

THE EDUCATIONAL REVIEW.

FOR THE ATLANTIC PROVINCES OF CANADA.

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ST. JOHN, N. B., DECEMBER, 1899.

WHOLE NUMBER, 151.

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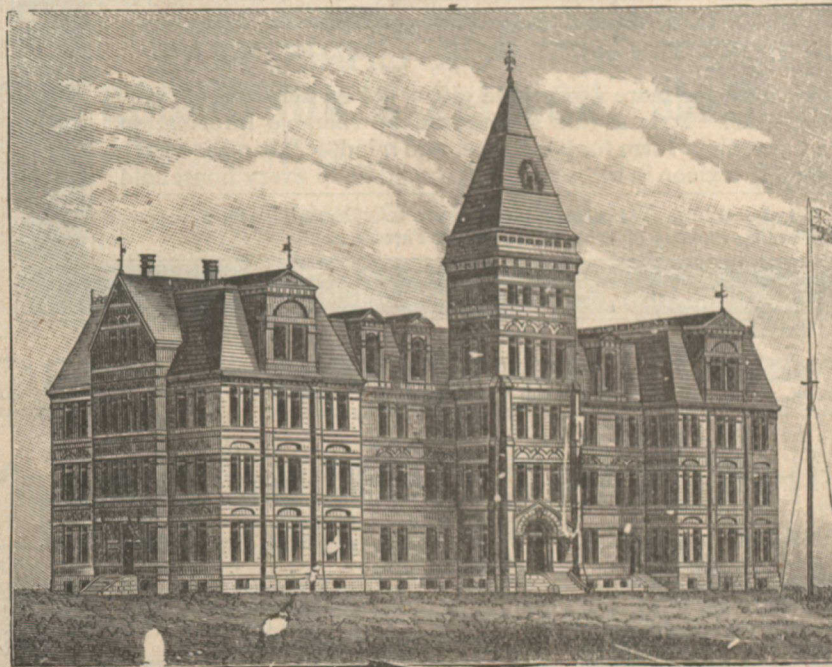
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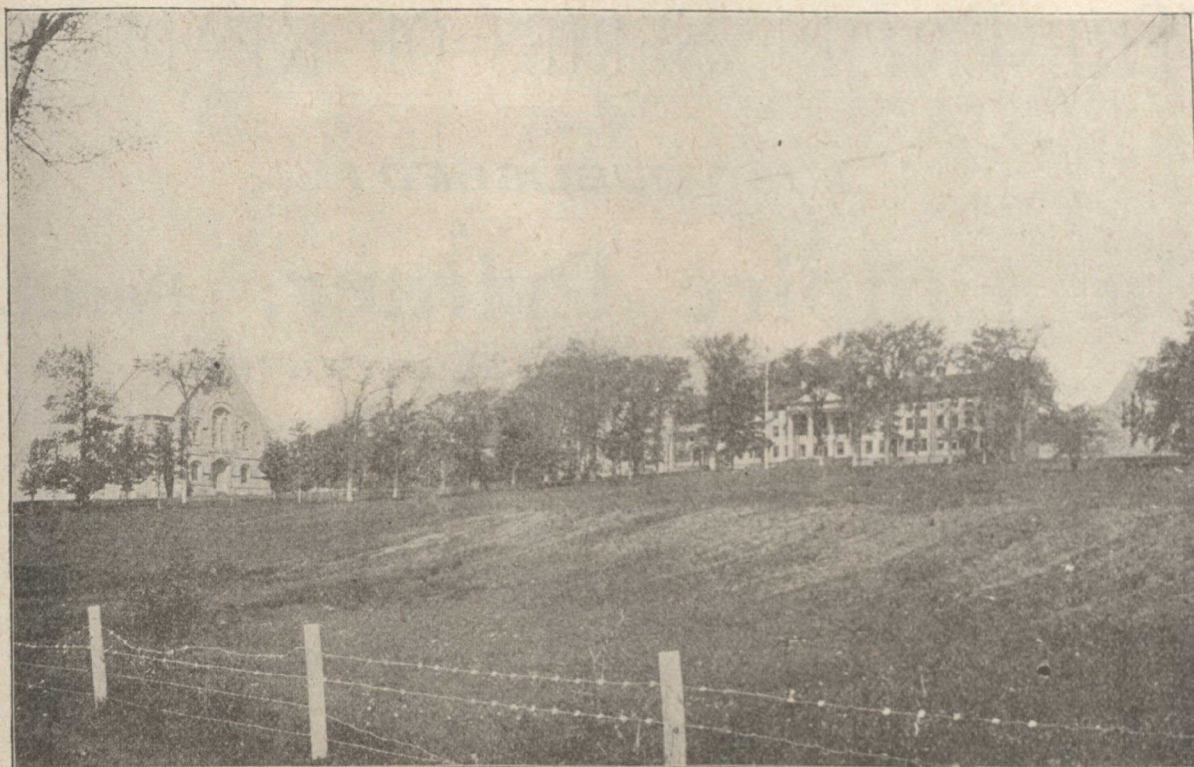
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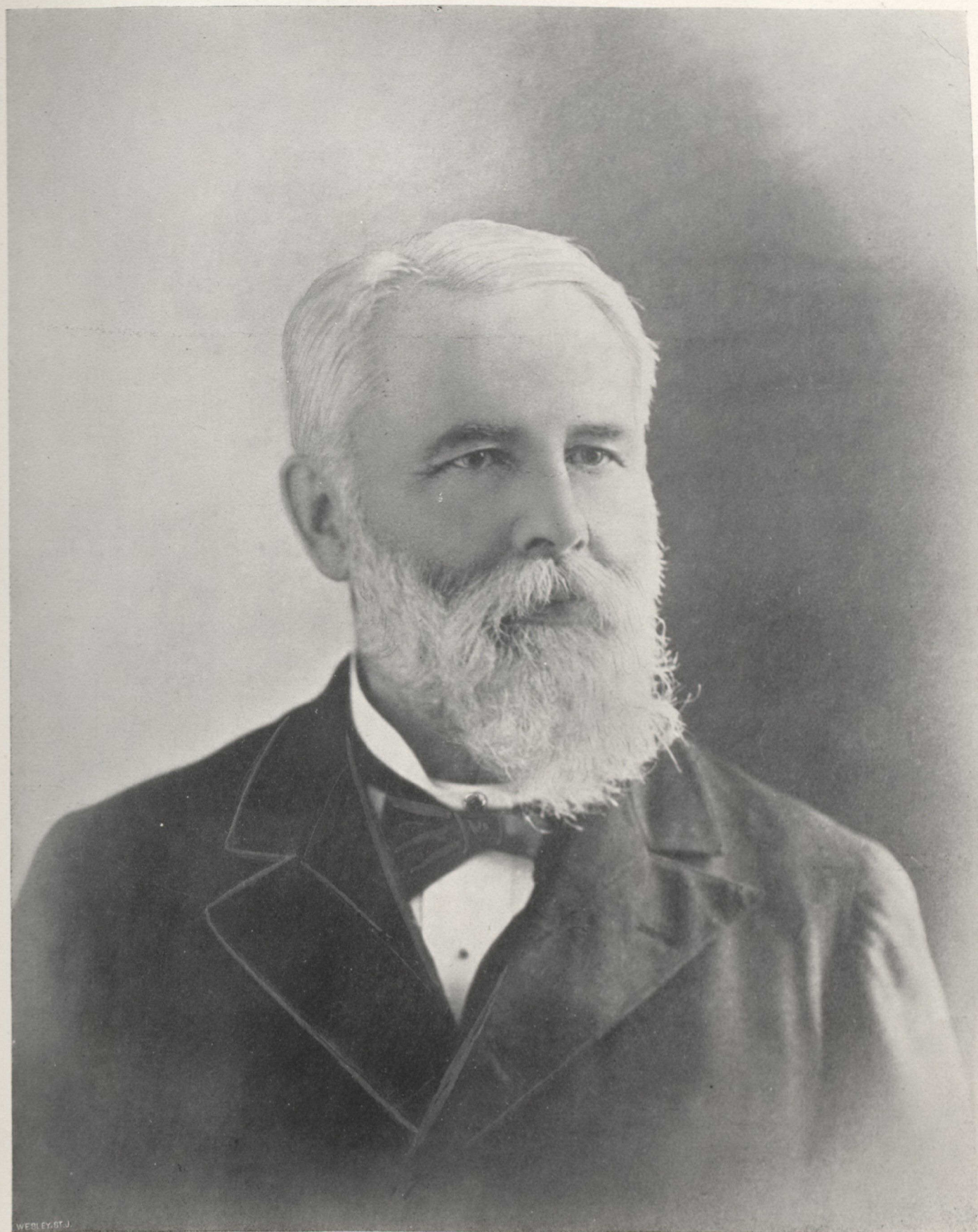
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Educational Review Supplement

CHRISTMAS, 1899.

TO OUR READERS:

"A Merry Christmas and Happy New Year."

CHRISTMAS.

R. J. WESTON.

HELEN B. KENDALL.

1. Christ - mas! glad Christ - mas! to all mer - ry Christ - mas!

Sing till the ech - oes shall an - - swer a - gain!

This is the birth - day of Je - sus the Ho - ly,

Je - sus who came to bring good - will to men.

2

Growing in wisdom and growing in stature,
Trying our parents each day to obey,
We, little children, may be like the Christ-Child,
Loving and giving and blessing alway.

3

Then sing, "Merry Christmas" to father and mother;
And sing, "Merry Christmas!" to playmates so dear,
Warm hearts and helpful hands, lips that speak gently,
Bring merry Christmas and happy New Year.

THE FLAG WE LOVE.

Arranged by WM. SELBY

1. ¹We are bear - ing the flag of the red, white, and blue, As in
 2. ⁵With the hon - ors of war - fare and strife brave - ly won, It has
 3. ⁹March - ing on, march - ing on, with our face to the foe, ¹⁰May we

iel - low - ship we stand;— To our loved Un - ion Jack we will
 waved o'er land and sea; And tho' bat - tered and scarred, still it
 ne'er like cow - ards move; ¹¹Truth and Jus - tice a - head to re

ev - er be true, Glori - ous ²em - blem ³of our ⁴land!
 sails proud - ly on,— 'Tis the ⁶ban - ner ⁷of the ⁸free!
 pel ev' - ry blow,— ¹²God will shield the flag we love!

DIRECTIONS.

1.—Stand erect, flag over left shoulder, right arm at side, tread left and right through first three lines.
 2.—Right arm horizontal sidewise, palms down at this word. 3.—Back of finger tips at temple. 4.—
 Right arm horizontal again, then drop at side. 5.—Flag over right shoulder, tread left and right through
 three lines. 6.—Left arm horizontal. 7.—Back of fingers at left temple. 8.—Left arm horizontal again
 sidewise, then drop at side. 9.—Eight steps forward, wave flags. 10.—Eight steps back. 11.—Turn
 around in time to place, wave flags over heads. 12.—Flag clasped in both hands and raised, look
 steadily, till close of last line.

HARK! THE BELLS ARE RINGING.

1. **A** Hark! **B** the bells are ring - ing gay, 'Tis the eve of Christ - mas day,
 2. **F** Hear a voice that whis - pers near, Like an an - gel in your ear,
 3. **H** Three hur - rahs for snow and ice, **I** Slides and **J** snow - balls are so nice,

Hol - li - days have now be - gun **C** Full of mer - ri - ment and fun,
F You have poor - er neigh - bours near, **G** Share with them your Christ - mas cheer,
 We the hap - py play now see, **K** And **L** per - haps a Christ - mas tree,

Mer - ri - ly we pass our time, Mer - ry as the Christ - mas chime,
 Ev - 'ry child can spare a - part, And re - joice an - oth - er's heart,
 Who loves danc - ing, who can skate, Who de - lights to sit up late,

May the com - ing New Year too, Be a hap - py one **D** to you.
 Win - ning love that nev - er dies, Love the best of hu - man ties.
 Let us raise a **L** hear - ty cheer, **M** Christ - mas comes but once a year.

GESTURES FOR "HARK! THE BELLS ARE RINGING."

- A) Listening attitude.
- B) Joyful telling to each other.
- C) Indicate fulness with both hands.
- D) Point to each other.
- E) Listening.

- (F) Turn to each other.
- (G) Both hands in front to show generous giving.
- (H) Swing handkerchief over head.
- (I) Both hands quick movement from upper right down.
- (J) Make quickly and throw across table.
- (K) Hand at side of mouth telling secret cautiously.
- (L) Swing hands over head.
- (M) Clap hands joyfully.

SUMMER RAIN.

Moderato.

Music by the late T. CRAMPTON.

mf

1. Drop-ping, soft - ly drop - ping, Falls the sum - mer rain ;
 2. On the low roof fall - ing, Drip - ping from the eaves,
 3. Droop - ing buds and blos - soms Lift their grate - ful heads,

1. Drop - ping, soft - ly, soft - ly drop - ping, Falls..... the sum - mer rain ;
 2. On the low roof fall - ing, fall - ing, Drip - ping from the eaves,
 3. Droop - ing buds and blossoms, blos - soms, Lift..... their grate - ful heads,

1. Hear its sil - v'ry plash - ing On the win - dow pane.
 2. Cheer - ing low - ly grass - es, Glis - t'ning on the leaves.
 3. Spring - ing up with glad - ness From their moist - ened beds.

1. Hear its plash - ing On the win - dow pane.
 2. Cheer - ing grass - es, Glis - t'ning on the leaves.
 3. Spring with glad - ness From their moist - ened beds.

CHORUS. *mf*

There's music in the summer rain, The drops sing out a sweet refrain, That fall so gen - tly on the plain.

p *f* *p dim.* *pp*

"For I dipped into the future far as human eye could see
 Saw the vision of the world, and all the wonder that would be.
 Till the war-drum throbbed no longer, and the battle flags were furled.
 In the parliament of man, the federation of the world.
 Then the common sense of most shall hold a fretful realm in awe,
 And the kindly earth shall slumber lapped in universal awe.
 —For I doubt not through the ages one unceasing purpose runs,
 And the thoughts of men are widened with the process of the suns."

—"LOCKSLEY HALL."

(From "The Bouquet of Kindergarten and Primary Songs,"

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The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

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ST. JOHN, N. B., DECEMBER, 1899.

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G. U. HAY,
Editor for New Brunswick.

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THE EDUCATIONAL REVIEW.

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Always Read this Notice.

THE EDUCATIONAL REVIEW is published about the 10th of every month. If not received within a week after that date, write to the office.

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EDUCATIONAL REVIEW,
St. John, N. B.

THIS number of the *REVIEW* contains forty-two pages, a four-page Christmas music supplement, and a full page portrait of Chief Supt. Dr. Inch—in all forty-seven pages. It contains contributions from leading educationists in these provinces, and is, without exception, the fullest and most valuable number of the *REVIEW* yet published during the nearly thirteen years of its existence. It well represents the educational spirit and generous support of teachers.

THE music supplement that accompanies this number will, it is hoped, reach the schools in time for Christmas entertainments. But two of the four selections may be used at other times. The portrait of Dr. Inch has been made large so that it can be framed and hung up in the schoolroom.

Look at our advertising columns for Christmas presents,—valuable, useful, and that will last a lifetime: Books, Webster's International Dictionary, and the Empire Typewriter.

WE publish on another page the full text of Mr. Henderson's stimulating address on the Teacher's Self-Improvement. It contains suggestions that every teacher should carefully weigh and then put into practice if he or she has not done so already. We do not think that Mr. Henderson should assume a half apologetic tone when he urges teachers to devote a portion of their leisure time to study and self-improvement. Every business man, member of a profession or trade, who aims to be successful, must devote his days and part of his nights to toil and study. If teaching is to become a profession, it must be by constant self-improvement, self-culture. And this requires toil, sacrifice, devotion.

IN this number we send reminders to subscribers of their indebtedness. They amount in the aggregate to many hundreds of dollars. The amount for each subscriber is small. If sent promptly, it will enable us to meet the year 1900 with a clean sheet—owing no man anything. More than that, it will enable us to add improvements to the *REVIEW*.

ONE of the most notable of recent contributions to educational literature is the convocation address of Prof. J. G. MacGregor at the opening of Dalhousie University, Halifax. The interest that Dr. MacGregor has always taken in the public schools, his judicious criticisms of their defects, and his timely suggestions for their improvement, have given weight to his views whenever they have appeared. The *Dalhousie Gazette* has published the full text of this latest address, "On the Utility of Knowledge-Making as a means of Liberal Training," and the *REVIEW* hopes to publish in its next number an outline of what Dr. MacGregor has said on this suggestive topic.

THE death of Miss Hannah Crawford, teacher, of St. John, on the 5th of December, was heard with sincere regret by her friends. The deceased lady had for many years taught the school, grade eight, girls, in the Victoria, and more recently in the High School building,

St. John. Her gentle and unassuming manners, amiable disposition, and her many noble qualities of mind and heart, endeared her to her friends and pupils. The latter, especially, will cherish her memory as an earnest teacher and good woman, whose influence was ever directed to make the lives committed to her charge pure, self-sacrificing and elevated.

An Association of Teachers has been formed in Fredericton, the example of which should be followed by other cities and towns in the Maritime Provinces. In this matter the country districts have taken the lead, and many have been for some time in existence there: St. Stephen parish, including towns in it, organized associations nearly a year ago. These are not confined to teachers but include school officers and parents. Their chief aim is to bring about a closer co-operation of the home and school in all departments of work; and it may be expected that the Fredericton teachers will sooner or later broaden their aims and furnish a worthy example to those yet outside of what may be effected in this direction. Fredericton should be the centre of educational activity and progress in New Brunswick.

Why should not other cities, such as Halifax, St. John, Truro, Moncton, Pictou, New Glasgow, Yarmouth, Chatham, and others have their local associations of teachers?

A Half-Century of Educational Work.

To have completed a half-century of active and uninterrupted educational work is the almost unique experience of Chief Superintendent Dr. JAMES R. INCH, of New Brunswick. The REVIEW and its many readers, not only in his native province but elsewhere in Canada, join in extending to him warm congratulations on the event. The fifty years must have been full of labor, for Dr. Inch has risen from the teacher of a district school to the highest educational position in the province. And yet the years have dealt kindly with him, not dimming the lustre of his eye nor lessening appreciably his health and vigor. His life has demonstrated that there are rewards in the teaching profession; and the greatest reward is, that hundreds of his students in every walk of life regard him with feelings of love and respect.

In the autumn of 1849, Mr. Inch, then in his fifteenth year, was admitted to the Training School for teachers, which had been established in the City of St. John, in 1848, under the principalship of the late Edmund Hillier Duval. The school at that time occupied rooms in the Mechanics' Institute building. The total enrolment of candidates did not exceed twenty-five. No female candidates were admitted until 1851. Up to that time the proportion of female teachers employed throughout the province did not exceed one-fifth of the total num-

ber, quite a different state of things to what we have now. The board of examiners for teachers' license was composed of James Patterson, M.D., principal of the St. John Grammar School, LeBaron Botsford, M. D., and Robert Jardine, Esq. The examination held in December, 1849, was both oral and written, and the teachers were classified, as at present, into three classes, based on the results of the examination.

On the 11th day of January, 1850, Mr. Inch began his lifework as a teacher in the parish of Greenwich, Kings county, where he continued to teach until July, 1851. He then removed to Keswick Ridge, York county, where he remained for three years. In 1854 he began his work in the Sackville institutions, which owe so much to his skill, devotion, and administrative ability. The sketch of Dr. Stockton on another page is a fitting tribute to his work there.

Since assuming the position of Superintendent of Schools for New Brunswick, a position which had been offered to him eight years before but which he declined to accept at that time, Dr. Inch has devoted his energies to the extension and development of the public educational system of the province. He has aimed to raise the standard of the teaching profession, to extend the advantages of common school education to the remotest settlements, and especially to develop and strengthen secondary education so as to place within the reach of prospective teachers and others better opportunities for a higher education. That he has been successful, the excellence of the secondary schools, the fine buildings and the increased facilities for higher work in the cities and towns of the province, give abundant testimony. The gap between the schools and the university has been filled, resulting in a much larger number of applicants for the matriculation examinations and an increased attendance at the University. While all branches of our educational work have increased during Dr. Inch's regime, that of the secondary schools has been most marked. The number of higher class teachers employed has increased about fifty per cent, and the number of pupils in the high school grades about one hundred and fifty per cent.

A Case for Active Sympathy.

A teacher in New Brunswick wrote to us a few days ago, saying that he was very ill and had been compelled to give up his situation. In closing, he says, "I must ask you a question: Is there no way for a young teacher who is sick and poor to get relief from the Board of Education? Though the amount might be small it would help him to pay for medicine to restore him perhaps to health."

