few minutes were spent in obtaining from them what they knew about their surroundings: A village overlooking the Strait of Canso, some few facts about the occupations of the people who live there, and the products and industries of the place, with a few incidental references to the plants and animals found in the neighborhood. The teacher soon gained the sympathy of the pupils, by his own evident interest in all matters that they talked about, and by his offer to take them out that afternoon on an exploring trip. Here was a teacher who volunteered after a few hours' acquaintance with the place (if I am correct in this opinion) to do what some other teachers hesitated to do after weeks or months spent in acquainting (?) themselves with the vicinity of their schools. The remaining time of the lesson was spent in drawing from the pupils their knowledge about the ships in the harbour, what they took away and what they brought back, and the same with the railway, with an imaginary journey on each, and the places probably visited. There were maps and pictures to illustrate these journeys, which though imaginary became very real under the influence of a live teacher.

Bear in mind that the purpose of this lesson was simply to draw from the pupils a knowledge of their surroundings and then to connect the people and products of their home with those of more distant places, without entering into too much detail. In these respects the lesson was indeed a model.

#### Forestry.

The recent forestry convention held in Fredericton served to show the interest that is felt in New Brunswick concerning the care and preservation of its trees. Not only was there a large gathering of the representative men of the province, but men well versed in the science of forestry from Eastern Canada, and experts from Harvard and Yale were present to discuss the more technical aspects of the question. The members of the provincial parliament showed an intelligent interest in the proceedings. The legislature was adjourned, and the legislative chamber was occupied by the members of the convention during the two days that their important deliberations continued.

A hopeful feature of the convention was the evident interest felt in the education of those who are in future to have the care and control of the forests. As one expressed it, to make foresters you must catch them while they are young. Chancellor Jones of the University of New Brunswick outlined a course which might, with little change in existing conditions, and with little additional expense, provide a suitable education for those who have the science of forestry in view. In brief, a thorough course of engineering would be provided for during the first two years of a student's life at the University, and during the last two years special instruction could be given in forestry. During the course of these students subjects which are more intimately connected with forestry, such as botany, chemistry, surveying and related studies would receive more special attention.

It was urged by one of the speakers that the sons of lumbermen and others who may not desire to take a full course should have the privilege of taking a shorter course; and no doubt provisions may be made for this, especially if the lumbermen of New Brunswick will contribute towards an endowment for this purpose. At Yale University a request similar to the one noted above was made by lumbermen, and the answer was returned that if they provided for it such a course would be established. The lumbermen promptly made a gift of \$150,000. There is wealth and public spirit enough among the lumbermen of New Brunswick to respond just as readily to a call upon them to endow a chair of forestry in the New Brunswick University, or at least to provide for an endowment covering a special course.

Dr. J. R. Inch, Chief Superintendent of Education, in dwelling upon the relation of forestry to our public schools, spoke of the advantage of nature-studies, and the observance of Arbor day in promoting an interest in and respect for trees among children.

Mr. T. B. Kidner, director of manual training, in his illustrative talk about trees and other plants, pointed out what the manual training schools are capable of doing in this direction. The collection of woods and drawings aroused much interest and attention among those present.

It is confidently expected that this convention, the direct result of which is the formation of a provincial forestry association, will do much good in directing attention to the need of better methods in lumbering and the care of forests in New Brunswick. No country in the world is better adapted in its natural condition for the growth of trees than New Brunswick, and the preservation of its forests should be one of the first duties of its government and people.

#### Free - "The Dictionary Habit."

The publishers of Webster's International Dictionary have just issued a handsome thirty-two page booklet on the use of the dictionary. Sherwin Cody, well-known as a writer and authority on English grammar and composition, is the author. The booklet contains seven lessons for systematically acquiring the dictionary habit. While it is primarily intended for teachers and school principals, the general reader will find much of interest and value. A copy will be sent, gratis, to anyone who addresses the firm, G. & C. Merriam Company, Springfield, Mass. Write to-day. The teacher will find it one of the greatest aids in getting pupils to do profitable work for themselves.

Professor Lounsberry, discussing the question of simple English, said at Yale one afternoon: "There was a little boy who began to keep a diary. His first entry was: 'Got up this morning at 7 o'clock.' He showed the entry to his mother, and she, horrorstricken, said: 'Have you never been to school?' 'Got up,' indeed! Such an expression! Does the sun get up? No; it rises. And she scratched out 'Got up at 7,' and wrote 'Rose at 7' in its place. That night the boy, before retiring, ended the entry for the day with the sentence: 'Set at 9 o'clock.'"

#### Nature Study in March.

By G. U. HAY.

March is the harbinger of Spring-indeed it is the first spring month according to the calendar, although in this northern climate of ours there is more of winter about it than spring. He is a variable fellow, this March, when the waning cold struggles with the waxing warmth, and when boisterous winds make no one regretful that Winter's reign is nearing an end. "As mad as a March hare," is an old English saying, and it might be suppose, if we judged from our blustering month, that the hare (or rabbit, as we call the species here) is goaded to madness by hunger or cold. But an old English writer tells us that March is the mating season for the hare, when he becomes excitable and violent as he feels the warm blood of spring pulsing through his veins.

The pale faces of the children who have kept too close to their books during the long winter begin to glow with the prospect of work in the school garden or a romp in the woods in search of early spring flowers, or listening to the carols of our old friends the birds, or the peeping of frogs after their long sleep in the mud, or other of those numberless sounds and signs of a returning spring.

What a delight it will be for those children to welcome back the little birds which come in ever increasing flocks to their native haunts in the north. Yes, their native haunts, for were they not born here, and are they not coming back to revisit their homes, to make new nests, and to carol gladly among the branches where first they looked out with wonder on this busy, work-a-day world?

"But when will our friends be here?" say the children. "When can we expect Robin Redbreast, or that delight of past summers, the Song Sparrow, or the Fox Sparrow, a joy to all lovers of birds music, and many other glad song birds?" No one can tell the precise time of their coming, so the word must be-wait and watch. Continued severe weather delays their coming. If warm weather prevails for several days they may surely be expected to follow in the wake of this warm wave. When the ice leaves our bays, ponds and rivers, the ducks and loons will appear, and wild geese in spreading Vshaped flocks, the air vibrating with their "honk, honk," so familiar to school boys, will be flying north again. But they do not come until the ice is out of the bays and estuaries to the north of us. (How do they know?—but that is more than you or I can tell). They do not come until their food,

scarce at first though it may be, is ready for them; and so of the birds that prey upon insects. Nor do those birds with long sharp bills, like the woodcock, come until the earth is thawed sufficiently for them to search for their fare of earthworms.

The signs of spring are soon to be seen on the branches of trees. The twigs of maples and willows are putting on a deeper hue. The buds of some trees are beginning to grow red, and from day to day, warmed by the sun, begin to grow larger, and get ready to cast off their winter wraps. What are these buds and what do they contain? When were they formed? Why do they need coverings? What will they grow into? are questions that will occur to every child at this season.

As the month draws to a close the little furry catkins on the pussy willow will be seen to have come further out during the warm days. Notice the catkins on the birch, the alder and the hazel trees. Notice the other trees that are preparing to send forth their flowers. "Their flowers!" say the children; "do trees have flowers?" They do indeed, and most of trees bear their flowers in early spring. Look for them this spring on every tree that you meet.

One of the sounds of early spring will be the roar of streams and rivulets as they strive to break the bands of the ice-king. Watch the banks of some of these streams and even the rills that trickle by the roadsides. Notice the earth caving in, and see how muddy the water looks. Follow the course of this muddy water, and find out what becomes of the mud and gravel that these streams carry along. And that may tell you what changes have been going on upon this earth during the winters and springs of countless years of the past.

No Nature-study in March! Oh, yes; if we can get into the spirit of it there is plenty of material; and the first bird, the first sign of a flower, of a reddish twig or bud, will remind us of other spring advents. Thus we can refresh our spirits after the long winter and come into touch with the newest and gladdest spring it has been our lot to pass through.

I am pleased with the Review. It tells me just what I want to know, and helps me to keep out of ruts. I preserve each number for future reference. Wishing the Review and its editors many happy years in representing the educational interests of these provinces.

Joseph J. Gavel.

Gavelton, N. S.

#### Our Picture for March.

REV. HUNTER BOYD, WAWEIG, N. B.

The subject selected by the editor for the March number of Educational Review, belongs to the class known as "Pictures that tell a story." It will appeal to youthful imagination, and more or less to a sense of humour. A title was hardly required, as the artist has conveyed the idea by his brush, but titles are sometimes a necessity in order to distinguish the works of one painter from those of another, or to fix the identity of his own. The language of emotional expression is practically the same in human life, and therefore if his observation is correctly rewarded it would matter little whether the characters introduced were Russian or Canadian. But the scene has a strong local flavour about it, and those who know London urchins will not only say it is true to human nature, but true to life in some sections of the world's metropolis.

The exact location is not important. We see a portion of the pavement or 'sidewalk' alongside the high wall and railing of the grounds of a large institution. The boy doubtless has good reasons for taking his stand near the door which is seen behind him. It is late in the afternoon and as it becomes colder makes his chances of doing business more favorable. But his mind is not wholly devoted to serving customers, the opportunity for throwing snowballs is very tempting when the passers are so infrequent. To see a gentleman well-dressed, and more elderly than nimble, presents very strong temptation. Whoever threw the snow, made good aim for the largest amount of discomfort to the person who received the blow. It is possible that this boy can have done so. Judging the time which it would require for the victim to half turn his head, would the thrower be able to insert his hands in his pockets, look the other way, and commencing to whistle assume this air and bearing of innocence? The old gentleman is looking out of the corner of his eye-the boy is turning as far as he dares, and a psychologist would say there has been considerable emotional energy on the invisible line between those two eves.

Allow the scholars to describe as exactly as possible the looks of the two persons—mischief, cunning, alertness and so on one side, and annoyance, anger, possibly fear of more attacks on the other. Endeavor to get lists of suitable words, and according to the grades of the scholars attempt to define the shades of meaning.

The picture will afford a good basis for a word study, and some may make it an occasion for discussion of the propriety of practical joking. Is this man typical of the kind that boys specially like to irritate.

It will be interesting to know the grounds on which scholars incline to believe the boy is not guilty.

Objection is sometimes made that pictures should not be analysed but enjoyed; but the title of this one positively invites discussion. Many scholars have not seen chestnuts roasted, certainly not in our streets. They are more familiar with the process of roasting peanuts. The teacher will do well to encourage them to search for accounts of London waifs and their modes of obtaining a scanty livelihood. Some may be found eager to draw the simple open-air stove with the chestnuts cracking open on the tray on which they are roasting. The clothing of the boy is typical of his class, but in strong contrast to Canadian lads in winter. Would such a boy make a good colonist?

The picture suffers scarcely anything by reproduction as colours are not essential to success. Invite the older scholars to note the parallel lines throughout this upright rectangular arrangement, and to state if "unity" is secured in the picture, and in what manner?

Can any of the teachers recall references to 'roasting chestnuts' in English literature?

Answer to "Query for Review Subscribers" in February number: Mrs. A. bought 32 yards; her daughter (Ann) bought 31 yards; Mrs. B. bought 12 yards; her daughter (Jane) bought 9 yards; Mrs. C. bought 8 yards; her daughter (Eliza) bought 1 yard.

C. E. Lund.

A solution was received from Mr. J. E. Belliveau, Pictou, N. S.

#### March.

I wonder what spendthrift chose to spill
Such bright gold under my window-sill!
Is it fairy gold? Does it glitter still?
Bless me! it is but a daffodil!
And look at the crocuses, keeping tryst
With the daffodil by the sunshine kissed!
Like beautiful buhbles of amethyst
They seem, blown out of the earth's snow-mist.
O March that blusters and March that blows,
What color under your footsteps glows!
Beauty you summon from winter snows.
And you are the pathway that leads to the rose.
—Celia Thaxter.

#### March and Its High Days.

ELEANOR ROBINSON.

The Roman name of this month was Martius from Mars, the god of war. A more appropriate name in our climate is that given to it by the Anglo-Saxons, who called it *Hlyd Monath*, that is, the loud or stormy month. Among the Romans the year began in March, and in the English calendar March 25th was the first day of the year until 1752. Thus in modern editions of Pepys' Diary we find, for example, the days from January 1st to March 25th, 1664, with the date of both years, 1663-4. Both in England and Scotland there is an old saying which represents March as borrowing three days from April, and the last three days of March are called "the borrowed days. The old rhyme says:

"March borrowed from Averill, Three days, and they were ill."

and another runs thus:

The first, it sall be wind and weet,
The next, it sall be snow and sleet,
The third, it sall be sic and freeze,
Sall gar (make) the birds stick to the trees."

And everyone is familiar with the image of March "going out like a lion."

Dry weather in March is favorable to the grain crops, hence the saying "A bushel of March dust is worth a King's ransom.

We find the days of the patron saints of Wales and of Ireland in March. The first day of the month is sacred to St. David. There are many legends about this patron of Wales, but very little is really known of his life. He is thought to have been a bishop in Wales in the sixth century, and the date of his death has been put at 601 A. D. His shrine is in the church at St. David's. In Shakespere's "Henry V," Lluellen, the Welshman, says to the king: "I do pelieve your majesty takes no scorn to wear the leek upon St. Tavy's day." And the king answers: "I wear it for a memorable honor, for I am Welsh, you know, good countryman."

The traditional explanation of the wearing of the leek is that King Arthur won a great victory over the Saxons in a garden where leeks grew, and that St. David ordered that every one of the King's soldiers should wear a leek in his cap in honor of the victory.

Around the name of St. Patrick, the patron saint of Ireland, has gathered a mass of legends, in which

false and true, beautiful and ghastly, foolish and instructive stories are brought together. This confusion is partly owing to the fact that the name Patricius seems to have been commonly used in the sense of nobleman or gentleman. Moreover, another Patrick was sent to Ireland as bishop by the Pope about the time that the subject of this sketch began his work there. Irish writers mention also a third ecclesiastic of the same name, so that it is not surprising that the accounts of the saint have been confused. The following facts, however, are pretty generally accepted. St. Patrick was born in Scotland at or near Dumbarton, about the end of the fourth century, and of Christian parents. When a boy of fifteen he was taken prisoner by pirates and sold as a slave in Ireland, probably in county Antrim. Here he tended cattle for six years, and then made his escape, but he soon formed the plan of going back to Ireland as a missionary. Where and how he was trained for his work is not certain. He lived among his relations in Britain for some time, and they begged him not to leave them, but he could not forget the needs of the Irish people, and in dreams he heard voices calling him to come to them. At last his plan was carried out. He says, "Thanks be to God, that after very many years the Lord granted unto them according to their cry." For over forty years he worked in Ireland, traveling from place to place, and risking death and slavery, teaching, baptizing, and founding churches. Traditions all agree that he died on the 17th of March. The year is uncertain, but 469 seems the most likely date; he was probably buried at Downpatrick. St. Partick was the first great missionary who went out from Britain, and this alone would commend his life, a holy and useful one, to our remembrance. The practice of wearing a shamrock on his day is thought to have begun from his habit of using the trifoliate leaf as an image of the Holy Trinity.

The 25th of March has been kept since very early times as the day on which is commemorated the Annunciation of the Blessed Virgin Mary; that is, the event recorded in the first chapter of St. Luke's Gospe!, of the Angel Gabriel's coming to the Virgin with the message that the Saviour of the world was to be born of her. This event has been a favorite subject with artists, and is portrayed in some of the most beautiful pictures in the world. The day is commonly called Lady Day.

The Festival of the Annunciation commemorates the promise of the coming of the Saviour, but a still greater event is celebrated this year in the same month, for Easter falls on the 31st of March. This festival of the Resurrection of Christ has been kept as the crowning feast of the year since very early ages. It is spoken of by ancient writers as "the most holy Feast," "the Great Day," "the Feast of Feasts," "the Queen of Festivals." The name Easter was in use as far back as the sixth century, and the Venerable Bede, the historian of the church in Britain, says that it is derived from the name of a pagan goddess, Eostre, or Ostera, whose festival came in the spring. Later writers say the name comes from a word meaning to arise. In old-English calendars Easter is called "the Again-rising of our Lord." Among Eastern Christians it is popularly called "the Bright Day."

This name connects it with the idea of sunrise, and of the Sun of Righteousness rising from the darkness of the grave. The French name for Easter, *Paques*, is derived evidently through the Latin *pascha* from the Hebrew name of the Passover festival, and Easter eggs are called "pasque" eggs in some parts of England.

Easter may fall upon any day from March 22nd to April 25th, inclusive. Its date is determined as follows: Easter Day is the first Sunday after the fourteenth day of the calendar moon which happens on or after the 21st of March.

Most of the popular customs connected with Easter tide, such as the sending of flowers and of eggs, rising to see the Easter sun dance, the wearing of new clothes, are typical of the release from bondage, the coming from darkness to light, the beginning of a new life—all that the Resurrection of Christ means to Christians. Flowers are the most obvious symbols of the Resurrection, and lilies especially stand for purity. The sending of eggs, often coloured, is one of the most wide-spread customs of the season among Christian nations.

A prayer to be said before eating eggs, and belonging to the early part of the seventeenth century runs thus:

"Bless, oh Lord, we beseech Thee, this thy creature of eggs, that it may become a wholesome sustenance to Thy faithful servants, eating it in thankfulness to Thee, on account of the Resurrection of our Lord." Originally, Easter eggs were coloured red, the colour of blood, in commemoration of our Lord's death and passion.

Another favorite symbol of the rising from the

grave is the butterfly, and the connection of ideas here is quite plain. Not so in the case of the hare, which appears so commonly upon Easter cards, and in different forms in the shop windows. This symbol seems to have been borrowed from Germany, but no perfectly satisfactory explanation of it is to be found. The Easter hare is supposed in German superstition to lay eggs, and to bring coloured eggs to good children on Easter morning.

#### Rockfeller's \$43,000,000.

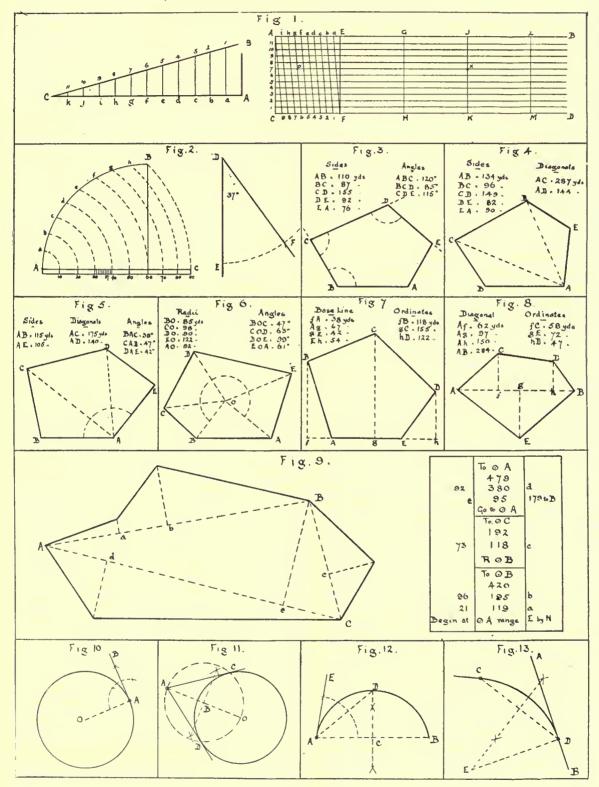
One can get no idea of what \$43,000,000 means, but this is the amount set apart by John D. Rockefeller for the benefit of higher institutions of learning in the United States. Presumably each donation will mean the giving of more than as much more by other men and women of large wealth, so that \$100,000,000 will go to these institutions. It is said that the \$43,000,000 are so invested as to give an annual income of about \$6,000,000. This would mean the giving of \$100,000 a year to sixty different colleges. What a thought!—N. E. Journal of Education.

May we not look at it from another point of view. If the income were applied to creating or assisting teachers' pension funds, it would mean the giving of \$100,000 a year for that purpose to every state of the United States, and to every province of Canada. This would be a beginning at the right end. It is not that too much money is given to colleges, but that too little is given to improve the conditions of elementary schools and teachers. In Canada Sir William Macdonald has shown how wealth may be devoted wisely to raise the status of country schools and teachers, as well as to benefit colleges.

Says the University of New Brunswick Monthly: "What will our authorities do for the maintenance of the chair of chemistry? . . . Through the generosity of Sir William McDonald, and the goodwill of Dr. Brittain, we have enjoyed for more than two years a course in chemistry that has been thoroughly up-to-date. . . . We cannot speak too highly of the work of Dr. Brittain. His ability as a teacher, his range of knowledge of the subject, and the energy he has displayed mark him as the man we want. We undergraduates say that he is the kind of a professor that U. N. B. cannot afford to lose. No course has become more popular than this one, no lectures more eagerly listened to, and no iaboratory work less laborious and more successfully conducted. No arrangement short of maintaining the present high standard will be welcomed by the student body."

Students are apt to be pretty good judges in matters of this kind, and in their estimate of the work of Dr. Brittain the REVIEW heartily agrees.

GEOMETRICAL DRAWING GRYIII.



#### Geometrical Drawing - IV.

PRINCIPAL F. G. MATTHEWS.

The problems here given for grade VIII, although few in number, contain sufficient principles on which to base plenty of exercises to cover the year's work. Many of these may be found in the publication mentioned last month, and in past examination papers. If further practice is required, good exercises may be given in copying, enlarging and reducing given figures, using all kinds of scales.

Fig. 1. The diagonal scale, its construction and use. To explain the construction of this most useful scale, let AB in the first diagram be a short line which is to be divided into twelve equal parts. Draw AC any length, stepping off on it twelve equal divisions. Join CB and from the divisions on AC draw lines at, b2, etc., parallel to AB.

Since Af is half AC, f6 will be half AB; and since Ci is one-fourth of AC, i9 will be one-fourth of AB. Similarly k11 is one-twelfth of AB, and e5 seventwelfths, and so on. This method of division is extremely useful when AB is a very short line. In the second diagram we have a true diagonal scale in which the inch is divided into 120 parts, giving a scale of 10 feet to the inch from which we can measure feet and inches.

To construct it draw AB any required length marking off each inch. Divide the first one AE into 10 equal parts. Draw AC at right angles to AB and on it mark off twelve equal divisions. Through each one draw a line parallel to AB. Draw EF, GH, etc. parallel to AC. Divide CF into ten equal parts. Join Fa, 1b, 2c, etc. These lines are diagonals and divide each tenth of AE into twelve equal parts.

Suppose we wish to measure off a line 26 feet 7 inches long. From K to 6 on the bottom line represents 26 feet. By going up the line 6g to the parallel marked 7, we add seven-twelfths of another foot, so that the distance xo represents 26 ft. 7 in.

By using ten parallels instead of twelve we divide the inch into 700 equal parts, and can obtain fractions of the inch to two decimal places.

Fig. 2. The scale of chords, its construction and use. With any convenient radius describe a quadrant AB. With the same redius trisect the arc. By trial divide each of these thirds again into three giving nine divisions, each representing ten degrees. With A as centre and radius Aa draw the arc alo. Similarly draw b20, c30, etc.

This divided line AC is the scale of chords. The second part of the figure shows its use. It is re-

quired to make an angle of 37° with DE. With D as centre and radius A60 on the scale describe the arc EF. With radius A37 and centre E, cut off point F. Join DF. Then EDF contains 37 degrees.

Fig. 3. To construct an irregular polygon, having given lengths of sides and sizes of angles. Draw AB and make it the given length. By means of protractor or scale of chords make the angle ABC the given size. Cut off BC the required length and proceed in a similar manner with each side and angle until the figure is complete.

Note.—In this and the succeeding figures which have dimensions, the scale used is 100 yards to the inch. This is an easy scale, and can be worked with great accuracy from a diagonal scale.

Fig. 4. The same as Fig. 3, having given the lengths of sides and diagonals. Make the triangle ABC according to dimensions given (by Ex. 4 grade VII.) Then on CA make the triangle CDA by the same method. Next construct the triangle DEA on DA and the figure will be complete.

Fig. 5. The same as Fig 3, having given two sides, lengths of lines radiating from one corner, and the angles between them.

Draw BA its given length. Make the angles BAC, CAD, and DAE of the given number of degres. Cut off AC, AD and AE the given lengths, and join BC, CD and DE.

Fig. 6. The same as Fig. 3, having given lengths of radii from a point within the figure, and the angles between them. Draw BO the given length. Make the angles BOC, COD, DOE, and EOA of the required number of degrees. Next set off the lengths of the radii, and join their extremities.

Fig. 7. The same as Fig. 3, by means of ordinates from one side, or the side produced. Draw any line fh and set off fA, Ag, gE, and Eh their respective lengths. At f, g, and h erect perpendiculars (called ordinates) and cut them off to required lengths. Join AB, BC, CD, and DE.

Fig. 8. The same as Fig. 3, by means of ordinates from a diagonal. Draw the diagonal AB and mark off the different divisions from the table. Erect the ordinates and cut them to lengths. Join the extremities,

FIG. 9. To construct an irregular figure from dimensions given as in land surveying. The right hand portion of the figure represents a page from a surveyor's Field-book, which should be read from the bottom upwards.

Draw AB rising 111/4° from the horizontal (each

point of the compass being 11½°) making it the required length, 420 yards. From A to a is 119 yards at which point there is a set-off to the left of 21 yards. From A to b is 195 yeards, where another set-off of 96 yards to the left is found. BC being 192 yards and AC 479, construct the triangle ABC, noting that BC turns to the right from AB, and on BC and CA mark off the ordinates from the table as before. Join the points of the triangle and extremities of the ordinates to complete the figure.

After completing the drawing the children may be allowed to compute the area of each part of the figure, and of the whole. To allow of the simplest method of getting the area of triangle ABC, the perpendicular height is given from B.

Fig. 10. To draw a tangent to a circle from a given point in the circumference. Join A the given point to the centre O. At A draw AB at right angles to AO. AB is the tangent required.

Fig. 11. The same as Fig. 10, from a point outside the circle. Join the point A to the centre O. Bisect AO in B. With B as centre and radius BO describe a circle cutting the circumference in C and D. Join AC and AD. Both these lines are tangents to the circle.

Fig. 12. The same as Fig 10, from a point in the circumference, but without using the centre. From A the given point, draw any chord AB. Bisect it in C and erect perpendicular CD. Join AD. Make the angle DAE equal to the angle DAC. AE is the tangent required.

Fig. 13. This exercise is designed to shew a practical application of problems on tangents. AB represents a piece of straight railroad track. Another straight road approaches C. It is required to form by a natural curve a junction at D. AB being tangential, a perpendicular from D will give one locus of the centre. Join CD. Bisect this chord and produce. This will be another locus. The common one is E, which is the centre of the curve.

We are living out these lives of ours too much apart from God. We toil on dismally, as if the making or the marring of our destinies rested wholly with ourselves. It is not so. We are not the lonely, orphaned creatures we let ourselves, suppose ourselves, to be. The earth, rolling on its way through space, does not go unattended. The Maker and Controller of it is with it and around it and upon it. He is with us here and now.—Nelson H. Huntington.

#### A History Device.

The use of scrap books has become so well known and so useful in geography that it suggested itself in history and has proved equally successful in that subject. The greatest handicap, especially to the country teacher, is the lack of time, but this may be overcome largely by a little planning, and letting the pupils do most of the work, which greatly enhances its value.

An old composition book makes a good scrap book. Cut out part of the leaves to allow for the added thickness of the pictures. The pupils may be aided a little in collecting the pictures, but as far as possible let each child collect and classify his own pictures, only giving a little advice or a few suggestions as to the topic. Each day's lesson may be taken as a topic, if there is time; for example, when the class is studying some battle, as the battle of Gettysburg, let each try to find pictures illustrating this battle; many such pictures may be found in old magazines. This brings the lesson more clearly before the mental vision, keeps it in the mind longer, and creates an interest.

Pictures of the noted statesmen may be used as they come in the lessons, and a brief sketch of the life of each learned in connection with the picture. Pictures of old historic buildings, forts, etc., all help in making the subject interesting. The children never tire of them, and vie with each other as to who can bring the most practical and useful pictures, and who can picture out the topic in the most graphic manner.

Another aid in the study of history is map-drawing—drawing maps of each section of country as brought into prominence in the lessons. This also helps in making history real. In the wars the maps are drawn, then the routes of the different armies are traced in colored crayons, a different color being used for each army. The best of these maps are saved and put into the scrap books.

History studied in this manner is much more real to the pupils than when studied by merely committing to memory the words of a text-book. Approximate dates are associated with nearly every picture, so that time and places are permanently located in the mind, and looking over the scrap book when completed gives a quick review of the entire term's work. This method is especially helpful in seventh grade history.—Popular Educator.

#### Art in the Netherlands.

By Mrs. A. MACLEAN.

The art of the Netherlands is the art of Belgium and of Holland, represented by the Flemish school and the Dutch school. Obscurity shrouds the beginning of art in the Netherlands. Though there were examples of more or less merit previously, it was not until the beginning of the fifteenth century that a distinct Flemish school arose under the leadership of the Van Eycks, Hubert, Jan, and a younger sister, Margaret. With their advent the Flemish school at once became prominent. Hubert was born in 1366, and he and Margaret died about the year 1426. Jan died in 1440.

Flemish art may be said to begin in the fourteenth century and end in the seventeenth century. Fromentin says of Flemish art in this period: "At the two extremities of this brilliant course we are struck with the same phenomenon—rare enough in such a little country—we see an art which was born of itself, on the spot; and an art which was born again when it was thought to be dead. Van Eyke is recognized in a very fine Adoration of the Magi; Memling is suggested by certain portraits; and there, at the very end, a hundred and fifty years later, Rubens is preceived—each time a sun rises and then sets with the splendor and brevity of a beautiful day without a morrow."

The Van Eycks established themselves in Ghent in 1420, among a corporation of painters then existing there. The triptych of St. Bavon is their work, but it is not known what part each painted. Their work was wonderful for the time, and it and the works of their pupils display the qualities that have since been considered characteristic of the entire Flemish school—tendency to naturalism, imitation of nature, sensitiveness to color at the expense of purity and grace of line, accuracy of finish, and, in the earlier period, profound religious feeling. Hubert Van Eyek is credited with the discovery of the mixing of oil colors, and the applying them to canvas much as we do now. This discovery, long and carefully guarded by the Van Eycks, drew immediate attention to them and their works.

Memling, who painted about forty years after the Van Eycks, was perhaps the greatest of the earlier painters of Flanders. In his theme and manner he was much like the Van Eycks, but his was an advance. They copied nature accurately with an echo of the engraver and the enameler in their style; he copied accurately, but he idealized. They have the gleam of gold, the polish of marble, the brilliant

carpet tints, the sheen of velvet and pearl; Memling has all these, but in his work are misty passages and half-tints of which the Van Eycks knew naught.

It is wonderful that, in a time so marked by violence, stratagem, superstition, dissoluteness, ecclesiastical parade, royal pageants, feasts, carousals and glitter of gold and gems, there should have sprung into being a wonderful and unexpected artlife.

In its social and religious character, Flemish art stands between the art of Italy and the art of Holland. The influence of the church is seen throughout the whole of Italian painting in its best period, and never more conspicuously than when the faith of the people was beginning to fail. In Flemish art one sees rather the influence of religion than of the priesthood. There is a sturdy national characteristic about it, and a leaning toward literal reproduction of subject.

In the sixteenth century there began a gradual decline in Flemish art, due to the powerful influence of Italian renaissance. In striving to imitate a foreign art, with which it had no real sympathy, Flemish art ceased to be national. This decadence was checked in the seventeenth century by the advent of the greatest of all Flemish painters, Rubens. He formed a school of his own, and in that school the greatest pupil was Van Dyck.

After the death of Rubens and the dispersion of his pupils, the art of Flanders ceased to form a distinct school; and when Rembrandt arose, the artcentre of the Netherlands was transferred to Holland.

The works of the Flemish artists are to be found in galleries everywhere. Some of the more important artists are: Hugo van der Goes, 1482: Geerardt David, 1455-1523; Jan Gossart de Mabuse, 1470-1532; Paul Bril, 1556-1626; Jan Fyt, 1609-1691; Casper de Crayer, 1582-1669; David Teniers, 1582-1649; Jan (called "velvet") Breughel, 1589-1642; Aelbert Cuyp (Kuyp), 1606-1691; Jacob Jardaens, 1523-1678; David Teniers (younger), 1610-1694; Pieter van der Facs (Sir Peter Lelv), 1618-1680.

In the Metropolitan Museum, Central Park, New York, are many paintings of the Flemish school. To the casual observer most of them are not calculated to arouse a great deal of enthusiasm. I have heard visitors in the museum remark, "Never mind these queer old pictures, let us go and look at the modern pictures." But there is a wealth of interest and beauty in those old Flemish paintings, albeit one might find lack of refinement of feeling, or even

a touch of actual coarseness in some of them, for some of the artists were frequenters of taverns. But if my space permitted, I should like to speak of the animals of Jan Fyt, the coloring of Teniers, etc., but I shall content myself with sketches of the two most famed of Flemish painters, Rubens and Van Dyck.

#### Sarah's Teachers.

They taught side by side; one, an enthusiastic, warm-hearted woman, possessing a love for her work and a keen insight into human nature; the other, scholarly, methodical, sarcastic, convinced that all human twigs could and should be bent in the same direction. One gained the love and affection of some forty-five fifth grade pupils; the other, the respect and obedience, born of fear, of as many sixth grade pupils. Into the latter grade came Sarah, a girl, who, unfortunately, had never learned the lesson of self-control.

Bright she was and interesting, but from the first misunderstood and misjudged by "Miss Method." Rebellious, self-willed Sarah! She absolutely refused to be moulded after the approved pattern. (There was actual danger of the mould being broken). Just as determined that this self-same mould remain intact, that not even a crack appear, was the firm "Miss Method."

Under such circumstances, things soon reached a crisis. On a memorable morning, hot-headed Sarah, goaded to the point of desperation by the cool, sarcastic tongue of the presiding genius of the room, struck her. In the passionate burst of anger she hissed, "I hate you! I hate you as you hate me! so there!" Hastily the principal was summoned; the culprit, her whole form shaken with suppressed sobs, taken to his sanctum sanctorum—the office.

There the child sobbed out her side of the pitiful story. (He already knew the other side, and wise man that he was, read much between the lines). But what to do. Suspend her? A child of that age? Not to be thought of. Had not the child sobbed out, "Please, Mr. Day, take me out of that room, I can't be good there." Had he not also heard frequently of late that Sarah was falling behind in her classes, that she could not be interested in her work? He would give her to his resourceful fifth grade teacher. The shame of it! Demoted because a tactless woman could not win a lovable heart.

The next morning it was with a feeling of mis-

giving that Miss C. admitted to her busy hive "the drone" of whom she had so often heard. Had not her next door neighbor kept her fully posted on the short-comings of this vixen?

But was this blue-eyed, frank-faced girl, sitting there so quietly, as black as she had been painted? She should have the benefit of the doubt. (All Miss C.'s children had to prove themselves bad before she would admit it). Had this slender girl only yesterday viciously struck a teacher? Such thoughts ran through Miss C.'s mind as she assigned lessons and directed her new pupil to the seat she was to occupy—one in the rear of the room—she had formerly occupied a front one, then left her to herself while the regular work was resumed.

The child quickly adjusted herself to the new environment—several days passed without an outbreak—things seemed going well, when all at once, the unexpected happened! A frightened mouse ran across the floor and stopped, of course, in front of Sarah! Her book flew one way; she went the other. A hearty laugh entered into by teacher and pupils alike, was enjoyed; then all quieted down; no, not all. Sarah was giggling; a low, irritating, continuous giggle unnoticed for a time, then Miss C. stepped to her side, and "Stop as soon as you can, please, you are annoying others," was the low-spoken command. As if by magic, the giggling ceased; a kindly nod of approval was the reward.

In this tactful way, many bad habits were broken, many evil tendencies checked. How could they flourish in this wholesome atmosphere? By a little investigation it was discovered that Sarah possessed a sweet seprano voice that rang out strong and true in the chorus work for which the room was noted. She was appointed leader, a much coveted position among the pupils. By accident, as it were, many other schoolroom responsibilities devolved upon her.

Not in a day did she gain self-control—far from it. Many times she stumbled and fell; many were the battles fought and won in the conflict, but in the end, guided by the strong, sustaining hand of a wise teacher, she gained a glorious victory—the victory over self.—Primary Education.

A lawyer talked four hours to a jury, who felt like lynching him. His opponent, a grizzled old professional, arose, looked sweetly at the judge, and said: "Your honor, I will follow the example of my young friend who has just finished, and submit the case without argument." Then he sat down, and the silence was large and oppressive.

#### Fræbel's Educational System.

MRS. C. M. CONDON.

The principles and practice of the kindergarten have been found so admirably adapted to the infant in the home, and to the child from three to seven years old, under the fostering care of a kindergartner, as a preparation for school, that the very success of Fræbel's "latest thought" has overshadowed his fame as a reformer of education as an organic whole.

Those who have carefully studied his "Education of Man" will not dispute this statement. This noble work was published in 1826, when its author, by his wide and varied culture and experience, was thoroughly equipped for his task. In it he sets forth his ideal of the ultimate aim of education, and points out the laws, upon the fulfilment of which success must depend. The careful study of this book by parents and teachers would dissipate many false and superficial notions of education.

Fræbel's system rests upon the solid ground of the unity of law. Love for his kind, the "enthusiasm of humanity," led him to lay such stress upon this fundamental law of unity, and to demand its application to training and instruction in the family and His own early introspection and selfanalysis, and the seeing and hearing the disagreements and troubled questionings, brought by parishioners to his father, their pastor, for settlement, gave the thoughtful boy a painful sense of the conflicting elements of human life. He felt that there must be somewhere a provision made for their reconcilement. To find the solution of this problem, in other words, how to help his fellow-men by correct methods of education, to bring themselves into harmony with nature, man and God, was the life-work to which he felt himself called.

All fruitful education has proceeded from a more or less conformity to this law of unity. Even a partial recognition logically results in an endeavor to adapt methods of training and instruction, not simply to a plan, formed, largely, for the convenience of carrying on school work smoothly, but tends to a study of those laws which lie implicit in human nature, and visit with penalty those who ignore them.

We are to find out not only what branches are to be taught, but also when, how and why. We are to learn this by our own careful observation, and by the experience of those who have made the subject the study of their lives.

We must also consider the mental appetite, at a

given period, whether it is in a normal condition, and what pabulum will meet its requirements.

Too often, we shall find, through neglect, or satiety, or many other conceivable causes, no mental appetite, or at least none for what we wish to offer. It is this inactivity of mind that makes the work in our primary schools so difficult for the faithful teacher. Severity in such cases is a blunder, if not criminal. Consider the way in which we deal with physical inappetency; how cautiously we proceed; how we tempt and coax the appetite with well-prepared food, skilfully adapted to the abnormal condition of the patient. What a delight to mark appetite growing by what it feeds upon! Shall we then take less pains with the immortal mind? Shall we rob ourselves of the joy of watching the happy, normal growth of a mind which we have helped to lift up out of the slough of inaction by our wise and kindly ministration?

Encouraged by success we study, more and more diligently, the laws that govern us in our physical relations; and just so fas as we obey them, we increase our physical well-being.

When we are equally diligent in our efforts to understand and obey those laws which govern our mental and spiritual being, and which we must understand and obey, if we are to secure the best fruits of education, we shall then reap a still richer and fuller harvest. Meanwhile let us study these pregnant words of Goethe: "Only in limitation is the artist seen, and he only is free who is the servant of law."

A correspondent asks:

- I. Where is the harbour known as Simon's Bay?
- 2. What is correct pronounciation of Kouchi-bouguae?

Answers:

- r. There is a harbour in Cape Colony, South Africa, known as Simon's Bay.
- 2. Koosh-ee-hoo-gwak, with the accent on the first and last syllables.

Through the kindness of a friend I have become acquainted with the Review, and can think of no better way of showing my appreciation than that of subscribing. Enclosed you will please find one dollar for one year's subscription.

FRANK B. Fox.

Cape North, Victoria Co., N. S.

#### Avogadro's Law.

By JOHN WADDELL, Ph.D.

The importance of Avogadro's law is indicated by the papers in chemistry set at the provincial examinations of Nova Scotia last July. There were three questions out of a total of fourteen in which the principles involved were a feature. Avogadro's law should more strictly be called an hypothesis, not being like Gay Lussac's law regarding the proportion by volume in which gases unite, a generalization of facts. So many facts, however, can be easily understood if Avogadro's hypothesis is assumed to be correct, that it is scarcely looked upon as an hypothesis. It was, to a certain extent, a lucky guess on the part of Avogadro, because he had a very limited knowledge of the facts bearing upon the case. The guess was, on this very account, to a certain extent, unlucky, because Avogadro applied this law to cases where it was not applicable, and so for nearly fifty years the law was neglected, and it was only when its limitations were properly recognized that its usefulness became evident.

The law in modern form is: "Equal volumes of all gases under the same conditions of temperature and pressure contain the same number of molecules."

The existence of molecules is assumed, though nobody has ever seen a molecule. Setting out with certain assumptions regarding the character and motion of molecules, Avogadro's law follows as a mathematical consequence, but of course the mathematical deduction is no more valid than the hypothetical premises.

On the assumption that Avogadro's lucky guess represents the facts, let us see some of the consequences.

In the first place there is no distinction made between elementary gases and compound gases. In a given volume, say a cubic foot of hydrogen, there is the same number of molecules as in a cubic foot of hydrochloric acid gas; in a litre of nitrogen there is the same number of molecules as in a litre of ammonia in ten liters of carbon monoxide or carbon dioxide there is the same number of molecules as in ten liters of oxygen, or hydrogen, or of chlorine.

This leads, in the second place, to the result that the relative weights of equal volumes of different gases give the relative weights of the molecules; for if a litre of ammonia containing, let us say, a million, million, million molecules of ammonia weighs  $8\frac{1}{2}$  times as much as a litre of hydrogen,

which, according to the law, would also contain a million, million, million molecules, it follows that one molecule of ammonia must weigh  $8\frac{1}{2}$  times as much as one molecule of hydrogen. We do not know the absolute weight of a molecule of hydrogen, or of a molecule of ammonia, but it follows from what has been said above that an ounce, or a pound, or a gramme of hydrogen will occupy the same volume as  $8\frac{1}{2}$  ounces, or pounds, or grammes of ammonia, the same conditions of temperature and pressure being maintained in both cases.

Hence, in the third place, it follows that the formula given to gases may represent a definite volume of the gases, and that the formula which represents the molecule may also represent a perfectly definite volume, which will be the same for all gases.

The question now arises: What volume is to be represented by the formula of a gas? The volume may be chosen as the volume occupied by an ounce, or a pound, or a ton of some particular gas, say hydrogen. None of these volumes is chosen, however; in ordinary chemical work the French system of measurement being more common. The volume occupied by a gramme of hydrogen might be employed, and this was in fact used for some time. But if this volume is used as the standard, the formula representing ammonia should represent 81/2 grammes, of carbon monoxide 14 grammes, of hydrochloric acid 18.25 grammes. The usual formula for ammoniais, however, NH3, nd if H represents one gramme, N will necessarily represent 14, and NH3 will represent 17, or twice the number of grammes in the volume chosen. In the same way the formula CO usually given to carbon monoxide, and the formula HCl given to hydrochloric acid would represent twice the weight of the gases contained in the volume chosen. If we are to retain these formulæ it will be necessary to adopt as the standard volume the volume occupied, not by one gramme of hydrogen, but by two grammes. The formula for hydrogen, then, would be H2, of nitrogen, N2, and of oxygen, O. Avogadro's law would thus lead to the result that the molecule of hydrogen consists of two atoms, and the same would hold for a number of other elementary gases.

Avogadro's law may be applied in another way to arrive at this result. It is found by experiment that *one* volume of hydrogen uniting with *one* volume of chlorine gives two volumes of hydrochloric acid gas. According to Avogadro's law there must be therefore twice as many molecules

of hydrochloric acid gas as of the hydrogen, or of the chlorine entering into its composition. But each molecule of hydrochloric acid must contain at least one atom of hydrogen and one atom of chlorine, and so there must be at least twice as many atoms of hydrogen as there are molecules of hydrogen, and at least twice as many atoms of chlorine as there are molecules of chlorine. If the formula for hydrogen is H<sub>2</sub>. If H<sub>2</sub>Cl<sub>2</sub> were the formula for hydrochloric acid, H<sub>4</sub> would be the formula for hydrogen. Neither the hydrogen nor the chlorine of hydrochloric acid have been found capable of division, and for this and other reasons the formula for hydrochloric acid is taken to be HCl.

Though in a manner similar to the above, it can be proved that a number of elementary gases contain two atoms in the molecule, there are elements whose molecules contain only one atom, and some whose molecules contain more than two atoms.

The best volume, then, to use as the standard volume is the volume occupied by two grammes of hydrogen, which at the temperature of o°C and the pressure of the atmosphere 760 mm. of mercury is 22.412 litres. The molecular weight in grammes of each gas, then, occupies 22.412 litres under standard conditions. If a new gas is discovered its molecular weight is ascertained by determining the weight of 22.412 litres of it. This is, of course, a matter of experiment.

Last July the question was asked in Grade XII: "How may Avogadro's law be used to establish the formula H<sub>2</sub>O with O=16 as better representing the molecular formula of water than HO with O=8?" There were only three candidates who had any measure of success with this question, though it is really very easy when the principle is understood. If H<sub>\*</sub>O is the formula for water vapor, it follows that a volume of water vapour will weigh nine times as much as the same volume of hydrogen, since the formula of hydrogen is H2, the conditions of temperature and pressure being of course the same in both cases. If the formula is HO with 0=8, water vapour will weigh four and a half times as much as the same volume of hydrogen. It is found that the ratio of the weight is nine to one, thus establishing the formula H<sub>2</sub>O with O=16.

In Grade X there was the question: "What volume is represented by the formula of a gas? Given the equation  $MnO_2 + 4HCl = MnCl_2 + 2H_2O + Cl_2$  how many litres of chlorine at stand and temperature and pressure can be obtained from 87 grammes of manganese dioxide."

As we have seen, the formula of a gas represents

a perfectly definite volume, namely, 22.412 litres at zero centigrade and atmospheric pressure. (In "A School Chemistry" the volume is given as 22.253 litres, but later investigations give 22.412 litres as more correct. The discrepancy is due to the difficulty in weighing gases, because of the large volume for a small weight).

The volume represented by CI<sub>2</sub> is therefore 22.412 litres, hence 22.412 litres of chlorine are obtained from the weight of manganese dioxide represented by MnO<sub>2</sub>. This weight is 87 grammes since Mn represents 55 grammes of manganese, and O represents 16 grammes of oxygen. The equation gives the data at once for answering the question; if the problem had been to calculate the volume of chlorine obtainable from 100 grammes of manganese dioxide, or from 200 grammes, or from any other number, a very little arithmetic would be necessary. And here I may say that chemical arithmetic is no harder than any other, and it is just as easy to calculate about litres of oxygen as about tons of hay.

In Grade XII the volume of sulphuretted hydrogen obtainable from 100 grammes of ferrous sulphide was required at 730 mm. pressure and 20°C.

From the equation FeS+H<sub>2</sub>SO<sub>4</sub>=FeSO<sub>4</sub>+H<sub>2</sub>S it appears that from 88 grammes of ferrous sulphide 22.412 litres of sulphurated hydrogen are obtained, because FeS represents 88 grammes and H<sub>2</sub>S represents 22.412 litres. The gas is supposed to be measured at zero centigrade and at atmospheric pressure, namely, 760 mm of mercury. As the measurements in the problem are made at 20°C and 730 mm., a correction must be made, and the calculation worked out for 100 grammes ferrous sulphide instead of 88 grammes.

It will be noticed that since ferrous sulphide is a solid, its volume is not indicated by the formula; it is only in the case of gases that the formula indicates the volume as well as the weight. FeS represents 88 grains, H<sub>2</sub>S represents not only 34 grammes but also 22.412 litres at the standard temperature and pressure. The weight does not vary with temperature and pressure; the volume does.

An old colored woman was seriously injured in a railway accident. One and all her friends urged the necessity of suing the wealthy railroad corporation for damages.

"I 'clar to gracious," she scornfully replied to their advice, "ef I ain't done git more'n nuff o' damages! What I'se wantin' now and what I'se done gwine to sue dat company foli is repairs."—

Cleveland Leader.

## Natural History for Little Folks. The Story of the First Snowdrops.

An old man sat alone in his house. It was full of shadows; it was dark and gloomy. The old man cared nothing for the shadows or the darkness, for he was thinking of all the mighty deeds that he had done. "There is no one else in the world," he muttered, "who has done such deeds as I," and he counted them over aloud. A sound outside of the house interrupted him. "What can it be?" he said to himself. "How dares anything interrupt me? I have told all things to be still. It sounds like the rippling of waters, and I have told the waters to be quiet in their beds. There it is again. It is like the singing of birds, and I have sent the birds far away to the south."

Some one opened the door and came in. It was a youth with sunny eurls and rosy face.

"Who said you might come in?" muttered the old man.

"Did not you?" asked the youth, with a merry little laugh. "I am really afraid that I came without asking. You see, every one is glad to see me and"—

"I am not," interrupted the old man.

"I have heard rumors of your great deeds," said the youth, "and I came to see whether the tales are true."

"The deeds are more true than the tales," muttered the old man, "for the tales are never great enough. No one can count the wonderful things I have done."

"And what are they?" asked the young man gravely, but with a merry little twinkle in his eyes that would have made one think of the waves sparkling in the sunlight. "Let us see whether you or I can tell the greatest tale."

"I can breathe upon a river and turn it to ice," said the old man.

"I can breathe upon the ice and turn it to a river," said the youth.

"I can say to water, 'Stand still,' and it will not dare to stir."

"I can say, 'Stand no longer,' and it will go running and chattering down the mountain side."

"I shake my white head," said the old man, "and snow covers the earth."

"I shake my curls," said the young man, "and the air sparkles with sunshine. In a moment the snow is gone."

"I say to the birds, 'Sing no more. Leave me,' and they spread their wings and fly far away."

"I say, 'Little birds, come back,' and in a moment they are back again and singing their sweetest songs to me,"

"No one can count the leaves," said the old man, "but whether I shake the trees with my icy touch, or whether I turn my cold breath upon them, they fall to the ground with fear and trembling. Are there any rumors of my deeds as great as that?"

The young man answered gravely, but with a laugh in his voice, "I never saw any leaves falling to the ground, for when I appear, they are all fair and green and trembling with gladness of my coming,"

So the two talked all night long. As morning came near, the old man appeared weary, but the youth grew merrier. The sunlight brightened, and the youth turned to the open door. The trees were full of birds, and when they saw him, they sang, "O beautiful spring! glad are we to look again upon your face!"

"My own dear birds!" cried Spring. He turned to say good-by, but the old man was gone, and where he had stood were only snowflakes. But were they snowflakes? He looked again. They were little white snowdrops, the first flowers of spring, the only flowers that can remember the winter.—

The Book of Nature Myths.

#### Summer Threads.

A little spider had lived all the summer in the meadow, and had busied herself catching many of those naughty midges that are so fond of biting children's hands and faces. In the winter the meadow is flooded by the river, and any little creature that cannot live in the water is drowned.

The spider has, at the end of the summer, just the same longing to travel that some birds have, but she could never get very far on her little legs, for the very first ditch would stop her. She knows a much better way to get along, however. She watches wind and weather like an experienced seaman: "To-day is beautiful sunshine," says she, "and a favourable wind, not too mild and not too blustry; this is a day to start upon a voyage!"

So she climbs quickly to the top of an alder-bush, and perches on the tip of a branch. There she stands upon her head, and stretches out her body, with its spinning apparatus upwards. She spins a long thread, and lets it blow far, far out in the breeze, till the wind lifts it and tugs at it, and the spider can hold no longer, lets go of the branch, an sails away at the end of her thread, like a balloonist in a balloon.

She sails away in her air-ship, here and there, according to her fancy, the thread rising high up over the ditches in the meadow, over the river, over bushes and trees, over the houses of the town, and over the church steeple. When the children see the spider's little air-ship they cry: "Look at the long summer thread!"

After a time the spider thinks she has travelled far enough, and wants to stop, but how is she to lower her ship to the ground? Small as she is, she knows a way out of the difficulty. She seizes the floating white thread with her nimble legs, and rolls it up into a ball. The more she pulls it in, the less the breeze can carry it, till she gradually sinks to the ground.

Here the spider seeks a corner where she can safely take up her winter quarters. If she finds no likely spot, she spins herself next day another little air-ship, and travels further on. It is true that she can neither steer nor guide her vessel, for it is driven along with the wind, but she leaves it in God's hands, who has a fatherly care for even the smallest spider. But she must think for herself, also, and take heed which way the wind is blowing.

#### Where Montgomery Fell.

All good Americans, when they visit Quebec for the first time, go to the spot where the ill-fated Montgomery fell in battle, in his rash attempt to take Quebec after his capture of Montreal in 1775. High up on the precipitous rocks above the lower city they find the inscription, "Here fell Montgomery, Dec. 31, 1775." As the Spectator stood there musing on the things that might have been, a carriage drove up containing three ladies. The driver announced, "Here was where Montgomery fell." The ladies craned their necks. "Where did he fall from?" "From up there, madam! He fell from the place where you see the sign, down to the road here, and the fall ended his life." The Spectator was highly amused at this interpretation of the word "fall." Following old Champlain Street, he came to the shore of the St. Lawrence and entered into conversation with an old Irish woman. He related to her what he had just heard; but, instead of sharing his amusement, she said seriously, "Yes, I've heard my old father tell about it; he said Gineral Montgomery was on horseback when he fell, and the fall killed both horse and rider!"-Spectator, in N. Y. Outlook.

## Rhymes for Little Folks. Over the Meadow.

Over in the meadow,

In the sand, in the sun,
Lived an old mother-toad

And her little toadie one.

"Wink!" said the mother;

"I wink," said the one;
So she winked and she blinked,
In the sand, in the sun.

Over in the meadow,
Where the stream runs blue,
Lived an old mother-fish.
And her little fishes two.
"Swim!" said the mother;
"We swim," said the two;
So they swam and they leaped
Where the stream runs blue.

Over in the meadow,
In a hole in a tree,
Lived a mother-bluebird,
And her little birdies three.
"Sing!" said the mother;
"We sing," said the three;
So they saug, and were glad,
In the hole in the tree.

Over in the meadow,
In the reeds on the shore,
Lived a mother-muskrat,
And her little ratties four.
"Dive!" said the mother;
"We dive," said the four;
So they dived and they burrowed
In the reeds on the shore.

Over in the meadow,
In a snug beehive,
Lived a mother-honey-bee
And her little honeys five.
"Buzz!" said the mother;
"We buzz," said the five;
So they buzzed and they hummed,
In the snug beehive.

Over in the meadow,
In a nest built of sticks,
Lived a black mother-crow,
And her little crows six.
"Caw!" said the mother;
"We caw," said the six;
So they cawed and they called
In their nest built of sticks.

Over in the meadow,

Where the grass is so even,
Lived a gay mother-cricket

And her little crickets seven.

"Chirp!" said the mother;

"We chirp," said the seven;
So they chirped cheery notes
In the grass soft and even.

Over in the meadow, By the old mossy gate, Lived a brown mother-lizard And her little lizards eight. "Bask!" said the mother; "We bask," said the eight; So they basked in the sun, By the old mossy gate. Over in the meadow, Where the clear pools shine, Lived a green mother-frog, And her little froggies nine. "Croak!" said the mother; "We croak," said the nine; So they croaked and they splashed, Where the clear pools shine. Over in the meadow, In a sly little den, Lived a gray mother-spider, And her little spiders ten. "Spin!" said the mother; "We spin," said the ten; So they spun lace webs, In their sly little den. Over in the meadow, In the soft summer even, Lived a mother-fire-fly, And her little flies eleven. "Shine!" said the mother; "We shine," said the eleven; So they shone like stars, In the soft summer even. Over in the meadow, Where the wise men dig and delve, Lived a wise mother-ant, And her little antics twelve. "Toil!" said the mother; "We toil," said the twelve; So they toiled and were wise,

#### Greek Children's Song.

Where the big men dig and delve.

The swallow has come again
Across the wide, white sea;
She sits and sings through the falling rain,
"O March, my beloved March!
And thou, sad February,
Though still you may cover with snow the plain,
You yet smell sweet of the spring!"

—Selected.

-Olive A. Wadsworth.

#### The Caterpillar.

I creep upon the ground, and the children say, "You ugly old thing!" and push me away.

I lie in my bed, and the children say, "The fellow is dead; we'll throw him away."

At last I awake, and the children try

To make me stay, as I rise and fly.

-Unknown.

#### Grown-Ups.

There are no real fairies, grown-ups say so, Except in stories, which is so absurd-If only they could know the secrets I know, And hear the things I've heard! I know what the thrush near the nursery window sings In the lilac bush below, The fairies tell me heaps and heaps of things That grown-ups never know. I know why the shadows grow so long and glide Across the lawn, beneath the poplars tall: It's because they want to look at the world outside, They're climbing the ivied wall. I know what the butterfly with painted wings Says to the proud red rose. The fairies tell me heaps and heaps of things A grown-up never knows. I know why the clouds, with which the sky is whitened, Hurry along so very, very fast:

They want to see the sunset, and are frightened
That each may be the last.

I know why the river never, never sleeps,
Why the wind comes and goes.

The fairies tell me secrets, heaps and heaps, A grown-up never knows.

-Pa'l Mall Magazine.

#### March.

The stormy March is come at last,
With wind, and cloud, and changing skies.
I hear the rushing of the blast,
That through the snowy valley flies.

Ah, passing few are they who speak,
Wild stormy month! in praise of thee;
Yet, though thy winds are loud and bleak,
Thou art a welcome month to me.

For thou, to northern lands, again
The glad and glorious sun dost bring,
And thou has joined the gentle train
And wear'st the gentle name of Spring.

And, in thy reign of blast and storm,
Smiles many a long hright sunny day,
When the changed winds are soft and warm,
And heaven puts on the blue of May.

Then sing aloud the gushing rills
And the full springs, from frost set free,
That, brightly leaping down the hills,
Are just set out to meet the sea.

The year's departing beauty hides
Of wintry storms the sullen threat;
But in thy sternest frown abides
A look of kindly promise yet.

Thou bring'st the hope of those calm skies. And that soft time of sunny showers, When the wide bloom, on earth that lies, Seems of a brighter world than ours.

-Bryant.

#### Your Gawky Boy.

That gawky boy of yours—ungainly, gaunt, shy, unprepossessing, as he is,—writes Henry A. Shute in the March *Delineator*. You nag him. You laugh at him and ridicule him. Did you ever realize how it hurts? You ought to realize it, for it is not long since you knew how it felt. You would have stood pain like a man, and so does your boy. You would have borne privation like a stoic, and so does your boy, and there would have been a grim sort of enjoyment in it, for the joy of resistance is fully awake at fourteen.

But you could not bear ridicule, and he cannot, and yet there is scarcely a day when you do not cause him sharp discomfort.

The boy's mother never does this. She loves every awkward movement of her boy. She loves his long legs, and she loves to hear his rancous voice. She smiles at it, too, and at him, and it is a smile of genuine amusement; but there is love in the smile, and love in her eyes, and he knows it, and adores her for it.

If he becomes depressed and despondent, he confides his troubles in his dog, which sits in front of him gazing at him with an almost human expression of sympathy, and puts his paw on his master's knee.

A bit unfortunate, isn't it, that your own boy is obliged to depend on his mother and his dog for sympathy and affection? He gets none from you, and but little from his brothers and sisters. It is true, isn't it?

My friend, if you paid as much personal attention to the proper devlopment of your boy as you do in raising the two-minute trotter, or the blue-ribbon Guernsey, or the Black Strain Jubilee of Orpington, or in beating bogy, or in your game of whist, you would be astonished at the results.

#### CURRENT EVENTS.

Glass water pipes are used in Germany.

A locomotive engine which consumes all its own smoke and waste steam, allowing none to escape into the open air, is now in use in Belgium.

Since they were first known to Europeans, the mines of Mexico have produced over four thousand million dollars worth of the precious metals.

A promising new fruit from Uruguay is described as having the size of an apricot and the shape of an apple, a bright red and yellow color when ripe, a delicate perfume and an extremely agreeable taste.

There is a continuous incresase in the number of immigrants coming to Canada. The total number for the last seven months is nearly fifty per cent greater than for the same period ending with January of last year; and it is expected that the total number to arrive in 1907 will

be fifty per cent more than the number of arrivals in 1906. While exaggerated reports of the very severe winter through which we have passed may deter some, it is expected that the number coming from the British Islands will be greater than ever before.

The failure of last year's crops in the valley of the Volga has brought famine to whole provinces of the Russian Empire lying north of the Caspian Sea. The Russian government is doing what it can do to relieve the distress; but funds are exhausted, and it has been obliged to ask for help from abroad.

The new parliament has not brought peace to Persia. The revolutionary movement is said to be spreading; and there is much disorder, especially at Teheran, where the parliament is in session, the populace refusing to acknowledge the authority of either the parliament or the Shah.

The first elections to parliament under the new constitution of the Transvaal have taken place, and the colony is now under representative government.

The International Exposition at Jamestown, Virginia, where the first English settlement on this continent was established, will be opened with imposing ceremonies on the 25th of April, the three-hundredth anniversary of the landing.

A new ice breaking steamer, the Lady Grey, has been built in England for the Canadian Government, for service on the St. Lawrence River, to maintain an open channel to the sea during the winter months.

A battle in the air is no longer among the remote possibilities of the future. It is possible to-day. The British Government has for months past been making experiments looking to the formation of a fleet of airships, and men are being trained to manage them. The plans are said to include the use of kites as observatory stations, dirigible balloons for transport, and aeroplanes for actual fighting.

Another war has begun in Central America. Nicaragua has declared war against Honduras, and one or more of the other little republics will probably be involved. disputed territory and border raids are the immediate cause; but the possibility of some one state absorbing the others and founding a powerful Central American nation is always borne in mind.

It has long been known that the leaves of some of our wild cherries, notably our black cherry, though penfectly harmless when fresh, are more or less poisonous when wilted. This is due to the development of prussic acid in the drooping leaves. An English botanist in India has discovered that the same thing occurs in other plants under rare conditions; and mysterious poisonings of farm stock may be traced to some ordinarily wholesome fodder plants becoming suddenly poisonous.

The Ontario government is providing for the teaching of agriculture in all the county high schools of the province.

A German scientific expedition has discovered in Central Asia a large collection of ancient manuscripts in different languages and dialects, including one or more languages hitherto unknown to modern students. It is probable that some important ancient writings will be found among them.

#### SCHOOL AND COLLEGE.

Inspector of Schools A. G. Macdonald has been elected by acclammation mayor of the town of Antigonish, N. S., an indication that his fellow townsmen know how to appreciate the worth of an intelligent and upright man.

The provincial normal school at Truro, and the other schools and churches of that town were closed for two weeks in February owing to the discovery of two slight cases of small-pox. By this prompt measure and by great vigilance on the part of the authorities the disease has been kept down.