On writing for further particulars to the inspector of

the district in which this teacher lives, the following reply was received: "I have not had any direct word from _____, but his trustees have written me that he had to give up his school, and they think he has poor prospects of recovery. . . . I feel that it would be an excellent thing for teachers to have some organized means of giving mutual assistance in cases of need. All other trades and professions combine for that purpose, and why should teachers be so far behind. They are allowed to be among the most intelligent, and why should they act as if they were among the least. My own explanation of this anomaly is that they are so much engrossed in working for others that they have neither time nor energy to devote to their own interests. . . . I trust that the REVIEW will take up this matter of co-operation among teachers. . . ."

Teachers of course know that the Board of Education has no power to act in this matter. The Provincial Teachers' Institute, or the institute of the district to which the teacher belongs, may have funds, but they are not available for such a case as this. Is it not clear, as the inspector suggests, that we should "have some organized means of giving mutual assistance in case of need?" But we have none. There is a great deal of truth in what he says that teachers are so engrossed in working for others that they do not give that attention they should to their own interests. We have known, on many occasions, when cases of real distress were brought to the notice of our teachers, that their response was instant and generous. It would undoubtedly be so in this case, and one fireside be made brighter at this Christmas season, if the matter were brought directly to the attention of teachers, or their representatives, in a "Teachers' Benefit Association." We hope that such an organization will soon spring into life.

TALKS WITH TEACHERS.

A Board of School Trustees made application a few days ago for a *modern* teacher, one trained since 1896, if possible. This shows the trend of opinion in some districts at least, and probably in more than many teachers imagine. We are not unused to hearing adverse criticism in some country districts of up-to-date ideas, but when it comes to engaging teachers very few prefer the so-called old-fashioned ones. The unprogressive teacher finds himself each year pushed further into the back-ground and should not fail to discern the signs of the times. As has been frequently pointed out, there is no stationary state in matters educational—the teacher who does not advance must fall behind. She must not only read but she must run, and the teacher who does not associate with other teachers to sustain and broaden her efforts is regarded with suspicion. The teacher who remains content with a third or a second class license cannot long keep up with the procession. It is safer to be progressive than conservative.

But some may ask what inducement is held out to teachers in the way of substantial gain, to add to their

qualifications? Increased efficiency is the most potent factor in the salary question, and though recognition of it is much too slow, it is nevertheless sure. Teachers as a general rule do not themselves place a sufficiently high estimate upon their services. Business men recognize the axiom "that a man is about worth what he asks." Teachers should do the same, and school boards would soon come to think the same way.

I do not know any more favorable time for first class teachers of approved skill to assert themselves than the present. Their services are in demand, the supply does not exceed the demand, and they have, if they know it, the solution in their own hands.

Given the modern teacher, the modern salary should be demanded. "Something should not be expected for nothing."

Outside the salary question it may be added that the consciousness of good work is its own reward. But how is the modest, hard-working teacher to reach an estimate of the value of her services? Many of our best teachers seem "to blush unseen" and are starving for appreciation. If it were not for the infrequent visits of the inspector, all teachers would radiate in a much narrower sphere than they do at present. He cannot bring them to the front as he would wish, owing to local prejudices by which merit is subordinated to the home talent and other ideas.

School boards are not backward in commending and rewarding bright pupils, but little is said usually concerning the zeal of the teacher who has had most to do with their scholastic triumphs. For the most part "chill penury represses their noble rage" and is permitted to continue to do so. Why should not school boards at the end of each year send notes of commendation to their most deserving teachers? They little realize how such a kindly act would exalt the hard-worked recipients. Why should they not emancipate themselves from their machine scales of salary and give an advance for good work as all other corporations do? It would return dollars with the expenditure of cents.

Teachers! band yourselves and compel recognition. A teacher holding a university degree wrote rather despairingly of her prospects not long ago, because she is a woman, and all the best positions seemed closed to her. She said that she felt able to cope with the difficulties of any school, but that she could not sufficiently convince school boards to give her a trial, and she was compelled to "labor and to wait" for more intelligent appreciation. It cannot be denied that these provinces are each year giving an expensive college education to some of their brightest girls; and in declining to give them remunerative employment allow their services to be lost to us and to be given to the United States, where they are probably richer and no doubt wiser.

In a general way, however, women cannot complain of their present status in the teaching profession. They monopolize at least four-fifths of the positions in it. It may be that in time few positions will be open to men. Such a condition is not desirable.

JAMES R. INCH, M.A., LL.D.**Fifty Years of Educational Work.**

By A. A. STOCKTON, LL. D., D. C. L.

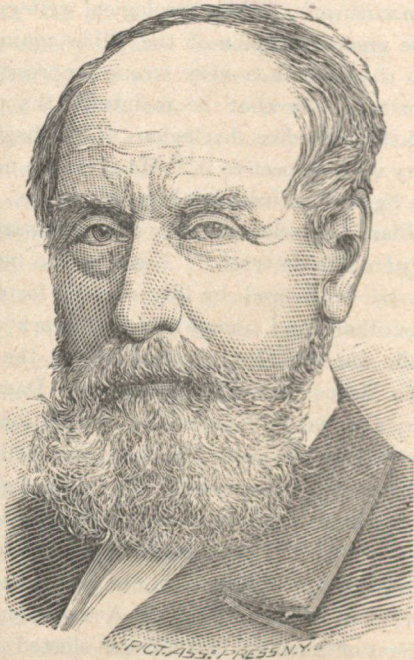
Fifty years in the life of a nation or an institution is a short time; in the life of an individual it is a long time. Fifty years of continued successful effort by an individual in any department of human activity is sufficiently noteworthy to call for more than passing comment. If the life of Dr. Inch, the present Superintendent of Education in New Brunswick, is spared till the 11th day of January next, he will have completed fifty years of honorable service in the educational work of our country. And yet he cannot be classed among the generation of old men in our midst. He began his educational career when young, in the service of the public school system of the province, as it existed prior to what we now know as the common school system. He attended the training school of that early time, graduated from it with a first-class license, and under the authority of that license began his educational work. A service of a few years as a public school teacher showed his aptitude for his chosen calling; and in August, 1854, he was called to Sackville and given charge of the primary department in the old academy. Many of the men in middle life, or still more advanced age, in the Maritime Provinces, now occupying important positions, can remember well the primary department in the old academy, and the start they made there toward acquiring an education. When I went to Mt. Allison, in July, 1859, I began the study of Latin in that department, and James R. Inch was my instructor. The acquaintance then formed between teacher and pupil rapidly ripened into a friendship which has continued unbroken to the present.

In 1858 legislative authority was granted to Mt. Allison to organize a college proper, with power to confer degrees in all the faculties. That organization took place in 1860, and Dr. Inch became a student in the college, at the same time continuing to teach three hours a day in the academy. The first class, graduated B. A. from Mt. Allison in 1863, was not large in point of numbers—Senator Wood and Rev. Dr. Sprague. Dr. Inch graduated in the class of 1864, having as fellow graduates as B. A., Dr. Ayr, at present of Amherst, Rev. A. D. Morton, and the writer, and W. C. Milner as Bachelor of Science. Dr. Inch, as a student in the university course, established a reputation for thorough work and accurate scholarship, and immediately after graduation he was appointed vice-principal of the ladies' college, and professor of French and English in the university. The late Dr. Pickard was at that time

at the head of the united institutions; and the writer is in a position to state that Dr. Inch was held in high regard by him as an educationist and administrator. The M. A. degree was conferred in regular course in 1867; and in 1868 he became principal of the ladies' college. During his time as principal, great improvements were made in that branch of the Mt. Allison institutions. The building was enlarged and improved. A new wing was added and the mansard roof put on. The debt was paid off; and without intending or desiring to make any comparison, it is doubtful if that department was ever in a healthier condition, so far as respects sound academic education. Ten years were spent as principal. In 1878 his alma mater conferred upon him the degree of LL. D., and the same year he was appointed president of the university, also holding the chair of logic and philosophy. The memorial hall was built during his presidency, and large additions were made to the endowment fund. When the university of Halifax was organized, Dr. Inch, in 1887, was appointed by the Nova Scotia government a fellow, a member of the senate, and an examiner in logic and philosophy. In 1891 he resigned the presidency of Mt. Allison to accept the office of chief superintendent of education of New Brunswick, by virtue of which he is also president of the Senate of the University of New Brunswick. That position he now fills. Those who know Dr. Inch the best, who have had the fullest opportunities of judging him, have always regarded him as a man of broad views, good scholarship, and fine executive abilities. In the many important positions of responsibility and trust held by him at Mt. Allison, he discharged his duties in a manner to command confidence and respect. It is not necessary to speak of his work as chief superintendent of education. The duties are not only educational, but are under the control of the government of the day, and to some extent must be directed by government considerations. He has not in that department a free hand; but the consensus of opinion is that he has made a good superintendent, and has won the esteem and respect of the teachers. The work and influence of fifty years belong now to the public. The results are many and manifest. A sense of delicacy and friendship forbids my saying in warmer language what has been in my mind. James R. Inch has done his work well; he has to the satisfaction of the public discharged his high public trusts. His friends hope he may have yet many more years of usefulness before him, and that as he travels down the western slope of life he may be cheered by the reflection that his work has been important, and that he has accomplished it creditably to himself and satisfactorily to the public.

Sir John William Dawson.

BY A. H. MACKAY, LL.D.



On the 19th of last month Sir John William Dawson, the most widely known Canadian educationist and scientist, passed gently away in his seventy-ninth year. Some sixteen months ago a slight stroke of paralysis indicated the wearing out of his physical powers, which were so constantly employed under a mind whose active labor scarcely ceased until about two weeks before the end. Then

“Of no distemper, of no blast he died ;

But fell like autumn fruit that mellowed long.”

In no part of Canada has the career of Sir William Dawson been more closely followed than in these provinces by the sea ; for he was born here, he was inspired with the spirit of scientific research here, and his earliest educational and scientific efforts were made here, with all the promise of his subsequent Canadian and world-wide renown. And when he left us for a wider field of labor, he did not forget us, as the readers of the REVIEW have had occasion to know. His life will continue to be an inspiration to many as the tide of years flows on ; but the skeleton sketch can not be expected to reveal its spiritual influence. The hand of the skilful biographer will undoubtedly soon give us a glimpse of the living, active, and conquering man, showing what has been done by man in the past, and what, therefore, can be done by men in the future.

John William Dawson was born in the town of Pictou, Nova Scotia, on the 13th day of October, 1820. His

father, James Dawson, was a bookseller, in whom the scientific instinct was indicated by the superior class of books which he introduced to the public, and which was to some extent responsible for the advanced scientific character and reputation of the people of that community and generation throughout the province. His education was begun in the Pictou Academy. At the age of twelve he became a collector and student of the fossils in the neighboring geological formations. In 1841 he went to Edinburgh University, and in the following year accompanied Sir Charles Lyell in his geological tour of the province. His first scientific paper was published in Edinburgh in 1841, on some species of field mice in Nova Scotia. After this follows a long series of papers, mainly geological. One hundred and thirty titles would not cover the list of his scientific papers and books published. In 1846 he returned to Edinburgh, where he finished his university career.

In 1850, at the age of thirty, we find him appointed as the first superintendent of education for the province of Nova Scotia. For three years he worked hard to arouse a proper public spirit with reference to education. He held institutes of teachers, lectured, published a journal of education, converted members of the legislature to a belief in the advantage of a free school system, although they feared the effect of the introduction of compulsory taxation on their constituents too much to act on their convictions. He stimulated the teaching of science and its practical application to agriculture, on which he prepared an admirable text book. He also prepared the way for the establishment of the Provincial Normal School. About this time too, as a member of a commission appointed by Sir Edmund Head, he aided in the regulation of matters in connection with the University of New Brunswick. He also lectured at this time on the geology and natural history of Nova Scotia, in the Pictou Academy, and in Dalhousie College, Halifax.

In 1855 he was appointed Principal of McGill University, which at that time had only fifteen students in attendance in the arts course, a weak law faculty, and the beginning of the present strong medical faculty. When in 1893 he was relieved from the work of lecturing in the University, on account of symptoms of failing health, and was appointed to honorary positions with well-merited emoluments for his remaining days, the University was attended by over a thousand students. As a lecturer he was uniformly easy and fluent, picturesque and clear. It might be possible to disagree with him as to his conclusions, but no one could misunderstand his contention. In the earlier portion of his career, in Montreal, he had to lecture on a variety of

scientific subjects—zoology, botany, and even chemistry—as well as his own particular specialty—geology. But in 1857 he had a Normal School established in connection with the University, for the training of teachers, and for thirteen years he was the principal of this institution. In 1858 the faculty of engineering, which has since reached so full a development, was created.

In geology he did good work in every department, the most striking being, probably, in the geology and palæontology of the carboniferous and later systems, as well as in the laurentian, in which he discovered the earliest fossil organism, *Eozoon canadense*, and demonstrated, against much scepticism, its real character. His earliest book indicated the wide range of his observations, his "Handbook of the Geography and Natural History of Nova Scotia." In 1855 he published the first edition of his "Acadian Geology," which was enlarged in 1860. Eight years after it was still further revised, and remains at present the only standard text book on the geology of the Atlantic provinces. In 1871 his "Handbook of Canadian Zoology" was published in Montreal. In 1872 the "Story of Earth and Man" was published in London. "Nature and the Bible" was published in 1875 in New York. "Life's Dawn on Earth" (*Eozoon*) appeared in London the same year. "The Origin of the World" was published in London and New York in 1878. "Fossil Men and their American Analogues" came out in London, 1880, and "The Chain of Life in Geologic Time" in 1881. The "Geological History of Plants" appeared in New York, 1888; "Modern Science in Bible Lands," in 1888 also, in London and New York. The "Handbook of Canadian Geology" appeared the following year in Montreal. "Modern Ideas of Evolution" was published in London, 1890. "Some Salient Points in the Science of the Earth" appeared in London and New York in 1893. "The Ice Age in Canada," and "The Meeting Place of Geology and History," followed in 1894. Still later we find "The Historical Deluge," "Eden Lost and Won," and the "Ethics of Primeval Life," 1897.

As an evolutionist Sir William Dawson does not go to the extreme of most scientific men of the present day. He believed in the geological evolution of the earth from a primitive created condition, and his exposition of the evolution described in the first chapter of Genesis is a very interesting feature of his book, "The Origin of the World." He believed in the evolution of varietal forms in animal and vegetable life; but he did not believe in the spontaneous evolution of nothing into atoms and force, nor of the evolution of dead matter into living forms. He says under the heading "True Evolution and False"—that "the term 'evolution' need not in

itself be a bugbear on theological grounds. The Bible writers would, I presume, have no objection to it if understood to mean the development of the plans of the Creator in nature." While theological writers refer to him as the great champion of the Bible against infidel scientists, they create a very wrong impression when they seem to imply that he maintains the prevalent notions of the orthodox theologians of the beginning of the century with respect to it. He gives it a new meaning in the light of accurately observed nature.

Sir William's ceaseless activity was necessary for the discovery of valuable truth. Nothing can now be expected to be discovered by idly waiting for a chance. But on the other hand, many may both work and wait without the success that is attained by the man of genius who learns to work and watch. Dawson was successful; and we find extensive recognition of this fact. In 1881 he was awarded the Lyell medal of the Geological Society of London for his original geological researches. On the formation of the Royal Society of Canada in 1882, he was selected by the Marquis of Lorne as its first president. In the same year he was elected president of the American Association for the Advancement of Science; in 1886 was elected president of the greater organization, the British Association for the Advancement of Science; and in 1893 was elected president of the American Geological Society. In acknowledgment of his eminent services to education and science, he was created in 1881 a C.M.G.; and in 1884 was made a Knight Bachelor. He was also elected a Fellow of the Royal Society of England, of the Geological Society of London, and of the Royal Society of Edinburgh. He received honorary degrees from several universities.

He was married in March, 1847, to Margaret A. Y., daughter of G. Mercer, of Edinburgh, who survives him. He has five surviving children, the eldest of whom is Dr. George M. Dawson, C.M.G., at present Director of the Geological Survey of Canada, a man inheriting the intellectual power and industry of his father.

TEACH CHILDREN TO READ ALOUD.—A mother should take great pains to teach her children to read aloud acceptably. Much time and money are often expended in cultivating the voice for singing, and yet quite as much pleasure may be given by the person who reads aloud in a pleasing manner. No attempt need be made at elocution as the word is ordinarily understood; distinct utterance and proper emphasis so as to convey easily to the hearer the meaning of the sentences read are all that is necessary.—*October Ladies' Home Journal.*

NATURE STUDY — DECEMBER.

Most of the birds have gone south because of the cold, but chiefly because they can no longer obtain food here. Frogs, toads and moles have gone to sleep down in the mud or earth below the frost. Toads as well as snakes hibernate where it is nearly dry,—under stones, logs and other debris. (The writer lifted up a log recently beneath which four snakes lay snugly ensconced for the winter). Bears, squirrels and other animals which hibernate have already found a snug corner in some hollow tree or other secure place. Caterpillars are waiting in their cocoons for the spring sunshine. Rabbits, foxes, and the domestic animals—cats, dogs, horses, cows—have donned a thicker coat of fur. What color is the northern hare or rabbit's fur in summer? In winter? Is it any benefit, think you, to the rabbit, that his fur is changed in color at the approach of winter? Can you name any other quadruped whose fur is changed to white in winter? Any bird?

Did you notice what deciduous tree or shrub was the last to part with its foliage?

An attractive study for this month is the common evergreens. Have your scholars been able to distinguish the different kinds of pine trees by the number of needle-like leaves in a cluster, as indicated in the October REVIEW? Which pine has the largest cones? Are they able to tell the difference between spruce and fir trees? Which has smooth bark with "blisters" upon it? Which is used for the "Christmas Tree"? Do they know the hemlock tree, with its small leaves and small cones? Do spruce, fir, hemlock and cedar leaves grow in clusters or bundles like the pines? Why are the small leaves of evergreen trees best for winter?

Have you noticed now how plainly the buds can be seen on all the trees? and how well what is inside them is protected by the brown scales and gummy substance on them? What *is* inside these buds? Can you show your scholars by placing a branch or twig in water in a warm room? Try it.

"Does the crow migrate?" was a question on the Nature Study page of the last REVIEW. An observing correspondent writes: "On the southern coast of Nova Scotia crows are quite common all winter. They feed on the shore,—on shellfish, worms, etc. In Falmouth, N. S., at the mouth of the Avon, they are numerous in winter, large flocks often alighting in the barnyards, sometimes even invading the back kitchen in their voracious search for food. I think they would be abundant about Grand Manan and the islands and coast of southern New Brunswick. I have not noticed them in winter in the interior. Migration of crows, I should

say, is quite limited. It is altogether a matter of food." The same correspondent says of the "Winter Chippy," about which a similar question was asked: "I have seen 'Chippy' as late as Christmas and I do not know how much later. I had supposed they were here all winter."

Now, keep the ball moving. Can any of our observant readers tell us more about crows or "chippies," or any of the points enumerated above? H.

Autumn Ice-Pillars.

TEACHER. Well, what shall we have for our Nature lesson to-day?

SCHOLAR. There are lots of small ice-pillars all over the road this morning, each one carrying a stone or earth on its top, so that the whole road appears to be raised up over an inch in height.

T. How many of you have examined these ice-pillars? (All hands up). Do you see them in the middle of the winter or in the spring?

S. I do not remember. Anyway, I do not think it is common to see so much of it as we see now. It looks as if it comes only with the earlier frosts, mostly in November.

T. Well, that is a point you should be able to settle before next summer. Do you think you can settle it yourselves? If so, I would like to know how you think you could settle the question.

S. By careful observation during this fall, through the winter, and during next spring.

T. Very good, that is just the way to settle it. I think your impressions so far are very nearly correct; but it will be right to put them to the test of a year's examination as you decide. Now, from what we have already observed as brought out in our previous lessons on the action of frost, let us see how the freezing process goes on. Does the cold in our autumn hard frosts come from the earth under the surface or from the air above the surface of the ground?

S. It comes from the air above; for the ground has been warmed all summer by the sun, and while it is not hot it is for a long time warmer than the freezing point,—in fact it requires a long spell of frosty weather before the frost goes very deep into the ground.

T. True, we have all observed that to some extent. Then you think the frost must first chill the surface pebbles and soil down to the freezing point. Which part of the ice-pillar must be first formed, then?

S. I suppose it must be the part next the surface pebble. I do not see how it could be any other part.

T. Very good. Now you remember our experiments proving what happens when ice at the freezing point is

changed into water at the freezing point, and conversely, when water at the freezing point is changed into ice at the freezing point (*EDUCATIONAL REVIEW*, Jan., 1897, page 152, and March, 1899, page 214). Does cold water at the freezing point instantly congeal into ice?

S. No, for every portion of water which turns into ice gives out as much heat as would raise 142 times as much water one degree Fahrenheit in temperature, and that additional heat must radiate away before more of the water is frozen. The water must therefore freeze slowly from the direction in which the heat is going away.

T. Now, in what direction is the heat going away from the chilled pebble on the road?

S. The heat must go away upwardly into the cold air, and the freezing must begin at the bottom of the pebble.

T. Now, when the moisture under the pebble is changed into dry ice, how will that affect the moisture in the wet earth immediately under?

S. ———

T. If I put a mass of wet earth on the top of water or very wet earth, will any current of moisture be set up? If I put a lump of moist sugar in a teaspoonful of water, or a lampwick in oil, is any current of the liquids set up under the circumstances?

S. Yes, by capillary attraction the liquid rises into the pores of the less moist portion.

T. What would you expect to happen in the case of the moisture in the wet earth of the road, then?

S. Why, it would rise up towards the upper drier layer, and I suppose that when it would reach the base of the ice-pillar that it would freeze to it, and so raise the pillar higher by creating another layer of ice at the bottom.

T. Do these ice-pillars form in dry soil?

S. I do not think so, but I shall look more carefully to see when I am going home.

T. Why is it more likely for the formation to occur in the fall than during the middle of winter?

S. Because, for the pillar to grow from beneath, it would be necessary for the ground below to be warmer than the freezing-point, or else the water in it would not be free to move upward by capillary attraction to the surface which is being dried by the freezing of the water from the surface downwards.

T. Very good. You see now how Jack Frost is hoisting stones towards the surface of the earth. In addition to his being a window-pane artist he is also an engineer; for he is hoisting up, where the conditions are favorable, pebbles, stones and earth, with an apparatus acting very much like an hydraulic jack. But it is

a different one. Jack Frost does his hoisting by means of his freezing jack. Study these ice-pillars, and note how they grow from their lower ends. M.

The Heavens in December.

Those who watched for the November meteors saw the starry sky at midnight last month wearing nearly the aspect which it has at an earlier hour of the night in the middle of December. Each month sees the heavens advance from east towards west about thirty degrees, equivalent to the length of one of the signs of the zodiac. But the same advance can be beheld in the course of two hours watching on any single night. Thus the observer of the heavens at 10 o'clock, p. m., by waiting until midnight can see them as they will appear at 10 p. m. one month later. At 10 o'clock in the middle of December Orion is in the east, dominating all that quarter of the sky, while Sirius flames between him and the horizon. It is worth while to study the appearance of Sirius while the star is yet comparatively low in the east. At such times it possesses a beauty of shifting color which it entirely lacks when seen near the meridian. The rapid play of prismatic hues is indescribably splendid. If the Kohinoor could be hung up against a black background a hundred yards away with an electric light concealed behind it and transfusing it with fire, the appearance might possibly rival that of Sirius rising through an unsteady atmosphere on a clear December night.

Of the planets, Mercury is evening star at the beginning of the month and morning at the end. About the 25th it will be quite a conspicuous object in the morning twilight. Mars is too near the sun to be seen. Saturn passes from evening to morning star on the 17th, and on the same day Neptune is in opposition to the sun. Uranus is morning star near the bright red star Antares in Scorpio. So it is not a month for planets. Venus is beginning to assume her place as the evening star, which, when she occupies it, admits no rival. She can be seen in the flood of sunset light at the opening of December, but she will appear more beautiful at the close of the month, when she will linger above the horizon more than two hours after the sun has set. She is moving swiftly eastward among the stars, passing during the month from Sagittarius into Capricornus. Jupiter is morning star in Libra and brightens the morning sky as Venus does the evening sky, but like the latter is too near the sun to attract attention. Later in the winter these two leaders of the starry hosts will begin to reign.

Two eclipses occur in December, an annular eclipse of the sun, visible only around the south pole, on the 2nd, and a nearly total eclipse of the sun, visible generally in this country on the evening of the 16th.—*Condensed from Scientific American.*

THE SUMMER SCHOOL OF SCIENCE.

Session of 1900.

The Summer School of Science for the Atlantic Provinces of Canada will be held in 1900 at Bear River, N. S., an ideal spot for combined study and recreation. In 1899 it was held at Campbellton, N. B., amid the romantic scenery of the Restigouche and Metapedia rivers. The attendance amounted to over two hundred. In 1900 it should go beyond that number; for as the objects of the school become better known, and its unexampled opportunities for recreation are better appreciated, more and more will avail themselves of its advantages.

Object.

This Summer School was established for the purpose of affording teachers and others the opportunity of combining the study of some specialty with the rest and recreation of a delightful and inexpensive two weeks' outing. It encourages teachers to keep in touch with recent educational advances, and to fit themselves for more advanced positions in their profession. It cordially invites to its sessions earnest and aspiring teachers; first, those who, weary with the work of the year, require rest and recreation; second, those who seek inspiration and direction from contact with older and more experienced workers; third, those who wish to pursue some special study on more advanced lines. All educational workers—teachers, college and high school students, general students—will obtain special aid under the most favorable circumstances. Those who desire pleasure and profit combined will be cordially welcomed.

Location.

Bear River is a picturesque village of about 1200 inhabitants, situated on the river of the same name, about three miles and a half from Annapolis Basin.

According to some writers, the present name is a shortened form of La Riviere d'Hebert, named in honor of Louis Hebert, apothecary in de Monts' expedition, who sought to cultivate the vine along its banks. Another authority derives the name from Simon Imbert, a favorite captain under Poutrincourt. Whichever is correct, the fact remains that the place is replete with interest, and its historical associations afford ample scope for investigation along this line.

While this section of country was settled to some extent previous to loyalist times, yet at that time the population was increased, when the Waldeck, Hessian, and Bear River reservations were granted to disbanded German soldiers and to Loyalists. The population was further augmented by emigrants from Yorkshire who

settled here in 1811, whose descendants are still found in large numbers among the present inhabitants.

Though Bear River is not seen when alighting at the station, yet a short drive of four miles along the banks of the winding river, where at every curve one catches ever new glimpses of beauty, brings one in a short time to the "village of the hills" and the "home of cherries."

Here we find a most hospitable people, industrious and enterprising. Lumbering, farming and ship-building being the leading pursuits. So varied are the objects of interest in this locality that an outing here is most enjoyable. The natural scenery is unique. Possibly nowhere are there so many views within a small area. Nine highways find their termini in the town, and one cannot find a spot on the surrounding hills from which the entire village can be seen; some portions of it being still hidden away in the ravines which are both numerous and deep.

From Bear River as a centre there are many places of interest to visit within easy distance. Excursions by water have always been popular. A trip by steamer or sail down the Bear River and thence up the Basin to the old historic town of Annapolis Royal, the scene of so many conflicts between the English and French, can be thoroughly enjoyed. Here is Fort Anne with its old earthworks, magazine and barracks, as well as the numerous relics of by-gone days, impressing the mind more thoroughly than anything that can be written.

A day can be most pleasantly and profitably spent in visiting by steamer Point Prim, where one has a splendid chance to examine that wonderful break in the mountain range known as Digby Gut, a spot that gives a grand opportunity for geological investigation. Other excursions by water may be taken, any one of which cannot fail to please and interest. Then "a-wheel or a-foot" other points are within easy reach; so novel in their nature and interesting in the character of the surroundings, that each day may be spent in an almost ideal way.

Reference should be made to the opportunities of making geological collections. Within a short distance of the village one may study the granite, slate and trap formations, in the second of which many interesting fossils have and may be found. The ravines especially abound in points of interest both in geological and botanical features; and it has been said that few localities present so many varieties in both as are to be found in this vicinity.

An interesting curiosity—or a phenomenon in fact—is found in what is known as the "Turnpike." This is a perfectly formed roadbed of gravel of a good quality

lying to the south of Bear River, and running for miles through a perfect bed of granite on either side.

Within a mile of Bear River lies the Micmac reservation for western Nova Scotia. Here, with their own church, school and native governor, the Indians hunt and make articles peculiar to their race, and are some times willing to talk to strangers of those wondrous legends in which Glooscap figures to no small extent.

For sportsmen this is a centre for fishing and hunting and has no equal in Nova Scotia.

The last of July being the height of the cherry season, which luscious fruit comes to perfection here as no

exceptional opportunities will be afforded for discussing scientific and educational questions.

The excursions this year will embrace visits to the far-famed historical Annapolis Royal, and Fort Anne; also to Point Prim, with its romantic scenery, and Digby Gut, giving a grand opportunity for geological observation.

Subjects and Results.

There are three classes of subjects taught: The physical sciences, embracing physics, chemistry, geology and mineralogy; the biological sciences, including botany, zoology, physiology, and entomology; literature and



“OFF ON A HOLIDAY.”—MILLSTREAM, METAPEDIA RIVER, P. Q., AUGUST, 1899.

where else, suits most admirably the season for the Summer School of Science, whose members who have not already an intimate acquaintance with this delicious fruit will of a truth feel that a new delight has dawned upon them.

Class Work, Lectures, Excursions, etc.

Work and recreation are combined in a most attractive way; the mornings are given to lectures and laboratory work; the afternoons to field work and excursions, and the evenings to lectures and discussions, to which the public are invited. Leading scientific men are expected to take part in the evening meetings, and

music, which take in besides English literature and music, psychology, education, expression.

Provision is made for those who wish to continue their studies for a second year by providing, in certain subjects, a higher course. Students intending to take a second year's course should notify the secretary of their intention not later than May 1st.

Certificates will be granted by the faculty to those who finish the required work and obtain at least fifty per cent. of marks in the examinations. In these examinations credit is given for original and practical work done in the laboratory, and for collections, mounting and apparatus made. All laboratory work will be done

by aid of the simplest and least expensive apparatus, thus giving teachers valuable suggestions how to incorporate such equipments in the work of their schools.

The faculty of the Truro Normal School, also of Mount Allison University, Sackville, N. B., will give students credit for successful work done at the Summer School of Science.

Tuition and Expenses.

Each student is charged a registration fee of \$2.50, to be paid to the secretary-treasurer.

At the time of enrolment, this registration fee entitles the student to admission to all the ordinary classes. An additional fee of \$2 per subject will be charged for advanced classes, to be paid to the instructor.

Board can be secured for from \$3 to \$5 per week. To secure board at reduced rates application must be made to the local Secretary, W. E. Read, Esq., Bear River, N. S., not later than June 15th. *Great inconvenience to the Local Secretary and dissatisfaction and disappointment to the members of the school have been experienced in the past by neglecting to make early application. Be sure to apply for board, and do it in time.*

Be Careful to Notice

that intending students should notify the Secretary not later than June 1st, of their intention to attend the school and the subjects they purpose studying; that the lowest possible rates will be given by all railway and steamship lines; that a standard certificate must be procured, when purchasing tickets, to secure reduced rates; that fuller information will be published in the EDUCATIONAL REVIEW from time to time giving further particulars; and that the Secretary, J. D. Seaman, Charlottetown, P. E. I., will send a copy of the calendar, and any information of a special character, on application.

Weigh Well the Advantages

that the Summer School will afford teachers and students: the opportunity to gather fresh ideas from those who are pursuing advanced work in science and education; it will furnish a delightful period of recreation; and the meeting socially with a body of earnest teachers and co-workers will be a stimulus to the work of succeeding years; the evening meetings alone will be of great benefit, as those who will take part in them are men noted for their attainments in science and education.

Opening.

The opening exercises of the school will be held on Thursday, July 26th, at 8 o'clock, p. m., the programme for which will consist of addresses, music, etc.

Officers for 1900.

PRESIDENT.—W. R. Campbell, M. A., County Academy, Truro, N. S.

VICE-PRESIDENTS.—S. A. Starratt, Yarmouth, N. S.; G. U. Hay, M. A., St. John, N. B.; James Landrigan, Charlottetown, P. E. I.

SECRETARY-TREASURER.—J. D. Seaman, Prince Street School, Charlottetown, P. E. I.

LOCAL SECRETARY.—W. E. Read, Bear River, N. S.

BOARD OF DIRECTORS.—President; Secretary-Treasurer; Prof. L. W. Bailey, LL. D., University of New Brunswick, Fredericton; Geo. J. Oulton, M. A., High School, Moncton, N. B.; John Brittain, Normal School, Fredericton, N. B.; A. Cameron, County Academy, Yarmouth, N. S.

Faculty.

BOTANY.—G. U. Hay, St. John, N. B.; J. Vroom, St. Stephen, N. B.

ANHYDROUS CHEMISTRY.—W. W. Andrews, Mount Allison University, Sackville, N. B.

CHEMISTRY.—W. H. Magee, Ph. D., High School, Parrsboro, N. S.

EDUCATION.—J. B. Hall, Ph. D., Normal School, Truro, N. S.

ELOCUTION.—Ina S. Brown, St. John, N. B.

ENGLISH LITERATURE.—A. Cameron, Yarmouth, N. S.

GEOLOGY.—L. W. Bailey, LL. D., University of New Brunswick, Fredericton, N. B.

KINDERGARTEN.—Mrs. S. B. Patterson, Normal School, Truro, N. S.

MUSIC (Tonic Sol-fa).—Ada F. Ryan, Halifax, N. S.

PHYSICS AND METEOROLOGY.—W. R. Campbell, M. A., County Academy, Truro, N. S.

PHYSIOLOGY AND HYGIENE.—S. A. Starratt, Yarmouth, N. S.

ZOOLOGY AND ENTOMOLOGY.—G. J. Oulton, M. A., High School Moncton, N. B.; F. A. Dixon, M. A., Sackville, N. B.

Courses of Study.

BOTANY.—The work in botany, as last year, will be a combination of lecture, laboratory and field work. A manual, either Gray or Spotton, is necessary; a low-priced magnifying-glass is indispensable; and students will do well to come provided with materials for the collection and preservation of plants found in the neighborhood, such as a simple portfolio and a tin collecting-box. Those who intend taking this course should begin in early spring to make themselves acquainted with as many phases of plant life and growth as possible, such as daily systematic observation of growth from the seed, the structure and functions of plant parts—leaf, flower,

root, etc.—and to recognize members of the great flowering plants at sight. Those who devote a portion of each day, even though it be but a few minutes, to the observation and study of plants, will be able to take the fullest advantage, either of the advanced course or the course for beginners.

G. U. H.

ANHYDROUS CHEMISTRY, OR BLOWPIPE ANALYSIS.—In this course an effort will be made to give a good start in methods of chemical research with the blow-pipe, to show the great range and simplicity of the gypsum tablet method, and to demonstrate that with a cheap and almost meagre equipment a great number of chemical experiments is possible; and that, therefore, chemistry, according to laboratory methods, may be taught in our common schools at a cost within the ability of the poorest school. Apparatus required: a three cent blow-pipe lamp, a thirty-five cent blow-pipe, some paraffin wax, a supply of gypsum tablets, costing two cents a dozen, four small bottles for re-agents, three dipping-tubes, and a supply of matches.

W. W. A.

CHEMISTRY—(First year). Lectures will be given on—1, Matter, energy, chemical affinity, elements and compounds; symbols and formulæ, reactions and equations; 2, preparation and properties of oxygen, oxidation, combustion, oxides, ozone; 3, Hydrogen—preparation and properties, synthesis and analysis of water, properties of pure water; 4, Acid and base-forming elements, radicals, acids, bases, salts; 5, Preparation and properties of acids and bases; 6, Nitrogen—its oxides and acids, ammonia; 7, Carbon—its oxides and their properties, carbonates; 8, the Halogens and their uses. The practical work will be illustrative of what is given in each lecture.

A course in Elementary Qualitative Analysis will be offered to sufficiently advanced pupils for a second year's course, if director is notified before June 1st.—W. H. M.

EDUCATION.—1. The work left by Pestalozzi for his successors

2. Herbart's place in modern education.
3. Correlation of studies: (a) Its influence on the course of study. (b) Its influence on the timetable.
4. Does the preparation of a class for examination necessitate cramming or poor teaching?
5. How may the teacher utilize the material in the school section in the study of the following subjects: geography, science, history, manufactures, commerce, civics, ethics, etc.
6. The reflex influence of the school premises on the community.
7. How shall our school work be made more practical and less bookish?
8. The school of the twentieth century.—J. B. H.

ELOCUTION: the science and art of expression by voice and action. Respiration, voice production, pure quality of tone, projection of tone, articulation. General principles of action; teaching of reading. Selections for class analysis: Lady Clare, *Tennyson*; Hamlet's address to the players, *Shakespeare*.

PHYSICAL CULTURE.—Adaptation for school use of exercises from the Swedish System of Gymnastics.

I. S. B.

ENGLISH LITERATURE.—The class of '99 at Campbellton voted for a selection from the poems of Matthew Arnold as the literature for 1900. Such a selection as the instructor would make cannot be got in cheap and handy form, and he has decided on Tennyson's "Maud" instead.

Those who are thinking of joining the class should attend to the following suggestions: Read the poem at least half-a-dozen times before you come to class. Read it in parties of two or three or more. Try your best to puzzle out for yourselves whatever seems troublesome. Read as much more of Tennyson as you can, and collect passages that may explain or illustrate bits of "Maud." Send the instructor reports of your difficulties and discussions. Bring a complete Tennyson to class,—any edition, but the Macmillan '93 is the best. Number the lines in your "Maud," for convenience of reference. There are 1324 in all, unless somebody has made a mistake. Don't write to ask the instructor to recommend an "edition with notes." He never saw one and he hopes he never shall.

A. C.

GEOLOGY.—Physical features and geological history of the Bay of Fundy; Syllabus of lectures:

(a) Physical Features. *Form*,—Character of shore-lines, bays, harbors, headlands, straits, islands. *Depths*,—Nature of bottom, submerged ridges. *Temperature*—Cause and variations. *Currents*,—Tides, storms, fogs.

(b) Organic features. Flora and fauna of coast-waters; flora and fauna of deeper waters; relations of flora and fauna to currents, depth, temperature, etc.

(c) Geological History. Earliest traces, condition of Acadian basin in Silurian and Devonian ages, origin of South Mountains. Conditions in Lower Carboniferous age, former extent. Conditions in era of Coal-formation, the swamps of the coal era and their inhabitants. Conditions in New Red Sandstone era, origin of North Mountains and Grand Manan. Conditions during Chalk and Tertiary periods. Conditions during Post-Tertiary time; the Ice period, its work and results. Beginnings of the Human period; Nova Scotian archaeology.

L. W. B.

KINDERGARTEN.—This course is intended to give some definite knowledge of those principles which lie at

the foundation of all true education, in the grades of the common schools and in the home as well as in the kindergarten. Not only teachers, but mothers, and all interested in little children may derive from this study both pleasure and profit. It will be the aim so to present Fröbel's views through simple talks as to make them of practical use in the Sunday-school, the day school, and the home.

A number of Fröbel's "Mother Plays" will be analyzed to show the true philosophy of his work. The training of the senses, discipline, games, songs and stories will be discussed.

In order to give an opportunity of studying its methods in operation, it will be arranged, if at all practicable, to have a kindergarten in connection with the Summer School.

To those who may desire more assistance than can be obtained during class hours, private lessons will be given in the intelligent and practical use of such kindergarten materials as may be helpful in the schoolroom.

S. B. P.

VOCAL MUSIC (Tonic Sol-fa).—(First Year.) Correct method of breathing, first principles of voice culture, the tones of the scale and their relations to one another, constitution of the principal chords of the scale, the modulator, first, second and third step voluntaries; time, as regulated by accent, time names, elementary rhythms, measures, pulse divisions; ear exercises. Books—Tonic Sol-fa Music Reader and School-day Melodies, Part I.

A second year's course will be given to pupils who hold the elementary certificate or who are prepared to take it. Certificates of the London Tonic Sol-fa College will be granted to successful candidates. Students should study and practise as much as possible during the year. Books—Standard Course (\$1.25) School-day Melodies, Part II.

Books will be supplied at the school for those pupils only who write to the teacher to engage them. Address, Miss Ada F. Ryan, 17 Spring Garden Road, Halifax. Private lessons \$1 an hour.

A. F. R.

PHYSICS AND METEOROLOGY.—(First Year.) Physical Properties of Matter, such as Weight, Density, Porosity, Divisibility, Cohesion, Elasticity, Capillarity, etc.

Dynamics of Fluids. Barometer. Siphon. Pump. Specific Gravity. Motion. Energy. Heat. Conduction. Convection. Radiation. Thermometer. Experiments will be conducted as far as possible with the simplest apparatus. Students will find it to their advantage, to have read beforehand, Gage's Introduction to Physical Science.

A second year's course will include Light, Sound, Electricity. For those desiring it, a special course will be given in the use of Meteorological Instruments and Keeping of Records. A course of lectures will also be given on the more common atmospheric phenomena, such as rain, hail, snow, frost, dew, storms, etc. W. R. C.

PHYSIOLOGY AND HYGIENE.—1, What is man? 2, General plan of a mammal's body; 3, Cells, protoplasm, tissues; 4, Blood; 5, Anatomy of the nervous system; 6, Physiology of the nervous system; 7, Secretory tissues and organs, income and expenditure; 8, Respiration; 9, The kidneys and skin; 10, Nutrition; 11, Sensation and sense-organs; 12, Touch.

All the work will be illustrated, as far as possible, by dissection and microscopic examination. Previous knowledge of the subject is not an absolute necessity, though an acquaintance with ordinary physiological terms will enable the class to cover more ground. Any text-book may be read.