Supervisor McKay of the Halifax Schools, recommends strongly the appointment of a physician to examine all pupils. The School Board will probably put the suggestion into effect.

The New Brunswick Normal School at Fredericton is crowded to its utmost capacity. There are over three hundred pupil teachers in attendance.

Sir William Macdonald has given twelve scholarships of the Kingston, N. B., Consolidated School. This means that the pupils who win them have their fees and maintenance provided for at the new St. Ann's College, near Montreal.

#### RECENT BOOKS.

First Science Book—Physics and Chemistry. By Lothrop D. Higgins, Ph. B. Cloth. Pages 237. The Copp, Clark Company, Toronto.

This book contains an excellent presentation of the first principles of the sciences of physics and chemistry. The subject matter is coneise and interesting, and illustrated where necessary by diagrams. What renders it of great value to the teacher is the fact that it contains explanations of the various forms of electrical energy and the devices which man employs to use it, such as the dynamo, the motor, telephone, telegraph and other present day appliances.

In history and geography Messrs. Blackie & Son, London, have published the following: Moncrieff's Heroes of European History (1s. 6d.), which presents the principal figures, in easy reading lessons, from the early conflicts of Greece to the great wars of the French Revolution; Readings in English History (2s.), including selections from criginal sources, illustrating the chief events and characters in English history, arranged chronologically; A Geography of Europe and the British Isles (2s.), for junior forms, dealing chiefly with practical geography in its industrial and historical aspects; the geography of The World (1s. 9d.), No. VII, of the New Century Geographical Readers, is an interesting bird's-eye view of the chief races and features of the world. All of the above books are attractively printed, with illustrations and maps.

In literature, Blackie's Model Reader, Book VI (1s. 6d.), provides interesting and varied reading in selections possessing literary merit; Maria Edgeworth's Murad the Unlucky and Other Tales (1s.), with a biographical introduction of the authoress; Sir Walter Scott's The Talisman (1s. 6d.), with introduction and notes. In the Greater Plays of Shakespeare we have King Richard II, King Richard III, The Tempest, Coriolanus (price 4d. each), convenient and low-priced editions, without notes. In

Blackie's Story-Book Readers there are selections from Lytton's Last Days of Pompeii, Henty's The Two Prisoners, and Among the Bushrangers (price 4d. each), and the Story of Willy Black (2½d.); and in Blackie's English School Texts, Charles Dickens' The Chimes (6d.). All of the above is printed and bound in attractive and convenient form for easy reading. Blackie & Son, London.

Black's Literary Reader, Book II (1s.), is illustrated in colour, and in black and white. The reading entitled "Little Folks in Canada," is, as a whole, a pretty picture of children's summer and winter sports here. Black's Picture Lessons in English (6d.) are useful aids to children's compositions. Adam and Charles Black, London.

Natural Elocution (18.) is an attempt to develop an elocution which is natural to the speaker; Seasonal Botany (8d.) helps the teacher in adapting the study of plants to the round of the seasons and in the preparation of experiments; The Care of the Baby (3d.) is written with the view of helping the daughter as well as the mother how to manage the baby; Simple Lessons on Health and Habits aims at presenting in simple and clear language the main facts of domestic science; Blackie's New Concentric Arithmetics, Book IV (6d.), is designed for children from seven to thirteen years of age, the Series, as the name indicates, applying the fundamental processes of addition, subtraction, multiplication and division in an ever widening circle to the various combinations in which they are nvolved; Elementary Mathematics (Algebra and Geometry-2s.) has been prepared for the use of pupils beginning the study of mathematics, the ground covering algebra as far as quadratics, the first three books of Euclid's elements, the mensuration of plane figures and of the simpler solids; The Teaching of English Grammar and Elementary Latin (4d.) is a decidedly novel and original introduction to these somewhat abstruse subjects,-calling for the interest and power of observation of the pupils. The above-named books are published by Blackie & Son, London.

In modern languages, Blackie & Son, London, publish a Skeleton German Grammar (2s.), a guide which, if thoroughly mastered, will conduct the beginner to a success-tul mastery of translation; French Readings in Science (3s. 6d.), a selection of passages from chemical, physical, astronomical, physiological and botanical treatises, compiled to assist students in their general reading, and to prepare them for the London University examination, which, since 1904, has made it compulsory on candidates to translate a portion of a French and German scientific work; Alexander Dumas' La Jeunesse de Pierrot (1s. 6d.), a bright story for the young from that popular novelist; Fontaine's Shorter Fables (6d.), La Bruyère's Les Caractères (4d.), Bechstein's Mürchen (6d.), and two plays for acting in schools (price 4d. each).

In subjects from the Ancient Classics, Messrs. Blackie & Son, London, have published Damon, a Manual of Greek Iambic Composition (2s.), which teaches Greek Iambic-writing on a system which the author (a teacher) has found to be as valuable a mental training as the study of the higher mathematics; A First Greek Course (as. 6d.), a practical and concise introduction to the Greek language, the author maintaining that "Greek can be learnt with profit and enjoyment by the average boy, so that in less

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than a year he can read the Apology of Socrates,—and all that is paid for that result is one lesson of three-quarters of an hour a day;" Greek Morality in Relation to Institutions (5s.), an essay by W. H. S. Jones, M. A., Cambridge, with very full notes and references in Greek. In Latin we have Cicero's De Senectute, with introduction, but no notes (6d.), and Latin Unseens in prose and verse (3d.) Blackie & Son, London.

#### RECENT MAGAZINES.

The March Atlantic Monthly fittingly observes the centenary of Longfellow by an eloquent poem upon the well-beloved poet by Thomas Bailey Aldrich, and a study of his genius and place in letters by Bliss Perry. Other contributions, with essays and literary papers, stories and poems, are suggestive of the quality and brilliancy of this favorite periodical.

The February number of The Canadian Magazine contains an interesting article by Prof. Goldwin Smith entitled The Stage of Former Days. Prof Smith gives an appreciation of players who have long since gone from the scenes, and he advocates the endowment of theatres as powerful organs of culture. The article is accompanied by ten reproductions of old engravings and is altogether a valuable contribution to current literature. The number contains also eleven other articles, nine of which are illustrated, and five short stories,

The March Delineator is full of seasonable hints of the fashions and styles of the month. The children's department is as usual of great interest to schools and families. Its articles about women and the home are especially appropriate and worthy of thoughtful reading.

An article on Greenwich Time by H. H. Turner, which The Living Age for February 2nd reprints from the Cornhill Magazine is a good example of what a popular scientific article ought to be. It is clear and intelligible without being condescending and it fully acquaints the reader with the importance and the methods of the observations taken at Greenwich. The story of Amelia and the Doctor, now running in The Living Age, becomes more charming with each instalment. The Cranford flavor is unmistakable, but it is a twentieth-century Cranford, and the characters have a warm living interest.

#### OFFICIAL NOTICES.

Province of Nova Scotia.

The County of Colchester has been made a separate Inspectorial division by the Council of Public Instruction, to be known as Division No. 12, to go into effect on the first day of March, this year.

C. Stanley Bruce, Principal of the Shelburne County Academy, has been appointed Inspector of Schools for Division No. 3 (the counties of Yarmouth and Shelburne).

W. R. Camphell, M. A. Principal of the County Academy at Truro, has been appointed Inspector of Schools for Division No. 12, (the County of Colchester).

Teachers and School Trustees are asked to take notice and govern themselves accordingly. The address of each inspector is italicised

Halifax, 1st March, 1907.

A. H. MACKAY, Sec'y C. P. I.,

### Educational Review Supplement, April 1907.



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Address all correspondence to THE EDUCATIONAL REVIEW.

THE May number of the REVIEW will be devoted chiefly to Empire Day.

THE New Brunswick legislature has under consideration a bill to establish a pension fund for teachers and to increase their salaries.

SUPT. DR. J. R. INCH and Supt. Dr. A. H. Mac-Kay sail from Halifax May 3rd to attend the Educational Conference of the Empire which opens in London on May 24th.

Tims number presents much useful material to help our schools in the observance of Arbor Day. We hope teachers may avail themselves of it, and that Arbor and Bird Day may prove interesting and instructive to every school, even if some find it impossible to plant trees.

THE picture "Morning Call" in this number appeals to young people; the sleeping child and the intent expression of the alert terrier suggest a story.

THE calendar of the Summer School of Science. which meets at Riverside, N. B., July 2 to 19, has been issued. Copies may be obtained from the Secretary, J. D. Seaman, Charlottetown.

In the death of Dr. A. A. Stockton, M. P., New Brunswick loses one of her foremost sons—a Christian gentleman of engaging social qualities, a lawyer of eminience, and one possessed of a well-balanced and cultivated mind.

A PROMINENT leader of education of the Maritime Provinces recently said: "I consider the Epu-CATIONAL REVIEW for January one of the most attractive, readable and instructive educational journals I have ever read; and, altogether, I am able to recommend the REVIEW as the best single periodical our teachers can find."

WILLIAM F. MACLEAN, editor of the Toronto World, and Dr. A. H. MacKay, Superintendent of Education for Nova Scotia, will represent the Dominion of Canada at the first annual meeting of the Simplified Spelling Board, to be held in the Walforf-Astoria hotel, New York City, on April 3rd and 4th. Both Dr. MacKay and Mr. MacLean will read papers at the meeting.

Many letters are received by the Review every day, the greater number from Nova Scotia and New Brunswick, and some from the other provinces of Canada. Recently statements were sent out to those in arrears of subscription. Letters in reply, enclosing remittances, were promptly returned by a great many. The following letter, so courteous in tone. makes us thankful that the lot of the editor of the REVIEW is east in with pleasant and kindly teachers:

I am sorry not to have been able to remit more promptly, but the delay was unavoidable and not by any means due to a laxity of interest in your valuable paper, the Review. I find it a very substantial aid in my school work. With sincere wishes for the continued success and prosperity of the EDUCATIONAL REVIEW, Sincerely yours,

#### Glimpses Into Schoolrooms - IV.

BY THE EDITOR.

I visited a schoolroom on Arbor Day some years ago. On the ledges of the windows were boxes of seedlings which had been planted some weeks before. Some of the plants were just appearing above the soil. On the teacher's table were a few seedlings which had been planted earlier and were more advanced than those in the window-boxes. There were some pots of house plants on the table in front of the teacher and others were scattered in available places throughout the room. There were pictures on the walls, among which were some of trees, views of scenery, birds, and other animals. The schoolroom had evidently been carefully cleaned some days before. Everything had the appearance of being swept and garnished. The teacher and scholars were dressed neatly, and the bright, eager looks of all showed that there was a wideawake feeling of expectation among them.

The yard outside had been put in order, and all the litter removed or burned. Several shallow holes had been dug along the walk leading to the school or near the fence which surrounded the small plot of land on which the schoolhouse stood. A half dozen trees, carefully tied together with roots covered with earth, lay in a shady corner of the yard, ready for planting.

The yard was small and the ground well trodden by the feet of many children. But there were some trees that had been planted on previous arbor days. These had evidently been set out with care and were doing well. The bark had a healthy look and the swelling buds had the promise of foliage and shade in the hot days to come. Those to be planted on this arbor day were to replace some that had not done so well, and a few new places were to be tried. The ground had been carefully chosen for the trees, which were placed so as not to interfere with the children's play.

All this I observed from the windows. "You see," said the teacher, "that we have to keep Arbor Day for the most part within doors, but the children look forward to it with pleasure. They are great helpers. They have had these window boxes made at home and filled with rich earth, and friends have given them the seeds. All the rest has been done by themselves. They tend them with a great deal of care, but I have to look out that they do not water them too much. It would anuse you to have seen them when the first plants began to appear above ground. That one thing seemed to repay

them for all the trouble they had taken. There is quite a rivalry among the owners of the boxes, and they measure and keep a record of the growth of the plants every few days. We have three prizes for the three best boxes of plants, to be given on the closing day in June."

After the opening exercises a few visitors began to drop in to listen to the lessons, which were onbird and plant life. A record of the birds seen up to this date had been kept, and the children showed a very correct knowledge of the different birds, the colour and markings of their plumage, and their The chipping-sparrow and the chick-adee seemed to be great favorites with the children, but they took an interest in all the birds and their habits. Each child had some interesting story to tell about what he had seen the birds doing, or of imitations of their songs, or of the good that birds do in helping to keep the farms and orchards clear of insects. One child told of a chick-a-dee that had been about her home all winter, and which she had fed every day with crumbs. Kindness to all animals seemed to come natural to these children, and one could see that they looked on the birds especially as their companions and friends.

There were quotations recited from the poets about many of the birds, and little compositions were read, showing that bird-study was made a part of the regular exercises of the school in literature and story-writing.

Then followed lessons on plants. The teacher said that all the food of the world was made by plants out of the raw materials in the earth and from the gases in the air. This was done by the green coloring matter of the leaves in the presence of sunshine. Then she drew from the scholars the names of the various kinds of food—meats, bread, vegetables, fruit—and showed how these were all the products of green plants working in sunshine. "Little boys and girls," said the teacher, "were like plants, for they work best in sunshine; and the plants rest in the night time, as people do."

The growth of the plants from the seed was then taken up. Some plants, started in bottles of water, others in moist blotting-paper, were shown where the roots and shoots had developed. The teacher took one out of the soil from the boxes on her table, and, after cleansing the roots, compared it with those grown in water. The growth had been similar, and the pupils inferred that moisture was necessary for growth especially at first. Then the teacher drew from the class that light and air were also necessary

for growing plants. As she proceeded a few hints on plant structure were given which were readily grasped by the class. It was a model lesson, for the teacher was careful to take up but few points, and to draw out what her pupils had already learned from their observation and experience.

After recess a lesson was given on forests.—their beauty, usefulness, and the care that should be taken to preserve them, especially from the ravages of fire. The children were instructed not to set fires in the woods until they were old enough to know how to manage them.

In the afternoon the literary entertainment and the planting of trees took place. The trees were dedicated to prominent men and women of the country, with the hope that they would grow and beautify the school grounds in days to come.

#### The Influential Teacher.

The influential teacher is something more than a teacher. Devotion and even consecration to the schoolroom, a reputation for marvelous "results," and the possession of diplomas and degrees, all combined, do not make a teacher influential.

Is it advisable that teachers wield an influence in the community of which they are a part? Yes. Teachers need the enlargement of the association with people of varied interests, and these, in turn, need their intelligence, different ideals, and a knowledge of things educational. Besides, the schools are vastly better for the co-operation that results from these united interests.

It is a question if teachers fill the position to which they are elected if they give all their time, strength and ambitions to their school work, regardless of the general interests about them. Anything outside or beyond their schoolroom duties may not have been mentioned in the bond, but the public expects something more from teachers—an indefinable something growing out of their position.

But shall we make the first social advances? Ought not patrons of the school to be first in the recognition of teachers? Unquestionably, yes, but we must take the world as we find it. To withdraw into one's self because such recognition is not forthcoming, and seek solace in wounded pride, is a grievous mistake. No worthy, self-respecting, sympathetic teacher ever advanced half way toward her rightful place in the community, and held her own steadily, without pique or small resentments, that did not find the extended hand from those best worth knowing. Such anomalies exist as parents

who say, practically, "I give you my children a large part of every day for you to impress yourself upon them intellectually and morally, but I cannot meet you as a social equal; you may mould the character of my child, but I cannot invite you to my home." This monstrous inconsistency should not crush the spirit of any teacher. Without scorn, without comment, let her move steadily forward, winning, in time, the larger souls that redeem every community.

Not only do teachers need the benefits of association outside their profession for their personal good, but they need to be well intrenched in the respect and good-will of the leading men and women of the locality where their lot is cast for the sake of the schools.

Wrongs need righting, progressive measures need upholding, and teachers personally always need the stimulus of a strong, sustaining power; for with all their conscientionsness and fidelity, they are the most submissive working body in Christianized countries. Unaware of their strength, if organized for a high purpose, they go patiently on, singly or in groups, wasting power. Low murmurs of just complaint over existing evils are heard along the lines, but these accomplish little, save to earn for the murmurers the title of discontents. An organization of teachers on the right basis would secure strength. promote influence, and build a tower of strength about the schools. Salaries would not be withheld through legal quibbles, for united forces would mean power - always recognized, respected and feared. But so long as teachers prefer to hang separately, rather than hang together; to be worked for, rather than to work for themselves through effective organization, let no righteous means be left unused to gain the influence of the best and strongest forces Let it be always remembered that about them. communities do not go out to the schools. School interests must be brought to the heart of the community. This can only be done by influential teachers—teachers worth listening to, worth sustaining, and worth holding.—Primary Education.

A man may hide himself from you, or misrepresent himself to you in every other way, but he cannot in his work. There he sure you have him to the utmost. All that he likes, all that he sees, all that he can do, his affection, his perseverance, his impatience, his clumsiness, clearness, everything is there. If the work he a cobweb, you know it was made by a spider; if a honey-comb, by a bee; \* \* \* A house is build by a man; worthily, if he is worthy, and ignobly if he is ignoble.—Ruskin.

#### Educational Reports.

The report of the Superintendent of Education for Nova Scotia, Dr. MacKay, is an encouraging statement of progress in that province. The total enrolment of pupils for the year ending December 31, 1906, was 100,332; the average attendance 58.9 per cent, 2.6 better than the previous year. The sections reporting no school were 187, against 240 for 1904, and 165 for 1905. There were 1,558 schools open in rural or ungraded schools with 48,933 pupils, a slight decrease from the previous year. The graded schools of villages, towns and cities increased from 1,000 to 1,020, and the pupils from 50,296 to 51,499. There were 273 schools with less than 20 pupils, having an average attendance of only 9. There were 697 schools with from 20 to 39 pupils enrolled; 450 with an enrolment of 40 or more; while in 202 school sections there were 1,020 schools or graded departments with an average enrolment in each of about 55. The number of schools increased during the year from 2,420 to 2,446—seventeen more than ever before.

There was a slight decrease of normal trained teachers in comparison with the year 1905. During the year the male teachers decreased from 386 to 366; while the female teachers increased from 2,180 to 2,212.

There was more or less of an increase in the salaries of all classes of teachers, except that of the third class male. This looks as if the rural school trustees are not, as a rule, auxious to employ this class of young men. Their average salary from the section fell from \$150.24 to \$144.82; while that of the third class lady teachers rose from \$122.93 to \$131.19.

The school trustees and ratepayers increased their expenditure on school buildings and repairs from \$68,000 in 1905 to \$91,000 in 1906, and for all school purposes the vote of local funds increased from over \$576,000 to over \$655,000. The total expenditure on education, provincial, municipal and sectional, this year passed the \$1,000,000 mark.

While the total enrolment of pupils of all grades has for several years been nearly stationary, the number in the high school grades has nearly doubled during the last fifteen years. During the year this increase still continues in excess of the increase of the total school population—the 7,286 of last year rising to 7,639; while those voluntarily coming up to the provincial examination increased from 3,864

to 4,148 and those "passing" for the grades applied for, increased from 2,034 to 2,196.

During the year fifty-three schools were consolidated into fifty-two effective sections—a good showing.

The reports of Principal Soloan of the Normal School, of Supervisor McKay of Halifax, and of the different inspectors form instructive reading.

The report of Dr. Inch, Chief Superintendent of Schools for New Brunswick, shows decided progress in the increase of schools and regularity of attendance for the school year ending 30th June, 1906; but there is a falling of the supply of competent teachers of the first and second class owing to unsatisfactory remuneration and other causes.

The total number of pupils enrolled during the year was 66,335, representing a proportion of population at school of one in 5.67 for the first term and one in 5.45 for the second term. The percentage of average attendance for the first term was 65.07 and for the second 61.86. The total number of districts (or sections) is 1,495. About 40 per cent of all pupils enrolled in the public schools of the province belong to the graded schools, that is schools having two or more teachers each in charge of a separate department. Schools in charge of one teacher are classed as ungraded schools.

Of the 1,883 teachers employed during the year, 333 were beginners, 247 have been upwards of seven years in the service, and 1,303 have taught for periods varying from one to seven years—a record which shows that teaching has not that permanence which it should have.

Of teachers employed, only 16 per cent are men, less than 24 per cent hold licenses above Class II, about 50 per cent hold licenses of Class II, and about 26 per cent hold the lowest class of license. Since 1900 the number of untrained teachers employed has increased from 21 to 72.

In the first term of 1905-6 there were 162 districts having no schools, while in the second term the number had increased to 213 districts.

The following are the average salaries for the province received by teachers of the several classes:

Grammar Schools\$1	,007.00	Increase	\$27.48
Superior Schools	611.17	Increase	23.64
First Class (Malc)	609.90	Increase	32.23
Second Class (Male)	319.84	Increase	3.75
Third Class (Male)	238.91	Increase	4.01
First Class (Female)	356.95	Increase	17.23
Second Class (Female)	255.85	Increase	7.62
Third Class (Female)	198.12	Increase	3.22

While the increase above noted is not large, it shows an upward tendency. It is gratifying to know that the legislature of the province is considering the advisability of increasing the salaries paid to teachers.

Dr. Inch's report is, on the whole, hopeful. An increase is shown in the number of pupils attending the high schools, the work of establishing consolidated schools is progressing as rapidly as can be expected, and interest in educational matters is increasing.

In the report of the Prince Edward Island schools, Dr. Anderson, Chief Superintendent, notes that the highest percentage of attendance ever recorded. 62.69, was made for the nine months ending September 30th, 1906. There were 537 teachers employed during that period and eighteen schools vacant. Of the teachers employed, 246 were males and 327 females. The pupils registered were fewer by 286 than those of the previous year. The highest salary paid to male teachers was \$663, to female \$360. The lowest salary, \$260, paid to third class male teachers, and \$130 to third class female teachers. The total expenditure for education in the nine months was \$126,708.93, and the expenditure for each pupil registered \$6.87. The government paid within a few cents of two-thirds of this amount, and the increase in local amounts paid is so small as to be insignificant. Manual training, nature-study and domestic science are taught in one county only, Queens, and these branches to a limited number of pupils.

Dr. Anderson deals with the ratepayer in Prince Edward Island who has no children to educate, and whose chief duty at the school meeting is to oppose every motion for advancement. He thinks that all ratepayers who have children at the district school should have an additional vote, that is that they may have two votes on every question that is brought up for decision at the school meeting, while all other ratepayers have only one.

It is interesting to compare the above with figures for British Columbia. In that province for the year ending June 30, 1906, the total enrolment in all the schools was 28,522. The number of boys was 14,524, and of girls 13.998. The grand total days' attendance made by all the pupils enrolled was 3,-892,444, an increase of 197,322. The average actual daily attendance was 19,506, an increase of 647. The percentage of regular attendance was 68,30. The total cost for education was \$688,7,40.56, of which the government paid \$444,542.88.

#### As the Teacher so the School.

It is an old saying that as the teacher so the school. The best meaning for this is that the pupil's mind, in the act of learning, becomes like the teacher's mind; it takes on the tone and coloring of the teacher's thought. The teacher builds his own thought structure into the mind of the pupil; begets him with his own purity, strength and sweep of emotional life; breathes into him the breath of his own ethical nature. The teacher may resolve to train to accurate, thorough and methodical habits of thought; but unless these are habits of his own mind his efforts will be unavailing. The stream cannot rise higher than its source. If the teacher thinks loosely and slovenly he cannot hope to realize anything better in the pupil so far as the teaching goes. The narrow pedant and dogmatist can never secure scholarly habits and liberal cul-The teacher who has not a rich and full range of emotional life can expect nothing but a withered soul born of his teaching. The man who has not strength and purity of character cannot strengthen and purify character. The teacher builds his life into that of his pupil; and it is absolutely essential that his life be all that he expects the pupil to become. The quality of a teacher's life is a part of his professional equipment.—Arnold Tompkins.

#### Word Game.

While teaching the first grade I found the following word game a very interesting and instructive one for the children. When they were able to recognize as many as sixty words, I cut little twoinch squares of cardboard and placed on each one of the words with which they were acquainted. I mixed with these some new words. When we were ready for the game, I gave each child an equal number of words and divided the school into equal sides. I then called for the words in this way: "I want the word that tells the name of an animal that catches mice." The child having the word "cat" raised his hand and was given credit for one. A pupil was appointed collector, and, as the words were used, he collected them. If any one failed to recognize his word when it was called, or gave in the wrong word, one was taken from his side. In this way they learned to recognize words rapidly and also learn the meaning of many words.—Ruth O. Dyer, in Oregon Teachers' Monthly.

There are two good men—one dead, the other unborn.—Chinese proverb.

## Nature Study in April. By G. U. HAY.

April, with its showers and sunshine, is upon us The woods, fields and gardens are once more. awakening into life; the insects and hibernating animals are aroused from their winter sleep, and come forth hungry for food and the warm sunshine; the birds are returning from the south, choosing their mates, seeking quiet nesting-places and gathering material for nest-building; the farmer is clearing up rubbish, repairing fences and outbuildings, and preparing to plow and sow his fields; inside the house the windows are thrown wide open, spring cleaning begins, with the bustle of taking off dcuble windows and outer doors-papering, whitewashing and renovating; among the children skates and snow-shoes and warm mittens are put away, and rope-skipping, playing ball, flying kites, hooprolling, playing marbles, are entered upon with fresh zest. The keen air and sports of winter were eagerly enjoyed while they lasted; now the fresh delights of spring move us. Do we ever stop to think how pleasant is this change of seasons, year after year, what a variety it brings, and how full of fresh enjoyment is each season as it comes?

The small number of birds in April give good opportunities to begin this study, and there are other reasons why birds should interest even very young children. They are active; they have colour; their songs please; and the hundred little ways of birds as they flirt and flutter about the lawns or in the tree-tops are particularly attractive to children. Advantage may be taken of this to begin the season's nature-study with birds. How are they able to fly so quickly and to take such long journeys in the fall to the south and back again to the north in the spring? A picture of a bird, the weight of a tame canary that will perch on your finger, the exceeding lightness of a feather or a bone will help to answer the question. Notice from the picture, or the tame canary, how the bird's body is so made that it cuts through the air without much resistance —how it is able from its lightness and the breadth of its wings to poise itself in the air. Notice the swallows and other birds, how they are able to rise in the air by beating it with their wings, and to descend by closing their wings. Soon the children are able to distinguish birds by their colour, form or by their sweep as they go through the air. The witchery of their notes or the graceful waving flight of the thistle bird or American goldfinch when once heard and seen will easily make it known to children ever afterwards; and so the different traits of other birds will open up a new source of observation and interest to the child mind. A last year's bird's nest will show the skill and patience with which birds plan and work. Why do they not use the same nests year after year as we do our houses? Here will be an opportunity to show how clean and tidy a bird is in its habits, and the reasons why it should not occupy the old nest.

At the same time the child will be learning about birds, he can easily be led to see how important it is to be clean and tidy in his person, and in his room at home; the patience and skill of birds in building their nests, their seeming delight in doing things well teach children habits of cleanliness, patience, skill and industry.

While the field observations are keeping little eyes and ears on the alert, schoolroom work may be used with it. The terms used in describing birds must be accurate, and this habit of accuracy will be formed in the language and other work of the school.

Teach the duty of kindness to birds and all other animals, how useful the bird is in helping the farmer to get rid of many insects that would destroy his crops and orchards. Organize for older scholars an outdoor "Bird Club," whose members shall pledge themselves to protect birds, observe and report the useful work they do for farmers, make observations on the habits of the common birds around them.

The plants, as they wake out of their winter sleep, will be no less interesting to watch, although they do their work more quietly. It seems as if the drops of the April showers are arousing the little sleepers in their beds (the buds and underground tubers) by their quick "tap, tap" on the ground and on the branches of the bare trees. Watch the catkins of the willow, poplar and alder. Bring them into the schoolroom and put them into water. See the differences as they unfold. See how the buds on the different trees swell after a warm April shower and the sunshine which usually follows it. They are slow to open, but after a while they throw off their brown winter coats on the ground. They do not pack them away in trunks and closets as we do our winter wraps. The plants make new winter-coats for their buds during the summer. The birds build new nests every spring, and yet Mother Nature provides winter clothing and food and shelter for her children. How many are the calls made upon her; and how generously does the God of Nature care for all!

#### April Days.

ELEANOR ROBINSON.

No satisfactory derivation has been found for the name April, though different ones have been suggested; old writers derive it from *omnia aperit*, "it opens everything," while some think that there is a connection with the name of the goddess Aphrodite (Venus), to whom the month was sacred among the Romans.

In different countries of Europe and in America, the practice prevails of playing pranks on unsuspecting people upon the first day of the month, called April Fool's Day. The common form of fooling is to send a person on some bootless errand. Scotland the victim is called the "gowk," and the person sends him on to another, with the instruction, "Hunt the gowk another mile." In France the person on whom the trick is played is called un poisson d'Avril, or "April-fish." The custom seems to be of longer standing in France than in England. A story is told of a certain duke of Lorraine, who, together with his wife, was escaping from the town of Nantes, both disguised as peasants. A woman recognized them and ran to tell the guard, but it happened to be the first of April, and the soldiers refused to be fooled, so the fugitives had time to get away before the alarm was really taken. English literature of the eighteenth century has many references to April Fool's Day, but little or nothing concerning it is found in earlier writers, and the origin of the custom has never been determined. The Hindoos have a festival on the 31st of March which is celebrated in the same way.

St. George, the patron saint of England, was martyred at Nicomedia on the 23rd of April, 303. So little historical fact is known about him, and so many legends have gathered round his name, that in the fifth century he was declared to be one of those "whose names are justly reverenced among men, but whose actions are known only to God." St. George was honoured in England as early as Anglo-Saxon times; but before the thirteenth century Edward the Confessor was the patron saint. Richard I, during the third crusade, placed himself and his army under the special protection of St. George, and from that time the saint was very popular among the English. In 1222 his feast was ordered to be kept as a holiday throughout England. In the reign of Edward III, the Order of the Garter was instituted and dedicated to St. George and St. Edward the Confessor, and since then St. George has been England's patron saint. The festival of the order was kept on April 23rd, at Windsor, with great splendor until the reign of Elizabeth, when it was discontinued. But as late as 1614 it was fashionable for gentlemen to wear blue coats on St. George's Day.

(For a fuller account and the story of St. George and the Dragon, see EDUCATIONAL REVIEW for April, 1902).

The 25th of April is observed as the festival of St. Mark, the evangelist. It was he who founded the church in Alexandria, and he was martyred there on a heathen feast day.

A curious superstition is attached to St. Mark's Eve in different parts of England, more especially in the north. It is, or was, popularly believed, that whoever watched in the church porch from eleven at night until one in the morning would see the apparitions of all who were to be buried in the church yard during the coming year.

"'Tis now," replied the village belle,
"St. Mark's mysterious eve,
And all that old traditions tell,
I tremblingly believe,
How, when the midnight signal tolls
Along the church yard green.
A mournful train of sentenced souls
In winding sheets are seen.
The ghosts of all whom death shall doom
Within the coming year,
In pale procession walk the gloom
Amid the silence drear,"

Thomas Hood has an amusing story founded on this superstition. A farmer and his wife, who were both very greedy and fond of good living, quarreled over their supper on one St. Mark's Eve, and each wished the other were dead. After supper, the farmer, who firmly believed in the truth of the superstition, went secretly to the church to watch and see if his wish was to be granted. also remembered how she might get a glimpse into the future, and she, too, set out on the same errand, but by a different path. The night was dark and stormy, but the moon shining out suddenly showed the man and wife to each other for a moment. They both ran away frightened, thinking that they had seen a ghost. From that time the farmer, thinking that his wife had but a year to live, treated her with great kindness, and even insisted on her eating all the choicest morsels at the table; while she, on her part, believing that she would be a widow within a twelvemonth, could not do enough

to please her poor husband. Quarrels became rare, and they were happier than they had been in their whole married life before. At last, as the year drew to an end, and both continued hale and hearty, the wife thought it her duty to warn her husband that his death was near at hand. Then the truth came out; but kindness and forbearance had now become habitual, and once safely over the dangerous anniversary of St. Mark's Eve they lived happily, and were known as the most united couple in the country.

#### The Modern Novel.

In a recent lecture, Professor William Lyon Phelps, of Yale University, discussed the foremost novelists of the present day, and gave a short history of the novel in different countries which highly entertained the large audience.

Among the remarkable statements which the versatile professor made was the one wherein he said that the increase in novel reading is due to the common schools of this country, which have created a great reading public whose wants must be gratified. The result is that the novel of to-day is turned out hastily, and we lose the careful work which was the mark of the novelist of the past.

Russia to-day leads the world in novel writers, followed by France and England. The Germans have had a surprising lack of success due to the fact that they have no sense of proportion. All the German writers have turned to the drama.

America has had one really great novelist, Nathaniel Hawthorne. "The Scarlet Letter" is the greatest single novel ever written in this country. There is no great novelist here to-day, although Mark Twain's "Huck Finn" and "Tom Sawyer" will remain as epics of American life. Henry James has written an excellent ghost story, "The Turn of the Screw."

In "The Virginian" Owen Wister nearly wrote the great American novel, but its fault lies in the fact that it is a string of episodes instead of a story.

May Sinclair's "Divine Fire" had undoubtedly some fire in it, but the flame is occasionally hidden by smoke.

Thomas Hardy is the best of present-day English novelists. From the publication of the "Greenwood Tree" down to his latest novel his output is the best of any living writer of English fiction.

One of the strongest writers in England to-day is George Moore. He can hardly be called an Englishman, however, for he is an Irishman with a French education. His work bristles with ideas,

although he offends many by his extreme frankness. His "Esther Waters" is one of the finest realistic novels in Eng.ish.

"Bob, Son of Battle," written by a man who has lain on his back for years with an affliction of the spine, is the best story written in English since 1808.

In speaking of Kipling, he remarked that his recent works has been spoiled because he has been in terror of saying something commonplace, and so he has been constantly striving for effect.—Arthur Marvin.

#### My Teacher.

My teacher isn't old, nor she Ain't ugly, like my father's used to be; She's got a great big pompadour With crinkly waves. No small hair store Can make that kind-a rainy day Has never taken the fluff away. Her eyes are bright and smiley too, Most gen'rally-tho they see right through Any meanness you're tryin' to do. And how you feel-for they don't look mad But sort of frozen up and sad. When she laughs, her teeth's so white! (I use my toothbrush every night And morning too, for she says she Likes us all to be clean's kin be, And washings, outside and in, prevent The sickness that makes us abersent.) She's different from some, she doesn't wear The same old dress 's if she didn't care. My auntie says 't uster be the rule That any old thing's good enuf for school When she was young. But she hasn't seen My teacher—she's like a queen In her clean white waist and short green skirt, That never hangs down behind in the dirt, Nor hunches up in the front like some, But always look's if company'd come Most any time. It's not only cloes But the lot of interestin' things she knows That makes her not like them father had When he went to school a little lad. All kinds of birds and where they build-With what kind of stones the brook is filled-The queer ways the Spaniards have to farm— . And how the different bones of our arm Are joined together. "Books are full Of things like these," she says. 'Dull And dead and dry, I always thought, . . But now I go to the lib'ry an awful lot. Pa told ma, some criticise and say They don't teach 'rithmetic the same old way. But he says he never did see Clear through p'centage quick as me. And he guesses the ones who make the fuss Haven't any children, happy like us, And if taxes are big, he'd vote today To raise the new kind of teachers' pay. -Boston Transcript.

#### Rubens.

MISS A. MACLEAN.

Peter Paul Rubens, born at Siegen in 1577, is the greatest of Flemish painters and one of the master artists of the world. This remarkable scholar, artist and diplomatist, was the son of John Rubens, one of the principal magistrates of Antwerp, and of Mary Pypeling, of a distinguished family of the same city.

Rubens early began the study of art with Tobias Verhaegt, a landscape painter. Then he studied with Adam Van Noort, and finished, as far as teachers were concerned, with Otho Voenius. Van Noort lacked all that Voenius had acquired, and possessed what Voenius lacked. He was hasty, violent, savage, impulsive, and just as nature made him, both in disposition and works, but he possessed real originality. He was a Fleming in race and temperament, loud voiced, full of rough sincerity, daring, because he knew what he could do; and he never worried over what he probably was unconscious of lacking-culture. He was the last offshot of the stem that had produced the Van Eycks, Memling, Breughel, and others. He loved whatever was vigorous, sanguine, brawny, savage. He delighted in powerful accents, and the colour glowed and rippled on the canvas following the strong, sure, restraint-scorning strokes of his brush.

Voenius was cultured, erudite, of lofty birth, distinguished appearance and noble figure, a student of Venice, Rome, Parma, Florence—the man and the artist were equally trained and polished—but he lacked the decision and originality of Van Noort. Someone says: "He might be called an excellent master who taught admirably lessons too admirable and powerful for himself." Rubens seems to have imbibed all that his teachers had to give, and to have had naturally more and greater gifts than they possessed. But without Van Noort would Rubens have been able to so touch the hearts of the people? Without Voenius would he have appealed so to culture and rank?

In 1600 he went to Venice and studied the works of Titian and Paul Veronese. He spent several years in the service of the Duke of Mantua. He was an excellent Latin scholar, and was also proficient in French, Italian, English, German and Dutch, and these acquirements procured for him dip'omatic employment. He was sent on an embassy to the court of Spain, where the highest honours were shown him. Then he returned to Mantua, preparatory to periods of study in Rome

and Venice. Then he went to settle in Genoa, and entered into the society of princes, and enjoyed all that wealth and greatness could confer. Hearing of his mother's illness in 1600, he returned to Antwerp, bearing with him all that foreign study and association could give him, and was at once recognized as the first master of his age. Talent, glory and fortune were his. He was appointed court painter to Archduke Albert, then governor of the Netherlands. In 1620 he visited Paris at the invitation of Marie de Mediei. In 1628 he was sent on a mission to Philip of Spain, and in 1629 to Charles I, of England, and here he was knighted and given an honourary degree by the University of Cambridge. But wherever he went he continued to paint, and is reported to have said of himself: "The painter, Rubens, amuses himself with being ambassador." The enormous number of works he left testify to his faithfulness to art—between 2,000 and 3,000. Whenever he was situated so he could have pupils, he always had many of them, and a great deal of the filling in of his pictures was done

In 1609 Rubens married Isabella Brant, who died in 1626. In 1630 he married the beautiful, sixteen-year-old Helen Fourment, niece of Isabella Brant. Both women so often sat to him as models that the world is familiar with their appearance.

When Rubens returned to Antwerp in 1609, the knowledge of Italian art which he had acquired, and his strong bias to native Flemish art, were at war within him. Native Flemish art had been clear, minute, precise, acute, as though the former working in copper, gold, melting and colouring of glass, enameling and engraving in which the fathers had been employed, had been transmitted as an influence on the paintings of their children. But the rich and homogeneous Flemish colouring had, after the days of the early Flemish artists, begun to feel the influence of the Italian Renaissance. The colouring became broken, the tone divided, and it lost force and brilliancy as it lost unity. Italian fashion in art did not fit well on Flemish painting, and by the time of Rubens, Flemish art had become undecided, and practically unrecognizable. Then Rubens appeared, and his art, though suffused with the culture of many schools, became the most Fleinish of the Flemings.

Though Rubens had painted many works previously, the first public acts of his life as the head of a school were the two paintings in the Cathedral of Notre Dame in Antwerp, the Descent from the Cross and the Elevation of the Cross. These are much admired, and may be considered his master Nothing could be more unlike than these two works, formed at an interval of two years. The former is the result of all his Italian education; the latter the outcome of his daring, impulsive spirit, full of originality, fiery fervor, rapid manner and dash. Great renown is attached to the Descent from the Cross; the Elevation of the Cross has touched more keenly the thorough friends of Rubens. Looking at the Descent from the Cross, and remembering works of Rubens portraying scenes of blood massacre, torturing executions, fiery pincers, shrieking of anguish, one realizes what restraint he must have put upon himself when he painted this picture. Everything is restrained; no cries of grief, no gesticulations of sorrow, no violent emotion is visible in the Virgin, the figure of Christ, slender, delicate—the most elegant figure Rubens ever imagined of Divinity—glides down along the winding sheet to the extended arms of the women who receive it. The Magdalen in this picture is the best example of womanly beauty ever painted by Rubens. The colouring of this picture is an absolute black, a green almost black, a dull red, and a white. With what simple colours he painted, and yet who can use them as he did? The Descent from the Cross is pronounced singularly original and powerful.

In the Elevation of the Cross, tenderness, pity, friends are represented by a far-away group of lamenting despair. Near are cries, curses, savage crucifiers, blasphemy, insult and brutality. The figure on the cross is in the grip of human hate and fury, but the escaping spirit pities and forgives. This picture reaches the sublime; and whatever advances Rubens later made in technique, nothing of his eclipses this work in picturesque conception and inexpressible individuality.

The works of Rubens are so numerous that it is impossible here to give any adequate idea of even the more important. In the Metropolitan Museum in New York are six pictures by Rubens. Most people consider them very admirable. A portrait of Isabella Brant makes me marvel at the nature of the man who could exhibit to the gaze of succeeding centuries, in such a pose, his wife. Sympathy for Helen Fourment makes me pass without looking at the picture of "Susannah and the Elders." The "Return of the Holy Family from Egypt" is fine in colouring and technique, but it does not appeal to me. It is not my idea of the subject, and then the Dutch school is my favorite school, and one

Rembrandt represents to me more moral sentiment, depth and dream than all the works of Rubens.

The life of Rubens was a triumphal procession, and he fortunately vanished from our earth before his powers began to wane. He died in 1640, and was buried at Antwerp, in his private chapel in the church of St. Jacques, which he decorated with his magnificent painting of St. George.

#### A Study in Forestry.

The following makes a very interesting form of entertainment for a small party. The prize for the largest number of correct answers may be a pretty forest scene or a paper weight of some handsome polished wood; the "booby" prize may be a small block of wood with a tiny toy axe or hatchet.

- I. Which tree a kissing game could play?
- 2. And which its father's name could say?
- 3. Which shall we wear to keep us warm?
- 4. And which do ships prefer in storm?
- 5. Which shows what love-lorn maidens do?
- And in your hand which carry you?
   And which is't that the fruitmen fear.
- That makes a call each seventeenth year?
- 8. And from their pipes men shake which tree?
- 9. Which is't had boys dislike to see?
- 10. Which is a girl both young and sweet?
- 11. Which like a man bright, dapper, neat?
- 12. And on which do the children play With pail and shovel all the day?
- 13. And to which tree shall we now turn For goods to wear and stuff to burn?
- And now divide you one tree more— You've part of a dress and part of a door.
- 15. Which tree is never seen alone?
- 16. And which one is a bright, warm tone?
- 17. And which in church doth office hold?
- 18. Which is a town in Ireland old?
- 19. For this one do not look so far— Which tells what charming people are?
- 20. And which one will allay the pain, If promptly rubbed on bruise or sprain?
- 21. The carpenter doth use which tree
  To make his wall straight as can be?
- 22. And to which tree do urchius call

  To show you shouldn't have looked at all
- 23. Which tree on calendars find you?
- 24. Which is a joke, told times not few?
- 25. And which call we an Ohio man?
- 26. And which for soup we sometimes plan?
- 27. Which tells "where at," on land or sea, An Englishman likes best to be?
- 28. And on our feet we'll wear which tree?
- 29. And which our hero's crown shall be?
- 30. Another tree to find just try, For fish and fuel for a "fry."

-Charlotte E. Stimson, in April Delineator.

The answers to these questions are given on page 268.

#### The Law of Unity Applied to Education.

MRS. C. M. CONDON.

The profound recognition of the law of unity lies at the very foundation of Frœbel's educational system, and it is his keen apprehension of its scope and implications, together with his skilful adaptations of its requirements, that make him so sure and safe a guide in the art of human culture. This habit of shrewd observation and power of introspection, joined to a very sensitive nature, made Fræbel, even in childhood, painfully aware of the dissonances of life. An ever-widening observation of nature, animate and inanimate, brought relief to his unrest in the full and intelligent acceptance of this law of unity or inner-connection. Some quotations will indicate a few steps in the process. It was on leaving the University of Jena, in his twentyfirst year, that he says: "My stay at Jena had taught me much, but by no means so much as it ought to have taught me, but I had won for myself a standpoint both subjective and objective. already perceive unity in diversity; the correlation of forces; the inter-connection of all living things; life in matter; and the principles of physics and biology." Of himself at twenty-five years old, he says: "The most pregnant thought that arose in me at this period was, all is unity, all rests in unity, all springs from unity, strives for, and leads up to unity, and returns to unity at last. This striving in unity, and after unity, is the cause of the several aspects of human life." Now, later on, breaks upon his mind the grand thought of the solidarity of the human race: "Mankind, as a whole, as one great unity, has now become my quickening thought." When he was at Berlin, the lectures of Dr. Weiss in natural history strengthened his insight.

Struck with the calm serenity of nature in one of her loveliest spots, he feels that, "there must exist somewhere some beautifully simple and certain way of freeing human life from contradictions, some means of bringing man to peace with himse!f internally." To know a truth, with Fræbel, was to reduce it to practice, while his genial, unselfish nature made him desire to share with the whole world the blessing which he had won with such conflict.

He now felt that his vocation was to help his fellow-creatures to realize this ideal which stood so clear and so beautiful before his own mind, and he saw clearly that a great reform must be made in the methods of education. So, giving up, deliberately, all thought of personal ease and profit, he relinquish-

ed the profession for which he had prepared himself, and became a teacher in the model school at Frankfort-on-the-Main. When he stood up before his class of boys, to use his own words, "the bird was on the wing, the fish in its native element." His original method in teaching geography and arithmetic was recognized as unique and efficient. As a child, he had felt that the method of instruction in the schools he attended was not what it should be; his experience at the different universities had confirmed this opinion in many ways, and showed him that, with notable exceptions, the instruction was unfruitful, because not based on sound philosophical principles. The correlation of studies was ignored, so that the teaching was serappy and disconnected, and the "circle of human knowledge" was a mere theoretical phrase, instead of being an embodied fact. The university faculty complained that students came unprepared to take up the work of the curriculum; the high school teachers declared that too often they had to do the work of preceding grades. At first Freebel thought that if teachers were better prepared for their work, the schools would produce better results. Eager as ever for self-culture, and desiring to thoroughly fit himself for teaching, he went, after securing an honourable discharge, to study Pestalozzi's methods, which were then attracting the attention of the world.

Meanwhile his continued study of the practical application of the law of unity to education proved to his mind very clearly that education, to be successful, must be conducted on lines indicated by this law of interconnection, one implication of which is development. He saw that the subjects and the process of imparting them at any given time must be exactly suited to the stage of development of the scholar. Fræbel, in common with Herbart, recognized culture-epochs in the scholar corresponding to those of the human race, of which the individual is a unit. And he saw that they, cultureepochs, must be reckoned with both in training and instruction, and that to present the wrong subject at the wrong time, or fail to present the right subject at the right time, was an irretrievable mistake.

Continuity was another principle implied in this law of unity; therefore, there must be no gaps, nor breaks, in education, but every point of it must connect itself, intimately with every preceding and succeeding stage, in the same beautiful sequence, of which nature is so full of illustrations. Going back, grade by grade, from the university, at first Fræbel thought that, if teachers were better pre-

pared, the results of education would correspondingly improve. In the different institutions which he established, his experience soon showed him that even with the best teachers there was still something wanting to secure success; and he soon found that the cause of failure lay in the neglect of developing the intellect and soul of the child from the earliest period. It has been well said, that he pursued his inquiries all along the line of education from the university till he stood by the cradle of the infant. There he felt that the true beginnings of human culture were waiting to be unfolded, by helping the child to the normal use and growth of faculties and powers that lay latent within him ready to respond to wise impulse and fostering care.

Just as the plant must be supplied with suitable conditions to ensure the beautiful growth intended by the Creator, so must the child find, before the life of the school, a full rich culture in the kindergarten and the home; and education must, based on a sound philosophy, even in its very beginnings, form a part of one organic whole, and be a perfect expression, so far as human frailty permit, of this law of unity.

#### A Bird Tragedy.

One evening recently, while lying in my hammock, I noticed a wounded robin fluttering and hopping across the lawn. It was making its way toward a maple-tree in which I knew a pair of robins had their nest.

Having reached the foot of the tree, it made several futile efforts to fly up into the branches, but only succeeded in fluttering around in a circle near the ground, as one wing was broken. It seemed to be a hopeless struggle, and I wondered how it would end.

I had recently been reading "Wake Robin," and these words of John Burroughs' came to my mind: "One may go blackberrying, and make some discovery. Secrets lurk on all sides. There is news in every bush. What no man ever saw may the next instant be revealed to you."

I do not suppose that the scene which followed is the first instance of the kind that has been noticed; but it was new to my eyes, and I watched it with eager interest.

The repeated efforts of the bird to reach its nest attracted the attention of its mate. She soon flew down beside him, emitting piteous little notes. After hopping anxiously around him for a few

moments, she flew away; and the wounded robin settled quietly down in the grass.

In three or four minutes the mate returned with a large worm in its bill, which it deposited by the side of the sufferer. The worm was eagerly devoured by the wounded bird, who then again rested in the grass, his mate meanwhile having returned to her nest.

Presently the robin, having apparently regained some strength, began to chirp, and was answered from the branches above. His mate again flew down to his side; and now the robin made a desperate attempt to fly or spring up, his mate with outstretched wings got under him, and by their united efforts they gained the branches and their nest.

I heard them chirping for quite a while, evidently trying to find a comfortable position for the wounded bird. It was now dark. My heart throbbed in sympathy for the helpless little creatures. I resolved to be up early, and place food and water near them.

Alas! when I went out in the morning, the robin was dead. I examined his injuries, and found his side had been crushed in, evidently by a stone thrown by a thoughtless boy.

"Oh, boys, boys," I cried in my indignation, "how can you be so cruel or thoughtless? Thoughtlessness that brings pain and death to these little creatures is a crime. Think not that He who grieves at the sparrow's fall will hold you guiltless when you ruthlessly take the life which you can never restore!"

I buried the robin at the foot of the maple. The only requiem was the short, sharp chirps of the bereaved mate, who watched me for a while from a safe distance, then flew away, never to return.—

A. R. McAlpine.

#### A Study in Forestry.

The correct answers to the questions on page 266 are as follows: I. Tulip: 2. Pawpaw: 3. Fir; 4. Bay: 5. Pine; 6. Palm; 7. Locust; 8. Ash: 9. Birch; 10. Peach; 11. Spruce; 12. Beech; 13. Cottonwood; 14. Hemlock; 15. Pear: 16. Cherry; 17. Elder; 18. Cork; 19. Poplar; 20. Witch-hazel; 21. Plum; 22. Rubber; 23. Date; 24. Chestnut; 25. Buckeye; 26. Crab; 27. The Elm; 28. Sandal; 29. Laurel; 30. Basswood.

Weary mother.—"Oh, Jack, if you only knew how tired I get of saying 'Don't' all day long!"

Jack (sadly).—"Well, muvver, just fink what it must be for me!"—Punch.

#### Arbor and Bird Day Programme.

Every teacher should aim to make the schoolhouse and its surroundings clean and beautiful. Divide the scholars into committees weeks before Arbor Day, and assign to each their duties under the teacher's direction. Have frequent reports and meetings of these committees to see that they are doing their work. Assign to one committee of girls the cleaning and decorating of the schoolroom; to another of boys the making of a neat gravel walk from the door to the road; to another the gathering up of all waste paper and debris in piles and clearing the grounds; to another the laying out of the grounds and selection of trees and places to plant them; a programme committee consisting of the teacher and larger girls and boys to prepare for an Arbor Day entertainment, and to send out invitations to parents, trustees and other visitors; a "school garden" committee to form plans with the trustees for breaking up, preparing and fencing ground for a garden, and getting contributions of seeds. (Read "Echoes from a Boys' Garden" in this number in order to get a little inspiration).

Plant shrubs as well as trees. A good shrub is far better and more sightly than a lank, half-starved tree. Viburnums (withe-rods), dogwoods, sumach, elder, wild roses, Canadian holly, lilacs, are good shrubs to plant, especially in sheltered places of the school yard; and they may be found everywhere. The white pine is a beautiful evergreen, and can be made to grow in the dryest and least sheltered of spots. Elms, map'es, birches, poplars are all good trees to plant where the soil is not too dry.

#### READINGS AND RECITATIONS.

Appropriate material may be gleaned from this and other April numbers of the Review, and from books and magazines, for programmes. Do not have too long an entertainment. Remember that the most important work is the cleaning up of schoolroom and grounds, the planting of shrubs and trees, lessons on plant life, and the getting parents and trustees interested in your work. Then a suitable and well-rendered programme amid clean and appropriate surroundings will be most proper for Arbor Day itself.

#### Aunt Sarah's Arbor Day (Reading for a Girl).

She was as pleasant as she was poor. All the boys and girls in the neighborhood called her Aunt Sarah; yet she was not a real aunt to one of them. In fact, she had not a single relative in all the world. One day Aunt Sarah was telling the boys about

a beautiful elm tree which used to grow beside her old home. "I would be so happy," she said, "if there was only an elm tree in my yard now. I have so much time on my hands, I could watch its leaves come and go each spring and fall, and it would be such good company for a poor old body, who lives alone as I do. But there is no way for me to ever get such a tree."

"She needn't be too sure of that," mused Ted Brown. But he said nothing till he and the other boys were on their way home from their call on the old lady. Then he began:

"Tell you what it is, fellows, day after to-morrow is Arbor Day, and I say let's go into the fields to-morrow and get a little elm tree to plant under Aunt Sarah's window. Mother will let me invite her to our house to spend the day. And you can plant the tree while she is away."

"So we can," cried the other boys, crowding very close to Ted.

Aunt Sarah was invited to spend the following day at Ted's home; and the boys planted in her yard the most beautiful elm tree they could find. Ted would not harness the horse to drive Aunt Sarah home until it was so dark that she could not see what had been going on in her yard. But when she awoke next morning she found it was Arbor Day indeed, for the branches of the dainty elm kept blowing against her window-pane as if to say, "Good morning."—Selected.

#### Fall Fashions (Recitation for a Girl).

The maple owned that she was tired of always wearing green,

She knew that she had grown of late too shabby to be seen,

The oak and beech and chestnut then deplored their shabbiness,

And all except the hemlock sad were wild to change their dress.

"For fashion plates we'll take the flowers," the rustling maple said,

"And like the tulip I'll be clothed in splendid gold and red."

"The cheerful sunflower suits me best," the lightsome beech replied,

"The marigold my choice shall be," the chestnut spoke with pride.

The sturdy oak took time to think, "I hate such glaring hues;

The gilly flower, so dark and rich, I for my model choose." So every tree in all the grove, except the hemlock sad, According to its wish, ere long in brilliant dress was clad.

And there they stand through all the soft and bright October days,

They wished to be like flowers, indeed they look like huge bouquets.

—Scl.

#### Quotations.

Then rears the ash his airy crest,
Then shines the birch in silver vest,
And the beech in glistening leaves is drest,
And dark between shows the oak's proud breast,
Like a chieftain's frowning tower.

—Scott.

Plant in the spring time the beautiful trees, So that, in future, each soft summer breeze, Whispering through tree-tops may call to our mind, Days of our childhood then left far behind. Days when we learned to be faithful and true, Days when we yearned our life's future to view, Days when the good seemed so easy to do, Days when life's cares were so light and so few. —Sel.

When April comes, I tell you what,
The little leaves begin to plot,
And plan and ponder how to bring
Their greenness to the eyes of spring.
'Tis then they say (the cunning elves),
"The time has come to show ourselves.
We must make haste, indeed, if we
Would glorify each bare-boughed tree." —Sel.

Do you know the trees by name
When you see them growing
In the fields or in the woods?
They are well worth knowing.
Watch them, watch them when their leaves
Everywhere are showing,
Soon you'll know the different trees

When you see them growing.

"Wake robin, wake robin,
O robin dear,
Come from the marsh thicket,
For springtime is here."—Sel.
Oh birds, that warble to the morning sky,
Oh birds, that warble as the day goes by,
Sing sweetly.—Tennyson.

#### Recitation (for four Girls.)

First.—

Arbor Day has come again,
Hear the robins sing!
. All the birds are building nests,
In the early spring.

Second.—

Arhor Day has come again, And the brook that flows, Down beside the willow tree, Whispers of the rose.

Third.—

Arbor Day has come again,
There's music in the breeze,
So upon an April day
We go a-planting trees.

Fourth.-

Arbor Day has come again, Hark! the songbirds' call! All the flowers hear their song, They waken one and all!

A11.--

April showers, April showers,
Waken all the sleepy flowers,
Earth's refreshed by April rain,
And Arbor Day is here again!
—Selected (and altered).

#### Recitation (for five Boys).

First.-

The old oak tree is the forest's pride,
The birds in its branches swing,
The breezes rustle its leaves with song,
In the early days of spring.

Second.-

Oh, slender willow we plant to-day, Your branches hold much joy, We will borrow your twigs next year, And make whistles for each boy!

Third .-

Oh, the tree that I love the best
Is the maple with branches high,
The song birds build in its safe retreat,
It makes cool shade for the passerby.

Fourth.-

The poplar tree grows straight and tall,
With its branches toward the sky,
The little birds gather in merry throngs,
And build nests in the branches high.

Fifth.-

The shapely spruce, green all the year,
Is the best tree, you'll agree,
For when old December comes,
'Twill be a Christmas tree!

AH.

-Sel.

Then give three cheers for the shady trees,
And for the bird's song sweet,
We'll go with them on Arbor Day,
To their green retreat.

-Selected (and altered).

#### Spring Call (to the Birds).

Spring once said to her fairies three: "Call the birds to each bush and tree. Make them welcome, bid them come To live and love in their northern home."

Cho.—Tra la la, la la, etc.

Soon there came, at the fairies' call, The birds and birdies great and small. Singing sweet their songs of glee, They flocked around the fairies three.

#### What a Bird Thought.

I lived first in a little house, And lived there very well.

I thought the world was small and round, And made of pale blue shell.

I lived next in a little nest, Nor needed any other.

I thought the world was made of straw, And cared for by my mother.

One day I fluttered from the nest, To see what I could find.

I said, "The world is made of leaves— I have been very blind."

At length I flew beyond the trees, Quite fit for grown up labor.

I don't know how the world is made, Nor neither do my neighbors.

-Selected.

A gush of bird song, a patter of dew,
A cloud, and a rainbow's warning,
Suddenly sunshine and perfect blue—
An April day in the morning.
—Selected.

#### The Sower.

"Come, wild Wind," said the Catkin folks,
"Loiter not on the way.

It is time for us to plant our seeds;
We need your help to-day."

The jolly wild Wind whisked merrily by, And never a word did he say; But birch and willow and alder trees He planted by scores that day.

-The Youth's Companion.

#### For the Blackboard.

- I. The groves were God's first temples.
- 2. Man counts his age by years, the oak by centuries.
- 3. The courteous tree bows to all who seek its shade.
- 4. As thou sowest so shalt thou reap.
- 5. How delightsome to linger 'mid the shady bowers.
- 6. Tiny seeds make plenteous harvests.
- The tree is a nobler object than a king in his coronation robes.
- 8. A thing of beauty is a joy forever.
- 9. A father's hand hath reared these venerable columns.
- 10. Earth with her thousand voices praises God.
- 11. Spring unlocks the flowers to paint the happy soil.
- 12. God the first garden made, man the first city.

#### Planting Song (after the planting).

Air, "America."

Grow there and flourish well

Ever the story tell

Of this glad day.

Long may thy branches raise
To heaven our grateful praise,
Waft them on sunlight rays,

To God away.

Deep in the earth to-day
Safely thy roots we lay,
Tree of our love;
Grow thou and flourish long;
Ever our grateful song
Shall its glad love prolong
To God above.

-Normal Instructor.

#### Arbor Day Questions.

Are you sure that you realize the importance of Arbor Day?

Do you know these things: That forests determine to a great extent the mean temperature of a country, making air currents cooler by day and warmer by night?

That destructive floods are caused by cutting down forests near the course of a river?

That forests act as reservoirs, holding in their vast network of roots moisture that in time of

drought will be drawn upon to prevent lasting injury to vegetation?

That in countries where there are large forests, the evaporation from the surface of the earth is only one-fifth as great as in open countries?

That six per cent more rain falls yearly in forests than in open fields?

That land may be reclaimed by tree-planting?

That trees perform a valuable service to health in setting free so much oxygen by action on carbon dioxide in the air?

That we draw every year \$700,000,000 worth of products from trees?

That \$300,000,000 of trees are destroyed by fire every year in the United States?

That at the end of each day we have 30,000 acres less of lumber than at the end of the previous day?

That if we continue to destroy trees as rapidly in the next two or three hundred years as in the past, the welfare of country will be seriously endangered?

If you know these things, you are ready to make your Arbor Day programme strong and helpful.— Selected.

#### Language of the Birds.

The poets have now found a language for the birds, which they translate into human speech. What they say is not the same to each listening ear. Dr. Van Dyke, a true bird-lover, in one of his many delightful poems about them, confesses which is his favorite, and says:

"That if but one of all the birds
Could be my comrade everywhere,
My little brother of the air,
I'd choose the song sparrow, my dear,
Because he'd bless me every year,
With 'Sweet—sweet—very merry cheer.'"

Professor Walton, Leeds, in his new work, The Principles of Teaching, expresses the opinion that the oral lesson has a mischievous tendency to produce idleness on the part of the pupils of all but the youngest classes, which tendency, he considers, may be corrected by teaching them how to make use of books the main instruments of their after-culture.

Corporal punishment in a public school in Japan is unknown; the very thought of it to the Japanese mind signifies barbarous vulgarity and piteous lack of self-control on the part of teacher and pupil, mainly that of the teacher.

#### Echoes from a Boys' Garden.

Louise Klein Miller in N. Y. School Journal.

"Is this the place for the garden?" said Dick, as he gazed at the recently plowed and harrowed ground, full of witch grass, weeds and glacial boulders.

"Yes," I said, "isn't it a good place to work?"

"I should think it is a good place to work!" he replied, with a rather savage emphasis upon work.
"May I have the first garden?" asked Robert.

"You know what is expected of the first garden," I cautioned.

"I should like the second," cried Mike.

"Don't be in too great haste; we must examine the plan of the garden first." At this suggestion they all arranged themselves to study the plan which was spread out on the grass before them.

"Is this the whole garden?" inquired Joe, who seemed to think it rather small.

"No, indeed! I explained. "It is the plan of a garden to be planted by each boy, and drawn to a scale one-fourth of an inch to a foot. Do you understand what that means?"

"Does each fourth of an inch on the plan stand for a foot in the garden?" questioned Joe.

"What else could it mean?" said Dick.

"It is two and a half inches wide; how wide is the garden, Carl?" I inquired.

"That's easy," said Carl; "ten feet wide."

"It is twenty-two inches long; can you figure the length of the garden, Fred?" After some hesitation Mike offered to get him a big piece of paper and a long lead pencil.

"I know that," said James; "ninety feet."

"Good!" I exclaimed. "Now, boys, each of you is to have a space, ten feet wide and ninety feet long, to plant and keep in order. Can you do it?"

"Yes." "Of course!" "I should think so!" "We'll try!" "We could take one twice as large!" and other exclamations came in chorus.

"Roy, I want you to try to direct this work. The plan indicates ten feet for flowers, ten for squashes, six each for lettuce, radishes, carrots, beets; then a four foot path; six feet each for tomatoes, turnips, peas, and beans, and nine each for corn and potatoes."