S. A. S.

ZOOLOGY AND ENTOMOLOGY.—*Zoology*—its relation to other natural sciences; different kinds of cellular tissue and their functions; how to study animals; their food, habits, habitat, classification, and relation to human welfare; leading characteristics of the various divisions of the animal kingdom. Special attention will be given to our native animals. Instruction will be given as far as possible with specimens in the hands of the members of the class.

Laboratory Work.—Dissection and study of a number of typical forms, clearly revealing their external and internal anatomy; this will include the bony, muscular, nervous, digestive, respiratory, and circulatory systems. As far as time will permit or specimens can be obtained in the locality of the school, the following will be studied—1, a mollusc; 2, a fish; 3, an amphibian; 4, an arthropod; 5, a bird; 6, a mammal; 7, a radiate. Special senses and organs of the above will be studied also. The instructor will have some alcoholic specimens and also skeletons of animals for use in the class.

Entomology.—Some instruction will also be given in insect life,—forms and structure, metamorphoses, modes of development, food, habits, habitats, injuriousness to fruits, etc., or usefulness in nature in their different stages; classification; how to collect and preserve specimens.

Apparatus.—Each member of the class should have a sharp pocket knife, a pair of small scissors, a pair of forceps or tweezers, and a magnifying lens.

Principal F. A. Dixon, M. A., of Sackville, will be associated with Mr. Oulton in zoology and entomology.

G. J. O.

Text Books.

BOTANY.—Gray's How Plants Grow (new edition), 75 cents. Spotton's Botany for Beginners, Gray's Manual.

CHEMISTRY.—Williams' Introduction to Chemical Science, 75 cents. Williams' Laboratory Manual of Chemical Science, 35 cents. Remsen's Organic Chemistry, \$1.20.

ELOCUTION.—Lady Clare, *Tennyson*. Hamlet, *Shakespeare*.

ENGLISH LITERATURE.—Tennyson's "Maud."

MUSIC.—Seaward and Unseld's (Tonic Sol-fa) Music Reader, 35 cents. School-day Melodies, Parts I and II. The Standard Course, \$1.25.

PHYSICS.—Gage's Introduction to Physical Science, \$1.00.



"LOOKING DOWN" FROM 2,000 FEET.—SQUAW'S CAP, RESTIGOUCHE, AUGUST, 1899.

PROVISIONAL TIME TABLE.
THURSDAY, JULY 26th, TO FRIDAY, AUGUST 10th, 1900.

TIME.	THUR.	FRI.	SAT.	MON.	TUES.	WED.	THUR.	FRI.	SAT.	MON.	TUES.	WED.	THUR.	FRI.
A. M.														
8 30	Physical Culture	Music	Phys Cul	Music	Phys Cul	Music	Phys Cul	Music	Phys Cul	Music	Phys Cul	Music	Phys Cul
9 00	Physics	Physics	Physics	Physics	Physics	Physics	Physics	Physics	Physics	Physics	Physics	Physics	Physics
9 00	Botany	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot	Bot
10 00	Literature	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit	Lit
10 00	Chemistry	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem	Chem
11 00	Zoology	Zool	Zool	Zool	Zool	Zool	Zool	Zool	Zool	Zool	Zool	Zool	Zool
11 00	Education	Edu	Edu	Edu	Edu	Edu	Edu	Edu	Edu	Edu	Edu	Edu	Edu
11 00	Geology	Geol	Geol	Geol	Geol	Geol	Geol	Geol	Geol	Geol	Geol	Geol	Geol
12 00	Physiology	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys	Phys
12 00	Elocution	Elocu	Elocu	Elocu	Elocu	Elocu	Elocu	Elocu	Elocu	Elocu	Elocu	Elocu	Elocu
P. M.														
12 00	Blow-pipe An	B.P. Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal	B P Anal
12 00	Music	Music	Music	Music	Music	Music	Music	Music	Music	Music	Music	Music	Music
1 00	Kindergarten	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind	Kind
7 30	Opening Meeting	Lecture	Lect	Lect	Concert	Lect	Lect	Lect	Lect	Concert	Lect	Lect	Closing Meeting

EXAMINATIONS.

This Time Table is subject to change. If, however, before the opening of the school, ten students intimate to the Secretary their intention of joining any class, and express a desire to have the time as specified in the Time Table, no change will be made in that subject. This Time Table refers to regular classes. Instructors will arrange with their classes the time for advanced work; also for field and laboratory work. The afternoon of each day is left free for excursions and field work. One whole day, perhaps two, will be given to excursions, in which case the regular class work will be discontinued. Evening lectures will be followed by discussions.

Drawing — II.

Drawing, like natural science or mathematics, consists of many departments, differing widely in the materials and instruments used, the mode of teaching required, and the objects to be attained. These departments may be considered under two main divisions:

1. **FREEHAND DRAWING**, including outline and illustrative drawing, cast, still life, life, painting in water color, painting in oils and designing.

2. **INSTRUMENTAL DRAWING**, including geometrical drawing, plotting, topographical drawing, orthographic and isometric projection, scientific perspective, mechanical, engineering, and architectural drawing, etc.

Designing may be placed in one or other of these divisions, according to whether or not instruments are used.

These various sub-divisions might be classified with reference to what seems to be their main purpose as either *educational* or *applied*. Or, again, we might have them under the headings constructive, decorative and pictorial.

The forms of drawing suited to our public schools are outline, illustrative, still life, cast, geometrical, plotting, orthographic and isometric projection, designing, and possibly life drawing and water color painting to a limited extent.

Outline Drawing consists in representing the object or scene by the bare outline, which may be filled in with color. The ancient Egyptians, the Chinese, and some other nations, seem never to have advanced much beyond this stage. It is a form of drawing well suited to young children, as it requires in the beginning but little manual skill and can be made very interesting. With small effort it can be made to express and suggest more for the labor required than any other form of drawing. It is therefore well adapted to teaching purposes in every grade. No other drawing should be required in the first grade, and the teacher should be satisfied with very crude attempts. The main point at this stage is to keep up the interest and suggest better forms gradually. If this is done progress will be rapid.*

Illustrative Drawing is but an extension of outline drawing in which fuller details are given. It should be used not so much for the purpose of learning to draw, but as an aid in studying and describing natural history objects. The teacher can never be certain that his nature lesson has been a success until the pupil shows by a good drawing that he has clearly observed the

* "Drawing of objects should be mere outlines, no perspective effect being attempted, and the children should be left pretty much to themselves while thus trying to record the results of their observations." No. I Progressive Drawing Course, Selby & Co.

leading features of the object studied. His progress in illustrative drawing will depend more upon the accuracy of his observations and upon his desire to give them adequate expression than upon any formal lessons in drawing. This form of drawing, then, should begin at an early stage, and should be used in correlation with other studies, particularly nature lessons, concurrently with writing as a form of expression, showing briefly and clearly the substance of what had been learned regarding the subject. Another form of illustrative drawing consists in making pictures descriptive of the story of the reading lesson. For example, after reading Longfellow's beautiful poem on Evangeline the pupils might be asked to depict some of the simpler scenes, showing the Indian in his wigwam, or in his canoe on a lake, or bringing down some animal of the forest with his bow and arrow. Such an exercise would be most effective in cultivating a vivid imagination, deepening the interest in the story, causing the pupil to dwell upon it, and thereby receive a more lasting impression. In illustrative drawing there need be no formal lessons from the second to the ninth grades. In the tenth and eleventh grades there should be a few general directions regarding landscape drawing.

Still Life Drawing. Here our formal lessons in drawing may be said to begin, although some preliminary exercises may be given in drawing straight lines and curves, provided interest can be kept up. Still life drawing is a development of illustrative drawing, and differs from it in that the main object is to gain skill in representing appearances. As this implies something of freehand perspective, it should enter the course of study about the seventh grade, the earliest stage at which the majority of pupils can easily be made to distinguish between appearances as presented to the eye and facts of form as known by touch.

Cast.—Drawing from the cast should begin with the eighth grade. Here the additional elements are the introduction of type forms, but more especially the training of the pupil to an appreciation of what constitutes beauty of form. As a preparation for this year's work, the school room should be supplied with several copies of good pictures from the great artists. By having masterpieces of art continually before the pupils, and by occasionally calling attention to their characteristic beauties, the artistic taste of the pupils will be insensibly improved. Such pictures can now be obtained very excellent in quality and at very reasonable cost. (The Perry Pictures, for example).

Geometrical Drawing.—At a very early age pupils should be taught the use, at first, of a ruler, graduated for inches and centimeters, and afterwards of the com-

passes. Estimating distances and then verifying the results by measurement is a very useful exercise. The eye will also be trained to accuracy by first drawing in free-hand a simple design composed of straight lines and regular curves, and afterwards comparing it with the same design drawn with the help of a ruler and compass. In the seventh and eighth grades the pupils should learn all the ordinary problems in geometrical drawing. In many of them it will be easy without a rigid Euclidean demonstration to show that the results obtained are correct. After a preliminary training like this the study of geometry will present fewer difficulties to the beginner.

Plotting.—The pupils in the second grade should be able to make a good ground plan of the school room. In the next grade they learn first to plot the playground, then some neighboring field and even the school section. Map-drawing then becomes intelligible and easy.

Projections.—Simple exercises in projections should be introduced as early as the fifth grade, if possible in connection with construction work either in school or at home.

A. MCKAY.

FOR THE REVIEW.]

The Best Education for Engineers.

In a recent number of *Nature* (October 5th) there appeared a very notable address to a technical college on technical education by Sir Andrew Noble. Sir Andrew is an F. R. S. and a K. C. B. These distinctions came to him because of his contributions to mechanical science, made in connection with his work as a member of the great engineering establishment at Elswick, of which Lord Armstrong is the head. He has some 30,000 men under him, and he speaks from his practical experience.

I am continually asked what education I should recommend for a lad entering Elswick. I always say, "Send your son to as good a school as you can, keep him there as long as you can, do not curtail his time of schooling, do not stunt his early intellectual growth by narrowing it down to any special study as taught at elementary schools."

Science, mechanical drawing, and such like, are no doubt very useful (as all knowledge is useful) in their way. . . . I fancy most employers would rather that a lad come to them blankly ignorant of both so long as he had had a good education, had been taught and had ability to think, and to concentrate his attention on any subject brought to his notice.

In nine cases out of ten, I should say, any knowledge acquired by a boy before he is sixteen can have but slight intrinsic value. Up to that age it is not *what* he learns that we have to look at, but *how* he learns; it is the habit of discipline, of mental application, of power in attacking a subject, that are so valuable; not, generally, any definite piece of knowledge he may have gained.

But whatever may be the fate of the classics as a means, I must take up my parable against a course of education I have

seen in several primary schools where an attempt is made to teach boys, often little better than children, rudimentary chemistry, rudimentary geology, also physiology and electricity.

Men who have received a really good education are fresh and keen, when others who have been hammering away at semi-technical work from early boyhood have become stale and less vigorous.

Even in public schools and their equivalents, for older boys, what are termed engineering shops are generally a failure, so far as any efficient knowledge to be gained in them is concerned. Except as a reasonable diversion for recreation hours, such shops, I fear, have but little value.

A boy should not seriously begin any special study (*i. e.* to fit him technically for a profession) before seventeen or eighteen.

When any practical instruction is given, it should be based on sound theoretical knowledge. England suffers from too much "rule of thumb."

In my experience I do not think I have ever known a man to rise to the top of the tree without thorough theoretic or technical knowledge. M.

FOR THE REVIEW.]

Some Thoughts about War—Its Literature.

BY ELEANOR ROBINSON.

In these days our minds are all full of the war in South Africa. No doubt you have studied the map of the war district very carefully, and have read or been told about the reasons for the struggle; probably you read on the bulletin boards or in the newspapers the latest news of the fighting, and could tell me the names of the leaders on either side, and point out or describe the situation of the places named in the telegrams. It is right that you should know these things, for we all ought to be as well informed as possible about matters that concern our country. Have you thought that in years to come other boys and girls will study these things in the pages of a history, just as you now study about the taking of Quebec, or the war of 1812? Perhaps they will think it is all very dry and uninteresting; the statement that "in October, 1899, one thousand Canadian troops sailed from Quebec to take part in the war," will not mean to them what it does to those of you who saw some of those very soldiers marching through our streets. Even such questions as "What is the longitude of Cape Town?" "What is the difference in time between Durban and Halifax?" become suddenly of very lively interest when we are anxiously awaiting to hear whether the Canadians have reached South Africa, or questioning at what time of day such and such a battle was fought, and how long afterwards we heard of it. The thought of those thousand Canadians fighting in that far away country helps us to realize that we belong to one great nation, and we ought to try to learn all that we can that will help us to be worthy, useful citizens, remembering those words of the great Edmund Burke, "A great Empire and little minds

go ill together." And while we are reading and studying about this particular war, and the many points of interest connected with it, let us stop for a few minutes and see if we can learn a little about war in general,—in answer to some such questions as these, "Why need there ever be war? Is there, or can there be, anything worse? Is any good gained by it?" Because, when we hear of the terrible suffering, unhappiness and loss of precious lives that it causes, these questions will come into our minds. Can we find any answers to them?

One of the reasons why you come to school is that you may learn to use books rightly, and a great teacher of our own times has told us that "to use books rightly was to go to them for help; to appeal to them, when our knowledge and power of thought failed." So, taking his advice, we will see what some of the great and wise people of different ages have said about war.

You remember the good Sir Thomas More, who was put to death in the time of Henry VIII. He wrote a famous book called "Utopia," in which he described an imaginary island; the government, laws, manners and customs of the people of this island were absolutely the best that could be thought of, and we know that the writer was setting forth the ways of living that he would have liked to see in his own dear country. This is what he tells us about the Utopian's plan of war:

They detest war as a very brutal thing; and which, to the reproach of human nature, is more practised by men than by any sort of beasts; and though they accustom themselves daily to military exercises and the discipline of wars, that, in cases of necessity they may not be quite useless, yet they do not rashly engage in war, unless it be either to defend themselves or their friends from any unjust aggressors; or out of good nature, or in compassion, assist an oppressed nation in shaking off the yoke of tyranny. * * * * The only design of the Utopians in war is to obtain that, which, if it had been granted them in time, would have prevented the war; or if that cannot be done, to take so severe a revenge on those that have injured them, that they may be terrified from doing the like for some time to come. By these ends they measure all their designs, and manage them so that it is visible that the appetite of fame or vainglory does not work so much on them as a just care of their own security.

More than two hundred years later, another great Englishman, Edmund Burke, said, in words which you would do well to commit to memory:

The blood of man should never be shed but to redeem the blood of man; it is well shed for our family, for our friends, for our God, for our country, for our kind—the rest is vanity, the rest is crime.

A modern poet, after telling us how he has been thinking of the horrors of war, says:

As I mused, there crowded on my spirit
The lofty virtues nursed in strife; the will
That breaks, but bends not; goodness even in death,
Abhorring evil; right defying wrong;

The stern self-sacrifice of souls afire
For perilled altars and for hearths profaned;
The generous chivalry that shields the weak,
And dares the oppressor's worst.
* * * * * All along
The ages, names the noblest and the best
From Israel's chiefs to those brave men whose swords
Have been the bulwark of my native isle.
Till musing, I exclaimed, "O righteous war,
Though immemorial school of deathless deeds."

And the poet Wordsworth, horrified by the dreadful deeds at the time of the French Revolution, tells us that after a time he could not have borne to think about them, if he had not received into his heart the truth that out of these awful afflictions might grow "Honour which could not else have been."

To see what these "lofty virtues nursed in strife" and this "honour which could not else have been" are, read carefully Tennyson's "Ode on the Death of the Duke of Wellington," the "Ballad of the Revenge," and Wordsworth's "Character of the Happy Warrior." You will find noble and stirring passages and lines there, and they will teach you that brave and good men do not think that hardship and suffering and death are the worst evils.

Lord Tennyson wrote a great deal about war and soldiers, and the last lines I shall put before you are some in which he answered the objections that might be made to his doing so. A young lady is supposed to be talking to the poet, and she says,

"You praise when you should blame
The barbarisms of war."

And he answers,

"You wrong me, passionate little friend,
I would that wars should cease,
I would the globe from end to end
Might sow and reap in peace,
And some new Spirit o'erbear the old,
Or Trade refrain the Powers
From War, with kindly links of gold,
Or Love with wreaths of flowers.
But since our mortal shadow, Ill,
To waste this earth began—
(Perchance from some abuse of Will
In worlds before the man
Involving ours)—he needs must fight
To make true peace his own;
He needs must combat might with might,
Or Might would rule alone:
And who loves war for war's own sake
Is fool, or crazed, or worse.
But let the patriot-soldier take
His meed of fame in verse;
Nay—though that realm were in the wrong,
For which her warriors bleed,
It still were right to crown with song
The warrior's noble deed."

For the REVIEW]

Topographical Terms used in New Brunswick.

W. F. GANONG, PH.D.

One of the most modern, but most important and engaging, phases of historical study is that which is concerned with the relations of the history of peoples to the features of their environment. In such a study, the investigation of the terms used to describe topographical (or geographical) features, is of considerable value. Here, perhaps more than anywhere else, are we apt to find indigenous words, or suggestive peculiar uses of words; and no small light may be thrown by them upon the origin, customs and psychological processes of a people. Such terms or words are therefore worth collecting with care, and I am going to ask the co-operation of the readers of the REVIEW in a study of the subject for this province. Certainly we are all equally interested in the advancement of New Brunswick in everything that pertains to scholarship.

As a foundation for the study I have drawn up the following list, based upon a shorter one published in the Transactions of the Royal Society of Canada for 1896 (Section ii, page 209). It includes all of the topographical terms known to me as used in New Brunswick, and some not strictly topographical, though nearly related, and excludes fancy and introduced words which have not become fixed in general use. The list must be very incomplete and probably is erroneous in places, and without doubt the reader can suggest many additions and corrections. When such are found, I request that they be communicated to me; and later an additional list will be published giving all new facts and corrections, with the names of those suggesting them. Many of the names, including of course those which it is most important to obtain, are not yet in print either in books or maps, but exist only, as do many of the terms in this list, in the language of fishermen, guides and lumbermen. The names applied by them to any kind of geographical features whatever, should be collected. The teacher will probably find, if he or she reads the list to pupils, that the more observant of them can suggest additions, particularly of very local and unusual terms. The list is weak in terms used by the Acadian French, and additions from this source are particularly desirable. And here follows the list:

Aboideau. In Westmorland for a dyke across a stream, containing a sluiceway so arranged as to allow fresh water to drain out, but not to allow the salt water to enter. Corrupted locally to "bite-o," and also often called "batterdeau." By the French usually spelled "aboiteau," or "aboteau." Its origin is discussed in the *New Brunswick Magazine*, Vol. I, pages 98, 225, 226, 284, 340. Later studies have shown that it is not

of native Acadian origin, but was brought from France where it is still used.—(*N. B. Magazine*, Nov. 1899.)

Anse. Acadian French = [French = a cove,] as in Grand Anse.

Backwoods. Also, the woods. For the wild country back from settlements.

Bar. In its usual sense of an obstruction to a harbor; but also applied to long points of gravel or sand along rivers.

Barachois. Acadian French for a lagoon at mouth of a river. Probably corrupted from "Barre à échouer" = a landing beach (Howley in Transactions of Royal Society of Canada, IV, ii, 92), though Ferland gives "Barre à cheoir." It is used in France on the sea coast. (Aubert, Littoral de la France, IV, 186, and Larousse, Dictionnaire.) In Newfoundland corrupted to "Barrasway" (Howley, op. cit.).

Barren. Open plains and bogs covered with heath bushes. Often used in the combination "caribou-barrens."

Basin. In its usual sense as a sheltered harbor, as in Lepreau Basin, Cumberland Basin.

Batture. Acadian French, for a flat exposed at low tide or nearly so (at Shediac and Miscou, etc.).

Bay. In its usual sense.

Beach. In its usual sense.

Bedoo, or budoo, or pudoo. Particularly along the Miramichi and the Tobique for a cul-de-sac, or still cove by a river, especially such as are formed when old passages behind islands are closed at the upper end. Also spelled "Bordeau" and "Budeaux," etc. It is doubtless a corruption of the French "perdu" = lost, referring to the "blind" character of the place. It appears as "perdue" on one old plan in the Crown Land Office.

Bend. For a sharp turn in a stream or river.

Branch. In the usual sense for an affluent of a river.

Brook. In its usual sense, for a small, usually a running, stream.

Body. Used in Westmorland for the extent of marsh enclosed within one set of dikes.

Bog. In the usual sense for a wet place where peat mosses grow. In Westmorland the curious patches of "sedge" (*Spartina stricta*, var. *glabra*), growing isolated along the banks of the rivers below high water, are called "sedge-bogs."

Bogan. Used by guides and hunters for a marshy cove by a stream; practically the same as "bedoo." Sometimes also "bogan-hole." It is probably a corruption of the Indian "pocologan," which has the same meaning. Sometimes given as "logan." (Samuels, With Fly-Rod and Camera, 418).