"Does each boy plant all these things?" inquired

"Yes," I replied. "Now we will lay out the garden. Here is the measuring tape. I will hold one end, and Henry, you take the other. Each boy get a stake. Roy, take the plan and show the boys

where to drive the stakes. Be careful; that line is not quite straight. We want everything done 'shipshape.' That is better," I discovered, looking along the line.

"Is that all right?" inquired Roy, his face flushed with excitement.

"Yes, you did that very well," giving him a nod of approval.

"Robert, would you like to direct the staking off of the front of the garden?"

"Thank you, I should. Are the gardens to be close together?" he asked, examining the plan for assistance.

"No, see, there is to be a foot-path between the gardens," pointing to the plans.

"May we do it all ourselves?" asked Robert.

"Yes, if you can. Be sure you are right and then go ahead. As soon as you have finished you may select your gardens and give me your names and the number of your gardens."

"What shall we do next?" inquired Mike, anxious to get to work.

"You may stake off your own garden now, and to-morrow we will begin the planting."

When we said good-night I felt the hardest part of the work had been done.

"What are these?" inquired Henry, as he examined some plants in a box.

"Don't you know a tomato plant when you see it?" asked Dick, with apparent disgust.

"Hand me a plant, will you please, Fred. You know, boys, that plants, as we'll as animals, take food in order to grow. Where will this plant get its food?"

"The roots will take some food from the ground," said Carl, "and I think the leaves take some from the air."

"Carl is right, but can these roots take up particles of soil?"

"No," said Mike; "they must have water, too."

"When you drop a lump of sugar into a cup of tea, what happens to it?"

"It melts," cried Dick.

"It dissolves," said Henry, deliberately.

"Can vou see it after it dissolves?"

" No."

"When you drink the tea what do-you take also?"

"Sugar," came the reply.

"Why will the tomatoes and all other plants in the garden require rain or moisture?" "I know," cried Carl; "to dissolve the soil so the plants can use it for food,"

"Each boy takes three plants. Be careful; do not injure the delicate root tips," I said, carefully removing a plant from the box.

"Where shall we 'plant 'them?" demanded Joe, rather helplessly.

"Examine the plan It will show you just where to put them. Spread the roots out so they may get plenty of food. Well, that is a good beginning."

"Are these the potatoes?" asked Roy, after he had planted his tomatoes. "How many shall we plant?"

"It is about time you are doing some gardening," said Mike, with apparent amazement. "Don't you know you don't pant potatoes? That you have to cut them up into pieces?"

"Cut them up!" said Roy, in surprise; "how, this way?"

"You plant that piece without any eyes and see how many potatoes you get from that hill!" said Mike.

"Are you all ready, boys. We will take the potatoes next. They are thickened underground stems or tubers. We do not plant the whole potato, but cut them up into pieces, each having two 'eyes' or 'buds.'

"What do you do that for?" persisted Roy.

"The white part of the potato, which is used for food, is the material the plant stored away to develop these buds. A new plant will grow from each strong eye. By the time this supply is exhausted the plant is strong enough to take food from the ground and the atmosphere."

"What makes potatoes shrivel up in the cellars after they have sent out their tender sprouts?" asked Dick.

"Can you answer that question from what I have said? Think it over. In a few days we will pull up a plant and see how it has grown."

"Shall we plant the potatoes as we did the tomatoes?" asked Joe.

"No; make a straight furrow, put in some manure and a small quantity of commercial fertilizer where you expect to put the potatoes. Be careful to mix the soil thoroughly. The plan will show you where to plant them. Then you will have to spend some time fighting weeds."

"I never saw so many weeds in all my life," said Hugo, in a discouraged tone of voice. "But, my dear boy, remember, every time you pull up a weed or hoe your garden, you loosen the soil, and a farmer would say you set free the plant food in the soil. If it were not for the weeds, cornfields would not often be plowed or gardens hoed. Keep at the weeds. Get all of them out. It is a good thing for the garden, and will pay."

"It is easy enough to get rid of the weeds, but just look at those rocks!" exclaimed Mike, the great beads of perspiration on his freekled nose. "Do they grow like weeds? I am sure they are getting larger every day."

"When you take to gardening, there are a great many things for you to learn."

"Where did all these rocks come from?" asked Henry.

"They are glacial boulders, and were brought from the north by the great ice plows or glaciers. Growing larger? No, indeed! They are gradually becoming smaller, breaking up, and forming soil. They have had an interesting history which you will enjoy learning some day. Take out all you can with the wheelbarrow. This is good weather and things will grow well."

(Concluded in May number.)

It is said that when the Danes made war on Scotland, one dark night as they were marching on an ecampment of sleeping Scots, one of them trod upon a thistle. The pain was so sudden and intense that the man gave a loud cry. This awakened the slumbering Scots, who sprang to arms and defeated their assailants. In gratitude for their deliverance the Scots from that time on made the thistle their national emblem.

#### The Song of a Robin.

I heard a robin singing,
When the world lay white and drear,
And ne'er a ray of sunshine fell
His little heart to cheer;

I fistened to the gladness
That was mingled in his song,
And from my heart the shadows fell
Of weary years and long.

I heard a robin singing,
When the skies were dark above,
And from the song a lesson learned
Of hope, and trust and love.
It spoke to me of patience,
Of a spring our hearts shall know,

Of a spring our hearts shall know, When snows of winter falleth not And cold winds never blow.

-Kathleen Weatherhead, in Westminster Gazette.

#### Recitations for Little Children.

#### Under-the-Table Manners.

It's very hard to be polite
If you're a cat.
When other folks are up at table
Eating all that they are able,
You are down upon the mat
If you're a cat.

You're expected just to sit
If you're a cat.
Not to let them know you're there
By scratching at the chair,
Or a light, respectful pat
If you're a cat.

You are not to make a fuss
If you're a cat.
Tho' there's fish upon the plate
You're expected just to wait,
Wait politely on the mat
If you're a cat.

-Teachers' Magazine.

If I knew the box where the smiles are kept,
No matter how large the key,
Or strong the bolt, I would try so hard—
'Twould open, I know, for me.
Then over the land and the sea broadcast
I'd scatter the smiles to play,
That the children's faces might hold them fast
For many and many a day.

If I knew the box that was large enough
To hold all the frowns I meet,
I would like to gather them every one,
From nursery, school, and street;
Then, folding and holding, I'd pack them in,
And turn the monster key,
I'd hire a giant to drop the box
To the depths of the deep deep sea.

-Selected.

#### Four Dogs.

There were four dogs one summer day Went out for a morning walk, And as they journeyed upon their way They began to laugh and talk. Said dog No. 1, "I really think My master is very wise; For he builds great houses tall and grand That reach clear up to the skies." Said dog No. 2 in a scornful tone. "Ho! Ho! That's wonderful-yes! But listen to me! My master writes books, He's sold a million, I guess." Then dog No. 3 tossed his curly head And gave a sly little wink. "That's nothing to tell! My master is rich, He owns half the world, I think!" The fourth little dog had been trotting along With a wise, reflective mind. A last he said with a happy smile, "My master-he is kind!"

Now if your opinion should be asked,
I wonder what you would say—
Which dog paid the sweetest compliment
To his master on that day
—Alice I. Cleator, in Pets and Animals:

#### My Little Gray Kitten and I.

When the north wind whistles 'round the house Piling the snowdrifts high,

We nestle down on the warm hearth rug—
My little gray kitty and I.

I tell her about my work and play,
And all I mean to do,

And she purrs so loud I surely think
That she understands—don't you?

She looks about with her big round eyes,
And softly licks my face;
As I tell her about the word I missed,
And how I have lost my place.
Then let the wind whistle, for what to us
Matters a stormy sky?
Oh, none have such jolly times as we—
My little gray kitty and I.
—Florence A. Jones in Pets and Animals.

#### Which One Was Kept.

There were two little kittens, a black and a gray,
And grandmamma said with a frown—
"It will never do to keep them both,
The black one we'd better drown.

"Don't cry, my dear," to tiny Bess,
"One kitten's enough to keep;
Now run to nurse, for 'tis growing late,
And time you were fast asleep."

The morrow dawned, and rosy and sweet Came little Bess from her nap; The nurse said, "Go into mamma's room And look in grandma's lap."

"Come here," said grandmamma, with a smile,
From the rocking-chair where she sat;
"God has sent you two little sisters,
Now, what do you think of that?"

Bess looked at the Babies a moment,
With their wee heads, yellow and brown,
And then to grandmamma soberly said,
"Which one are you going to drown?"

—Lillian Street, in "Ideal Home."

#### Tokens.

I know that Spring has come,
Because to-day I heard a wild-bee's hum;
I found a wind-flower on the warm hillside,
A cowslip where the brooklet's waters hide;
And looking at the tree tops far away,
I saw a touch of green light up the gray.
Within a door, framed in sunshine rare,
I saw a child with golden ringlets bare,
Watching a robin; by these tokens clear
I know that Spring is here!

-Ninette M. Lowater.

#### Talks With Our Readers.

Miss Jane Brown, Bathurst, N. B., writes as follows: "I am sorry that 'Subscriber,' who writes in the February Review, finds any difficulty in getting pupils to take a real interest in studying Hay's History of New Brunswick. Ever since the book was published I have been teaching it. And I have found my pupils enjoy and easily understand it. Of course, we first took it up orally, and afterwards the children greatly enjoyed reading it, and writing short stories about what they had learned. I cannot see why young children should find difficulty in understanding history as it is treated in that book."

G. E. S., Andover, N. B., asks for a list of New Brunswick governors and also for King Edward's full name. Governors of N. B. before confederation: Col. Thomas Carleton, Major General George Tracey Smith, Sir Howard Douglas, Major General Sir Archibald Campbell, Major General Sir John Harvey, Major General Sir William Colebrooke, Sir Edmund Head, Hon. J. Henry Thomas Manners-Sutton, Hon. Arthur H. Gordon. Since confederation: Hon. L. A. Wilmot, Hon. S. L. Tilley (twice Lieut. Governor, from 1873 to 1878, and from 1885 to 1893), Hon. E. B. Chandler, Hon. R. D. Wilmot, Hon. John Boyd, Hon. J. J. Fraser. Hon. A. R. McClelan, Hon. J. B. Snowball, and the present Lieut. Governor, Hon. L. J. Tweedie.

King Edward VII's name is Albert Edward.

Mr. H. A. Garland, of Salisbury, N. B., wishes for an inexpensive text-book on the new language, Esperanto, with grammar, vocabulary, etc., a dictionary, with prices and where they can be obtained. Can Dr. Creed or any one write him and give the desired information?

No one who is interested in education can afford to overlook an illuminating paper by Professor G. H. Palmer, of Harvard, on The Ideal Teacher, which appears in the Atlantic Monthly for April. It is a high standard he sets here; he admits himself that it may be unattainable; but there is inspiration in it.

The National Educational Association will meet this year in July, at Los Angeles, Cal. Among the invitations for next year is one to meet at Toronto.

Set about doing good. One act of kindness will have more influence on the spirit than all the salt water baths that ever were invented.—Ex.

But all the same, the baths need not be omitted.

#### The Teacher's Wisdom.

The ideal teacher must be in possession of a wealth of accumulated wisdom. These hungry pupils are drawing all their nourishment from us, and have we got it to give? They will be poor, if we are poor; rich if we are wealthy. We are their source of supply. Every time we cut ourselves off from nutrition, we enfeeble them. And how frequently devoted teachers make this mistake! dedicating themselves so to the immediate needs of those about them that they themselves grow thinner each year. We all know "the teacher's face." meagre, worn, sacrificial, anxious, powerless. That is exactly the opposite of what it should be. teacher should be the big bounteous being of the community. Other people may get along tolerably by holding whatever small knowledge comes their way. A moderate stock will pretty well serve their private turn. But that is not our case. Supplying a multitude, we need wealth sufficient for a multitude. We should then be clutching at knowledge on every side. Nothing must escape us. mistake to reject a bit of truth because it lies outside our province. Some day we shall need it.—Prof. G. H. Palmer, in the April Atlantic.

President Charles W. Eliot, of Harvard: "More important than pensions for school teachers is better air in schoolrooms, expert instead of amateur supervision, and what the community needs also in its teachers is to have them become more robust and gayer persons. A pension for teachers, however, is not a serious additional burden on taxpayers. For in the increased efficiency of the teachers themselves, the account is more than equally balanced. I believe that the time of universal pensions is nearer at hand than many persons think."

The reason that birds do not fall off their perch is because they they cannot open the foot when the leg is bent. Look at a hen walking, and you will see it closes its toes as it raises the foot and opens them as it touches the ground.—Ex.

The Review is very interesting and a great help to me in my work. I find the pictures and our talks on them of lively interest to the pupils.

HOPE CRANDALL.

Bristol, N. B.

## Natural History for Little Folks. Our Daily Bread.

The bread and cake you eat at tea are made of flour by the baker, and the miller grinds this flour from the wheat which he buys from the farmer.

The farmer ploughs the field and sows little seeds of corn. A wheat seed is a tiny thing, smaller than the nail of your little finger, with a thin, hard husk, and white flour inside. In the midst of the flour there lies a very thin germ, not so big as a pin's head.

This germ sleeps in the seed like a baby sleeps in the cradle, but out of the tiny germ grows a blade as tall as a tall child, with roots and leaves below and an ear of wheat at the top. In the ear there are again many new seeds, more than the fingers on your hands, which have all sprung from the one seed which the farmer laid in the earth. The farmer sowed one sackful in the spring, but he brought home many full sacks in the autumn.

One seed is eaten by a beetle, another is carried by the field-mouse to her little ones in the mouse-hole, a third the lark eats for his breakfast, after which he sings a glorious song of thanks, and a fourth the sparrow swallows for his lunch, while the hen takes a few for her supper that she may lay another egg to-morrow. The doves and the geese have their share thrown to them, and the cow and the horse enjoy their feed of corn in their stalls, but there will still be many, many grains left, and of these are made corn-flour and vermicelli, besides coarse and fine flour for people all over the world.

#### A Young Monkey.

This little monkey was born in the crown of the highest palm tree where he was the only child of his devoted mother. Round about him swayed the delicate fans of the tree, bright clusters of blossoms and branches of fruit hung round his cradle, and the wind rocked it gently. The air was sultry, and the vast forest lay dark and quiet deep down below, with a tangle of plants covering the swampy ground. Pine apples, figs, and cocoanut palms grew there by the side of tall sugar canes. For a long time the young monkey clung to his mother's neck, till he had learned to climb alone along the swaying creepers that were slung from one tree to another, while exquisite butterflies fluttered round him and parrots greeted him with loud shrieks.

The old monkeys, his parents, took the greatest care of him, and his mother carried him down to the spring to wash his little face, which she did in

spite of his screams and struggles. Sometimes, when the monkey family was resting in the heat of the day, a glistening, poisonous snake would slide noiselessly up with murder in her heart, but father monkey, always on the alert, would spy it instantly, and give the signal for flight.

The little one was well taken care of, but, on the other hand, he had to learn the strictest obedience. When a lot of old monkeys were gathered together, discussing—who knows what?—and the little one popped his inquisitive head among the bearded elders, a tremendous box on the ear was his reward, that sent him, a howling, but wiser little monkey, back to his fond mother's arms. · She taught him to climb up and down the strings of twining plants, and, swinging by his tail, to seize the distant branch of a tree, and to hide behind the dark foliage. If a shadow stole over the leaves she disappeared with him, quick as lightning, into the thickest mass of creepers and showed him overhead the much feared eagle, who was ready to dive through the crowns of the trees to seize the unobservant with his deadly sharp claws.

Sometimes at night, in the forest tangle, something stirred, and two gleaming eyes glowed through the darkness. A jaguar was about to fall upon the sleeping monkeys on the tree, when they fled in terrified haste to the uttermost ends of the branches. There they hung by their tails and swung in mid-air where the robber could no longer seize them.

Another time, the mother showed her voung one where the sweetest fruit and berries of the forest were to be found, and taught him how to open the nuts and how to sort the kernel from the shell. At night they listened to the wonderful concert which the other monkeys were giving in the wide crests of a giant tree, twenty at a time sitting round about in the branches with the moon for their lamp and the sparkling fire-flies and glow-worms for candles. One bearded monkey would begin with an earsplitting howl, and sing uniformly and drearily alone for a time, till suddenly the whole chorus joined in with full strength, so that the uproar could be heard a mile off through the halls of the forest, and the sleepers about were aroused. Then the young monkey joined with the others in the song, and his mother was proud of her well-broughtup little son.

#### The Spider.

Once upon a time there was a little spider, who came from out of the garden into a room, and hid

behind a cupboard. There she sat all day in a corner and no one noticed her, but when it was dark and the people were asleep, she came out and began to spin a web on the wall. She had four big eyes and four little ones, and with these she could see as well by night as she could by day. She needed neither candle nor lamp to work by.

In her body she had spinning glands, and from them she spun thin threads, drew them this way and that and made a fine web of them. In it she meant to catch the flies that are so troublesome to people, and gnats that bite and worry children. With her eight legs she wove the threads into each other, putting little sticky knots upon them, and on these the flies and gnats were to stick with their wings as they flew by. Finally she wove at the end of the web, sheltered in the corner of the room, a little tube-shaped house for herself. In this she sat, looking out of the opening as if it were a window.

When morning came with bright daylight all was ready. She had worked very hard, and was as happy and as proud of her work as ever a spider could be. She had built her house well, and it was all neat and proper.

And now you might suppose that people took a delight in this industrious little spider, and admired the beautiful net which was to catch the tiresome flies. But you will see.

When the mother came into the room with her child, and saw the spider's big web and the spider, she took a broom, swept them off the wall, and threw them into the yard. "That spider had worked hard," she said, "and did more in this one night than many a man works in a week, but it did its clever work in the wrong place. It should spin its web in the yard or the garden, but not in the room. Do your work well, and do it where it is wanted."

An Irish priest had laboured hard with one of his flock to induce him to give up whiskey. "I tell you, Michael," said the priest, "whiskey is your worst enemy, and you should keep as far away from it as you can." "Me enemy, is it, Father?" responded Michael, "and it was Your Riverence's self that was tellin' us in the pulpit only last Sunday to love our enemies!" "So I was, Michael," rejoined the priest, "but I didn't tell you to swallow them."—Sacred Heart Review.

How the children did enjoy the picture in the March Review! G. Y. B.

#### A Spelling Test.

Infallible, liquefy, scandal, diamond, academy, glimpse, beggar, forfeit, internally, harangue, immense, financier, chief, malicious, heifer, pronunciation, ominous, rampant, assessor, lucid, vaccinate, ventilation, utterance, adverse, likelihood, assailant, indictment, Pennsylvania, biennial, pianos, martyr, vagrant, pyramid, verbal, grievance, Binghampton, salad, aqueduct, volcano, refer, referring, referred, reference, elementary, subtrahend, miscellaneous, preliminary, platinum, participle, convergence.

Have written on the blackboard in a corner that is not likely to be needed the name of every pupil in the room. Opposite each name, have five small squares, one for every day of the school week. Let each pupil, when he comes in, put a red mark after his name, if he is on time. If tardy, he must put a blue mark after his name, and if absent the square for the day is a blank. It is a very gratifying sight to the children to see a row of five pretty red crosses after their names, and the friendly rivalry which comes from it is a spur to their ambition to be regular in attendance, and to be right on hand by 9 o'clock every morning.—Ex.

A young Frenchman who was learning English while on a tour with an American attendant, exclaimed, "O my, I am all of a sweat!" "Miss Morceau," exclaimed her attendant, "never use that word again! Horses sweat. Men perspire. Ladies merely glow."

Dare to do right; dare to be true! The failings of others can never save you. Stand by your conscience, your honor, your faith,— Stand like a hero and battle till death.

-Wilson,

Be firm! One constant element in luck Is genuine, solid, old, Teutonic pluck.

-Holmes.

A smile, and then two merry eyes

To make the pleasantest of skies,
A laugh, or many, if you please,
To make the sweetest summer breeze,
All these, if used well and aright

Will even make a dark day bright.

—Phoebe Carv.

In life's small things be resolute and great To keep thy muscles trained; know'st thou when Fate Thy measure takes, or when she'll say to thee, "I find thee worthy; do this deed for me!"

-Lowell.

#### Number One.

"He is a number one boy," said grandmother, proudly. "A great boy for his books; indeed, he would rather read than play, and that is saying a good deal for a boy of seven."

"It is, certainly," returned Uncle John; "but

what a pity it is that he is blind."

"Blind?" exclaimed grandmother, and the number one boy looked up, too, in wonder.

"Yes, blind, and a little deaf, also, I fear," answered Uncle John.

"Why, John! what put that into your head?"

asked grandmother, looking perplexed.

"Why, the number one boy himself," said Uncle John. "He has been occupying the one easy-chair in the room all the afternoon, never seeing you nor his mother when she came in for a few minutes' rest. Then when your glasses were mislaid, and you had to climb upstairs two or three times to look for them, he neither saw nor heard anything that was going on."

"Oh, he was so busy reading!" apologized grandmother.

"That is not a very good excuse, mother," replied Uncle John, smiling. "If 'Number One' is not blind nor deaf, he must be very selfish indeed to occupy the best seat in the room and let older people run up and down stairs while he takes his ease."

"Nobody asked me to give up my seat, nor to run on errands," said Number One.

"That should not have been necessary," urged Uncle John. "What are a boy's eyes and ears for, if not to keep him posted on what is going on around him? I am glad to see you fond of books; but if a pretty story makes you forget all things except amusing 'Number Oue,' better run out and play with the other seven-year-old boys and let grand-mother enjoy the comfort of her rocker in quiet."

—Youth's Evangelist.

We punctuate to make written or printed matter easier to read. The punctuation indicates the relation of the clauses to one another. For example, yead this:

That that is not that that is not is not is not that it it is,

Now observe what punctuation with the proper inflection of the voice will do toward making the meaning plain:

That that is, is; that that is not, is not; is not that it? It is,

#### CURRENT EVENTS.

Het Volk, (the People,)—meaning, of course, the Boers as an organized political party,-have won in the elections in Transvaal; and Gen. Botha, one of the leading generals of the Boer side in the late South African war, is the new prime minister of the Transvaal Colony. The first parliament under the new constitution was opened on the 21st of March, both the English and the Dutch languages being used in the debates. That the same men who recently conducted the war against the British should have thus frankly accepted British sovereignty and be now enacting British laws for their country, loyal to their new allegiance and ready to build up a new South Africa under the British flag, is striking evidence of the wisdom of 'the British policy of granting self-government to new subjects at the earliest possible day. The Dutch premier of the Transvaal will probably meet the French premier of Canada in the Colonial Conference which is soon to assemble in England.

The little war in Central America seems to have ended with the defeat of Honduras and the triumph of Nicaragua; but Salvador and Guatemala may attack the victor, fearing that the strength of Nicaragua would endanger their independence. School children would like to see the map of Central America simplified; and will see it when the people of the unhappy little republics learn that there is a distinction between freedom and independence.

The famine in China is having a serious effect upon the political situation, and fears are expressed that it may lead to an uprising against the present dynasty. Prompt relief is asked from motives of humanity, as well as to avert the threatened outbreak of sedition. A general movement throughout the civilized world to aid the sufferers may be necessary, for the sufferers are many and the need is great. The viceroy of one province has asked for a million dollars for the purchase of food.

The spirit of progress is abroad in India. An extension of the representative element in the legislative councils, a larger employment of Indians in the higher offices of state, the development of resources and the encouragement of manufacturers and commerce are advocated; but the Mohammedans, who are numerically in the minority, are opposed to full representative government.

The Canadian parliament will close its session early this month, so that the premier and other members of the cabinet may attend the Colonial Conference in London.

Esperanto, the new international language, continues to make rapid progress. It is taught in many Japanese schools; and there is an Esperanto journal published in Peru. It has already been used in more than one international congress, and is coming into use in commercial correspondence. In France and England the movement to make it the medium of communication for foreign trade is especially strong. The London Chamber of Commerce offers a syllabus of examinations for commercial education certificates, in which French, German, Spanish, Portugese, Russian, Italian, Dutch or Esperanto is among the requirements for the junior grade; while for the senior two foreign languages, or one foreign language and Esperanto, are required.

"Around the World in Eighty Days" is still an interesting book, but the amount of time required for the journey could now be reduced by half. From Moscow to Vladivostok, over the Trans-Siberian railway, is a journey of a little less than two weeks. Less than a week is now required to make the journey from ocean to ocean over Canadian railways; and the journey across Europe to Moscow takes but two or three days, so all the overland travel can be done in three weeks. Another week gives ample time for crossing the Atlantic, and two more for crossing the Pacific, with two or three days to spare.

Fresh troubles in Morocco have caused the French cabinet to send troops to the seat of disturbance; the agrarian insurrection in Roumania is assuming alarming proportions, and there is another revolt in Venezuela. Of these, the latter movement is prohably of little moment beyond the bounds of Venezuela and the adjoining republic of Colombia; but the Roumanian and Moroccan conditions may have graver results.

Forty-six nations will send representatives to the conference which meets at the Hague at the close of next month. Only twenty-six were represented at the first Hague Conference. The first conference gave us the international court now known as the Hague Tribunal. If this second and greater conference gives us anything of greater importance to mankind at large it can be little less than the fulfilment of Tennyson's dream—the parliament of man, the federation of the world.

The old alliance between France and Russia, the good understanding which now exists between Great Britain and France, and the close alliance between Great Britain, Russia and Japan which is said to be now almost assured, would seem to forbid war either in Europe or in Asia. The British and Russian governments have agreed upon a joint course of action if foreign intervention in Persia becomes necessary. Italy, Spain and Portugal will support Great Britain and France in any action that is needed on the shores of the Mediterranean. Japan, rapidly increasing in strength, and India, unquestionably loyal to British rule, make peace in the Far East if there is no further danger of a renewal of the Russo-Japanese war. But neither international alliance nor peace conference can make armies needless so long as the red flag of Socialism in most European countries threatens internal war.

British rule has brought prosperity and confidence to the people of Northern Nigeria, of which vast region a Canadian officer, Sir Percy Girouard, has been appointed high commissioner. The country is rich in agricultural possibilities, and capable of producing immense quantities of cotton. The new commissioner's experience in railway construction in Egypt and South Africa will enable him soon to provide transportation facilities; and the native chiefs are said to be eager for the introduction of "the white man's slaves," that is, machinery. The authority of native chiefs will be maintained and regulated; and, as usual, British rule will conserve all that is good in the native administration.

A British explorer, Major Powell-Cotton, who has recently returned from Central Africa, reports the finding of six animals hitherto unknown to naturalists. They include a tiger cat about the size of a leopard, an antelope armed with tusks, a new black and white monkey, and a fuge red buffalo.

It is announced that the Dominion Government will build a railway to Hudson Bay as soon as possible to meet the urgent need that is now in plain sight for an additional and shorter railway route from the prairies to the water.

Oronhyateka is dead. His name will long be remembered in Canada as that of one whose character displayed the virtues of his race. As a representative of the Six Nations. in 1860, he read an address to the Prince of Wales, now King Edward VII, and so impressed his royal highness that he was invited to go to England to complete his education. Returning to Canada, he took up the practice of medicine. He sought admission to the order of Foresters, chiefly because only white men were before admitted, and he wished to break down the exclusion of the men of his own race. He soon rose to the head of the organization, which became the wealthiest among the fraternal orders in America. Great funeral display marked the passing of his body through Toronto, on its way to the Mohawk reservation where he had lived, and where it was finally laid to rest by his own people in the little hurial ground of the reservation,

The second Russian parliament is in session, and is quietly proceeding with its work. There is much reason to hope that its demands will be more moderate than those of the former assembly, and that the government will be ready to concede them.

#### SCHOOL AND COLLEGE.

Mount Allison University has appointed as Rhodes scholar for New Brunswick, George Douglas Rogers, of Sussex, N. B. Mr. Rogers possesses a union of the qualities, physicial, social, intellectual and moral, which are to be considered in the election of a Rhodes scholar. He is now at Harvard University where he is pursuing advanced courses in Latin and Greek.

To fill the vacancy in Truro, N. S., Academy, caused by Mr. W. R. Campbell's promotion to the inspectorate, Miss Jessie Campbell, B. A., of Baddeck, C. B., has been appointed until a permanent principal can be chosen.

The introduction of a measure providing for the establishment of an institute of technology has been post-poned by the Nova Scotia Legislature until next year.

A University Club has been formed at Wolfville, N. S., composed of the teachers of the three institutions of Acadia University, the object of which is mental improvement and recreation.

R. G. D. Richardson, B. A. (Acadia) and Ph. D (Yale), has been appointed assistant professor of mathematics at Brown University, and will enter on his duties in September next. Dr. Richardson is the author of several important mathematical works, is a member of the American Mathematical Society, and has recently been an instructor in mathematics at Yale University.

Dr. Geo. T. Kennedy, for more than twenty years professor of Natural Science at King's College, Windsor, N. S., died at Wolfville, March 1st. Dr. Kennedy studied at McGill University under the late Sir Wm. Dawson, and afterwards pursued a post-graduate course at Yale University. He was professor of Natural Science at Acadia, and afterwards at Kings College, which latter position he resigned on account of failing health about three years ago.

Mr. J. Arthur Estey, of Fredericton, who will graduate in June next from Acadia University, has been awarded the Nova Scotia Rhodes scholarship. Mr. Estey entered Acadia in 1902, winning the Freshman scholarship of \$60. He is a good musician, accomplished in field sports, and a thorough and capable student.

Mr. Hedley V. Hayes, late principal of the Alexandra school, St. John, has been appointed head of the manual training school which is to be opened in St. John at the beginning of the next school term. Mr. Hayes is an energetic and accomplished teacher, and may be relied on to make the new manual school a success. He is now finishing his course at the Normal Institute of Manual Training, Fredericton.

Mr. A. L. Dykman, principal of the Douglas Avenue school, St. John, has been appointed to the principalship of the Alexandra school, vacated by Mr. Hayes, Mr. W. R. Shanklin, of the Newman street school, St. John, has been appointed principal of the La Tour school; and Mr. J. G. McKinnon, teacher of grade six in the Leinster street school has been appointed head of the Newman street school. Mr. W. A. Nelson, principal of the La Tour school, becomes principal of the Douglas Avenue school.

Mr. J. Simpson Lord, recently the successful principal of the Fairville school, and for nearly a year teacher of grade eight of the St. John high school, has resigned to accept the position of bookkeeper for Ganong Bros., St. Stephen. His position in the high school has been filled by the appointment of Mr. Reverdy Steeves, for several years a teacher in Albert County, N. B., and recently a boot and shoe dealer in St. John.

Mr. J. R. Sugrue, for twenty-three years a faithful teacher in St. Malachi's Hall school, St. John, has been appointed a tide-waiter in the customs service of that city.

Mr. C. Stanley Bruce, lately appointed inspector of the Counties of Yarmouth and Shelburne, has been succeeded in the principalship of the Shelburne County Academy by Miss Mabel McCurdy, B. A., of Onslow, Colchester County, recently graduated with academic rank at the Provincial Normal School at Truro.

The historic town of Louisburg, C. B., is moving in the matter of providing better school accommodation. The present building does not furnish adequate facilities for the needs of the town and has been condemned.

Miss Mabel E. Bishop has been appointed vice-principal of Annapolis County, N. S., Academy.

Principal Peterson, of McGill University, announces that affiliation with McGill of Prince of Wales College, Charlottetown, P. E. I., is now an accomplished fact. This is considered along with British Columbia plans of McGill to be an advance step in the interests of higher education in the Dominion. The first two years' courses at these colleges will be accepted at McGill.

The education department of Ontario has decided to supply every rural schol in the province with a large Union Jack, upon which will be emblazoned the Canadian coat-of-arms. It is expected that this movement will help to develop patriotism and teach practical citizenship.