Brow. A high bank by a river cleared for rolling lumber into the stream.

Butte. Acadian French = a small hill. I do not know whether it is now in use (it is not on any modern map), but it was applied in 1755 to many small hills in Westmorland near Fort Cumberland. (Point de Bute has a different origin).

Canal. Used locally in Charlotte for the natural passage between Lake Utopia and the Magaguadavic, which it well describes.

Channel. In its usual sense as the deepest part of a

stream; also for an arm of the sea, as Chignecto Channel.

Clearing. A place where woods are removed for a farm.

Cliff. In its usual sense, though little used.

Corner. Much used for a settlement at cross roads.

Cove. In the usual sense, as a small bay.

Creek. For a sluggish stream, especially through meadows. Locally pronounced "crick."

Dale. Not used alone, but in made up combinations as Springdale, etc.

Deadwater. For a part of a stream with little or no current.

Deal or dale. A single strip or section of cultivated land, particularly a strip in a hay field rounded up and lined by ditches.

Devil's Slide, Oven, Head, Back, Elbow, etc. Applied to places with something remarkable, forbidding or uncanny.

Digue. Acadian French = *Dike*. Appears in Grand-digue.

Dike. In Westmorland and on the North Shore for ridges built to keep out the sea from the marshes. Where these are continued across a stream, with a sluiceway to allow the freshwater to escape, they are called "Aboideaux," (which see). In Nova Scotia, at Grand Pré, the name "dike" is applied to the marsh land enclosed by the dike, while the dike proper is called the "running dike." Often spelled "dyke."

Duckhole. Sometimes for a reedy cove by a small river.

Dugway. On the St. John for a short channel artificially dug through intervale.

Dune. Acadian French = a sandy beach. Appears in Granddune and Belledune.

Eddy. Along the St. John for deep coves below bars where the water circles around, as Burgoyne's Eddy. Also in usual sense on the southern coast.

Falls. In the usual sense; also applied to bad rapids on rivers.

Flat. Applied to a piece of intervale land along a river; thus much used on the Tobique, as Dow's Flat, Riley Brook Flat, etc. Also applied to level places of mud or sand laid bare by the tide.

Flowage. Used on the Lepreau for the lake or dead-water formed by a dam on the river.

Follow. A place in the woods newly cut and burned in preparation for settlement.

Forks. Used commonly for the place of branching of a river; implies looking up stream.

Forest. Not used except in the compound "forest-fires;" instead "woods" is used.

Gorge. In its usual sense for deep valley cut in rock. The exact equivalent of canyon of other countries.

Gulch. On the Restigouche and (to lesser extent) the Nepisiguit, for the ravines by which the smaller brooks enter, and extended to the brooks also.

Gully. On the North Shore for the narrow entrances to the lagoons at the mouths of the rivers. Doubtless a corruption of the French goulet = a throat, and also the entrance to a harbor.

Guzzle. Used at one place in Charlotte (Toby Guzzle, on the railroad south of McAdam) for a very

crooked stream. The word is used in parts of England for a ditch.

Harbour. In its usual sense.

Head. For the points made by cliffs with rounded tops along the Bay of Fundy.

Heath. In Charlotte for the bogs or barrens. Pronounced locally "hayth."

Hill. In its usual sense; used, as a rule, only where there is a higher "mountain" in the vicinity.

Hole. In Westmorland for a very small lake in the bogs.

Horseback. A narrow gravel ridge. Also in Westmorland called "boar's back."

Inlet. For the principal stream flowing into a lake. Also on maps for a bay at mouth of a river, as Digdequash Inlet.

Intervale. The alluvial flats along rivers. Pronounced "interval."

Island. In the usual sense; also applied in Westmorland to high land surrounded by marsh.

Jaws. Used in places (as on Oromocto Lake) for the outlet from a lake.

Keyhole. On Grand Lake for a small round harbor or cove with narrow entrance.

Knoll. In the usual sense, but uncommon; occurs at Sussex.

Lagoon. On the North Shore for the lake-like expanses formed by the mouths of rivers.

Lake. In the usual sense.

Landing. Used along the upper St. Croix for the places where roads from farms, etc., reach the river.

Ledges. Used in the usual sense; as the Mace's Bay Ledges.

Leg. Used locally, and naturally, for the branches of Trowsers Lake, Tobique, in the form "right-hand leg, left-hand leg."

Marsh. In the usual sense. In Westmorland the name is retained for the great areas of originally-salt marsh now reclaimed by dikes. Pronounced locally often as "mash."

Mill privilege. For a locality with a fall giving a chance for a dam and water-power.

Millstream. For a stream with a fall at which a mill is, or has been, built.

Mountain. Usually applied to the highest land in a neighborhood, no matter what its height; given to many hills under 100 feet high.

Narrows. For narrow places in a river; also much used as equivalent to "gorge." Locally pronounced as "narrus" or "narrers."

Neck. For a narrow isthmus.

Nubble. In Charlotte for a small detached mass of rock near a high shore, also "round nubble."

Outlet. For the stream emptying a lake.

Oxbow. A bend in a stream which turns the latter back on its course.

Pass. Used above Fredericton for the principal channel among intervale islands, as the Grand Pass.

Passage. In Charlotte for the channels between islands navigable for vessels, as Letete Passage.

Peak. Occasional, for a mountain with pointed top.

Perdu. Probably the Acadian French original form of our Bedoo (which see).

Pitch. For one part of a broken fall, as "upper pitch," etc. Also used to describe the height of a river, as "it has a good pitch," (when the water is high).

Plains. Used about St. John for the blueberry barrens.

Point. In the usual sense; also for the extremity of high land projecting into marsh in Westmorland. Locally pronounced "pint."

Pond. In the usual sense; though only for very small bodies of water, never as in Newfoundland. Also on the Miramichi as equivalent to "pool."

Pool. The deep places on our rivers where fish lie.

Portage. A path around a fall or between streams; also a road built in such places, or to convey stores into the woods.

Pudoo. See Bedoo.

Pug-hole. On the upper St. John (*i. e.* bog-hole?), probably as equivalent to Bogan.

Quickwater. Sometimes for water running swiftly, but unbroken by rapids.

Rapids. In the usual sense; especially where the water is broken and white.

Ravine. Locally in Kings County for the V-shaped valley of a small stream.

Reach. For a long straight stretch on a river where a vessel can make long tacks; appears in Long Reach.

Ridge. For elongated hills, especially in Charlotte, where they are common.

Rips. For swift water less broken than in rapids, as when over gravel bars. Also sometimes called (at least formerly) "rippings."

River. In the usual sense.

Rock. Sometimes for a considerable hill, as "Eagle Rock," near Welsford, in Queens.

Run. In Westmorland for the small streams connecting the lakes in the floating bogs.

Runround. A passage behind an island with a current through it; perhaps particularly when a branch comes into it, as the "Mamozekel Runround," on the Tobique.

Sea wall. On the southern coast, for the boulder ridges thrown up by the sea, often enclosing lakes and lagoons.

Settlement. Used instead of village, which is but rarely heard.

Shoals. In the usual sense, as the Oromocto shoals.

Sinkhole. Deep hollow occurring in glacial gravels, and also perhaps in places underlaid by fallen-in caves in gypsum districts.

Slip. Used at St. John for a place where small vessels can be beached, especially beside a wharf.

Stillwater. Used (especially formerly) for a quiet stretch in a usually rough stream. Now generally called deadwater.

Stream. Used for a watercourse smaller than a river but larger than a creek or brook and more rapid than a creek.

Swale. A low wooded place, through which at times water may flow.

Swamp. In its usual sense, for a low wet place, usually wooded.

Thoroughfare. A passage between lakes on the same

level. Also the principal passage among intervale islands.

Tickle. At Miramichi for a narrow passage between an island and the main shore, at Beaubear's Island and Hay Island. Origin uncertain, but discussed by Patterson in *Trans. Royal Society of Canada*, VIII, ii, 144.

Thrum or *Thrum-cap.* In Charlotte and St. John; used like Nubble, but for larger masses.

Tote-road. A road to a camp for the taking in of supplies.

Upland. Used for the higher land along a river, to contrast with intervale.

Vale. Not used alone, except in Sussex Vale, but common in made-up combinations.

Vaults. Apparently formerly, if not now, used in Albert County, as the following passage in Cockburn's Report on Emigration, 1827, shows: "Crossed one of those very steep ravines or abrupt glens, between the mountains, which are here called 'vaults.'"

Valley. In the usual sense.

Woods. For the forest.

Of the words in this list, it is surprising to find but a single one, namely, "bogan," which can possibly be of Indian origin. It is also remarkable that we have not adopted more Acadian French terms. But I hope my readers can add many others, both French and Indian, to the list, as well as some of English origin, which I have overlooked.

Smith College, Northampton, Mass.

The Teacher's Self-Improvement.¹

By H. C. HENDERSON, M.A., Fredericton High School.

Though in homely phrase, it has been truly said that "one cannot live skim milk and teach cream." Teaching is exacting work, and calls for the expenditure of one's best energy and talent. But this very expenditure, essential though it be to success in teaching, impoverishes, and unless the fountain is kept continually renewed, the result is stagnation. In our so-called student days the danger lay in continual absorption, with little or no outgo; the danger with us as teachers to-day lies in the constant outgo, without sufficient taking in or assimilation of new material.

At the outset, then, we will adopt the axiom that a teacher of students must himself be a student. So soon as the teacher loses sight of this, so soon does he begin to retrograde. Is it possible that we can stimulate our pupils to mental activity and create in them a desire for knowledge if we ourselves are living in a state of mental lethargy and have lost all desire for further acquisition? Moreover, can we, as teachers, keep in sympathy with our pupils, in their difficulties, and in

¹ Read before the united Teachers' Institute of York, Sunbury and Queens Counties, at Fredericton, October 9th, 1899.

their triumphs over difficulties mastered, if we ourselves have none? I do not, of course, mean to say that each one of us should be ardent followers of every branch of knowledge, for that would be impossible; but I do mean that each one of us should follow up one or more lines of study so that we may still possess the student spirit. With powers developed so as to be capable of advance, it is inexcusable to allow those powers to become dwarfed through lack of use.

What of the mathematics, the natural science, the history, the Latin, with whose elements we become more or less acquainted when at school? Are these studies of value only to the boys or girls, or is it not possible that a further acquaintance with them may accomplish something for those who have passed out from the condition of the pupil and have assumed the role of teacher? But whatever the particular subject of study to which we are especially devoted, the broad and flowery field of English literature lies open for us each to explore and therein to take delight. The subject matter of literature is as varied as human interests, expressing, as has been said, "all the phases of human life and endeavor, and all the yearnings and passions of the human soul." No one can fail to grow in sympathy with his fellows, in higher aspirations for himself, in the desire to be and to do, in breadth of vision and in depth of feeling, who makes one or more of the masters of the English tongue his study.

"The majestic verse of Milton and of Wordsworth at his best; the polished excellence of Tennyson, and the concentration and dramatic power of Browning; the broad humanity of Shakespeare and Scott; and the humor and pathos which find such different expression in Thackeray and Dickens; the strength of George Eliot and the delicacy of Elizabeth Browning; the word-painting of Ruskin and Carlyle, the wit of Tom Hood and the delicate humor of Charles Lamb,—all these should have their chance of appealing to a mind that has had an all-round education in appreciation."

The above quotation from Prof. Morgan (in his *Psychology for Teachers*) contains the names of the leading master minds in the realm of English literature and indicates lines of reading that are of the highest order. Of course modern writers should not be neglected, but in this age of rapid book-making much that is written will have, by the most of us, to be left unread. To have read some of the best of standard literature, and to be able to read some of the best current literature, ought to be the privilege of every teacher. The narrowing tendency of school routine and the continual coming in contact with minds immature, can thus be counteracted, and as a result of the broader culture we will be

able to keep more steadily before us our ideals. The reading of books, however, should be regarded largely as a means than as an end. And just here I would emphasize that which you have so often heard, that one good book, thoroughly understood and made your own, is worth dozens read superficially with contents unmastered. Much reading, without proper thought, as well as much reading of matter in itself worthless, is injurious.

But I propose to confine this paper in the main to what may be accomplished along the lines of professional improvement. At the outset I would lay it down as an axiom that a teacher must know the subjects he would teach. It is impossible to impart instruction successfully on a subject which we have not already mastered. Moreover, we must have a knowledge that goes beyond that which we expect our pupils to have. For, as a good deal of what is best is always lost in the imparting, if we are just up to the minimum standard, our pupils are sure to fall below that standard. To know our subjects from all sides, to see them in their relations to other subjects, and, in the case of mathematics especially, to know the principles underlying them, is a necessity.

But to know a subject, and to know how to teach that subject, are not necessarily synonymous, so we must always know how to present our subjects so as to reach the minds of the pupils in the most effective way. When at normal school we were given lessons to teach before instructors and student teachers. We usually made a preparation of those lessons, and they cost us many an anxious thought. Divisions of the subject in hand were carefully made, and the questions we were to ask arranged in our mind in consecutive order. This preparation we felt was essential to successful teaching, and we were led to see the value of study on even the simplest of lessons.

What has been our practice since? Do we make a study of methods of presentation, or do we just trust to accident and the inspiration of the moment for the successful developing of our subject?

But I have come face to face with the fact that fully half of the work in many schools consists in the hearing of lessons. And as I look into the faces of teachers, the majority of whom are in charge of ungraded country schools, I am forced to recognize this other fact, that owing to the number of subjects in the course, and the number of classes in the school, many teachers feel compelled to forego, for lack of time, much of the teaching they otherwise would do. Moreover, I am aware that in country districts, where pupils can come for only part of the year, what is demanded is the so-called "practical" education, and a knowledge of facts seems

to be of more importance than the development of power. But let us have a care. Which is of more importance—a knowledge of facts that will remain as mere facts unrelated or disconnected with the possibility of no more additions thereto, or a mind trained not only to better obtain and retain a grasp of facts, and to relate the one to the other, but also capable of adding to the stock, in kind and in degree, and to render the knowledge once acquired the means of further growth? Having in mind that education is a process of development, which shall we seek to do—develop power or get over ground? The latter is far easier, but things that are easiest do not possess the greatest value. But the study of methods of presentation is not the only one for the teacher. There is something more fundamental. The successful imparting of instruction implies not only a knowledge of the subject-matter taught, but a knowledge of the mind to be instructed. The subject-matter of the curriculum is the material with which we have to work; but the way in which the mind acts in appropriating that material is to give us the key to the method by which the material is to be employed.

Drugs and medicines are the materials employed by the physician in effecting cures in men's bodies, but he would be a strangely equipped physician who, though knowing the nature of the drugs employed, knows nothing of the different bodily organs, or of the result which each particular drug would have upon any given organ. If important that the doctor be acquainted with the nature of the physical organism that he is required to treat, shall not the teacher be required to know something of the mental nature, whose development it is his special mission to superintend?

Underlying a reliable method of teaching there must necessarily be a knowledge of the mind to be taught, and a conception of what part the subject-matter is to play in the mind's development. Granted that an art may be often successfully pursued, with but little knowledge of the science, surely the science will greatly contribute towards the successful employment of the art.

If it be true that the proper study of mankind is man, how true it must be and for deeper reasons, that the proper study of the teacher is mind, and particularly the nature of the growth of children's minds.

This study of children may be carried on by direct observation and by the reading of the results of those who have made child-study and mental development a specialty.

To teach successfully a school of fifty children is a task of no mean proportions and requires ability of a high order. (Some day let it be hoped half that num-

ber will be considered a full quota). With such a large number there is a great danger of doing work by wholesale. The tendency is to prescribe the same work for all and to expect the same results from all. But while in general the minds of all react much in the same way and mental processes are carried on along certain definite lines, allowance must be made for wide differences in individual dispositions and for those peculiar differences which go to make up distinct peculiarities. And it is here where observation and individual study have their place. There is much more to a child than that which may appear in a given recitation period, and it should be the teacher's endeavor to know his pupils from as many different standpoints as he can.

As an aid to individual observation and to the study of mind in general, are many books which may be taken up with much profit by any teacher.

A few such books might here be mentioned. First on the list, I would place that delightful book of Lloyd Morgan, entitled "Psychology for Teachers." There is certainly no more suggestive book in elementary psychology nor one more readable. To the teacher who through contact with some uninviting book, has acquired a distaste for mind study, I would most heartily recommend this book of Prof. Morgan. To this might be added Prof. James' "Psychology of Childhood," (D. C. Heath & Co). "A Study of Child Nature," by Elizabeth Harrison (Chicago Kindergarten College). "The Physical Nature of the Child and how to Study It," by Dr. Rowe, and "Sully's Study of Childhood," (D. Appleton & Co.) The literature on child-study and on child psychology, is wide and is constantly increasing, the following new books being announced and favorably commented upon during this past week. "The Development of the Child," by Prof. Oppenheim (The Macmillan Co., New York); "From the Child's Standpoint," by Florence Winterburn (The Baker Taylor Co., New York); and "A Study of a Child," by Mrs. Hogan (Harper & Bros., New York).

No one can read any of these books without having his interest in children quickened, nor without obtaining some insight into the subtle processes that underlie the workings of children's minds. "Oneness with Nature is the glory of childhood," says Dr. Hall, and "Oneness with childhood is the glory of the teacher." To secure this oneness with childhood we must be both sympathetic observers and open-minded readers.

Again, if we wish to raise teaching to the dignity of a profession, we should at least be willing to do some reading of the literature that treats of education as a science, as well as become more or less familiar with the various educational movements and with the lives of

some of the leading educational reformers. Fitch's "Lectures on Teaching," Quick's "Educational Reformers," "Talks on Teaching," by Col. Parker, the lives of Horace Mann, Thomas Arnold, and of Thring, by Dr. Parkin, are a few of the books that might well form a part of every teacher's library.

We are apt at times to look at our work purely through its local coloring, and to take perhaps narrow views of education and of our work as educators. Any reading, then, that will tend to give a deeper knowledge of what education consists, and a broader outlook upon life and its meaning, that will set before us higher ideals and ambitions, should be welcomed.

In making suggestions with regard to educational literature, a word must be said concerning educational magazines. It ought not to be necessary for me to remind the teachers present that they should loyally support our own professional journal—the EDUCATIONAL REVIEW. Its efficiency will largely be determined by the heartiness of our support. In addition to the REVIEW there are others which may be safely recommended, of which number one or more should be taken by the progressive teacher. Of these, *Primary Education* and *The Primary School* are perhaps the best for the primary teacher. For the intermediate teacher the *N. E. Journal of Education*, and the *Home and School Journal*, Bloomington, Iowa; and for the grammar school teacher the *American Educational Review* and the *School Review* stand at the head. There are but few teachers before me who, in addition to taking the EDUCATIONAL REVIEW, would not be helped and stimulated by the regular visits of such magazines as those I have mentioned.

In connection with the teacher's professional improvement I have spoken briefly on the necessity of knowing the subjects that one must teach, of making a study of methods of presenting those subjects, of this study presupposing a knowledge of child-nature and of the laws of mental development, gained through observation and reading, of the need for more reading on the theoretic and ideal side of education, and of the advantage of taking as one's own one or two good educational magazines. On this subject I wish to urge one more point, viz., the need of local teachers' associations, where different teachers may discuss various educational topics, and gain from each other the benefit of each other's experience.

I am pleased to know that local organizations confined to a parish, or to a group of conveniently located schools, are being formed in a number of places in this province, and that the work done by them is proving highly satisfactory. Those most interested in these

associations seem to think that more benefit is derived from the smaller gatherings than from the larger county institutes. For one thing there is much more freedom in discussion, and again, each member has the privilege of proposing topics that are of special interest to him.

As an integral part of a local teachers' association, a professional library would be a highly desirable thing. Professional books are somewhat costly, but an annual fee of one dollar a member would create a fund from which a good library could be procured and kept up-to-date, and each teacher could have for a small sum access to many valuable books which he might not feel he could afford to have in his private library.

For a long time the cry has been that the Sunday-schools were far behind the day schools in methods of teaching, in training of teachers, in thoroughness of work done. There has been much truth in this cry. But we must not flatter ourselves that we are so very far ahead. The Sunday-school is working up, and in some respects it may set us an example.

Already normal courses, embracing not only a knowledge of the literature and history of the Bible, but of the theory and art of teaching, are taken by the Sunday-school teachers, upon which rigid examinations are set. The Sunday-school teachers, moreover, have the parish and city associations in addition to the provincial and county conventions. Local unions, too, for primary teachers have been organized, supervised by a county primary superintendent; and, of special importance in many of these primary unions, circulating libraries containing books on child study and kindergarten work have been established.

But it is time for me to call a halt. Here I have been recommending courses of reading in psychology, in child study and in educational theory and method, of taking educational magazines, of further reading along the lines of subjects that we are called upon to teach, of further reading along the subjects of the school course, and of reading that will enrich our own lives though having no direct bearing upon the work of the school. And I know the question that is uppermost in your minds is: "But where, after school work is over, are we to get the *time* for all of this?" And I know that for teachers tired out, as many are with the day's work, recreation is a necessity; and the question of where to get time for professional and private reading is a serious one.

Perhaps one or two practical suggestions might here be permitted. In the first place have a system. Arrange your time out of school, as in school, according to a plan. Follow that plan as well, owing to circumstan-

ces, as you can. Make your circumstances, if possible, bend to suit your plan oftener than the plan to suit circumstances. Be careful in making out your programme for individual study not to lay out too much, for we are liable to overestimate what we can do in a given time. We will, however, learn from experience about what we may expect to accomplish.

In your working programme have a certain fixed time for preparation for your day's teaching. To be definite, this should be at least forty-five minutes, better one hour, or one hour and a half. Is it now too much to say that in addition to the time taken for newspaper and other lighter reading, two hours a day for four days in the week should be devoted to profitable reading and hard study?

But you say that such a division of your time is too exacting, and that it will render your life mechanical. Not so. By having a method in the employment of your time you will not only have opportunity for self-improvement, but you will find yourself freer than before to enjoy the other things that must make a part of your life.

I have spoken my allotted time, and yet much that might well come under the scope of my subject I have left untouched.

I have dealt largely, it is true, upon the teacher's mental improvement, and with what may be accomplished through his continual application as a student. But we must not stop there. There is an education of the heart better than all. Let us develop in sympathy and in charity; in a kindly interest in others' joys and sorrows; in all that will make us stronger and nobler; in all that will fit us to become worthy teachers and useful citizens. And in conclusion, let us in the words of that eminent educator, Principal Thring, remember that "the force, and the sweetness, the purity and the power, the love and the justice, the sheer, perpendicular, massive, noble character of the teacher as impressed upon the boy or girl whom he instructs, is, after all, of far greater consequence than the content of the learning which he conveys."

A short time ago a New York magazine offered prizes of \$5, \$3, and \$2 for competition among school children for an essay upon either the Spanish-American War, or the War with the Boers. Word was received yesterday afternoon by Miss May Kelly that she had been awarded first prize, she having written the best essay on the Boer War. Miss Kelly is thirteen years of age, a daughter of Mrs. M. Kelly. She attends the York street school and is in Miss McKee's department.—*Fredericton Gleaner, Dec. 5th.*

TEACHERS' CONVENTIONS.

NORTHUMBERLAND COUNTY INSTITUTE.

The twenty-third annual meeting of the Northumberland County Teachers' Institute convened in Harkins' Academy, Newcastle, October 26th, with the President, Dr. Cox, in the chair, and Mr. F. P. Yorston, Secretary. Seventy-four teachers enrolled. First session opened with an address from the President, who referred to the progress of the educational spirit in the county since his first visit to the Institute in 1879. There was now scarcely such a thing as a local license known in the county. No teacher could do good work without proper training. There was still something to be desired in the training which our teachers obtained in the province. Inspector Mersereau followed with a short address of encouragement. Mr. Yorston suggested that a contribution be made to the Canadian Contingent Fund. The suggestion was heartily endorsed, and \$25.00 was voted as a contribution. Miss Susie Harriman then read a paper on "Primary Number" which was discussed at some length. Dr. Cox read a paper on "First Steps in Reading," written by Sister Dwyer, of the Convent School in Chatham.

In the afternoon the Institute adjourned to French Fort Cove, and spent the afternoon studying the geological structure of the place and whatever botanical specimens could be found.

On Friday morning, Miss Ina Mersereau read a very excellent paper on the "Educational Value of the Study of History," which provoked much discussion and favorable comment. The President read a very helpful paper on "Drawing," written by Sister Bardon of the Chatham Convent School. It was decided that these papers be published in pamphlet form and distributed to all the teachers of the county.

Inspector Mersereau suggested that the next meeting of the institute be held in Bathurst, uniting with the institutes of Gloucester and Restigouche. It was decided that the executive committee correspond with the executive committees of Gloucester and Restigouche and arrange for a joint institute at Bathurst, if it is possible to do so.

Mr. James McIntosh read a paper on "The Chief Points to be aimed at in Teaching Advanced Reading." A communication was read from Mr. H. H. Hagerman concerning the proposed N. B. Teachers' Union. The proposed union was heartily endorsed by the institute.

Officers were elected as follows: President, F. P. Yorston; Vice-president, Miss A. G. McIntosh; Secretary, Mr. Donald McLean; additional members of Executive, Miss Bell, Miss Edgar, Miss McLean.

F. P. YORSTON.

WESTMORLAND COUNTY TEACHERS' INSTITUTE.

The twenty-second annual meeting of the Westmorland County Teachers' Institute was held at Sackville on Thursday and Friday, November 2nd and 3rd, President H. A. Sinnott, of the Moncton High School, in the chair. The public educational meeting at Lingley Hall, Mt. Allison University, on Thursday evening was well attended. There was an excellent programme of music, and addresses were given by H. A. Powell, M.P., President D. Allison, Rev. Dr. Lathern, Principal Oulton, Inspector Smith, and others. The hearty co-operation of the Mount Allison University faculty and the citizens of Sackville in the public meeting and throughout the proceedings of the institute added much to the interest of the gathering. The local arrangements made by Principal Dixon, of the Sackville High School, and his staff of teachers, contributed largely to the success of the institute. The meetings were held in the fine assembly hall of the new high school. This building is on a commanding situation, and has fine class rooms, with good equipment, ventilation and light. The programme was a varied and interesting one. The spirit with which it was carried out was shown on the last afternoon, when, after Principal Oulton had kept the teachers deeply interested until darkness had set in with his admirably illustrated lesson on physics, the institute adjourned to meet in sections, which were continued to a late hour.

The following are the officers of the institute for the ensuing year: President, H. B. Steeves, Shediac; Vice-president, Miss Read, Port Elgin; Secretary, F. A. Dixon, Sackville; Miss Burt, Dorchester, and G. A. Oulton, Moncton, additional members of the executive.

The best story I know was told me of an Edinburgh street boy by a lady who witnessed the incident. There was a Christmas tree given to poor children at a mission hall, and hundreds of little ones were assembled at the doors in advance of the hour of admittance, many of whom were barefooted. Among them was a sweet-faced little girl, who seemed less hardened than most to the cold, for she shivered in her poor jacket and danced from one foot to the other—alas! what pitiful dancing that!—on the cold hard stones to put some life into her chilled limbs. A boy not much older, and himself barefoot, watched this performance for a few minutes, and then with a sudden impulse of protection, took off his woollen cap, put it down before her bare feet and said, "You may stand on that." Sir Walter Raleigh's cloak has been a symbol of chivalry for many long years, but who shall say that the Edinburgh street boy's cap deserves a less honorable memory? —*Selected.*

CHRISTMAS-TIDE.

Christmas — the mass of Christ — hence the name. The day of Christ's birth is unknown, and in the early history of the Church it was not celebrated on this day. Its observance on December 25th is ascribed by some to Julius, Bishop of Rome, 337-352. One of the chief causes which operated to fix this date was the fact that various heathen nations regarded the winter solstice as the beginning of the renewed life and activity of the powers of nature, the Germans holding their Yule-feast at this time.

A Christmas Carmen.

Sound over all waters, reach out from all lands,
The chorus of voices, the claspings of hands;
Sing hymns that were sung by the stars of the morn,
Sing songs of the angels when Jesus was born!

With glad jubilations,
Bring hope to the nations!
The dark night has ended and hope has begun;
Rise, hope of the ages, arise like the sun,
All speech flow to music, all hearts beat as one.

Blow, bugles of battle, the marches of peace;
East, west, north and south, let the long quarrel cease;
Sing the song of great joy that the angels began,
Sing of glory to God and of good will to man.

Hark! joining in chorus
The heavens bend o'er us!
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!

— J. G. Whittier.

The Prince of Peace.

"What means this glory round our feet,"
The magi mused, "more bright than morn?"
And voices chanted, clear and sweet,
"To-day the Prince of Peace is born."

"What means that star," the shepherds said,
"That brightens through the rocky glen?"
And angels answering o'erhead,
Sang, "Peace on earth, good-will to men."

'Tis eighteen hundred years and more
Since those sweet oracles were dumb;
We wait for Him like them of yore;
Alas! He seems so slow to come.

But it was said, in words of gold
No time or sorrow e'er shall dim,
That little children might be bold
In perfect trust to come to Him.

All round about our feet shall shine
A light like that the wise men saw,
If we our willing hearts incline
To that sweet Life which is the Law.

So shall we learn to understand
The simple faith of shepherds then,
And kindly clasping hand in hand,
Sing "Peace on earth, good-will to men."

For they who to their childhood cling,
And keep their natures fresh as morn,
Once more shall hear the angels sing,
"To-day the Prince of Peace is born."

— James Russel Lowell.

CURRENT EVENTS.

The reports of the recent successes of the United States forces in the Philippines, encourage the hope that the Philippine insurgents will give up their struggle for independence, and quietly submit to their new masters. It will, however, for some time to come, require large garrisons in the several islands of the archipelago to hold the natives in submission.

Garret A. Hobart, vice-president of the United States, died at his home in New Jersey, on the 21st November. Senator Frye, of Maine, will be president of the senate; and, though not in name vice-president, will succeed to the presidency in case of a vacancy.

The Marconi system of wireless telegraphy is not the only new development in that branch of electrical science. On the 22nd of last month, Herr Virag performed the wonderful feat of sending and receiving messages between Chicago and Milwaukee at the rate of 140,000 words an hour.

The millennial anniversary of the death of Alfred the Great, will occur in 1901; and preparations for its observance are already been made, both in England and America.

The dreaded bubonic plague made its appearance at Santos, Brazil, some weeks ago, and has since been a more serious cause of anxiety on this side of the Atlantic. Two cases occurred on board a vessel from that port which has recently arrived in New York; but the health authorities took stringent measures to prevent its spreading. It is believed that this disease is generally communicated to human beings by rats. The plague still rages at Oporto, Portugal, and is still unconquered in India.

One of the most significant events of the past month has been the visit of the Emperor of Germany to England. Taken in connection with the recent treaty for the division of Samoa, it is hailed as an evidence of the growing friendship between the three great commercial nations—Great Britain, Germany and the United States; and this "Saxon Alliance," informal though it be, must have far-reaching results.

As regards the disposition of the islands in the Samoan group, England abandons all claims. Germany retains the two larger islands, Upolu, with a population of 16,000, and Savaii, with 12,000 inhabitants; the United States secures Tutuila, with the harbor of Pago-pago, and a population of about 3,500. The other islands of the group are unimportant. In return for

her surrender of the right of joint control, Great Britain receives from Germany two of the larger islands of the Solomon group, at present of little value, and a delimitation of the disputed territory in Western Africa, commonly known as the Gold Coast hinterland, in which the British think they have decidedly the best of the bargain.

In the Soudan, Sir Francis Wingate's force found the Khalifa's force near Godid, and utterly defeated him, taking 9,000 prisoners. The Khalifa and all his principal emirs, with the exception of Osman Digna, were killed in battle; and the power of the dervishes is probably crushed. But Osman is yet to be heard from.

The United States Congress, now in session, has important business before it, including the determination of a form of government for their new colonial possessions. There are signs of unrest in Cuba, as the Cubans who were fighting for independence protest that it is too long delayed, and that they are threatened with annexation instead.

A century has passed since the work of Christian missions was first inaugurated in India. The census counts in that part of our empire to-day 2,290,000 Christians; and 250,000 Sunday-school children are taught in twenty-five languages.

The most absorbing topic of current interest is, of course, the war in South Africa. The British government has acknowledged the Boers as belligerents and has notified foreign powers of a state of war existing since October 11th, the date of the Boer invasion of Natal. News from the front is subject to rigid censorship, and is very meagre; but there is a satisfaction in knowing that the forward movement of the invaders has been checked at all points.

In Natal, Gen. Buller is moving forces to the relief of Ladysmith, the position of which is becoming more and more hazardous. Communication with Estcourt, which was cut off for a time, was restored by Lord Dundonald's column on the 26th, the Estcourt column immediately starting to advance towards Colenso. The relief forces, under Gen. Hilyard, are now gathering at Frere, a few miles south of Colenso, where it is believed the Transvaal and Free State forces, under Gen. Joubert, are making their stand for a decisive battle. The bridge over the Tugela river at Colenso, has been destroyed by the Boers.

The column for the relief of Kimberley, under General Lord Methuen, has met the enemy at Belmont, at Gras Pan and at Modder river, winning the three successive

victories with a loss of over 1,000 men. At last advices, Methuen's column, after resting for ten days, at Modder river, had resumed its march toward Kimberley. The similarity of the two situations is remarkable. Each relief column is within about twenty miles of the beleaguered garrison, and in each case a river has formed the Boer line of defence. It is thought that Lord Methuen's forces will not meet with any further serious opposition, and that Kimberley, with its 8,000 or 10,000 refugees, is therefore virtually relieved. The Canadian contingent, which was enthusiastically welcomed on its arrival at Capetown, has been sent forward to the Orange River, with the Australian troops and other forces, to aid in protecting Methuen's line of communication.

The latest reports bring news of a repulse to the British force commanded by Gen. Gatacre, near Stromberg Junction, with a loss of 600 men in killed, wounded and missing.

In the Transvaal summer sets in shortly after Christmas. January is the hottest month and July the coolest.

Lieut. C. C. Wood, of Halifax, who was killed in the Transvaal, and who is the first Canadian reported dead, was a great-great-grandson of "Old Hickory," Zachary Taylor, the hero of New Orleans, and a President of the United States; and his grandfather was Jefferson Davis, President of the Southern Confederacy.

England is sending out the largest armed force ever despatched by sea in the history of Europe. It is, in round numbers, 50,000 men, exclusive of the transport crews—a force considerably larger than that conveyed by the Spanish Armada, which has been said to be the largest ever sent by sea. The number of the Spanish force which sailed on 130 ships from Spain in 1588 is thus recorded: Sailors, 8,050; galley slaves, 2,089; soldiers, 18,972; volunteers, 1,382; total, 30,493.

Lyddite, the new explosive, gets its name from the small Kentish town where experiments with it were made. The destructive effect of a bursting shell filled with it is some eleven times greater than that of a shell filled with powder. Its death-dealing effects are due more to air-concussion than to the wounding effects of the flying fragments. In other words, in the case of a lyddite shell bursting in a group of men, the greater number will be killed, not by pieces of the shell, but by the blow of the suddenly compressed air.

The rise and fall of Admiral Dewey is an interesting and rather curious episode. A few weeks ago he was the national hero, was feted everywhere, and presented with a house in Washington. This house the Admiral deeded to his son, and now he is abused and neglected. It must strike the children of the schools, and probably larger people, that it is a little inconsistent to have the idol of one week shattered the next.

'ROUND TABLE TALKS.

[Those who take part in these 'Round Table Talks are again reminded that they must send their names in confidence to the editor.]

E. S. H.—In the November REVIEW L. D. describes a nest found in a tall spruce, and asks what creature may have built it. Four years ago I found a nest answering to the description. The opening to the nest was on the under side; the passage was first up and then down into the cosy nest. It was occupied by a squirrel.

A. M. P.—On page 119 of November REVIEW you parse the sentence, "Flour is worth five dollars," and say "worth" is an adjective. *Worth* in this sentence means *value*, therefore it is a *noun*. Like many sentences of this class, it may be reversed and given precisely the same meaning, thus: "The worth of flour is five dollars," "The wages of sin is death," or "Death is the wages of sin." A word is a certain class, or part of speech, according to the office it fills in the sentence.

At first sight we were inclined to think with A. M. P. that in the given sentence "worth" might be parsed as a noun. But very little study served to convince us that this conclusion was probably wrong. We found nearly all the best authorities calling it an adjective in such sentences, for example, as the following: "To reign is worth ambition," (Milton)—in the Encyc. Dict. "This is life worth preserving," (Addison)—in Webster. "A ring he hath of mine worth forty ducats," (Shak.)—by Webster. "A castle worth preserving—" Imperial Dictionary. "A man worth \$1000—" Imperial Dictionary. "The cloth is worth two dollars a yard—" Standard Dictionary. "Whose thoughts are little worth—" (Tennyson)—Century Dictionary. "If what one has to say is worth saying," (Holmes)—Century Dictionary. Dr. Johnson also calls "worth" an adjective in such sentences as we have quoted. Gould Brown calls "worth" a preposition in the sentence: "It is richly worth the money." Barrett says that "is worth" is equivalent to "*valet*," and therefore a verb. Chandler thinks that "worth" expresses the relation of value, and is therefore a preposition.

M. F.—(1) A merchant in Toronto purchased a draft on New York for \$2660, drawn at 60 days, paying \$2570.89. What was the course of exchange?

(2) A mixture of soda and potash dissolved in 2540 grains of water, took up 980 grains of aqueous sulphuric acid, and the weight of the compound solution was 4285 grains. Find how much potash and how much soda the mixture contained, assuming that aqueous sulphuric acid unites with soda in the proportion of 49 grains to 32, and with potash in the proportion to 49 to 48.

(3) Two cisterns of equal dimensions are filled with water, and the taps for both are opened at the same time. If the water in one will run out in four hours, and that in the other

in five hours, find when one cistern will have twice as much water in it as the other.

$$(1) \text{ Cost of exchange of } \$2660 = \$2570.89$$

$$\text{Therefore " } 1 = \frac{\$2570.89}{2660} = \$0.9665$$

$$\text{Bank discount for 63 days} = \$0.9665 \times \frac{63}{360} \times \frac{6}{100} = \$0.010009$$

$$\text{Course of exchange} = \$0.976509 \\ 1 - .9765 = .0234$$

Therefore exchange was at a discount of 2.34 per cent.

(2) $4285 - (2540 + 980) = 765$, the number of grains of soda and potash that take up 980 grains of the sulphuric acid; hence,

$$\frac{49 + \text{number of grains of soda}}{32} + \frac{49 \times (765 - \text{number of grains of soda})}{48} = 980$$

or, $3 \times \text{number of grains of soda} + 2 \times (765 - \text{number of grains of soda}) = 20 \times 96$.

Therefore number of grs. of soda = $1920 - 1530 = 390$
 " " " potash = $765 - 390 = 375$

(3) Let 1 represent the quantity of water in each cistern; then the quantity of water which runs out of the second cistern in 1 hour is equal to $\frac{1}{5}$; that which runs out in the number of hours required is = $\frac{\text{number of hours}}{5}$

$$\text{That which runs out of the first cistern is} \\ = \frac{\text{number of hours}}{4}$$

$$\text{Then } 1 - \frac{\text{number of hours}}{5} = 2 \left\{ 1 - \frac{\text{number of hours}}{4} \right\} \\ = 2 - \frac{\text{number of hours}}{2}$$

$$\text{Therefore } \frac{3 \times \text{number of hours}}{10} = 1$$

$$\text{And number of hours} = \frac{10}{3} = 3\frac{1}{3}$$

READER.—A man had a lot of eggs. He sold $\frac{1}{3}$ of them at 10 cents a dozen, $\frac{1}{3}$ at 12 cents a dozen, and 12 dozen at 15 cents a dozen. He had 31 eggs left, which were spoiled. What did he get for his eggs?

Since a man had a lot of eggs;

" he sold $\frac{1}{3}$ @ 10c. a doz. and $\frac{1}{3}$ of them @ 12c. a doz.

$$\therefore \text{ he sold } \frac{1}{3} + \frac{1}{3} = \frac{2}{3}$$

$$\therefore \text{ remainder} = 1 - \frac{2}{3} = \frac{1}{3}$$

Since he had left 12 doz., which sold @ 15c. per doz., and 31 spoiled eggs,

$$\therefore \frac{1}{3} = 144 + 31 = 175 \text{ eggs.}$$

$$\therefore \frac{1}{3} \text{ or } \frac{1}{3} = \frac{175 \times 5}{7} = 125 \text{ eggs.}$$

$$\therefore \frac{1}{3} \text{ or } \frac{1}{3} = \frac{175 \times 3}{7} = 75 \text{ eggs.}$$

Since 12 eggs sold for 10c.

$$\therefore 125 \text{ eggs sold for } \frac{10 \times 125}{12} = \$1.04\frac{1}{6}$$

$$\therefore 75 \text{ " " } \frac{12 \times 75}{12} = \$0.75$$

Selling price of 12 doz. @ 15c. a doz. = $12 \times .15 = \$1.80$.

$$\therefore \text{ money the man got for his eggs:} \\ = \$1.04\frac{1}{6} + .75 + 1.80 = \$3.59\frac{1}{6}$$

B. M.—Hx. ACAD.

READER.—If a grocer's scales give only $15\frac{1}{4}$ oz. for a pound, of how much money does he defraud his customers in the sale of 6 bbls. of sugar, each weighing 276 lbs., at 5 cents a pound?