McGill University, Montreal, has decided to extend its medical course from four to five years, beginning with next September.

The University of New Brunswick Senate has decided to grant a retiring annuity of \$400 to Professor L. W. Bailey, which, with an allowance from the Carnegie Foundation, will afford a retiring pension of nearly \$1500 a year. Dr. Brittain, as lecturer in chemistry, was granted a gratuity of \$300. Philip Cox, Ph. D., principal of the Chatham grammar school and Mr. Geo. W. Bailey are applicants for the position to be shortly vacated by Professor Bailey. Dr. Cox is a capable teacher and an enthusiastic all-round naturalist. Mr. Bailey will shortly receive his medical degree from McGill University where he recently completed his studies with a creditable record in natural science.

The University of New Brunswick has established a chair of agricultural chemistry. The salary for the new position is \$1200 a year.

The annual convention of the New Brunswick Teachers' Association meets at Fredericton on April 1st.

Mr. Raymond Ellis, of St. Dunstan's College, Charlottetown, is the winner of the Rhodes scholarship for Prince Edward Island this year. There were three other competitors. Mr. Ellis, who will graduate from St, Dunstan's College in June, is twenty years of age, has an excellent record in scholarship and in athletics.

The debate between students of the University of N. B. and Kings College, Windsor, N. S., took place at Fredericton March 21, and was won by the U. N. B. students.

#### RECENT BOOKS.

Messrs. Houghton, Miffin & Company, Boston, have published in their "Riverside Literature Series" Thomas Carlyle's lectures on *Heroes, Hero-worship*, and *The Heroic in History*, edited by John Chester Adams, Ph. D., of Yale University; price, paper 45 cents, cloth 50 cents; and James Russell Lowell's *A Moosehead Journal* and other papers; price, paper, 15 cents. Both volumes are provided with notes, and that on Carlyle has a scholarly introduction well fitted to stimulate the beginner in the study of the author's thought and style.

Messrs. Adam and Charles Black, Soho Square, London, are publishing an authentic edition of Scott's novels with introduction and notes for school use. The text embraces corrections and improvements made by the author almost to the day of his death. The Talisman—the first of the set—is unique in style and binding; price, cloth 1s. From the same publishers there have been received selections of verse entitled Song and Story, for junior, intermediate and senior scholars—three volumes, paper, price 6d. each. The selections are all concise, from the best authors, and adapted for school recitations.

THE PRINCIPLES OF HORTICULTURE. Cloth, pages 166.

Price 2s. By Wilfred Mark Webb, F. L. S., curator of Eton College Museum. Blackie & Son, London.

This is a series of practical lessons, forming a useful introduction to horticulture or agriculture. Indeed, it is a very serviceable work for any student or for one who wishes to inform himself on the mysteries of plant life. With this little book as a guide, the structure and growth of plants may be followed with comparative ease by anyone desirous to make himself acquainted with plants. Hints are also given for microscopical and other experimental work as the student advances, and there is a chapter on injurious insects and how to destroy them. The diagrams and illustrations are especially noteworthy for their clearness and suggestiveness.



### Educational Review Supplement, May, 1907.



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St. John, N. B.

THE REVIEW is requested to state that all educationists visiting England during the week of the Federal Conference on Education in London, from May 24th to June 1st, will be cordially welcomed to its meetings.

THE picture sent out with the REVIEW this month is a copy of the well-known painting by West, "The Death of Wolfe." A prize is offered for the best composition on this picture. All papers must be sent in on or before May 14th to Mr. Hunter Boyd, Waweig, N. B. Competitors are requested to note that the composition is to be written on the picture, and not on the incident, as related in history.

A forestry convention will be held in Yarmouth about the end of this month. President R. H. Campbell, of the Dominion Forestry Association, has signified his intention to be present.

THE Eastern Teachers' Association of Prince Edward Island will hold their eighth annual convention at Georgetown on June 27th and 28th. An attractive handbook announces their programme.

WE have received the calendar of the Harvard Summer School, which opens on July 2nd and closes August oth. Courses are offered in over thirty subjects, and special facilities are given to teachers.

The provisional programme of the Dominion Educational Association, which meets in Toronto, July 9-12, has been received. The meeting promises to be of more than usual interest, including, as it does, sessions devoted to different departments-kindergarten, elementary, high school and training, and discussions and papers on matters of general interest in education. A full programme will shortly be issued. All meetings are to be held in the university building.

WE have received the very interesting report published by the Department of Mines of Nova Scotia on the Provincial Museum and Science Library of that province. The report deals principally with the collections of minerals and mineral products, and with the exhibition made in the Mines' building during the last Dominion Exhibition at Halifax, where 226 separate exhibits were shown, including coal, gold, iron, copper, lead and manganese ores, and many other minerals and mineral products. A full account is given of the finding of tin ore near Lake Ramsay, Lunenburg County, a most interesting discovery, tending, when taken with other indications, to strengthen the hope that workable deposits of tin occur in the province. There has been a noteworthy addition to the collection of fish. A tarpon measuring over five feet in length was taken in Harrigan Cove, Halifax Co. This fish, so well known to sportsmen in Florida, has not been taken before, so far as is known, on our coasts. science library has received a great many accessions during the past year, and a completed card catalogue adds greatly to its usefulness.

THE American Institute of Instruction will hold its seventy-seventh annual convention at Montreal, July 1st, 2nd, 3rd and 4th. General sessions will be held in the morning, followed by department sessions, which will be addressed by special authorities on the different subjects, both English and Canadian. The Provincial Teachers' Association and other educational organizations will join with the institute in this convention. Excursions to Ottawa, Niagara, Quebec and other points have been arranged for.

A WRITER in the School World for April discusses the very large preponderance of women teachers over men in the United States under the heads of (a) the effect on the curriculum, and (b) the influence on the character of boys. He quotes from different writers on both points. It is stated that women take less interest in scientific subjects than men, and that "the steady decrease in the proportion of boys who are studying chemistry and physics is due, in large measure, to the meagre scientific equipment of women teachers." often said that boys will learn refinement and selfcontrol from women teachers, but this is said to have no support in facts. An editorial in the New York Churchman points out that the task of controlling and guiding the energetic impulses of the boy can only be accomplished by a teacher who has himself experienced them. The woman teacher, on the other hand, is in the boy's world an alien, and is respected for her good qualities without being recognized as a pattern to follow. The conclusion reached by the writer of the article is that the employment of an excess of women teachers has no reason but an economic one. Women can be had cheaper than men.

THE Winnipeg Free Press contains full reports of the Manitoba Educational Association, which took place in Brandon, April 3rd, 4th and 5th. This association has grown out of the Provincial Teachers' Association, which, in changing not only its name but its constitution, has enlarged its scope, and aims at attracting all friends of educational progress. If we may judge from the list of speakers, and the interest of their speeches, this end has already been reached, for the addresses were not all by professionals, nor addressed to teachers alone. Among the topics discussed were: "Primary Education," "Municipal School Boards," Physical Training," and "The Aims of the High School." The burning question of "teachers' salaries" came

up. One speaker said that so long as the teaching profession continued to be only a passage to other professions, so long would there be a rush of young men and women in and out of teaching; and so long as that condition remained the salaries would never be worth talking about. This condition will remain as long as it is easier, quicker and cheaper to qualify for the profession of teaching than for any other profession.

#### Arbor Day.

Referring to a circular issued by the United States Department of Agriculture, the *Outlook* says:

The diversion of setting out a few trees and the exercises by which school hours are enlivened should be regarded as a means to an end rather than the end itself-an intelligent and lasting impression in the mind of the child. While isolated trees along the country roadside or in the city streets please the eye and cool the air with refreshing shade, the true message of Arbor Day is found in the forest, where wood is grown to supply material for houses, fuel, and industries, where the tree-protected soil is storing the waters for streams, to be used for quenching thirst, irrigating land, driving mills, or filling rivers deep so as to bear traffic. The forest is thus the producer and custodian of the necessaries of life. The science of forestry is based on the idea that exact knowledge makes it possible to co-operate with nature in bringing the forest to its fullest usefulness as a source of wood, as a protection to the soil, or as a natural reservoir. Arbor Day should be the occasion of imparting to children some simple forest laws; the planting of a few trees, without reference to the forest's productive value and commercial utilities, is certainly but a small part of the day's work. The normal child always loves the forest. Its mystery fascinates, It is the home of wild life. As every child is a natural investigator, the forest is an object of prime curiosity. But on Arbor Day the child needs to begin the study of forestry economics. As practical object-lessons those suggested in the circular of the Forest Service are valuable. For instance, what child has not seen a muddy freshet?—a sight common at this time of year. The stream is discolored by earth gathered from the soil, and rushes with force where there has been no forest cover. An experiment is suggested with fine and coarse soils stirred quickly into a tumbler of water and then allowed to settle, as explaining how a stream continues muddy while it runs swiftly and how it clears again as it slackens on more level stages, dropping the soil to the bottom. Again, flowers and seeds of trees are suggested as subjects of investigation. Many earlyflowering trees mature their seeds before the school year ends. It is interesting to note the adaptations by which the trees secure seed distribution; as, for instance, by winds, stream-currents, birds, animals. Hence, the world of flower and seed conveys nature's purpose to renew the forest and carry it undepleted from one generation to another. Finally, the circular contains practical suggestions as to planting. If every school-teacher should follow out the ideas as outlined by the Forest Service, the whole nation would be the gainer.

. . ! .

#### William Henry Drummond.

It is with sincere sorrow that we record the loss that Canada has suffered in the death of Dr. Drummond. Many a greater poet has been less mourned by his readers than this interpreter of the simple lives of the French Canadian peasant and farmer, this singer of the woods and streams of our own land. If we look for the secret of his successful appeal to all hearts, we shall find it in a comment made by a recent American writer: "Dr. Drummond had a wonderful faculty of idealization. Nothing that was human seemed mean to him." His poems are never merely funny, full of spontaneous humor as they are. There is always an appreciation of what we can recognize as best and highest in human nature, in his sketches of men and women. In his introduction to "The Habitant," he disclaims the idea of writing the verses as examples of a dialect, or with any thought of ridicule. He says:

Having lived, practically, all my life side by side with the French Canadian people, I have grown to admire and love them, and I have felt that while many of the English-speaking public know perhaps as well as myself the French Canadian of the cities, yet they have had little opportunity of becoming acquainted with the habitant, therefore I have endeavoured to paint a few types, and in doing this, it has seemed to me that I could best attain the object in view by having my friends tell their own tales in their own way, as they would relate them to English-speaking auditors not conversant with the French tongue.

The Canadian poet, Louis Fréchette, says of Drummond: "That in using the French Canadian dialect he has made an audacious attempt, but with that success which boldness often wins, that he is true to life without ever falling into vulgarity, and piquant without bordering on the grotesque." Mr. Fréchette also transfers to his friend the title of "pathfinder of a new land of song given to the French Laureate by the poet Longfellow."

Dr. Drummond made the following statements not long ago about his early life:

I was born in the West of Ireland, and came to the Province of Quebec at ten years of age, in the year 1864, when the lumbering interest was at its height. I lived in a typical mixed-up village—Bord à Plouffe—composed of French and English-speaking reftsmen or voyageurs—the class of men who went with Wolseley to the Red River and later accompanied the same general up the Nile—men with rings in their ears, daredevils, Indians, half-breeds, French-Canadians, Scotch and Irish-Canadians—a motley crew, but great river men, who ran the rapids, sang their quaint old songs—"In Roulant," "Par Derrière chez ma Tante," and "Dans la Prison de Nantes;" songs forgotten in France, but preserved in French-Canada. Running the rapids with these men 1 learned to love them and their

rough ways. As a boy I was always very fond of outdoor sport, fishing, shooting, etc., and have never "lost touch" with the class of men referred to. I wrote a lot of stuff in the way of verse, but never seriously, and much of it was lost.

Dr. Drummond was not, as we have seen, a Canadian by birth, but was born in County Leitrim in 1854, the son of an officer of the Royal Irish Constabulary. He was educated at the Montreal high school and at Bishop's College, Lennoxville. He graduated with honors in medicine in 1884, and began the practice of his profession. Of late years he has been devoting much of his time to business, and especially to the development of mines at Cobalt. His practice of reading his own verses in public made them much more widely and better known, and gave Canadians in different parts of the country an opportunity of meeting him. His best known poems are probably "The Wreck of the Julie Plante," "How Bateese Came Home," and "Johnny Courteau." He did not confine himself to dialect verse, though unquestionably his finest work appears in that medium.

#### New Brunswick, I Love Thee.

New Brunswick, I love Thee, the land of my birth; To me Thou'rt the fairest, the dearest on earth. The charms of no other with Thee can compare—So lovely the landscape, so bracing the air. Liberty's banner wide o'er Thee is waving, No cold-hearted lord from the peasant is craving. The ploughman is lord of the fertile domain, And Peace and Prosperity o'er us do reign.

I love Thy green hills, and I love Thy green valleys, Where beauty and pleasure the spirit inhales. Thy woodlands are gushing with music and song, And zephyrs are bearing the sweet notes along. I love Thy long evenings, when round the old hearth The family assemble with friendship and mirth. Go search where you will through America wide, Nowhere do the moments so peacefully glide.

Nor tell me of lands that are richer in gold;
To many this story has often been told,
And allured them away from their own happy home
Among strangers to toil and forever to roam.
New Brunswick, my country, there's gold in Thy soil,
If only we for it would contentedly toil.
And pleasure and plenty shall crown all our days,
And glad-hearted people shall sing to Thy praise.

[Sent by Miss Albina C. London, Upper Woodstock, N. B. (author unknown.)]

Your paper contains many valuable suggestions, and if I have made any success of teaching it is largely due to reading the EDUCATIONAL REVIEW.

Shediac Cape, N. B. H. S. P.

# Nature Study for May. Protection of Native Plants and Birds. By G. U. HAY.

In the last number of the Review reference was made to the importance of forming among the pupils of our schools clubs for the protection of our birds and plants. In the neighborhood of large towns and cities many beautiful and interesting native plants have been almost exterminated by the practice of picking and exposing them for sale on the streets and on railway trains. Among these is the Mayflower, which has a charm for everybody on account of its delicate beauty and fragrance. In many cases its runners are pulled up bodily, the flowers picked off and the runners left to perish on the ground. This is a needless waste even where the Mayflower grows in profusion. It is a slow grower, very difficult, if not impossible, to cultivate. There is no necessity, in picking the flowers and a few leaves, to disturb the runners which would thus grow on from year to year and yield fresh beauties to delight children and grown people for generations yet to

Nature produces her flowers in such profusion that they may be picked year after year without injuring the plants, if gathered without disturbing the roots or taking too many leaves. It is by their roots and leaves that plants are able to take raw materials from soil and air and make food for themselves in the sunlight. If roots are disturbed and too many leaves picked off, the plants either perish or become puny and sickly looking.

Great destruction is caused among evergreen trees by cutting them for decoration at Christmas in churches and houses; and of late years great quantities of fir and spruce trees have been exported from these provinces to the larger cities in the United States for Christmas decoration. It is only the most shapely trees that are taken, and this cutting out, if the demand for such trees increases, will seriously affect our young forest. This is especially true of the regions near our towns and cities where the ravages are seen, in the growing scarcity of shapely evergreens as well as of the daintiest of the wild flowers.

"My little girl so loves wild flowers that she can't resist the temptation to pick all she can find," said a fond mother to me one day as we were walking among some rare wild flowers in a chosen spot. I said nothing, but thought that the "little girl" (about ten years of age) was depriving others who should visit the spot of seeing these rare flowers and enjoying their bloom.

This is one instance of mere thoughtlessness on the part of those who gather the choicest of our wild flowers. They do not think that these, if left growing, would afford enjoyment to other passersby, and preserve for weeks the beauty of some chosen spot in nature.

Such flowers as the violets, dandelion, fawn lily (adder's tongue), trilliums, spring beauty, bluets, and others may be gathered in more or less abundance, especially such weeds as the dandelions, bluets and daisies, which are such favorites with children. But it is well that children and many grown people should know that it is considered an act of vandalism to pick too many of the rarer wild flowers which adorn the beautiful places in nature, wherever they are found, and which would add to the comfort and enjoyment of many other people as well as themselves. Take just a few and leave the others. They will look much prettier on their stalks than if picked and perhaps scattered along the roadside to wilt and die.

In Massachusetts, where the extermination of rarer wild flowers is more threatening than it is with us, societies are being formed for the protection of native plants. Leaflets may be obtained by addressing Miss Maria E. Carter, Society of Natural History, Boston, giving information as to the objects of such a society. In one of these leaflets Professor George Lincoln Goodale, of Harvard, says:

It is difficult for persons who are unacquainted with the facts to realize how rapidly certain species of plants and animals can be driven out even from favored localities. The almost complete disappearance of our wild pigeon, which was formerly common throughout large districts in New England, shows that the balance of nature is easily disturbed. Many species of our most attractive plants are likewise threatened with at least local extinction, and these plants have not the forlorn resource of migrating on wing or foot to escape their enemy, man.

It seems very strange that the danger which threatens these charming plants, such as our Mayflower, two of our gentians, some of our orchids, and the like, should spring from the fact that they are charming beyond their companions. They form such wonderful masses of color when grouped together as cut flowers that it is hard to resist the impulse to make these masses as large as possible. But .....those who are true lovers of flowers will content themselves with a lighter draft on the fields and meadows.

In many parts of Great Britain and the continent, local associations have been formed to protect the wild flowers which are on the verge of extinction. In Switzerland the success of such combined action has been marked, and there are now very few malcontents. It is generally recognized that the appeal to protect the rarer flowers was based on sound judgment.

In New Brunswick, where thirty or forty years ago there were great flocks of wild pigeons, only a few scattered ones may now be seen. Dr. J. Orne

Green, in a recent paper read before the Natural History Society of New Brunswick, on the gamebirds of Miscou Island, N. B., records that all varieties of birds are much less numerous there than formerly, while some have almost abandoned the ground. One cause of this is indiscriminate and injudicious gunning. He also states, on the authority of Mr. Chas. Wilson, that "eighty years or more ago wild geese bred upon the barrens, and it was the custom of the Micmac Indians to visit the island during the moulting season and destroy large numbers of them with clubs when they were unable to After one such raid, more determined than usual, the geese as a body abandoned the island as a breeding ground." Other game-birds, and the beautiful snipe found along our shores, are threatened with extinction, owing to the indiscriminate slaughter of "pot-hunters" and thoughtless sportsmen (?). These should be protected.

#### Rise Above Children's Poems.

We are doing wonderfully well the work of interesting the children in stories and poems adapted to their life, but we do not follow this up, as we should, in such a way as to lead them to love adult poems and other writings. Transferring the child to manly interests and taste in reading, the most difficult of all achievements.

Unwillingly we cultivate arrested development in the literary taste of children, and the remedy for this is not easy. There must be a remedy, and it must be found, regardless of the difficulties in the way. It signifies little that children like poems for childhood. They must in some way be led to love literature for adults when they become adults.

This can be done if they are led to choose for themselves from all the writings of an author. We send a child to a dictionary which has hundreds of thousands of words that he will not use. We no longer allow a student to use a "simplified" vocabulary in the back part of his Latin book, but make him go to the complete lexicon and select for himself the meaning of the word in this connection.

Providing a child with a book of selections adapted to his grade, or providing him with specific selections, will never lead him to read anything in after life that is not selected for him and served up to him. Let him look over the poems of Longfellow until he finds what he likes and appreciates, and then all through life he will do this and will select poems of his adult interest as he now selects those of child interest.

In all phases of school work we are inclined to serve cheap feed to the children. We are grading all initiative out of their life. Some radical reform is necessary. This is a good place to begin.

We heartily echo the main contention of this extract from *The Journal of Education*, but we think that the words that we have italicised suggest where the difficulty lies. No transference of taste and

interest ought to be necessary. Interest the child from the first in poems and stories that he will find interesting later on.

#### See What Children Say.

How many teachers can match these stories from their own experience?

#### WHISKERS.

The teacher of the Sunday-school class was telling the little boys about temptation, and showing how it sometimes came in the most attractive form. She used as an illustration the paw of a cat.

"Now," said she, "you have all seen the paw of a cat. It is as soft as velvet, isn't it?"

"Yesem," from the class.

"And you have seen the paw of a dog?"

"Yesem."

"Well, although the cat's paw seems like velvet, there is nevertheless concealed in it something that hurts. What is it?"

No answer.

"The dog bites," said the teacher, "when he is in anger, but what does the cat do?"

"Scratches," said a boy.

"Correct," said the teacher, nodding her head approvingly. "Now, what has the cat got that the dog hasn't?"

"Whiskers!" said a boy on the back seat.—The Alliance.

Pounding Grammar into Him.

A certain little boy in a village school had fallen into the habit of saying 'I have wrote' and 'I have went.'

The teacher tried in several ways to break him of the habit, but all in vain. So one day she had him remain after school and write the two phrases one hundred times each, thinking that in that way he would surely remember to say 'I have written' and 'I have gone.'

A few minutes before he had finished his task the teacher was called out of the room. She told him to remain until she returned. When she returned she found on the desk the phrases correctly written one hundred times and beside them a note saying:

'Dear teacher—I have wrote "I have written" one hundred times and I have went home.'—Judge's Library.

I can see a steady improvement in your valuable paper. Loyalty to our own schools ought to demand that our teachers take the REVIEW first.

-Subscriber.

#### May Days.

By ELEANOR ROBINSON.

Victoria Day is our "May Day" in this part of the world, bringing with it not only thoughts of our Queen, of happy memory, but also the rejoicing at the return of spring, celebrated by a rush to the country of all town dwellers. The May day of literature, the first day of the month, is, in our climate, generally more reminiscent of winter than prophetic of summer. The trees are still bare, flowers are hardly to be found, often a snowbank lurks here and there in spots sheltered from the sun. We have to shut our eyes to our surroundings in order to enter into the spirit of the poets of lands where spring comes carlier, where they sing of "Sweet May, the month of flowers," "May that mother is of Moneths glad."

The celebration of the return of warmth, long days, and vegetation, on or about the first of May, is a very widespread custom. The Romans had games in honor of Flora, the goddess of flowers, beginning late in April and going on to the first few days of May. The northern Celts had rejoicings in honor of the return of the sun, which took the form of lighting fires on the hill tops, and singing and playing games about them. Among the English, we find the custom prevailing among people of all classes of going forth to the woods and fields, either on the night of the 30th of April or early on May morning, and returning carrying boughs and flowers, with which they decorated their houses, especially the doors and windows. The earlier poets, especially Chaucer, are full of references to this "doing observance to May." In many places a May Queen was chosen from among the girls, usually one noted for beauty and goodness. custom is commemorated in Tennyson's "May Queen," and in one of Maria Edgeworth's stories. The Maypole, round which dances and games took place, was a permanent erection in many English parishes. One of the London churches, St. Andrew, Undershaft, actually took this name from the fact that the Maypole raised in front of it overtopped the church steeple. A very famous Maypole was that which stood in the Strand, and was 134 feet high. The Puritans opposed the May day customs, as they did all games and festivities among the people. And no doubt abuses had crept in, and undesirable practices had become part of these celebrations. Many Maypoles were destroyed in Cromwell's time, but the Strand Maypole was taken down and kept in safety until the Restoration, in

1660, when it was put back in its place with great ceremony and rejoicing. In 1717 it was found to be decaying, so it was taken down and presented to Sir Isaac Newton.

Pope mentions it in the lines:

"Amidst that area wide they took their stand, Where the tall Maypole once o'erlooked the Strand."

And a humorous poet of the eighteenth century writes:

"What's not devoured by Time's all-conquering hand? Where's Troy? And where the Maypole in the Strand?"

After the Restoration the May day festivities were revived, but they gradually fell into disuse among the better classes, and were celebrated only by village children, milk maids and chimney sweeps. In some places the children dressed a doll as May Queen, and carried her about in a sort of bower, singing songs and begging small contributions. This custom also prevailed in France.

In all the colder countries of Europe, May day games were usually more or less typical of the contest between winter and summer. In some parts of England they were connected with Robin Hood and his band.

The 29th of May used to be called Oak Apple Day, and to be celebrated in memory of the Restoration of King Charles the Second, and of his escape by hiding in an oak tree. After the battle of Worcester, in September, 1651, the King attempted to escape into Wales, but was forced to lie in hiding at Boscobel, in Shropshire, where he and one of his officers spent a whole day among the branches of an oak, whose thick leaves concealed them from the parliamentary troopers who were riding about in search of them. Tennyson, in "The Talking Oak," speaks of

"That remembered oak
Wherein the younger Charles abode
Till all the paths were dim,
And far below the Roundhead rode,
And hummed a surly hynn."

The 29th of May was the date of King Charles' entrance into London in 1660. It used to be observed in the church by one of the "state services," which were discontinued in 1859. It was a common custom for men to wear gilded oak leaves or oak apples on that day. A writer in Blackwood's Magazine, writing as late as 1857, says:

Never forget, if you wish your children and grandchildren to be dutiful and good, to keep the twenty-ninth of May as a festival in your family, and never let them go abroad without a gilded oak-apple in their button-holes.

### Nature Study for Teachers in Vacation.

By J. BRITTAIN.

In the leafy month of June you must decide where you will spend the summer vacation. Many will go to the country, or remain there for a few weeks. But how to spend your time there is the more important question.

You will do some reading, but don't do too much, and let us hope that it will be well chosen. You will take pleasant drives, and enjoy the country air and scenery. You will take a friendly interest in the life and occupations of the country folk. But if you wish to make the most of your vacation, both of refreshment and vigor, physical and mental, you will try to get down close to nature in some of her forms or phases-see them without being shown, and interpret them without being told. Select one or two subjects of investigation, and follow these up closely, but not to the point of fatigue. You hear a bird singing in the trees near the house on several successive mornings. Study this bird. Get close enough to it to see its colors and their distribution. Find what it eats. Discover its mate and their nest. Observe the habits of the bird family till the young leave the nest and depart.

A neighboring pool will furnish interesting studies in plant or animal life. Many wonderful adaptations to a limited and special environment may be made out. The inhabitants of the pool may be studied as a community, or a few species may be selected for thorough investigation.

A near-by wood offers an example of an organized plant society—the dominant trees, the bark flora, the undergrowth of herbs, shrubs and young trees, and the subterranean flora. The interdependence of these zones or ranks upon each other demands careful observation and thought. A typical collection should be made from each. A bog or a marsh may be studied in the same way. If you cannot identify some of the animals or plants, send accurate descriptions of them, or specimens, to your local Natural History Society, to the Geological Survey at Ottawa, or to Dr. Fletcher, of the Central Experimental Farms. In the case of a bird, a description will be quite sufficient.

One such study may be enough for one vacation, and if pursued in a rational and thorough way must yield excellent results, both subjective and objective. The very fact of having a definite and immediate purpose for which to live and move is bracing and stimulating to body and mind. You will return to your school with a keener zest for attainment, and the research work you have done will make itself felt in your methods, especially in the nature lessons.

#### Botany in Schools.

BY JOHN WADDELL

I have already contributed articles to the Educational Review on the study and the teaching of botany in our schools, I trust with some good results; but I feel that much further improvement is possible, and should be striven for.

Perhaps one of the most notable features of the papers sent in by candidates in the examinations of Grade IX in Nova Scotia is a lack of appreciation of what is required in the questions. An example showing this lack in an exaggerated degree was given in a reply to the request to describe any tree valuable for its wood under the following heads: bark, style of branching, leaf, flower and fruit. It is evident that the character of the wood was not involved; but one candidate's entire answer was on that point, and the information was of a novel kind, especially in the sentence, "The cedar is sometimes used for coffins, as it will rot easy."

Pupils should be trained to get at the intention of a question, and then to answer in the best way. A child that grows up in the country should learn to distinguish different trees in his neighborhood, and he should be able to describe the differences. Any boy or girl in the Annapolis Valley ought to be able to distinguish an apple tree from a cherry tree, and should know the main characteristics of each. In parts of the country where pine and spruce and fir are found, pupils in the schools ought to be able to describe these trees.

The subject of botany is too wide for pupils to cover the whole ground. The questions asked in Grade IX would constitute a different paper, provided the whole were to be answered; but there is always such a choice given, that the pupil having done reasonable work would find several questions that he should be able to answer quite enough to give him a high mark. Thus teachers are given considerable latitude, and if they are specially interested in any particular department of the subject, they may interest the pupils in that department. For the most part, flowering plants are taken up in the schools; but if a teacher is specially interested in non-flowering plants, he can devote himself largely to them. But it is required that the knowledge should be definite. If ferns are studied something more definite than that they are small plants with green branching fronds and no flowers is to be expected. The peculiarities of wood tissue, the mode of unfolding of leaves, the arrangement of spore cases, the method of reproduction, and other characteristics distinctive of ferns should be

thoroughly understood. It is not likely that ferns will be studied except in places where there are varieties of ferns, and the differences should be familiar to the pupils. What has been said about ferns applies, to a certain extent, to mosses, lichens and fungi. What peculiarities has the mushroom that put it into the class of fungi?

It is hardly safe to depend entirely upon the non-flowering plants, though last July there were two questions upon them and fair answers to these, together with a reasonable reply to one of the three questions on physics, would ensure the minimum marks required of teachers, and might even reach full pass marks. Something should, however, be learned about the flowering plants, the general structure or the different tissues, or some of the important individual plants.

I think, and I believe it is the opinion held in the education department in Nova Scotia, that for the grade in which botany is the science required, observation of common plants, with a careful examination of the similarities and differences, is of the greatest value; but if it were found that some teachers took a special interest in physiological botany, and were able to interest the pupils in that part of the subject, in how the root grows and penetrates the soil, how sap flows, how the food is absorbed from soil and air, and how it is changed into the material of the plant, I feel sure that such teachers would receive encouragement by questions of that nature on the examination paper. What is wanted is that a fairly reasonable ground should be covered, and covered systematically. In order that teachers should learn how vague the knowledge of pupils frequently is, I know of no better way than to test them on some of the questions of the last few years. I should suggest that the class be given any of the recent papers, and each of the pupils asked to answer in writing in quarter of an hour the one question he can answer best. Let the answers all be examined by the teacher. wards let each of the class answer the same question as before, but this time using all sources of information available; if in the case of describing a plant, it will be best of all to have the plant before him, but let him use books as well. This might be a home exercise. Then the several questions should be gone over by the teacher in class, errors being pointed out and omissions noted. By this time there should be several questions that the pupils would know pretty well. Then other questions might be taken up in a similar manner. If the papers of the last half dozen years were gone over in this way, using them as a test, and for the purpose of training in thought and expression, I am sure that the papers handed in at the provincial examination would show a marked improvement.

Don't try to cover the paper. Leave out the questions that are off the line of the work in the class. For instance, in a school where flowering plants are studied, leave out questions on flowerless plants. Where definite plants are described, see that distinctive characteristics are given.

If any reader imagines that I am providing an easy mode of passing examinations by cramming up answers to former examination papers, I may say that my object is quite otherwise; and in examining the answers I should try, as far as possible, to prevent such tactics being successful. But it is well for the teacher to test his scholars along the lines on which he will be tested at the provincial examination, and old examination papers may be made educative. The thing the education department aims at, is that the subject should be properly studied, and that the pupil who studies properly should obtain a good standing. Any pupil who conscientiously went over the last half dozen examination papers, and tried to learn as much from them as possible, and who received the help of even a moderately helpful teacher, would, I venture to say, have a better knowledge of botany than ninetenths of the candidates now have; and I should hope that at the provincial examinations he would reap his reward. Only let him not try to guess at what he will be asked at the next examination, and strive to learn the smallest amount that will give a pass. In that case, I trust that he also will reap his just reward.