Weight of 1 bbl. of sugar = 276 lbs.

$$\text{" } 6 \text{ bbls. " } = 276 \text{ lbs.} \times 6 = 1656 \text{ lbs.}$$

From 1 lb. the grocer keeps $\frac{3}{4}$ oz.

$$\text{" } 1656 \text{ lbs. " } \frac{3}{4} \text{ oz.} \times 1656 = 1242 \text{ oz.}$$

Selling price of $15\frac{1}{4}$ oz. = \$.05.

$$\text{" " } 1242 \text{ oz.} = \frac{.05 \times 1242}{15\frac{1}{4}} = \$4.07\frac{1}{8}$$

M. O.—Hx. ACAD.

SCHOOL AND COLLEGE.

Friday, December 22nd, being the last teaching day of the present term, many teachers will find it impossible to reach their homes before Christmas day. On this account the Chief Supt. of N. B. authorizes the substitution of any Saturday in December as a teaching day instead of Friday, the 22nd, in cases in which it may be found desirable to close the schools on Thursday, the 21st. Teachers wishing to avail themselves of this arrangement must first obtain the consent of the trustees. Schools will re-open Monday, January 8th.

Mr. Westra B. Stewart has taken charge of the Superior School at Hampton Station, recently taught by Mr. R. C. Hubly, a soldier of the Canadian Contingent in South Africa.

Principal E. J. Lay, of the Amherst High School, has received a set of metric weights and measures from the Department of Inland Revenue of Canada.

David Soloan, late principal of the New Glasgow High School, is expected home some time this winter from Paris, where he has been studying the educational institutions of France since he left Germany last summer. Principal Soloan is as much at home in Germany as in England, so far as the language of these two countries is concerned; for his practical knowledge of the Teutonic languages was very extensive and full before he went to the continent.

St. Francis Xavier College is making rapid advances. A new science building is now being added to the fine cluster of buildings in connection with the university.

The new school building at Dorchester, N. B., was formally opened the second week in November. It is

a commodious structure, well equipped for school purposes, and reflects credit on the trustees and citizens of that town. Mr. Amos O'Blenus is the principal, and with his competent staff of instructors he is doing good work and placing his school well up on the list of the many excellent schools which are found in Westmorland County.

Prof. Stockley, of the University of New Brunswick, is delivering a series of lectures on literature in the assembly hall of the High School, Fredericton, on Saturday afternoons.

The Fredericton teachers have organized themselves into an association for the purpose of enlarging the professional knowledge of its members, cultivating professional spirit, and promoting good fellowship among them. Meetings will be held fortnightly, and a library of professional literature will be formed. The following are the officers elected for the present year: President, Mr. B. C. Foster; Vice-president, Mr. John Brittain; Secretary-treasurer, Miss Annie Tibbits; Librarian, Mr. H. C. Henderson.

If we correctly understood Chief Superintendent Inch at a recent Teachers' Institute meeting, he intimated that professional books for teachers' use might be included in a school library, and thus the expense of procuring them be partially covered by the government bonus.

In the November REVIEW, Mr. Geo. A. Hutchinson was spoken of as principal of the Kingston (Kent) Superior School. Mr. Robert G. Girvan is the principal of this school. Mr. Hutchinson resides in Kingston, but teaches in the neighboring town of Richibucto.

The meeting of the Executive Committee of the Educational Institute of New Brunswick will take place at Fredericton, on Thursday, 28th inst., at 10 a. m.

The scholars of the Memramcook, N. B., school, are planning to give a grand concert on the 23rd of this month under the supervision of Miss Lizzie Doherty, their teacher. The proceeds will go towards helping to furnish a library for the school.

Mr. C. A. Richardson, who has so acceptably filled the position of principal of the Moore's Mills, Charlotte County, Superior School, has resigned, and will be succeeded by Mr. Henry Sinclair.

Miss Katie McPartland, teacher at Upper Loch Lomond, St. John Co., who is ever most active in improving her appliances, has again been able to add many improvements by means of a school entertainment.

Mr. F. G. Calder, principal of the Whitehead, Charlotte County, schools, has resigned to study for the ministry.

During December, Inspector Mersereau will visit the schools in Blackville and North Esk parishes, Northum-

berland County, that he has not yet visited this term, and spend the remainder of the month in Alnwick, Saumarez, St. Isidore and Inkerman. In January he will visit the schools in Shippegan, Caraquet, Paquetville and New Brandon.

Miss Fannie B. English, teacher at Mascarene, Charlotte County, has raised money to purchase an excellent dictionary and other apparatus for her school.

A meeting of the St. Stephen Parish Association of teachers and parents was held recently at Milltown.

Permission has been granted by the Board of Education to the Charlotte County teachers to unite with those of Washington County, Maine, at Calais, September, 1900, in a joint teachers' institute.

Miss Mary Hawkins, teacher at Pennfield Centre, Charlotte County, has again added to her school apparatus by means of a successful concert. Miss Hawkins has been in charge of that school for nine years. She sent in her resignation before the school meeting took place, but the ratepayers unanimously voted that it be not accepted.

Miss Margaret Kirkpatrick, teacher at Fairfield, St. John County, by means of a school concert and social obtained the handsome sum of \$68, with which to add to apparatus and furnishing.

Miss Annie M. Hayter, teacher at Westfield Station, Kings County, and pupils, left a petition on the blackboard before the annual meeting, asking the ratepayers to provide some extensive improvements to the school house. Every item was unanimously voted. Here is hint for others.

Miss Inez Maxwell, one of the most popular and successful of the Charlotte County teachers, was recently married and will live in the west. The REVIEW extends congratulations.

The many friends of Mr. Thos. O'Malley, who for so many years has been engaged in teaching, will regret to learn that he has been compelled to give up his work in St. George by illness. He has been succeeded by Miss Mary Scullin, of Rolling Dam.

Miss Bertha Dewar, teacher at Round Hill, Greenwich, Kings County, has added considerably to her school library and apparatus by means of a concert.

Miss Jeannette B. Kelley, the teacher at Northern Harbor, West Isles, N. B., has raised sufficient money by means of a social to ceil the school house inside.

Johnny is a ten-year old New Brunswicker. Here is his composition on the elephant: "Elephants make their home in the desert, he likes to be where there is much water to bathe in."

RECENT BOOKS.

The Lane-Morgan Latin Grammar¹ is an admirable book. The typographical work is perfect. It is a satisfaction to see the section numbers in the place where the page numbers usually stand and to find the page numbers relegated to the bottom of the page; for the sections are what one wants in a grammar book. More attention than usual is paid to the stems of words and to their formation. The treatment of the verb in the verb-list is fuller and more reliable than that in any other school grammar. It is more reliable, because Professor Lane took nothing for granted, got everything at first hand, sought and found. The versified rules for gender are most desirable in a school grammar, but one had hoped for a more extended use of this help. Any rule involving long lists of verbs, prepositions, etc., goes down more easily if sugar-coated; as Horace says:

"Ut pueris olim dant crustula blandi
Doctores, elementa velint ut discere prima."

And this is especially true in schools where the Latin is begun early.

The more one reads the lucid statement of grammatical principles in the syntax part of this book, the more one is delighted with the sureness of step, the graceful precision, so easy for genius, so hopelessly difficult for any but the inspired to originate. The more one reads, the more one sees the difficulties made by some other grammars are here not raised. One is often vexed at the scientific grammar that leads schoolboys up to difficulties that for the Romans never existed and probably need never exist for school-boys.

The "Emotional Dative" is a good name for the "Ethical Dative." "Yes and No Questions" is happy. But "Infinitive of Intimation" for "Historical Infinitive" is a stroke of genius, for it hits the essential nature of the construction, which is to suggest or intimate an occurrence without making a definite statement. The translations given of model sentences set such an example before pupils (and—in brackets—teachers) as they have never had before in a grammar. Here are a few taken at random:

Magna multitudo perditorum hominum.

(A perfect swarm of desperadoes).

Miserrima est contentio honorum.

(A scramble for office is a pitiful thing).

Galeatum sero duelli penitet.

(Too late, with casque on head, a combatant repenteth him of war).

Rusticanus vir, sed plane vir.

(A country man, but every inch a man).

Huic ego "studes?" inquam. Respondit "etiam." "Ubi?"

"Mediolano." "Cur non hic?" "Quia nullos hic præceptores habemus."

(Said I to the boy, "do you go to school?" "Yes, sir,"

said he; "Where?" "At Mediolanum." "Why not here?"

"Oh, because we haven't any teachers here.")

Fortunam citius reperias quam retineas.

(Dame Fortune thou mayst sooner find than bind).

Here enters a regret. There are no editions of the authors read in schools that give grammatical references to this grammar. This makes the use of it harder for both teacher and pupil. The latter has less help from the grammar in preparing his work, the former must spend more time on grammar in the class. Again, the book is published by a house which in the past has not pushed forward its school publications. These points, it is to be feared, will militate against its wide adoption; will limit its sale.

W. T. RAYMOND.

¹ A SCHOOL LATIN GRAMMAR: Prepared by Morris H. Morgan, Ph. D., chiefly from Lane's Latin Grammar. Pages 250. Harper & Brothers, publishers, New York and London.

Students who know nothing of drawing need the help of such a book as this¹ when they come to study biology either in the high school or college. In the general introduction we are told that drawing acts as a powerful incentive to careful study, that it not only trains the eye and hand but also gives permanency to knowledge, and that students who are accurate observers make fairly accurate drawings after a reasonable amount of practice. There are two chapters. In the first we have the ordinary information regarding material,—pencils, paper, etc., including the camera lucida. The second chapter gives a good deal of useful information about the drawing of microscopic objects, the rules of perspective, shading, biologic drawings in particular, photo-engraving, etc. The student of biology, even though he may be proficient in general drawing, will save much time by learning from the experience of an expert in his special study.

A teacher who knows about his subject only what is contained in the prescribed textbook may be a good drill but he cannot be an educator. The book before us² has improved demonstrations of many of the standard propositions and at the end of the books many solutions of important theorems not found in the other books in common use. There are also a large number of miscellaneous exercises. The notes scattered throughout the books are especially interesting and valuable. Every high school should have a copy of this book for the use of the brighter students.

Bound in one neat volume, we have a common school arithmetic of 98 pages, algebra, including simple equations, 134 pages, and one book of Euclid, 107 pages.³ Hall and Stevens are most favorably known in these provinces as the authors of a prescribed text in geometry. This little volume will be found very convenient for pupils of limited opportunities.

As an antidote to congested programmes and over-pressure, no subject is of so much importance nowadays as school Hygiene.⁴ Germany is perhaps the only country in which it has received the attention which it deserves. Kotelmann condenses the most important results of hundreds of experiments on the lighting, heating and ventilating of schoolrooms, school furniture, programmes, over-pressure, the care of the eye, the ear, and the vocal organs, and diseases incident to school life. We have in this book the substance of the reports and recommendations of government commissions, possessing the time, scientific skill, and means to investigate thoroughly the questions submitted to them. The book closes with a

¹ HINTS ON DRAWING, for Students of Biology, by Albert Schneider, M. D., Ph. D., Professor of Botany, Pharmacognosy and Materia Medica, Northwestern University School of Pharmacy. Pages 60. Illustrated. Handsomely bound in cloth. 50 cents. (Single copy to teachers 20 cents). G. P. Engelhard & Co., Publishers, 358-362 Dearborn Street, Chicago.

² EUCLID'S ELEMENTS OF GEOMETRY, BOOKS III AND IV, edited for the use of schools, by Chas. Smith, M. A., and Sophie Bryant, D. Sc. Pages 288. Price 2s. Published by Macmillan & Co., London and New York.

³ AN ELEMENTARY COURSE OF MATHEMATICS, COMPRISING ARITHMETIC, ALGEBRA AND EUCLID, by H. S. Hall, M. A., and F. H. Stevens, M. A. Price 2s. 6d. Macmillan & Co., London and New York.

⁴ SCHOOL HYGIENE, by L. Kotelmann, Ph. D., M. D., translated by J. A. Bergström, Ph. D., and E. Conradi, M. A. Pages 394. Price \$1.50. Published by C. W. Bardeen, Syracuse, New York.

valuable bibliography and full index. School commissioners and inspectors will find it very helpful in the proper discharge of their duties.

A. MCKAY.

Siepmann's French and German Series have established themselves in the favor of those who are anxious to introduce English students of French and German to modern writers whose works have hitherto not been edited for English schools. Two of those mentioned below¹ are for advanced students, the other by Jules Verne—Round the World in Eighty Days—is for elementary grades. Each volume contains the characteristic Siepmann Appendices of (1) lists of words and phrases for *viva voce* drill, (2) exercises on syntax and idioms, (3) passages for translation into French, (4) exercises in word formation—all based on the text. Two, the Verne and the Coppée, contain vocabularies. The Verne has in addition some eight pages of a table of the irregular verbs used in the text.

Miss Aiken has already written on "Methods of Mind-Training." The readers of the "Methods" know what to expect from the "Exercises."² These exercises are a kind of mental gymnastic through which pupils may be put from five to twenty minutes daily. The exercises are designed to develop "Quickness of Perception, Concentrated Attention, and Memory." They appeal to no interest but to the joy of doing a difficult feat. They are not as interesting as riddles or conundrums. Consequently the majority of people, young and old, will loathe them, though a bright and interesting teacher may kindle a faint glow of enthusiasm. The writer says, "I am aware that the end for which this book is written will not be attained without enthusiasm on the part of the teacher."

The exercises when successful seem destined to develop one kind of perception only—*i. e.* visual perception. They all appeal to the eye; and only in a few cases is there a half-hearted appeal to the ear. The attention that will be developed is not sustained but intense and transitory. The exercises for the memory are not up to the Loissette standard. Loissette sought to develop a rational memory based on thought relations between the facts to be remembered. Miss Aiken's columns of dates, names and facts will at best only develop the lowest kind of memory—the topical.

Still the exercises, if intelligently and enthusiastically used, will in many cases develop an intellectual quickness and keenness that may prove useful. Unfortunately the more showy intellectual qualities are developed at the expense of the more solid. Thoughtfulness and judgment are more important than quickness; yet these are the very qualities these exercises will not only not develop, but will retard.

W. C. MURRAY.

A very common method of teaching chemistry, even at the present time, is to begin with lessons upon chemical theory, involving such abstract conceptions as the atom, the molecule and valency, and then to proceed to a study of the facts which the theory is designed to explain. The results of the study when pursued in this way, even with the aid of a laboratory in

which the pupil carries out certain experiments according to certain recipes in his textbook, are usually disappointing. The pupil's reasoning powers are commonly but little exercised and his views of the relations of fact to theory are seldom adequate, often grotesque. The "Chemistry for Organized Schools of Science,"¹ by Messrs. Parrish and Forsyth, of the Central Higher Grade School, Leeds, is one of the most successful attempts yet made to show a more excellent way. The authors begin not with theory but with facts. By a series of well-chosen experiments the pupil is guided in his investigation of such things as the nature of combustion, the composition of air, and of water, and the formation of salts. In this way familiar chemical facts and, finally, the laws of chemical combination, are deduced from experiment. Then, towards the end of the course, the atomic theory is introduced as affording an explanation of these laws. The book is full of suggestions to teachers who are seeking to make the study of chemistry of some educational value.

This "Inorganic Chemistry for Advanced Students"² is published as a sequel to Roscoe and Lunt's well-known "Inorganic Chemistry for Beginners." The authors have avoided the besetting sin of writers for advanced textbooks in keeping their pages free from perplexing minutiae. The important characters of the elements and compounds treated are clearly and concisely put forward. The order of treatment is in accordance with Mendeléeff's classification of the elements—the chapter on which, however, appears in its logical place at the end and not at the beginning of the work. In the theoretical portions the dependence of theory upon facts of experiment is kept prominently before the student. Chapters are included on industrial processes and on solutions. In all respects the book is an admirable one for the student who has already taken an elementary course in chemistry.

E. MACKAY.

In *pure geometry* we have a set of propositions, arranged in strict logical sequence, and deduced by reasoning based on a few fundamental definitions and axioms. The diagrams are of secondary importance. In *practical geometry* we are concerned not so much with the proofs of propositions as with the careful drawing, to scale, of geometrical figures by means of mathematical instruments. The student is provided with methods for making graphical or semi-graphical computations and is shown how to exhibit the actual forms and dimensions of solid objects. Training in practical geometry is invaluable in certain branches of art and science.

In "Harrison and Baxandall's Practical Plane and Solid Geometry"³ we have the subject put before us in a clear and systematic form. The book is not only adapted for beginners, but is also sufficiently comprehensive to meet the wants of more advanced students. The necessity of accurate draughtmanship is insisted on throughout, and instructions are given for setting

¹ CHEMISTRY FOR ORGANIZED SCHOOLS OF SCIENCE. By S. Parrish, A. Sc., A. R. C. S., (London) and D. Forsyth, M. A., D. Sc. Pages 262. Price 2s. 6d. Macmillan & Co., Publishers, London and New York.

² INORGANIC CHEMISTRY FOR ADVANCED STUDENTS. By Sir Henry Roscoe, F.R.S., D.C.L., LL.D., and Arthur Harden, Ph. D., M. Sc. (Vict). Pages 432. Price 4s. 6d. Macmillan & Co., Publishers, London and New York.

³ PRACTICAL PLANE AND SOLID GEOMETRY. By Joseph Harrison and G. A. Baxandall, Instructors in the Royal College of Science, London. Pages 557. Price 4s. 6d. Macmillan & Co., London and New York.

¹ JULES VERNE *Le Tour du Monde*. Adapted and edited by Barbé. Pp. xx, 193 (Text 99). Price 2s.

COPPÉE *Contes Choisis*. Edited by Marg. Skeat. Pp. xxii, 176 (Text 72). Price 2s. 6d.

VOGÜÉ *Coeurs Russes*. Edited by Pellissier. Pp. xvi, 161 (Text 85). Price 2s. 6d. Macmillan & Co., London.

² EXERCISES IN MIND TRAINING, By Catharine Aiken. Pages vi, 122. Harper & Bros., New York.

the drawing instruments and maintaining their efficiency. Following the problems are numerous examples, by the working of which one is enabled, from time to time, to test his proficiency. One of the difficulties which hinders the beginner lies in his inability to realize from their projections the positions of points and lines in space. The book helps to overcome this difficulty by giving with many of the problems two figures, one a perspective, representing the points, lines, and planes in their true positions, the other, a diagram showing their projections and the ordinary solution of the problem. The student is also trained to improvise models, where these are helpful.

It is a pleasure to note that the figures and corresponding descriptions are so arranged as to avoid the necessity of turning a leaf when referring to a diagram. It would be a great advantage if more geometrical textbooks were printed on this plan.

F. R. HALEY.

Students of what is called "Higher English" look with interest for new publications issued by Ginn & Co., a house favorably known for the high standard maintained in its books on English Language and Literature. The latest volume of theirs that has come into our hands is "Old English Idyls."¹ Seeing the name of the translator of Beowulf on the title page, we looked with pleasure for some new renderings of Anglo-Saxon poems, but we find that Professor Hall, evidently under the spell of our older songcraft, has in his own words, indulged his own imagination, with some help from myth and history, in putting into verse-forms approximating Anglo-Saxon types, a panoramic view of the Teutonic Conquest of England. The result is a modest and pretty volume of about one hundred pages containing the stories of "The Calling and the Landing of Hengest and Horsa," "The Lady Rowena," "The Death of Horsa," "Cedric and Arthur," "Augustine," "Alfred" and "Edgar the Peaceable." The author lays no claim to originality, but he seems to us to have succeeded in no slight degree in reproducing the spirit, the metre and the leading characteristics of the English verse. We own to some scepticism as to there being much fondness among general readers for the unrhymed alliterative measures, but once known they have unquestionably a strong fascination, and some people who would hesitate before beginning the thousands of lines in Beowulf may be tempted by Professor Hall's shorter tales. We cannot resist quoting one pretty and characteristic bit from "The Landing of Hengist and Horsa":

Then brightened the heavens
The sun from the southward soon in the welkin
Lavished his luminous lustre and splendour
O'er land folk and races, lovely, brilliant
Candle of heaven. O'er the cup of the waves, then
The swans of the sea swam on the billows.

An attractive little volume of English poetry for primary schools² has been compiled and annotated by two masters in the Khedivieh School, Cairo. Intended primarily for Egyptian children, it deserves to be recommended to teachers of English in the lower grades anywhere. Not only are the selections

¹ OLD ENGLISH IDYLS. By John Leslie Hall (Translator of Beowulf), Professor of English Language and Literature in the College of William and Mary. Cloth. Price 45 cents. Boston. Ginn & Co. Athenæum Press, 1899.

² ENGLISH POETRY FOR SCHOOLS, BOOK I. Primary. Selected and arranged by Geo. Cookson, B.A., Assistant Master in the Khedivieh School, Cairo. With preface and note by A. V. Houghton, B.A., Principal of the Khedivieh School, Cairo. Macmillan & Co., London and New York, 1899.

good—and it is not an easy task to find suitable poems for younger children—but the notes on recitation and hints for teaching are of great value, coming, as they plainly do, from the pen of an experienced and thoughtful teacher. We wish that all teachers would lay to heart the opening words of the Note on Recitation. "In no branch of the ordinary school work does a teacher so positively leave his own mark so deeply impressed upon his pupils as in their style of reading and recitation.