Three of the interests which are strongest during a child's early years at school are the interest in spoken language, the interest in finding out things, and the interest in making things, or construction. If this be so, then we should, during a child's early years at school, devote more time to narrating to him the history of his country and tales of adventure, and to getting him to repeat them in his own words. We should, in every possible way, give the child a knowledge of the world lying round about him; and there should be suitable manual occupations at every stage of the elementary school.—Alex. Morgan, D. Sc., Edinburgh.

# . Geometrical Drawing. - V.

BY PRINCIPAL F. G. MATTHEW, TRURO, N. S.

As stated in the December Review, the series of exercises in Practical Geometry was prepared for the last four grades of the common school. At the request of several teachers, who expressed a wish to carry such work into the first year of the high school, so as to form a direct connection with the study of theoretical geometry, the exercises given herewith were prepared. They are only samples of many such, and deal with proportion, areas and the ellipse.

Fig. I. To find the fourth proportional to three given lines.—Let A, B and C be the given lines. Draw two lines OM and OQ, making any acute angle. Set off on them ON equal to A, OP equal to B, and NR equal to C. Join PN. Through R draw RS parallel to PN. Then PS is the fourth proportional; A: B:: C: PS.

Fig. 2. To find the third proportional to two given lines.—Draw OM and OQ as before. Set off OP equal to A, and ON and OQ equal to B. Join PN, and draw QM parailel to PN. Then OM is the third proportional; or A: B:: B:OM.

FIG 3. To find the mean proportional between two given lines.—Let AB and C be the given lines. Produce AB to D, making BD equal to C. Bisect AD in O. With centre O, draw the semicircle AED. At B erect perpendicular BE. Then BE is the mean proportional; or AB: BE:: BE: C.

FIG. 4. To divide a given line into extreme and mean ratio.—Let AB be the given line. At B erect perpendicular BC equal to half AB. Join AC. With centre C and radius CB, draw are BD. With centre A and radius AD, draw are DE. Then AB: AE: AE: EB.

FIG. 5. To divide a line proportionately to a given divided line.—Draw the two lines parallel to one another, as AB and CD. Join the ends and produce these lines to meet in E. Join E with each division of the divided line E1, E2, etc. These lines crossing AB divide it proportionately or similarly to CD.

Fig. 6. To construct an isosceles triangle in which the angles at the base shall be double the vertical angle.—Given one of the sides AB. Divide AB into extreme and mean ratio at E. With B as centre and radius BA, describe are AF. With A as centre and radius AE, describe are EF. Join AF and BF. ABF is the triangle required.

This and the following exercise are excellent

examples of the use of dividing a line medially. (Fig. 4).

Fig. 7. The same as Fig. 6.—Given the base AB. Bisect the base AB in C. Erect perpendicular CD equal to AB. Join BD and produce to E, making DE equal to half the base. With B as centre and radius BE, draw are EF cutting CD produced in F. Join FA, FB. Then FAB is the triangle required.

This problem will be recognized as that employed in the construction of the pentagon. (Fig 20, Gr. VII).

Fig. 8. To reduce a given triangle to another triangle of given height, but equal area.—Let ABC be the given triangle, and D the given height. Draw EF parallel to AC at a distance from it equal to D. Produce CB to G. Join GA. Through B draw BH parallel to GA. Join GH. Then GHC is the triangle required.

FIG. 9. To construct a rectangle equal in area to a given triangle.—Let ABC be the given triangle. Draw perpendicular BD. Bisect BD in E. Through E draw FG parallel to AC meeting perpendiculars from A and C. Then AFGC is the rectangle required.

Fig. 10. To construct a square that shall be equal to the sum of two squares.—Let AB and C be the sides of the two given squares. At A draw AD equal to C and at right angles to AB. Join BD. Then BD is the side of the square required.

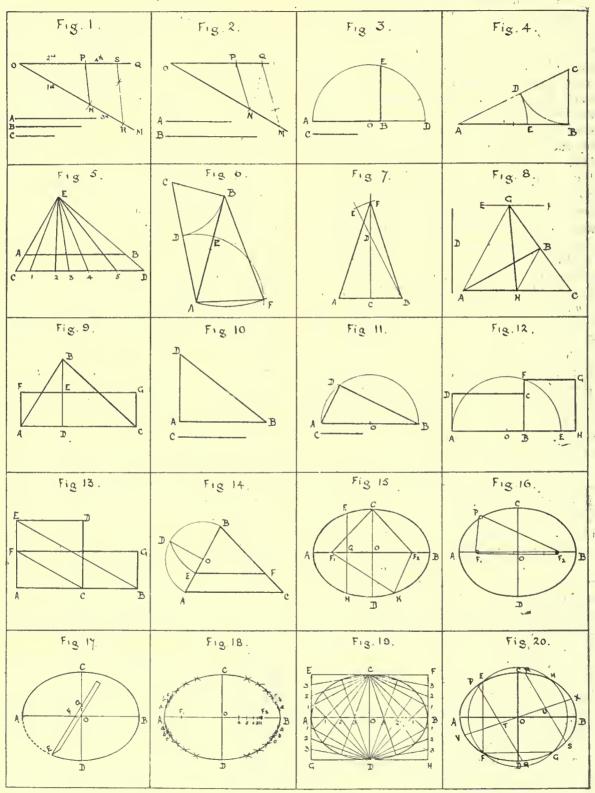
Fig. 11. To construct a square that shall be equal to the difference of two squares.—Let AB and C be the sides of the given squares. Bisect AB in O. From centre O draw semicircle ADB. From A as centre and radius equal to C, draw are cutting at D. Join DB. Then DB is the side of the square required.

FIG. 12. To construct a square equal in area to a given rectangle.—Let ABCD be the rectangle. Produce AB to E, making BE equal to BC. On AE describe a semicircle. Produce BC to cut the semicircle in F. Then BF is one side of the required square.

Fig. 13. On a given line to construct a rectangle equal to a given rectangle...Let AB be the given line and ACDE the given rectangle. Join BE. Through C draw CF parallel to BE. Through F draw FG parallel to AB, meeting a perpendicular from B. Then ABGF is the rectangle required.

Fig. 14. To bisect a triangle by a line drawn parallel to the base.—Let ABC be the triangle. Bisect AB in O. On AB draw a semicircle ADB.

GEOMETRICAL DRAWING. V.



From O draw OD perpendicular to AB. With B as centre and BD as radius, draw the arc DE. Through E draw EF parallel to the base. The line EF bisects the triangle.

Fig. 15. The Ellipse.—Explanation of terms. ACBD is called the curve of the ellipse. O is its centre. Any line passing trhough O terminated at both ends by the curve is a diameter. AB and CD bisect each other in O, and are perpendicular to each other. They are the longest and shortest diameters, and are called the axes. AB is the major axis or transverse diameter, and CD is the minor axis, or conjugate diameter. If the distance AO be taken as radius, and from C or D as centres, arcs cutting AB in F1 and F2 be drawn, either of these points is called a focus of the ellipse.

A line like EG at right angles to the transverse, but not passing through the centre, is called an ordinate. EH is a double ordinate.

The points A and B are called the *vertices*. The distance of the centre from the focus, as OF1, or OF2, is the *eccentricity* of the ellipse.

The most important property of the ellipse is that if any point K be taken in the curve, the sum of KF1 and KF2 is equal to AB the transverse diameter.

Fig. 16. Given the lengths of the axes to draw the ellipse.—String and pin method. Draw AB and CD the given lengths, bisecting each other and mutually perpendicular. With D as centre and AO as radius, mark the foci Fi and F2. Drive a pin into each of the three points, C, Fi and F2. Tie a string tightly round the three. Remove the pin at C and insert in its place a pointed pencil. By carrying the pencil round, keeping the thread tight, the point will strike an ellipse through the points A, B. C and D.

Fig. 17. The same as Fig. 16.—Trammel method. Draw the axes as before. Take a piece of paper with a straight edge and on it mark EF equal to CO, and EG equal to ΛΟ. Place the strip as in the figure so that F is on the major axis and G on the minor. E will then be on the curve. By moving the strip round, always keeping F and G on the major and minor axis respectively, any number of points in the curve may be found. Sketch the curve freehand through these points.

Fig. 18. The same as Fig. 16.—Method of intersecting arcs. Draw the axes and mark the foci. Take any number of points between O and Fi or F2, and number them as in the figure. They should be close together near the focus and spaced wider near

the centre. Take the distance A1, and with centres F1 and F2 describe arcs at a, a, a, a. With distance B1 and the same centres cut the other arcs. Take the distance A2 and B2 and form the focal points, make arcs intersecting at b, b, b, b. Similarly with distances A3 and B3 make arcs at c, c, c, c, and so on with the rest of the points. Sketch the curve through the intersecting arcs.

Fig. 19. The same as Fig. 16.—Method of intersecting lines. Draw the axes as before. Through ABC and D draw lines parallel to the axes, to form the rectangle E, F, G, H. Divide AO and AE into the same number of equal parts. From C draw lines to the divisions on AE. From D draw lines through the divisions in AO until they meet the former lines, DI meeting CI, D2 meeting Ce, and so on. Through these points of intersection draw the curve CA, which will be one-fourth of the ellipse. Treat the other quarters in the same manner to complete the ellipse.

FIG. 20. Given the ellipse to find the centre and axes.—Draw any two parallel chords PQ and RS. Bisect these in T and U. Through TU draw the diameter VX and bisect it in O. This is the centre. From O with any radius to cut the curve draw a circle EFGH. By joining these points a rectangle will be formed whose sides are parallel to the axes. Through O draw AB parallel to FG and CD parallel to EF. AB and CD are the axes.

The softly warbled song
Comes from the pleasant woods, and colored wings
Glance quick in the bright sun, that moves along
The forest openings.

—H. W. Longfellow.

Under the hedge by the brawling brook
I heard the woodpecker's tap,
And the drunken trills of the blackbirds shook
The sassafras leaves in my lap.

-Atice Cary.

The wild things of the wood come out, And stir or hide, as wild things will, Like thoughts that may not be pursued, But come if one is calm and still.

-Edward R. Sill

All things are new—the buds, the leaves,
That gild the elm-trees nodding crest,
And even the nest beneath the eaves—
There are no birds in last year's nest!
—Henry W. Longfellow

We sit in the warm shade and feel right well How the sap creeps up and the blossoms swell; We may shut our eyes, but we cannot help knowing That skies are clear and grass is growing.

—James Russett Lowett

# Self-Activity the Developing Force of Fræbel's System.

MRS. C. M. CONDON.

Freebel has not only shown us that the recognition and application of this law of unity to education is a necessary condition of success, but he has also set in a very clear light the fact that the child, in conformity with its provisions, carries within himself the means of securing his own development. These are the natural instincts common to every child, and they reveal themselves, more or less satisfactorily, through his own self-activity.

But these instincts are, at first, blind, and often erring, therefore they need guidance, careful fostering, without undue interference. Nor must the physical instincts be alone guided, with the sole aim of first making "a good animal;" but we must take to heart the fact that the mental, moral and spiritual instincts of the child are just as implicit in his nature, and however dim and uncertain they may appear, they must receive attention, and be gently drawn out, and, by exercise, gain the strength necessary to raise them from blind, unreasoning instincts to conscious intelligence, to spontaneity, and to increasingly happy and fruitful action.

If this achievement by the child were an impossibility, he would be a startling exception to the law of unity, for every other form of life, vegetable and animal, can only be successfully reared by adapting our methods to the natural tendencies of the plant or animal which we are attempting to bring to perfection. Even crystals show their inherent qualities (inward nature) by their arrangement of planes and angles to a predestined form.

If, then, this universal fact of inward development, by outward manifestation, be true of that part of the creation which bears the stamp of necessity, what reason have we to doubt that the same condition holds good in the child, who bears within himself forces, greater in number, power, diversity and aim? But the helplessness of the child blinds all eyes, but those of love and wise experience, to the forces that lie dormant, waiting for the impulse of his own self-activity, which must be gently led into the right path, until it acts intelligently and habitually with increasing foresight as to results. Repeated acts thus form right habits which crystalize into good conduct, and thus produce a noble character.

The stress laid by Frœbel upon the right training of the child, from the very earliest period, ought to

seriously engage the attention of our teachers, because it was the matured judgment of a man who was gifted with marvellous powers of analysis, and who had closely and critically studied all the processes of education, beginning with schools, and proceeding to a survey of university methods, and then, going backward, through every preceding grade, in order to find out the weak spot in organized education, of which he was so painfully aware.

His was not a mere outside amateur view, but that of a teacher with a practical experience, who had taught in schools, and as a private tutor, who had been three years with Pestalozzi, then the cynosure of the educational world, and who in his own schools, where he had a free hand, so that he could rectify errors and supply deficiencies. But there was one obstacle that he saw must be removed, if human education was to justify itself in its products, not here and there only, but to prove itself a factor in the elevation of the whole mass of humanity. The kindergarten was his supreme effort to remove the obstacle that stood in the way of progress, by taking the child at a period, when he was usually left without regular training, being simply allowed to drift aimlessly until such time as the school received him to tax the patience and ingenuity of the teacher. This obstacle-neglect of early training—can never be entirely removed until mothers are thoroughly trained to the intelligent performance of their duty, at once so difficult and But the kindergarten bridges the delightful. chasm between home and school, and proves itself, at the same time, a corrective of many faults caused by neglect at home, and a most efficient preparation for the school. The truth of this statement will be confirmed by those teachers who have ever had the good fortune to receive their pupils from a wellconducted kindergarten.

The kindergarten develops the child's inner nature through and by the most varied methods of expression, in speech, gesture, song, circle games, gymnastics, most carefully arranged to exercise, but not to overtask the child's strength and interest.

The ceaseless activity of childhood is not allowed to run to waste, nor to display itself in mischief and destructiveness; but while the individuality of the child is most sacredly preserved, conditions are skilfully prepared and suitable material provided on which the little one can expend his exuberant vitality, in building with blocks, from which, incidentally, he is absorbing notions of form, size,

number, position, direction, and other qualities of matter which he is led to see and feel for himself. In this way he is led to observe, compare, see the truth of things; and since truth is always beautiful to the unspoiled nature, he learns to love it and to express it in accurate speech and little works of skill; for nothing gives us a more vivid apprehension of correctness in detail (truth) than the fixing of a mental image in a visible form in some product of handwork.

Then Frœbel combines physical training and a sympathetic outlook by his dramatic games, in which the child is helped to represent the various activities of nature and man's work; thus by play, and in it, he learns to estimate the value and dignity of labor; to gain a sense of human society as one great whole, in which each must do his part, and he'p his fellows.

"From every point in nature," says Freebel, "a pathway leads to God." This deep conviction led him to bring the child into close and loving relations with nature, by showing him her beauty, by giving the little ones each his own garden plot, and teaching him experimentally to care for plants and pet animals, thus leading him to see not only just how much he could do, but how much more he must patiently leave to the great Creator and Preserver of all things. Reverence and obedience to law must be the natural outcome of such a training.

The thoughtless may sneer at what they may consider "mere trifling play," but the shrewd observer who will spend even one session in a genuine kindergarten will descern in even the simplest play the nascent beginnings of all human culture; and he may well ask why the free, happy-earned spirit of the kindergarten should be so foreign to the school, where an air of constraint, even a spirit of antagonism, is often painfully apparent. As the same human nature is to be dealt with in both institutions, one may reasonably enquire why principles and methods which have worked so well in the kindergarten should be discarded in the school? If there ought to be no sharp divisions in the life of the individual, no chasms to be bridged in the course of training and instruction, as we all admit theoretically, but that each period should be connected with the preceding stage of culture, and be naturally joined to that which succeeds, if this theory be true, and it is, why should we persist in a course that gives results so disproportionate to the expenditure of money, time and service?

# Morning Talks for May.

Underlying thought—Happy days.
Name of the new month?
How many days has May?
To what season does May belong?
Name the other spring months.
What did March bring?
What did April bring?
What does May bring?
What season comes after spring?
How many summer months?
Name them.
What garden flowers blossom in May?
What wild flowers blossom in May?

What wild flowers blossom in May?
Name the color of each.
How do the fields look?
What birds do we see?
What are they doing?
How can we help them?
What do the birds do for us?

Do we like to see the birds? Are we glad when they come back? Where do birds build their nests?

Do all birds build their nests in trees?

Where does the robin build its nest? The blue-bird? the swallow? the meadow lark? the wood-pecker?

What trees blossom in May? Are they in full bloom? Are any in full leaf? Any bare?

What is the color of the apple blossoms? cherry blossoms? pea blossons? peach blossoms?

How many petals has each?
What is meant by "Arbor Day?"
What is done on Arbor Day?
Name some large trees.
Name some small trees.

Of what use are the trees to man, to animals?

What tree do you like best?

Poems: "It Is Not Always May," Henry W. Longfellow; "There Is But One May in the Year," Christina Rossetti.—Selected.

There was never mystery
But 'tis figured in the flowers;
Was never secret history
But birds tell it in the bowers.

-Ralph Waldo Emerson

# Van Dyck. Miss A. MacLean.

Anthony Van Dyck was born at Antwerp in 1599. In the Flemish school he is surpassed by Rubens only. At fifteen years of age he entered the studio of Rubens, and at nineteen he was admitted to the Painters' Guild of Antwerp—the youngest artist ever admitted.

Following Rubens, he first turned his attention to ideal and sublime subjects. But though these showed great precocity, he was not great in composition and ideality as was Rubens. But when he later painted portraits, and especially single figures, he eclipsed Rubens, and many of his portraits are among the world's masterpieces.

In 1621 he visited Genoa, Rome, Florence, Venice, Turin and Palermo, and the letters of introduction he bore from Rubens opened all doors to him. His beauty, elegance, superior education and superb gifts made him welcome everywhere, and the best the world had to give was freely laid at his feet. At Venice he was so impressed by Titian and Tintoretto that for a time he seemed to lose the influence of Rubens. Returning to Genoa, where he was accorded a glad welcome by the patrician families of that city, he painted the fifty portraits still to be seen in the galleries there; portraits which alone would have made his name immortal had he painted no others. In 1625 he returned to Antwerp, and during the next six years he painted in his own country some of his most important works. In 1632 he went to England. Fortune smiled on him there as ever; King Charles I at once granted him permission to paint himself and family, and these works crowned his reputation. He was appointed court painter, knighted, given a yearly pension, apartments at Blackfriars, and a summer residence at Eltham was placed at his disposal. Accustomed to the elegant surroundings of Rubens, and having lived in the palaces of his patrons in Italy, he now lived in such splendor that his apartments became the resort of royalty, aristocracy, and the gifted of the land. The King and Queen employed him constantly, and about thirty-eight portraits of the former and thirty-five of the latter exist. The equestrian portrait of the King at Windsor and in the National Gallery, London, those of the Queen at the galleries of Windsor, St. Petersburg, Dresden, etc., and the groups of the royal children at Turin, Windsor, Berlin, etc., are unsurpassed.

With the exception of a short period in Brussels, Van Dyck and his pupils worked seven years in England. He painted portraits of all the principal personages of the court of Whitehall. He followed Rubens' plan of having his pupils and skilled employees help him in his paintings. There are over 350 of his works in private galleries of Great Britain, and no other country can show as fine a collection of his paintings as England.

Rubens never made a specialty of portraiture, and is said to have suggested that field to Van Dyck. Rubens would not give enough attention to an individual sitter to enable him to see beneath the surface and paint a characteristic portrait. Van Dyck studied his sitters, saw the likeness, and made characteristic portraits. As compared with Rubens, he made the figures less stout, indicated fewer bones and muscles, and gave them less blood. He was never brutal, never gross, restrained, polished; he seems to have given to all the people who sat for him something of the graces of his own person; a noble air, a finer style in garments, and hands more regularly white and handsome. He had a taste for draperies well put on, silky stuffs, ribbons, jewels, plumes and ornamental swords. His handling was rapid and easy, after the manner of Rubens. engendered a school, the English school—Revnolds, Lawrence, Gainsborough, and almost all the genre and landscape painters.

Percy Randell Head says of Van Dyck's portraits: "His portraits of men are, as a rule, more successful than those of women; he evidently shared the deficient sense of the best characteristics of woman's beauty which marks Rubens and all his school."

Jules Guiffrey says of Van Dyck's portraits: "Seldom or never is there any action. Do not seek in these impassive faces for any expression of joy or grief. All are shown preserving that calm, that imperturable serenity characteristic of the true Fleming."

Distinction seems to have been the ideal quality he sought; the quality which formed his individuality. No matter from what class his sitters came, they all were endowed by him with a distinguished mein. He never painted even his most intimate friends in the familiar unconstraint of daily life. All posed for their portraits. Van Dyck's order of precedence in the procession of great artists has never been accurately determined. He lacked creative genius, inventive instinct, that which constitutes a powerful individuality. In Rubens' studio In Italy he followed the he followed Rubens. Italians. On his return to Antwerp he combined in his works the best of all he had seen and learned. In England, more especially in his first years there, he reached a sureness, a power of execution which makes many of his portraits of Charles I and family class among the most finished works of art.

There is an illustrative story told of a visit paid by Van Dyck to Frans Hals at Haarlem. As Van Dyck admired Frans Hals' portraits, he had made repeated calls on him, but Frans Hals was rarely to be found except at a tavern. However, on leaving word that a stranger wished to have his portrait painted, Hals arranged to meet him. When they met. Van Dyck said he wished a portrait of himself, and that it must be painted in two hours. agreed, and painted the portrait in the given time. Van Dyck approved of it, and remarked that painting portraits seemed a very simple task, and said he would like to paint Hals' picture. Hals soon perceived that he had before him no ordinary painter. When he beheld the finished picture, he embraced Van Dyck, crying, "You are Van Dyck, nobody else could do as you have just done!"

And now, what shall we say of the man, Van Dyck? Or is it only of the artist we should speak? Well, let Fromentin say what he thought of the

man, Van Dyck. "It is thus I should imagine a portrait of Van Dyck, made, as it were, by a rapid sketch with a broad pencil: A young prince of royal grace, with everything in his favor-beauty, elegance, magnificent gifts, precocious genius, a rare education-and owing all these things to the advantages of birth: cherished by his master, himself a master among his fellow-students, everywhere distinguished, everywhere sought for, feted everywhere, in foreign parts even more than at home, the favorite and friend of kings, entering thus by right into the most enviable things of the world, such as talent, renown, honors, luxury, passions and adventures; ever young at a ripe age, never staid even in his last days, a libertine, a gamester, eager, prodigal, dissipated. . . . . . a man who abused everything, his seductions, his health, his dignity, his talent, ' ' ' a seeker of adventures, who at the end of his career married to order, as it were, a charming, well-born maiden, when he could no longer give her either strength, or much money, or great charm, or a secure life; a wreck of a man who, up to his last hour, had the good fortune, the most extraordinary of all, to preserve his greatness when painting; a man who was forgiven everything on account of one supreme gift, one of the forms of genius-grace; to sum up all, a Prince of Wales dying upon his accession to the throne, who was by no means fitted to reign."

Though only forty-two years of age, he died, old in many experiences, in 1641.

#### In Canada.

"In fair and growing Canada, that happy Dominion in which it is now my delightful privilege to live," were the words in which Earl Grey, the Governor-General, made reference to this country in his speech at the recent peace conference at New York. He proceeded to mention the law recently enacted by the Canadian parliament making it an offence for the forces of labor and capital to resort to a lockout or a strike without first having an investigation into the subject of dispute; and expressed the hope that the coming Hague Conference may not be prorogued until it has established rules which will apply to the conduct of international disputes the same principle which has been adopted in Canada to avert industrial war.

It is well for us to realize at times that Canada is indeed a happy land as compared with others, and that our free self-government under the British Crown has enabled us, in some respects, at least, to make laws for the safety and welfare of our people which are worthy of imitation.

Comparing our laws and political institutions with those of our nearest neighbors on this continent, as is most natural for us to do, we need not deny to them the right to believe that their own are best. It is sufficient if we think that ours are better for us, and are bringing us better results.

When the United States was separated from British North America, in 1783, more or less confusion and disorder prevailed until the adoption of a written constitution as a bond of union. of the new boundary line, where loyalty to the British Empire was the leading political principle, the only bond of union was the Crown, until, two generations later, the Dominion of Canada was Inevitably, in developing their political formed. institutions, the British Provinces followed British precedent; and quite as inevitably the independent states endeavored not to do so. Hence it came about that when the confederation of the provinces took place, the principle of responsible government had long been firmly established with us, while it has not yet been adopted in the United States. In Canada, the people rule, and the government of the day is quickly changed in response to their will. The president of Canada, or prime minister, when called to office by the governor-general, must go to the electors and be by them returned to parliament as a necessary condition of his holding office. Failing in that, he must immediately retire. All the members of his cabinet must in the same way obtain a seat in parliament after their appointment to office. And this president and his advisors hold office only so long as they can command the support of parliament in every measure they propose. The President of the United States may recommend to congress a certain measure, the congress does as it pleases about the matter, and he still remains president. His secretaries may have opinions, and express them when and where they will, without any effect upon legislation. When the Canadian cabinet presents a bill to parliament for some desired legislation, if the bill fails to pass, the defeated government resigns without delay, and a new prime minister and cabinet are chosen; or parliament is dissolved, if the government believes that the sitting members do not fairly represent the will of the people, and a new general election follows. The newly elected parliament, or newly elected government, as the case may be, enters at once upon its work. The United States plan of allowing representatives to keep their seats in the halls of legislature for a time after they have been defeated at the polls, or after their successors have been chosen, does not commend itself to Canadians; who look upon it as a restriction of popular government. Still more are they averse to the plan of continuing an administration in power after its policy has ceased to be the policy of the legislature.

Above the leader of the government, or head of the ruling party, there is in Canada the King, or his representative, the Governor-General, who is of no party, and represents the people as a whole. Of course there is nothing corresponding to this in the United States; but Canadians think that it makes for stability and good government, and helps to separate the ideas of law and order from those of party policy and political strife.

Judges and all civil servants represent the Crown, and not the party in power; therefore they hold office during good behavior, and not during the term of the administration, as in the neighboring republic.

Lynch law and mob violence are practically unknown in Canada, even in the mining regions. Laws are more swift and sure in their operation, and therefore life and property are safer than they are in the United States—or, at least, Canadians think so.

Our marriage laws are less elastic than those of the United States.

Military authority overrides civil law in the United States. In Canada, no officer in charge of troops could order his men to fire upon a mob, on penalty of a charge of murder, if anyone were killed

by the firing party, unless a peace officer had first called upon the mob to disperse. Unless the whole region has been declared under martial law, the civil law is supreme. In the United States, troops on duty in a disturbed district may shoot whoever opposes them, and no one questions their right to do so.

In Canada, mines and minerals are always more or less under government control, and are worked by lease from the Crown. No one, therefore, can hold such property for more than a limited time and refuse to work it.

These are some of the points in which we like to believe our laws are better than those of our neighbors. Our banking laws and our treatment of the Indians are admittedly better, and there are many others in which we think that we have the advantage.

# Wireless Message on Atlantic Coast Received in California.

On Sunday, March 10, A. J. Millison, the operator at the wireless telegraphy station on Point Loma, in southern California, observed his apparatus intercepting a message. On investigation he ascrtained that a message was being sent from Washington, D. C., to Pensacola, Fla. He adjusted his instruments, which are the most delicate used by the United States government, and caught the whole message. At about the same time part of a message to the battleship "Connecticut" from Washington was clearly on the instruments at Point Loma.

Highly gratified, the operator sent messages to the Atlantic coast, and received answers from the operators at Washington and Pensacola. Later he wrote out copies of the messages that he intercepted on the Atlantic coast and sent them, with letters, to the operators there.

The distance from Pensacola to San Diego in an air line is about 1,800 miles, and from Washington to San Diego is about 2,400 miles. The matter has been reported to Commander H. C. Gearing, Chief of the Equipment Department at Mare Island navy yard, California. The messages sent by the operator at Point Loma to Washington were only faintly recorded on the instruments, but the messages between Washington and Florida and part of a message from Washington to the battleship "Connecticut," 600 miles out in the Atlantic Ocean, were recorded clearly. The new appartus is partly the invention of Mr. Millison, and has been installed in the Point Loma station only few months. Some time ago the Point Loma operator succeeded in communicating with Tacoma, Wash.—Scientific American.

Such a starved bank
Till that May morn;
Blue ran the light across—
Violets were born.—Browning

Gold cups o'er filling on a thousand hills A calling honey-bee.—Helen Hunt Jackson.

# British Empire Statistics.

BY LONDON BOARD OF TRADE,

The Board of Trade does its best, with limited resources and with little encouragement, to perform some of the work which ought to be done regularly, by a well-equipped census department, permanently established to be the eyes and ears of the government. Amongst its latest efforts is the excellent "Statistical Abstract of the British Empire," which has now reached its third annual issue. This valuable publication is the first attempt which has been made to give a statistical account of the British empire as a whole. It bristles with facts.

The volume opens with figures for area and population. It is fairly well known that the British empire has about 400,000,000 people in its 11,000,000 square miles. It is not so well known, and the Abstract does not tell us, that the total white population of the British empire is only about 56,000,000, or less than the population of Germany. The Abstract tells us nothing also of the races within the empire, but it ought to do so, for the questions involved are of tremendous importance, and those who rule an empire do well to remind themselves of the facts.

We are given, however, tables relating to the empire's chief cities, and there is no more extraordinary fact in the whole book than that about one-third of Australia's small population is crowded into four towns:

### Population of Australia, 1905.

Total population	 	4,057,000
Sydney	 	530,000
Melbourne	 	512,000
Adelaide	 	173,000
Brisbane	 	128,000

Thus outside of these four urban areas the enormous continent of Australia contains but 2,714,-000 people in its habitable fringe. Other great empire cities are Montreal with about 290,000 people, Toronto with about 220,000 people, Capetown with 156,000 people. These, with Hong Kong and Singapore, are the only towns which rank with the great urban congregations of the home country. The reader may be reminded that London Council had in 1905 4,721,000 people, while Liverpool had 739,000, and Glasgow 836,000 people.

#### AN EMPIRE'S TRADE.

The Board of Trade show us the commerce of the British empire with foreign countries. That is to say, they eliminate all trade done between different constituents of the empire, and take only imports into the empire from foreign countries and exports

from the empire to foreign countries. Here is the result compared with the commerce of the United Kingdom only:

Commerce of (1) the United Kingdom with all places outside it; and (2) the British empire, with all places outside it, in 1905:

	Imports.	Exports.
	Mill. £.	Mill. £.
British Empire	,.563	449
United Kingdom	565	330

At first sight it may surprise the reader to find that the empire's imports are no larger than those of the United Kingdom; but in calculating the empire's trade the large imports into the United Kingdom from British possessions are, of course, excluded.

#### THE EMPIRE'S MINERALS.

A wise man who handles this Abstract will quickly turn to the question of natural resources, and in particular coal.

We have at home but 121,000 square miles; the empire has 11,300,000 or so. But when it comes to coal, the mother country is first and the big empire nowhere.

THE BRITISH EMPIRE'S COAL PRODUCTION, 1905.

	Tons.
United Kingdom	236,000,000
British India	8,400,000
Australia	7,500,000
Natal	1,100,000
New Zealand	1,600,000
Canada	7,800,000
Transvaal	2,300,000

So long as industry depends on cheap coal so long there cannot be any very great industrial developments in the lands with little or no coal. Canada cannot rival the United States without more coal or an efficient substitute for it. Iron figures, of course, are dependent on the foregoing coal figures. We need not, therefore, be surprised to find that the pigiron at present produced in the British empire outside these islands amounts to only 471,000 tons.