Readers of Mr. George Gissing's novels,¹ however critical, are seldom irritated by any failure in workmanship on his part. Technically his books rank among the best of the day. The chief accusation that we have heard brought against him is on the score of a certain dismal tone that prevails throughout his stories. As a rule we rise from them thinking no better of our fellow creatures, and feeling no more hopeful for ourselves or our kind. They remind us of a foggy day in an ugly town. "A common grayness—not silvers, but deadens—everything."

His recent novel, "The Crown of Life," is partly, but by no means altogether, an exception to this rule. At least, the hero has an ideal, and that too, an inherited one. The title is explained by a passage concerning Jerome Otway, the father of Piers, the hero.

"Why had he not—he who worshipped the idea of womanhood—sought patiently for his perfect wife? Somewhere in the world he would have found her, could he but have subdued himself to the high seriousness of the quest. In a youthful poem, he had sung of love as 'the crown of life,' believing it fervently; he believed it now with a fervour more intense because more spiritual. That crown he had missed, even as did the multitude of mankind. Only to the elect is it granted—the few chosen, where all are called. To some it falls as if by the pure grace of heaven, meeting them as they walk in the common way. Some, the fewest, attain it by merit of patient hope, climbing resolute until, on the heights of noble life, a face shines before them, the face of one who murmurs 'Guardami ben.'"

The story tells us how this man's son, Piers Otway, strove after, and finally attained this crown, after many struggles, and worse, many lapses from struggling at all. The concluding words of the book indicate the thread of the story as far as the two chief characters are concerned, "the hallowing of a profound passion justified by reason and proof under the hand of time." The everyday, commonplace faults and weaknesses of Piers, so far removing him from the ideal hero, enhance the effect of the persistence with which he clings to his ideal, and increases our sympathy for him.

The heroine's career is in distinct yet delicate contrast to that of the hero, and she seems to us the most interesting person that Mr. Gissing has yet drawn. The episode of Daniel Otway and Mrs. Hannaford, skilfully managed, is yet distinctly disagreeable and mars the impression of the book as a whole. The decidedly anti-Imperialist tone will not contribute to the popularity of the book just now in Canada.

ELEANOR ROBINSON.

In no subject, perhaps, of the natural sciences have the methods of study been more revolutionized than in botany. The plan which prevailed a few years ago of studying plants

¹ THE CROWN OF LIFE. By George Gissing, author of The Whirlpool, etc. Toronto, W. J. Gage & Co. 1899.

from dried specimens, and chiefly from a structural point of view, is giving place to the more natural way of studying the plant in its surroundings, how it is influenced by and adapts itself to these surroundings, how it lives, grows and perpetuates itself, with a study of its most evident life-relations. In short the modern study of botany makes less of the herbarium and takes one afield in order that plants may be seen in their actual place in nature.

An altogether admirable introduction to this fascinating science is Prof. Coulter's study of *Plant Relations*,¹ which is attractive and useful to the general reader as well as to the student of plants. The botany is divided into two parts, each representing the work for half a year. The first book, just published, is devoted to Ecology, or a study of the life-relations of plants; the second (to be published) will be dominated by Morphology, or structure, especially in its adaptation to these life-relations. The book is beautifully illustrated, and throughout is suggestive of delightful rambles in woods and meadows, as well as of a keen and absorbing interest in the study of plants.

G. U. HAY.

There is a subtle strength about Mr. Merriman's men and women which is very difficult to put into words.² The personality of each seems to impress itself upon the reader without his knowing exactly why it does so. We would emphasize that the word personality in speaking of them, for it is the personal rather than the intellectual or physical element in them that influences us and makes them so different from the creations of many other authors. They are not paragons of wit and beauty, and yet they are far from commonplace. There is in his heroes and heroines a quiet forcefulness of character which is very pleasing, a certain reserve force, as it were, which gives the reader confidence in them in any emergency. And Mr. Merriman has the art of bringing his readers into very real contact with his people, so that one experiences, after reading this book, much the same feeling of invigoration that comes from meeting strong, self-reliant men and women whose very presence affects us.

*

Many primary teachers and kindergartners will welcome this *Graduated Course in Drawing*.³ It has been carefully worked out and is simple, clear and suggestive—admirably adapted for children from five to seven years of age. That it is truly educative is shown by the fact that it opens up the way readily to original design. The hint given in the preface as to care of the eyesight is timely—a caution which does not seem to have been observed very closely in some of the original designs which show too much fine and intricate work. We would recommend the use of paper ruled in half inch squares to follow that of the blackboard ruled in one inch squares, and that preference be

¹ *PLANT RELATIONS: A First Book of Botany*, by John M. Coulter, M. A., Ph. D., Head Professor of Botany, University of Chicago. Cloth. Pages 264. New York. D. Appleton & Company. 1899.

² *SUSPENSE*. By H. S. Merriman. Price, Paper, 75 cents. Cloth \$1.25. Published by The Copp, Clark Company, Limited, Toronto.

³ *A GRADUATED COURSE OF DRAWING FOR INFANTS*; by Constance H. Fowler, Head Mistress of Page Green Board School, Tottenham. With introductory note by Rev. T. W. Sharpe, C. B., late H. M. Senior Chief Inspector of schools. Plates XXI. Pages 50. Price 4s. 6d. Publishers, Macmillan & Co., London. The Macmillan Company, New York.

given to such designs as are to be found in Plates XIII, XIV and XVI. The course in curved lines for natural forms is excellent.

S. B. PATTERSON.

Is the school-boy of to-day a better scholar than was the boy of fifty years ago? Would the Eton or Rugby lad, that Macaulay compares Addison with, find Greek and Latin any easier to master to-day than he did in the earlier part of this century? What part do textbooks have in making scholars? Would the student, seated on the log with Mark Hopkins, have been helped or not if he had had a *Beginners' Greek Book* of 1899 instead of his somewhat dingy, dog-eared Valpy? Is it true that there is no royal road to learning? Is the scholarship of 1900 really in advance of 1825? Would the boys of to-day learn anything if they were compelled to use the books their grandfathers used? These, and other questions of a like nature, are suggested by the sight of certain textbooks on our study table. Sometimes we feel almost as if in some way we had been cheated out of our rights,—as if we had come into the world twenty-five years too soon.

Here are three small books,¹ belonging to Macmillan's excellent series of *Elementary Classics*. That they have been issued in this series of textbooks is of itself enough to determine their general excellence.

Mr. Page's edition of the *Third Georgic* is no unworthy comparison of his other editions of the Latin poets. The notes are scholarly and helpful; not too diffuse, nor yet so condensed and elliptical as to be puzzling to the ordinary student. By some persons the absence of references to grammars and of discussions of syntax may be considered a drawback. But to us this absence is welcome, indicating as it does the high estimate the editor puts on his Latin text. It is well to remember that there is a stage in reading Latin when a knowledge of etymology and syntax may be taken for granted.

The selections from *Thucydides* are well chosen. They give an interesting and graphic account of a thrilling incident in Athenian history. The headings of the chapters and the running analyses on the side of the pages should prevent the reader from losing the thread of the discourse. In the interest of pure English, however, we wish that some more suitable word than "awful" had been used in the heading of Chapter XVI. We fail to see anything in the Greek that calls for this word. The use is loose, to say the least. The notes are more elementary than are those of Page's *Third Georgic*, but are clear and to the point. A very serviceable and distinct map of Syracuse and its neighborhood accompanies the text.

The *Passages for Translation* consist of extracts of varying length culled from about thirty authors who represent different types and periods of Greek literature. The *Passages* make a convenient reading book for any class entering upon translation, but are especially designed to prepare for Entrance Scholarships, Entrance Examinations and University Certificates in England.

E. W. SAWYER.

¹ *P. VERGILI MARONIS Georgicon Liber III.*, edited for the use of schools, with vocabulary, by T. E. Page, M. A. Pages 113. Price 1s. 6d.

THUCYDIDES Selections from Book VII., edited by E. C. Marchant, M. A. Pages 106. Price 1s. 6d.

PASSAGES FOR GREEK TRANSLATION, for Lower Forms, by G. H. Peacock, M. A., and E. W. W. Bell, M. A. Pages 142. Price 1s. 6d. Macmillan and Company, London and New York.

[Other books received will be noticed in future as time and space may permit.]

Literary Notes.

"Recitations with Actions," for little children from five to seven years of age, by Lucy Allen, has been received from the Roxbury Publishing Co., 7 Bible House, New York. The novel and very useful book supplies instruction for clever and graceful actions with every number. The subjects of the recitations are pleasing and suited to the little folk. The price (50 cents) is moderate; the book is well printed and of handsome appearance.

The Riverside Literature series, published monthly by Houghton, Mifflin & Co., Boston, are deserving of a more extended notice than can be given in this number.

The Columbia Calendar for 1900 has been received. It is issued by the Pope Manufacturing Company of Hartford, Conn., and may be had by sending address and five two-cent stamps. It is altogether unique among calendars. At the top of each of its 365 pages, which are enclosed in a metal fastener, is a quotation, followed by a blank page for memoranda, the date line being at the foot. It is very convenient for office desk or table.

We have received the autumn list of books published by Geo. N. Morang & Co., Toronto. Its title page and illustrations are beautiful and effective.

Messrs. D. Appleton & Co., New York, publish in their autumn bulletin and in their illustrated holiday number, lists and illustrations of books covering a wide field of fiction, biography, history and science.

"The Boer War" is the title of a pamphlet of forty pages, price 10 cents, prepared by E. B. Biggar, of Toronto. Mr. Biggar is a Canadian, and formerly a resident of South Africa. It is an exceedingly clear and useful epitome of the events which led up to the war, supplemented by a glossary of Cape Dutch and Kaffir terms, with statistics and miscellaneous information about South Africa. Biggar, Samuel and Co., Toronto and Montreal.

New Music.

"Hail to the Land," is a Canadian song, inspiring in its tone and breathing a warm patriotism. Words by Dr. J. M. Harper, Quebec, and music by Mr. F. C. Robinson.

Rev. Edwin Crowell, of Yarmouth, has published a "Canadian National Hymn," music by Mr. Archibald Porter. It is a beautiful composition. The author claims for it that "it meets a palpable and widespread demand in our growing nation for a national anthem, inwrought with historic glory, loyalty, unity, faith and hope."

"The Old Farm House on the Hill," is the title of a beautiful home song that has been received with great applause wherever it has been sung. Price fifty cents; but if our readers will mention the name of this paper they will receive a copy by sending fifteen cents to the Union Mutual Music Co., No 20 East 14th Street, New York.

DECEMBER MAGAZINES.

In the Christmas number of *The Canadian Magazine*, there is a beautifully illustrated and well written article on The Canadian Contingent. There are pictures of the loading of the "Sardinian," of the men's quarters and the officers' rooms, of the embarkation, and of the ship as she pulls away from the wharf, of the review on the Esplanade before the Governor-General and Sir Wilfrid Laurier, of each of these gentlemen addressing the troops, as well as group photographs of the officers and of the various local contingents. There are numerous stories and another strong article on Canadian Literature by Robert Barr. The number

contains over 200 pages with a handsome lithographed cover. . . . "Briton and Boer in South Africa" in the *Atlantic Monthly* is a clear, strong and comprehensive statement of the events and causes leading up to the present war in the Transvaal, stated from the English standpoint. The brilliant essayist, Hamilton W. Mabie, contributes a searching review of Edgar A. Poe's place in Literature. . . . The Christmas number of the *Century* is suggestive in cover and contents of the approaching festive season and the same spirit pervades *St. Nicholas*. . . . An article of special interest to everybody appears in *Appleton's Popular Science Monthly* for December, on Agricultural Education in foreign countries. It gives brief yet fairly comprehensive accounts of what is being done in this practical branch of study in the several countries of Europe, Great Britain and its colonies, India, Japan, Mexico and South Africa. . . . The Christmas *Ladies' Home Journal* covers an unusually wide field of interest. The great festal day is the theme of carol, story and pictures and of various practical, useful articles, while numerous topics that are uppermost in the minds of women and helpful in the conduct of the home, are practically discussed. By The Curtis Publishing Company, Philadelphia. One dollar a year; ten cents a copy. . . . The December number of the *Delineator* is called the Yuletide Number. And with its innumerable illustrations is certainly one of the most artistic magazines sent out. Aside from being a leading fashion publication, it contains much choice literary matter from the pens of well known authors. The household and social discussions are ably dealt with and are of real worth. *Delineator* Publishing Co., Toronto. . . . The *Chautauquam*, the magazine for self education, has an attractive table of contents, in which are some suggestive articles on Christmas with full page illustrations, and other timely topics.

District Institute of Inspectoral District No. 5.

HANTS AND KINGS COUNTIES.

The teachers in the above Inspectoral District will take notice that the next Institute will convene at Canning, Kings Co., on December 20th and two succeeding days, commencing at 2 o'clock, p. m., on the first day mentioned.

The following programme has been secured by the Executive:

- 1.—"Composition in the Public Schools," Miss M. A. McKenzie, B. A.
- 2.—"Agricultural Teaching," Mr. P. A. Shaw, B. A.
- 3.—"The Three R's," Mr. J. N. Sturk.
- 4.—"The Educational Value of a Study of Literature," Miss Etta Yule, M. A.
- 5.—"An Illustrative Talk on the Preparation of Simple Physical Apparatus, etc., Mr. Clarke Gormley, B. A.
- 6.—"The Teaching of Entomology in the Schools," Miss A. Forbes, B. A.
- 7.—"Drawing—How to teach It," Mr. J. S. Layton, B. A.
- 8.—"An Illustrative Lecture on some Botanical subject, G. U. Hay, M. A., Editor REVIEW.

A Public Educational meeting will be held on Thursday evening to be addressed by President Trotter, Acadia University; G. U. Hay, St. John, and the Superintendent of Education.

All information as to board, etc., may be obtained from Principal E. Robinson, Canning.

Teachers may attend without losing Government grant, or the Section the County Fund, by giving a week's notice to Trustees of their intention to be present.

N. B.—Delegates will buy a First Class Ticket to Canning, and get Standard Certificates at station from which they start, which being signed at Canning by the Secretary will entitle them to a free return. Those who do not have such certificate will have to pay for return passage.

A grand rally of the Teachers of this District is expected, as the programme promises well.

Remember, three days have been granted instead of two as heretofore. By order of the Executive,
J. A. SMITH, *Secretary-Treasurer.*

Windsor, N. S., Nov. 24, 1899.

Annual Institute of Cumberland and Colchester Teachers.

The following Programme will be given at the Annual Institute, Oxford, N. S., on December 20th, 21st and 22nd, 1899 :

Tuesday evening, December 19th. Reception to Institute by local teachers.

Wednesday, December 20th, 9 to 12 a. m. President's Address, Inglis C. Craig, Inspector of Schools; School Environments, Anna B. McKenzie, East Wallace. 1.30 to 4.30 p. m; Lesson, Black Board Reading Class, Miss Bertha Cameron, Parrsboro; Lesson, "From Mineral and Rock to Soil," Miss Margaret McPherson, Amherst; Agriculture and Horticulture, B. W. Chipman, Esq., Secretary of Agriculture, Halifax. 8.15, p. m., Free Lecture; Exhibition and Operation of Apparatus in Physical Science.

Thursday, December 21st, 9 to 12 a. m., Over Pressure in our Public Schools, Miss Bessie J. McNeil, Principal of Schools, Pugwash; Lesson, Clay Modelling, Miss Isabella Conway, Springhill; Book-keeping, Faculty of Maritime Business College, Halifax, and Principal Steck, Port Greville. 1.30 to 4.30 p. m., Drawing, Supervisor McKay, Halifax; Flotsam and Jetsam, J. A. Crowe, Principal, Economy; the Educational Material in the School Section and how to utilize it in the Schools, J. B. Hall, Ph.D., Normal School, Truro. 7.30 p. m., Public Educational Meeting, to be addressed by Dr. A. H. MacKay, Superintendent of Education; B. W. Chipman, Esq., Secretary of Agriculture; E. J. Lay, Principal, Amherst Academy, and other leading educationists.

Friday, December 22nd, 9 to 11.30 a. m., Metric System, N. D. McTavish, Esq., Amherst; High School Work in the Miscellaneous School, A. R. McBain, Esq., Balfon. Business of Institute.

The journey to and from Oxford may be made for the price of one first-class fare on the I. C. R., Joggins and the Cumberland Railway and Coal Company's line. On the I. C. R. Certificates must be obtained from the Station Master at the starting point.

Board may be obtained at very reasonable rates. Those wishing accommodation at private houses should write to

W. R. SLADE, *Sec.-Treasurer,*
District No. 10.

Teachers may attend Institute without detriment to Provincial or County Grant.

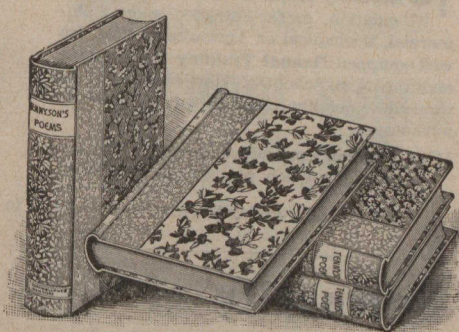
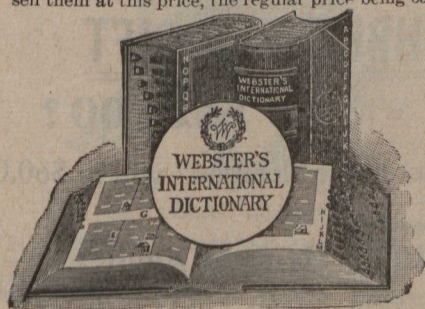
Readers of the Educational Review

Will find at C. FLOOD & SONS, 31 and 33 King Street, St. John, the largest and most attractive assortment of Appropriate Christmas Presents to be found in the Maritime Provinces.

We not only have the largest assortment of choice Steel Engravings, Etchings, and Photographs of the old masters, both framed and unframed, we have also the greatest variety of choice Writing Portfolios, and Tourists' Cases ranging in price from \$1.75 to \$6.00, and some very choice ones at \$10.00 and \$15.00. Any of the above would make a choice Xmas gift.

This season we have made some very exceptional purchases of books, which include many of the standard works. In sets we have Dickens, Thackeray, Elliot, Macaulay's History of England, in single volumes "With Kitchener to Khartoum," Dumas, Kipling, Robert Browning, Carlyle, Grant Allen, Gilbert Parker's Seats of the Mighty, and The Battle of the Strong. Also a very choice Pocket Edition of Shakespeare in leather bindings, in leather cases, at \$9.00, sold everywhere for \$12.00. Also Cameo of Literature in leather binding and leather cases at \$10.70; this edition bought to sell at \$15.00.

We have a lot of Cloth Bound Books in which many of the standard authors are found, that we are making a special sale of at 18c. We made a purchase of 5,000 volumes of these books, which enables us to sell them at this price, the regular price being 35c.



Poets. We have a very large range which includes many neat bindings. Standard Poems we have in cloth binding at 50c., and we have a Choice Leather Binding at 75c. These are exceptional values and make very appropriate gifts. We also have them padded at \$1.00.

For Boys and Girls we have all the Annuals such as Boys' and Girls' Own Annual, Young England, Chums, Leisure Hours, also a full assortment of Henty's Books for Boys, 85c.; and Mrs. Olcott's and Mrs. Whitney's Books for Girls, also 1,000 Ruby Series, which include Pansy, Elsie, Mildred, and Mrs. Whitman's Books.

To all readers of the REVIEW who will send in their orders, mentioning having seen this advertisement, we will allow the exceptional discount of 10 per cent for cash orders. Remember, the prices which we sell books for are not those generally sold by booksellers, but are net prices, so that when you receive an additional 10 per cent, you are getting the books at a slight advance on cost.

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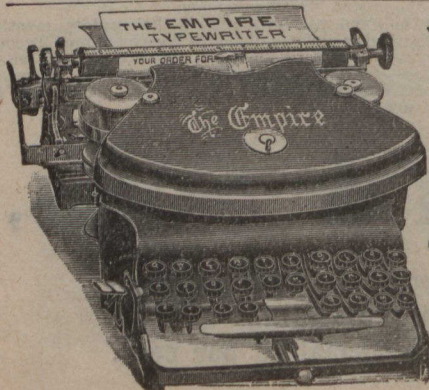
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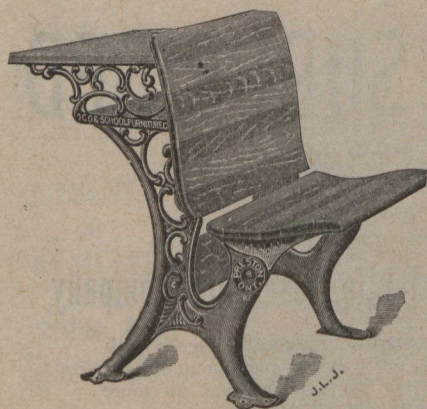
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