Here is an interesting table of the chief mineral productions of the empire in 1905:

# MINERAL PRODUCTION.

Conl (tons)	265,000,000
Iron ore (tons)	15,600,000
Pig Iron (£)	10,079,000
Diamonds $(f)$	6,769,000
Gold (£)	46,600,000
Silver (£)	1,374,000
Copper (£)	4,184,000
Tim (£)	8,700,000

The coal and iron are almost entirely of Great Britain. The diamonds are South African. The gold is chiefly South African and Australia. (The United Kingdom produced £21,222 worth of gold and £19,419 worth of silver in 1905). The silver is chiefly Canadian, and the copper is chiefly South African. The Malay States account for nearly all the tin.

The great diversity of production which characterizes the various British possessions in respect of minerals is as conspicuous when we consider other products: Here is the imperial wheat production (1905):

#### EMPIRE'S WHEAT PRODUCTION.

Mill.	Bushels.
Canada	106
United Kingdom	60
India	319
Australia	69
New Zealand	7
-	
Orange Colony	0 1-2
Cyprus	2

It is impossible to survey these pages without a growing wonder that a few men chiefly drawn from the United Kingdom should have accomplished so much. Here we have a record of over 11,000.000 square miles of territory, containing some 350,000,000 people of hundreds of races and languages, administered and developed by a relative handful of white men only some 12,000,000 in number.

The Natural History Museum, Union street, is to be congratulated on the fact that the private collection of insects made by the curator, Mr. William McIntosh, has been added to its other treasures. This represents the work of twelve busy years and is very valuable. As far as the insects of New Brunswick are concerned it is the largest collection in the world and it is much the largest in the Maritime Provinces. There are more than 20,000 specimens in the collection and many of them very rare specimens.

#### 5,000 Facts About Canada.

A remarkable little booklet has been compiled under the above self-explanatory title by Frank Yeigh of Toronto, the well known writer and lecturer on themes Canadian. Perhaps no one in the Dominion is better qualified to make such a compilation. Its value is, as claimed, "worth its weight in Yukon gold or Cobalt silver." The idea is a clever one, viz.: a fact in a sentence, giving a wonderful mass of information in the smallest compass on every phase of our commercial and industrial life and our natural resources. The booklet is sold for 25c, and may be had from newsdealers or from the Canadian Facts Publishing Co., 607 Spadina Avenue, Toronto,

# Empire Day Selections.

He serves his country best
Who lives pure life, and doeth righteous deed,
And walks straight paths, however others stray
And leaves his sons as uttermost bequest
A stainless record which all men may read.

—Susan Coo.idge.

Our country is a whole, my Publius,
Of which we all are parts; nor should a citizen
Regard his interests as distinct from hers;
No hopes or fears should touch his patriot soul
But what affect her honour or her shame.
E'en when in hostile fields he bleeds to save her,
'Tis not his blood he loses, 'tis his country's;
He ouly pays her back a debt he owes.

—William Cowper.

There's a flag that waves over every sea,

No matter when or where;

And to treat that flag as aught but the free.

Is more than the boldest dare.

For the lion spirits that tread the deck.

Have carried the palm of the brave;

And that flag may sink with a shot-torn wreck,

But never float o'er a slave.

Its honour is stainless, deny it who can;

And this is the flag of an Englishman.

—Eliza Cook.

Land of our Birth, our Faith, our Pride,
For whose dear sake our fathers died;
O Motherland, we pledge to thee,
Head, heart and hand through the years to be.

—Rudyard Kipling.

#### Play the Game.

There's a breathless hush in the close tonight—
Ten to one and the match to win—.
Pumping pitch and a blinding light.
An hour to play and the last man in.
And it is not for the sake of a ribboned coat
Or the selfish hope of a season's fame,
But his captain's hand on his shoulder smote—
"Play up, play up! and play the game!"

The sand of the desert is sodden red,
Red with the wreck of the square that broke—
The Gatling's jammed and the colonel dead,
And the regiment blind with dust and smoke.
The River of Death has brimmed its banks,
And England's far, and Honor a name;
But the voice of a schoolboy rallies the ranks:
"Play up, play up! and play the game!"

This is the word that year by year,

While in her place the school is set;

Every one of her sons must hear

And none that hears it dare forget.

This they all with joyful mind,

Bear through life like a torch in flame,

And falling fling to the host behind.

"Play up, play up! and play the game!"

—Henry Newbolt.

## The Review Question Box.

G. C.—In the grammar used in Nova Scotia Schools, on page 33, it says: "An intransitive verb is made transitive by the addition of a preposition so closely united with it as to become a part of itself." Another authority states that a preposition is never put with the verb in analysis, but the preposition and phrase following it were put in extension. Kindly give your opinion in REVIEW.

This is one of the grammatical questions on which authorities differ. West, in his "Elements of English Grammar," says: "Prepositions following intransitive verbs may be regarded as forming with them compound verbs which are transitive. Thus, 'I laughed (intrans.) at him.' Where the preposition at takes an objective case him, becomes 'I laughed at (trans.) him,' where the him is the object of the verb. The passive construction can then be employed, and we can say, 'He was laughed at.' So, 'we arrived at this conclusion' becomes in the passive, 'this conclusion was arrived at.' 'They came to this decision' becomes 'this decision was come to.'"

But Mason, in his "English Grammar," contradicts West's statement in the following way:

The direct object of the verb is not indicated by prepositions. A substantive preceded by a preposition always constitutes either an attributive adjunct or an adverbial adjunct.

This statement is not invalidated by the remarkable freedom of English in the use of the passive voice. "I am speaking of you" is precisely analogous to the French "Je parle de vous," and the Latin "Loquor de te." Nobody would for a moment admit that loquor de makes a compound transitive verb, and that de has ceased to be a preposition and become an adverb united to the verb.

Mason, then, agrees with the second authority quoted in the question, and would put the prepositional phrase in the extension. He disposes of the argument from the construction of the passive voice as follows:

The word that is the *object* of the active verb must be the *subject* of the passive. In the strict sense of the above, only transitive verbs could properly be used in the passive voice, and only the *direct object* of the active verb could become the *subject* of the passive verb. This is in fact the usage in Latin and German. But English has blended the *accusative* and the *dative* in one case, the 'objective', and as a consequence of this allows (in most cases) the *objective of either kind of object* to become the *subject* of the passive. I told him the news, becomes either he was told the news, or the news was told him.

This is an interesting point in grammar, and we shall be glad to hear arguments on either side. Mason's seems the simpler rule to put in practice; for, who is to decide whether or not the preposition is "so closely united with the verb as to become a part of itself?"

ESPERANTO: A correspondent from Steeves Mountain, N. B., writes in answer to Mr. Garland's question in our April issue: "Esperanto—in Twenty Lessons, with vocabulary, by C. S. Griffin, can be secured from A. S. Barnes & Co., New York; price 55 cents by mail."

The following questions have been sent in for solution: Todhunter and Loney's Algebra. Ex. 39, No. 25; and Ex. 37, No. 27.

1. 
$$4x^2 - 6yz - (9y^2 + z^2)$$

$$= 4x^2 - (9y^2 + 6yz + z^2)$$

$$= (2x - 3y - z) (2x + 3y + z)$$

$$= (3y - 2x + z) (3y + 2x - z)$$

$$= (3y - 2x + z) (3y + 2x - z)$$

$$z^2 - (4x^2 + 12xy + 9y^2)$$

$$= (z - 2x - 3y) (z + 2x + 3y)$$
L. C. 
$$M = (2x + 3y + z) (2x - 3y - z) (3y + 2x - z)$$

$$2. \quad a^2 x^3 + a^5 - 2abx^3 + b^2 x^3 + a^3 b^2 - 2a^4 b$$

$$= x^3 (a^2 - 2ab + b^2) + a^3 (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (x^3 + a^3) (a^2 - 2ab + b^2)$$

$$= (2x^3 - 3a^2) (x^2 - a^2) (a + b) (a - b)$$

$$= (2x^2 - 3a^2) (x - a) (x + a) (a + b) (a - b)$$
H. F. C. 
$$(x + a) (a - b)$$

R. E. Fraser, Kouchibouguac. What is the least number that can be subtracted from 60, that it may be divided by 634 without remainder?

60 reduced to fourths=240
63/4 reduced to fourths=27
240÷27=8 times and 24 fourths over=6
60 - 6=54
54÷6=8 times.

Therefore 6 is the least number.

A thoughtful subscriber, desirous of severing his connection with the Review, writes: "As I see by the last issue of my paid-up subscription expires with number 239, I would ask you to discontinue sending it, as I am not teaching now. I write this as I notice that you wish to be notified whether a continuance of the paper is desired or not." Sometimes our subscribers neglect this simple act of notification, and the result is loss and confusion.

Dandelions dressed in gold,
Give out echoes clear and loud,
To the oriole's story, told
With gay poise and gesture proud.
—Lucy Larcom

### The Last Poem of Dr. Drummond.

Dr. Drummond's last public appearance in Montreal was at the annual dinner of St. Patrick's Society of Montreal, held at the Windsor Hotel, on the evening of Monday, March 18th. The well-known writer was received with great applause on that occasion, and told his audience a number of good stories, and finished by reading a poem which he had composed for St. Patrick's Day, and which was very warmly received. The poem is as follows:

#### We're Irish Yet.

What means this gathering to-night,
What spirit moves along
The crowded hall, and touching light
Each heart among the throng
Awakes as though a trumpet blast
Had sounded in their ears
The recollections of the past,
The memories of the years?

O 'tis the spirit of the west,
The spirit of the Celt,
The breed that spurned the alien breast,
And every wrong has felt—
And still tho' far from fatherland,
We never can forget
To tell ourselves with heart and hand,
We're Irish yet! We're Irish yet!

And they, outside the Clan of Conn,
Would understand, but fail,
The mystic music played upon
The heart-strings of the Gael—
His ear, and his alone can tell
The soul that lies within,
The music which he knows so well,
The voice of Kith and Kin.

He hears the tales of old, old days,
Of battle fierce by ford and hill,
Of ancient Senachie's martial lays,
And race unconquered still—
It challenges with mother's pride
And dares him to forget
That tho' he cross the ocean wide,
He's Irish yet! He's Irish yet!

His eye may never see the blue
Of Ireland's April sky,
His ear may never listen to
The song of lark on high,
But deep within his Irish heart
Are cloisters, dark and dim,
No human hand can wrench apart,
And the lark still sings for him.

We've bowed beneath the chastening rod,
We've had our griefs and pains.
But with them all, we still thank God,
The Blood is in our veins:
The ancient blood that knows no fear,
The Stamp is on us set.
And so however foes may jeer,
We're Irish yet! We're Irish yet!

## Nature Quotations for May.

Arranged by Annetta F. Armes in "Popular Educator."

Ouward and nearer rides the sun of May;

And wide around, the marriage of the plants
Is sweetly solemnized.

-Ralph Waldo Emerson.

The voice of one who goes before to make
The paths of June more beautiful, is thine.

—Helen Hunt Jackson.

Hebe's here, May is here! The air is fresh and sunny; And the miser bees are busy Hoarding golden honey.

-T. B. Aldrich.

Now the bright morning star, day's harbinger, Comes dancing from the east and leads with her The flowery May, who from her green lap throws The yellow cowslip, and the pale primrose.

-Milton.

And hark! how bright the throstle sings!
He, too, is no mean teacher.
Come forth into the light of things
Let Nature be your teacher.

-Wordsworth.

Among the changing months, May stands confest The sweetest, and in fairest colors dressed.

\_Thomson

Spring's last born darling, clear-eyed, sweet, Pauses a moment, with white twinkling feet, And golden locks in breezy play, Half teasing and half tender, to repeat Her song of May.

-Susan Coolidge.

The scarlet maple keys betray
What potent blood hath modest May.

—Ralph Waldo Emerson.

All day in the green, sunny orchard,
When May was a marvel of bloom,
I followed the busy bee-lovers
Down paths that were sweet with perfume.
—M. E. Sangster.

The robins sang in the orchard, the buds into blossoms grew,

Little of human sorrow the bads and the robins knew!

—J. G. Whittier

And hark! and hark! the woodland rings; There thrilled the thrush's soul; And look! that flash of flamy wings— The fire-plumed oriole.

-O. W. Holmes.

And every little bird upon the tree, Ruffling his plumage bright, for ecstacy, Sang in the wild insanity of glee.

-Phoebe Cary.

And the swaying yellow bird, Trilling, thrills each hollow stem, Until every root is stirred, Under their dropped diadem.

-Lucy Larcom.

#### Canada Forever.

When our fathers crossed the ocean
In the glorious days gone by,
They breathed their deep emotion
In many a tear and sigh—
Tho' a brighter lay before them
Than the old old land that bore them,
And all the wide world knows now
That land was Canada.

So line up and try us,
Whoever would deny us
The freedom of our birthright,
And they'll find us like a wall—
For we are Canadian—Canadian forever,
Canadian forever—Canadian over all.

Our fathers came to win us
This land beyond recall—
And the same blood flows within us
Of Briton, Celt, and Gaul—
Keep alive each glowing ember
Of our Sireland, but remember
Our country is Canada
Whatever may befall.

So line up and try, etc.

Who can blame them, who can blame us
If we tell ourselves with pride
How a thousand years to tame us
The foe has often tried—
And should e'er the Empire need us,
She'll require no chains to lead us,
For we are Empire's children—
But Canadian over all.

Then line up and try us, etc.

—William Henry Drummond.

# Echoes From a Boy's Garden.

LOUISE KLEIN MILLER IN N. Y. SCHOOL JOURNAL. (Concluded.)

A few weeks later:

"Can you tell me what is the matter with my squash vine?" said Carl, coming with a large, brilliant orange blossom in his hand. "I have hoed it, put some commercial fertilizer around it, and picked off every squash bug I could find, and only a few of the blossoms have squashes on them."

"That is a very natural question to ask. Who planted encumbers?"

"I did," answered Hugo.

"Will you please go to your garden and see if you can find any difference in your cucumber blossoms. James, examine your pumpkin vines."

In a short time the boys returned with the different kinds of flowers, much to the gardener, astonishment.

"Robert, you may bring me the small cornstalk from your garden. We will examine the squash, cucumber and pumpkin blossoms first. Joe, put your finger in the blossom which has no squash.

- "It is covered with yellow dust," exclaimed Joe.
- "Can you find yellow dust in the other flower?" I asked, watching him make the trial.
- "No," he responded, "the inside of the flower is a different shape and it is sticky."
- "Shake the yellow dust or pollen into that flower. What happens?"
- "It sticks fast. What is that for?" opening his eyes in astonishment.
- "The flower that bears the yellow dust is called the staminate flower. These little things that hold the pollen are the stamens. The other is the pistillate flower, and has the parts that will develop into seeds. We will cut through the flower 'that has the squash.'"
  - "Look at the little seeds!" cried Henry.
- "Oh, they're not seeds," said Mike. "Would you like to plant them? No use. They wouldn't grow. They are not ripe."
- "You are quite right. They are not seeds, but ovules which will develop into seeds. Do you see that bee coming from that flower with his legs and body covered with pollen? Watch him."
- "I wonder if he will find a flower with a squash Yes, there he goes," said Fred.
- "Let us go and watch him," said Robert, much excited. "Don't frighten him away. He seems to know just where to find the honey. See how he crawls over the sticky surface!"
  - "Off he goes!" said Mike.
- "Ah, there it is—the yellow dust he dropped!" exclaimed Dick.
- "All that was very simple, but now the wonder begins."
- "What is that?" inquired James, with eager, listening eyes.
- "When a pollen grain drops on the stigma of the pistil, as the sticky surface is called, it begins to germinate, or grow, and send down a pollen tube to one of the little ovules which you see, giving it the help it needs to make it develop into a perfect seed. A little plantlet is formed in each seed, and, while the seed ripen, these parts begin to thicken to form a protection for the growing seeds. Hand me some beans, Mike, please. Each of you take one and carefully remove the seed coat and examine the inside."
  - "Just look at the little plantlet!" said Fred.
- "Isn't it wonderful?" said Henry, seriously. Does each ovule need the help of a pollen grain to make it a seed?"

- "Yes, think of all the seeds that will be found in the garden this summer. All flowers are not alike. Each has its own secret, which is worth finding out."
- "I suppose there is something interesting about this cornstalk," said Carl, looking at it.
- "Who can find the pollen?" I asked, shaking the stalk.
- "I know," exclaimed Dick; "in the tassel at the top."
- "The ovules are all covered with these husks. How do they get the help from the pollen?" A queer expression was on the face of the boys.
  - "Let us remove the husks and---"
- "Look at the silk!" interrupted Robert. "Why, each grain has a piece of silk. Oh, I know; the silk grows out beyond the husk and the pollen grain drops on the end of the silk," which was very good reasoning for Robert.
- "But what a long pollen tube would have to grow to get down to some of the ovules," said Henry.

"Do you see any ovules that have not developed?" I asked, holding the ear up to view.

- "Just look at the little grains around the top of the ear," said Carl, amused. "The silk was so short it could not get out of the husk, and did not get the pollen. Well, that is interesting."
- "All go to your gardens and examine the flowers and pods of your peas and beans, and see if they have anything to tell you.
- "You did good work while I was away, boys. The gardens look very well. They show who are the good workers."
- "We have had such a good time and learned so many things," said Henry.
- "Did you have any trouble with insects?" I inquired.
- "Insects!" he exclaimed. "I should think so. We made a collection of the different ones we found—fifty-three."
  - "Which gave you most trouble?"
- "Potato bugs, but we put 'bug death' on the vines and that finished them," he said, with great satisfaction.
- "We find, if you want to destroy insects, you must know something of the way in which they take their food," said Joe, repeating some information he had recently acquired.
  - "What do you mean?" I inquired.
- "Well, a potato bug has biting mouth parts and eats the leaves. If you put poison on the leaves they eat it, too, and that kills them."
  - "But," continued James, "a squash bug is differ-

- ent. He has a little sucking tube he puts into the leaf and sucks the sap, and would not get the poison. He has to be killed in another way."
- "Are you interested in insects, John?" observing him listening to our conversation.
- "Very much, and we have found so many different kinds. The lovely ground beetles, we were told, are *predaceous*, because they destroy wire worms and many bugs."
- "Will you please look at my beets and carrots?" said Fred, from a distant garden. "I think they are fine!"
- "What do you think of my squashes?" asked Henry, with pride.
- "What have you done with all the vegetables you have raised?" I inquired, with interest.
- "Ate some, sold some, gave some away, and these good things we are going to take to the fair," said Ioe.
- "I should like a list of the flowers and vegetables you raised, and one of the insects you found."
- "Are we to have an exhibit at the fair?" inquired Dick.
- "Yes, some special prizes are to be given for the products of the Boys' Garden. That will end the work for the year. Do any of you want a garden next year?"
- "Yes, indeed!" "We all do." "May I have my same garden?" "About twenty more boys want gardens," was the hearty response.

## CURRENT EVENTS.

The new Province of Superior is as yet only a suggestion. It is not very probable that it will ever be more; but it expresses a wish of some of the residents of the northern part of Ontario to have that great province divided, setting off as a separate province the present districts of Nipissing, Algoma, Thunder Bay and Rainy River. Thus area, now often called New Ontario, has a population of about 125,000, and comprises about three-fourths of the area of the present Province of Ontario.

Next year will bring the three-hundredth anniversary of the founding of Quebec; but the executive committee of the proposed tercentenary celebration have decided to postpone it to July, 1909, to give more time for the necessary preparation.

In the new battleship Aki, recently launched in Japan, the Japanese have the greatest battleship in the world, exceeding the British ship Dreadnought by 1300 tons.

Commander Peary will make another attempt this year to reach the North Pole. His crew will consist entirely of young Newfoundland fishermen who are members of the colonial naval reserve.

Beginning next year, a new direct line of steamers will run from Vancouver to Great Britain by way of New Zealand and Australia. This will divert to Vancouver much traffic that has formerly passed through San Francisco.

The Department of the Interior has issued a new atlas of Canada which is said to be the most complete publication of its kind ever produced in any country. Only one other country has issued an atlas giving such a diversity of information, and that country is Finland. This may be surprising information to many of us, who are inclined to think of Finland as many think of Canada, only as a country of ice and snow. Equally surprising will be the news that Finland is the first country in the world in which women have been elected to seats in the national legislature. There are nineteen women in the Finnish Diet.

One-fourth of the people of British East Africa depends upon the cotton crop for their living. Not only will British possessions in Africa soon supply all the cotton needed in the mother country, but will supply it at a price, it is hoped, that may enable British manufacturers to supply the American market.

The Wakamba, a Bantu tribe of Uganda, are the most highly civilized black race in Africa. When first visited by white men, they had a decimal system of calculation and understood the working of iron.

Potasimite is a new explosive in use in Mexico. It is pronounced safer, cheaper and more powerful than dynamite; and, still more important for mining operations, it produces no noxious gas.

The supposition that the gold of Ophir, with which Solomon enriched the temple in Jerusalem, came from Mashonaland, in South Africa, is discredited by late investigators. The distance is said to be far too great; and the architectural ornaments found in the abandoned gold mines are too crude to have been made by the workmen of King Solomon.

The new railway recently opened for traffic across the Isthmus of Tehuantepec reduces the distance from New York to Honolulu to five thousand seven hundred miles—nearly a thousand miles less than by way of Panama.

The Russians and the Japanese have completed the evacuation of Manchuria, and the vast region is again under the government of China. The policing of the country and the repression of the Chinese bandits have been turned over to Chinese troops.

In calling the second Hague Conference, the Russian government has proposed the following subjects for discussion: The settlement of international disputes by an international court; the laws and customs of warfare on land, especially as to the opening of hostilities and the rights of neutrals; the laws and customs of maritime warfare, and the adaptation to maritime warfare of the principles of the Geneva Convention of 1864.

It is remarkable that at the colonial conference in London both Canada, the premier colony of the Empire, and the Transvaal, the youngest colony, are represented by men belonging to races formerly not owing allegiance to the British Crown. Both Sir Wilfrid Laurier and General Botha have been enthusiastically received. The former, though British born, as we all know is of French-Canadian

descent; the latter, born in the British colony of Natal, is of Dutch and French Huguenot origin. Sir Wilfrid represents six million Canadians; Alfred Deakin, premier of the Australian Commonwealth, represents our four million fellow subjects in Australia; Dr. Jameson, two and a half million in Cape Colony; Gen. Louis Botha, more than half that number in Transvaal; Premier Moor, over a million in Natal, and Sir Joseph Ward nearly as many in New Zealand: while Sir Robert Bond represents about a quarter of a million inhabitants of the ancient colony of Newfoundland. The message which Gen. Botha brings from the Transvaal is that the new colony wishes to strengthen the bonds of co-operation and love and unity of the Empire; and Dr. Jameson expressed the hope that the next conference would see all South Africa ranged with the Dominion and the Commonwealth, and represented by one federal minister. A practical outcome of the conference is the creation of a general staff to take command of all the military forces of the Empire.

On the 26th of April, three hundred years ago, three small vessels cast anchor on the coast of Virginia, bringing the few persons who later founded Jamestown and established there the first permanent English settlement on this continent. On the same date this year, the fleets of the leading nations of Europe were anchored near the spot, to celebrate the tercentenary anniversary of that event, as the guests of the great American nation that has sprung from that heginning. The British squadron is the most powerful of the visiting fleets. After taking part in the opening ceremonies of the Jamestown exhibition, it will visit Quebec, where it will arrive on the t2th of June and remain until the 24th.

King Edward's visit to Spain is said to mark the conclusion of an agreement between the two nations by which British ships shall have the use of Spanish ports, and British squadrons guarantee the security of Spanish coasts.

It is understood that an arrangement has been made between Great Britain and Canada whereby British newspapers and periodicals will come to Canada at greatly reduced postal rates.

The custom of flying the national flag over school buildings is one that we have learned from our New England neighbors. The provincial board of education is to urge upon trustees the desirability of flying the Canadian flag over every school building in New Brunswick. If the school district can not afford to buy a flag, the board of education will assist.

An amusing and rather significant incident in connection with the recent little war in Central America was that a party of United States marines compelled the leader of an insurgent band to apologize for an insult to the British flag.

### SCHOOL AND COLLEGE.

Walter W. White, M. D., has been appointed a member of the Senate of the University of New Brunswick, in room of Hon. L. J. Tweedie, resigned.

At a meeting of the Board of Education in Fredericton, on April 13th, the sub-committee appointed to investigate the cost of text books for schools, composed of Dr. Inch, Chancellor Jones, and Solicitor-General Jones, submitted a report, in which they recommended that text books be sup-

plied to pupils free of charge. Consideration of the report was deferred until a future meeting.

Fredericton is to have a new normal school building, as the present quarters are overcrowded. The new building will be three stories high, and will be fitted with all modern improvements, with facilities for manual training, domestic science, and nature study. Provision will be made in the grounds, which are to be enlarged, for school gardens.

On May 3rd, Dr. Inch will sail for England, and on the 24th will attend an educational conference, which will be held in London under the auspices of the League of the Empire. The leading spirit in the league is Lord Meath, and its purpose is announced to be the closer union of all countries subject to King Edward. The League of the Empire is best known in this country by its work in promoting correspondence among school children of widely separated British colonies. There are many schools in this city and province, the scholars of which are writing to the children of far-away Australia or South Africa. In a recent annual report, Dr. Inch said: "The League of the Empire is an association of prominent statesmen and educationists who are aiming to bring into closer relation all schools, colleges and universities of the British Empire for purposes of co-operation and mutual benefit. The president of the league is Canada's high commissioner, the Right Hon, Lord Strathcona and Mount Royal, G. C. M. G. Its vice-presidents and members represent every part of the empire." Besides its correspondence branch, which numbers many thousands among its members, the league employs a large staff of practical lecturers, who give lectures on the colonies in schools and public halls throughout England. Exhibitions representing the schools of the empire have been held in the Crystal Palace at which all kinds of school work are shown. Time tables and photographs, presented by the colonies, are on exhibition in the league's headquarters, Caxton Hall, Westminster. During his stay in England, Dr. Inch will visit different classes of schools with a view of acquiring ideas to be applied in his work here. He will in a measure return the visit of the English school teachers who visited New Brunswick schools in December,

McGill University, and through her the whole Dominion, have suffered heavy and irreparable losses by fire during the last month. Within two weeks from the occurrence of the fire which destroyed the fine science buildings, the medical building of the University was burned. In both cases, much has been destroyed that can never be replaced, and while the money loss in the destruction of the buildings themselves is very severe, it is comparatively nothing beside the loss of the museum. The collections contained many priceless specimens, which have been collected during three-quarters of a century. Also, Dr. Sheppard's anatomical collection, which was famous throughout America, and represented a life time's work, was entirely destroyed. It is a matter for congratulation that the magnificent medical library escaped the flames.

### RECENT BOOKS.

From the Macmillan Company of Canada, we have received: "The Persistent Problems of Philosophy," an attroduced to metaphysics through the study of modern vetens, by Mary Whiton Calkins, Professor of

Psychology and Philosophy in Wellesley College (price \$2.50 net). Also an "Elementary English Composition," by T. F. Huntingdon, a book that will certainly hold its own by its many excellences, among the many good textbooks on this subject. We are glad to notice that a good deal of space is given to oral composition, and especially that the importance of practice in pronunciation is insisted upon (price 60 cents net.)

Ginn & Co. are well known for their co-operation in the movement for the better teaching of English. attractive editions of English classics are a great aid to the teacher. We have received from them copies of Scott's "Quentin Durward," (504 pages, mailing price 60 cents). and Goldsmith's "Deserted Village," (pp. 32, mailing price 30 cents), both issued in their "Standard English Classics" series. Hudson's edition of Shakespeare's plays is too well known to need comment here, but Ginn & Co. are now bringing out a new and revised Hudson's Shakespeare for school use. "As you Like It," and "The Merchant of Venice," have already appeared. The introductory matter is valuable and not too diffuse, and the chronological chart is a useful addition. The notes are good and have the advantage of appearing at the foot of the page. We can heartily recommend these little volumes. (Mailing price 55 cents.)

The same publishers send us two laboratory guides, one on zoology, to accompany Linville & Kelly's "Text-book in General Zoology," and the other "Exercises in Chemistry," by McPherson and Henderson, to accompany their "Elementary Study of Chemistry;" (mailing price 45 cents each). The former hand-book would be useful to the younger members of our Natural History Societies, and to the teachers whose nature study lessons include forms of animal life,

Messrs. Geo. Philip & Son, London, publish "A Junior Course of Comparative Geography," to be used with their "Progressive Atlas." The very full sets of questions and exercises and the use of plates and pictures, are noticeable features of this attractive volume (price 2s. 6d.)

Messrs. Geo. Philip & Son, 32 Fleet Street, London, E. C., publish a handy volume Atlas of the World, price 3s. 6d., with very plain maps and much valuable statistical matter carefully revised to date.

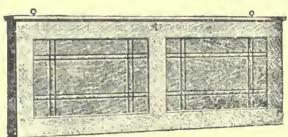
#### RECENT MAGAZINES.

The Delineator for May sets a great variety of reading before its subscribers, as well as the usual number of pages devoted to fashions and household matters. Two delightful serials are running in this magazine. "The Chauffeur and The Chaperon," and "Fraulein Schmidt and Mr. Austruther," a story which quite sustains the reputation of the author of "Elizabeth and Her German Garden."

The Living Age can be relied upon to furnish interesting reading on the affairs of foreign nations, and on topics of the day. For instance, the issue for April 6th contains an article on "The Second Duma" and one on the situation in Germany, while that for April 13th has a most readable and informing paper on "The State Children of Ilungary," and one by Lord Dunraven on the "Reform of the Ilouse of Lords."

The University Magazine, published by the Macmillan Co., is a continuation of the McGill University Magazine;





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its main purpose is avowed to be that of expressing an educated opinion upon questions immediately concerning Canada. Accordingly, we find in the February issue, an interesting paper entitled "What will the West do with Canada," and an article on Canadian Art and Artists, All the papers are of a high order of literary merit, and the whole appearance and tone of the magazine are admirable.

Educational Department New Brunswick.

## OFFICIAL NOTICES.

### Department Examinations, 1907.

(a) The High School Entrance Examinations will begin at all Grammar and Superior Schools on Monday, June 17th.

At these examinations the Lieutenant-Governor's Medals are to be competed for, in accordance with instructions issued from the Education Office.

- (b) The Normal School Closing Examinations for License will be held at the Normal School, Fredericton, and at the Grammar School buildings, Chatham and St. John, beginning on Tuesday, June 11th, at nine o'clock. a. m.
- (c) The Normal School Entrance Examinations and Preliminary Examinations for Advance of Class, the High School Leaving Examinations and the University Matriculation Examinations will be held at the usual stations throughout the Province, beginning at nine o'clock, ta. m., on Tuesday, July 2nd.

Examinations for Superior School License will be held both at the June and July examinations.

For further details in regard to the Departmental Examinations, see School Manual, Regulations 31, 32, 45 and

#### CLOSE OF TERM.

The number of Teaching Days in present Term is 121, except in the City of Saint John, where the number is 120. The last teaching day of the Term is Friday, June 28th.

The First Teaching Day of next Term will be Monday, August 12th, except in Districts having eight weeks' summer vacation, in which Districts the schools will open August 26th.

ENGLISH LITERATURE FOR HIGH SCHOOLS, 1907-8.

Grade IX. Selections from Reader No. V, and Scott's Lady of the Lake.

Grade X. Macaulay's Lays of Ancient Rome. Hawthorne's Tanglewood Tales, Part I, Scott's Ivanhoe for Supplementary Reading.

Grade XI. Shakespeare's Henry V. Milton's Lycidas, Il Penseroso and L'Allegro. Dickens' Tale of Two Cities for Supplementary Reading and Essay Work.

The Literature for Grade XI will be used in examinations for Candidates for First Class, Matriculation and Leaving Examinations in 1908.

> J. R. INCH, Chief Superintendent of Education.

Education Office, April 25th, 1907.

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