THE EDUCATIONAL REVIEW.

FOR THE ATLANTIC PROVINCES OF CANADA.

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G. U. HAY, Editor for New Brunswick.

A. McKAY, Editor for Nova Scotia

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Do not fail to consult the advertising columns of the REVIEW.

Many suggestive and helpful articles for Arbor Day will be found in this number.

Some valuable hints are given by Inspector Mersereau on Arbor Day that will be of great benefit to teachers, even beyond his inspectorate.

ARRANGEMENTS are being made to have an exhibit of educational work of the schools of New Brunswick at the exhibition in St. John in September next.

Success is the name of a new monthly periodical that has lately made its appearance in New York. It is in many respects unique in design and aim, and its first numbers give indication of the fulfilment of the promise in its title.

THE poem on the Mayflower, which appears in this number, will appeal to all lovers of that beautiful flower.

From what we can learn, great interest is being manifested in the announcement, made in the March REVIEW, of prizes for collections of insects, fungi and weeds by the Natural History Society of New Brunswick.

THE Summer School of Science for the Atlantic Provinces will meet at Moncton, July 7th. A very interesting session is looked for. Teachers who have not formed their plans for the summer would do well to consult the advertisement in another column.

THE first of the series of leaflets on Canadian history has met with an excellent reception from teachers and the press. It is the intention to publish these leaflets Teachers who wish to obtain them for supplementary reading in their schools should send their orders to the Review early, as the edition is limited.

Dr. Geo. Stewart recently assumed the editorial management of the Quebec Daily Mercury. His return to journalism, after a brief rest, will be hailed with satisfaction by his many friends in eastern Canada. Such a bright and clever writer as Dr. Stewart will undoubtedly give a reputation to the Mercury outside of the province of Quebec.

The Provincial Teachers' Institute of New Brunswick will meet this year in St. John, beginning on Tuesday, June 28th, and continuing the two following days. The programme, published in another column, gives promise of an interesting and important session.

The Dominion Educational Association will meet this year in Halifax, August 2-5. Full information of this meeting may be expected in the May REVIEW.

In this number Dr. Calkin begins a series of articles on Education in Nova Scotia. His long experience as head of the Normal School makes his criticisms and suggestions of great value, and these articles will command that attention which the writer and his responsible position merit. At an age when most men seek rest from the more active duties of life, Dr. Calkin shows no abatement of vigor. During the past few years he has found time, in addition to other exacting duties, to write a history of Canada, and his interest in educational topics, as evidenced by his writings and attendance at educational gatherings, has suffered apparently no diminution.

The attitude of Mr. J. D. Chipman, M. P. P., in regard to superannuation of teachers in New Brunswick, is that of a progressive and enlightened representative, and will be duly appreciated by the best section of the population. The hearty support given Mr. Chipman by Mr. Veniot, member for Gloucester, is not only creditable to his own enlightenment, but to that of his people. Mr. Chipman is understood not only to be in favor of superannuation, but to have a plan in view by which it can be brought into effect. Mr. Ganong, Charlotte's representative at Ottawa, some time ago expressed himself in favor of the principle, and many will remember his paper read at the Institute in St. Stephen last summer upon the subject. Charlotte County and the friends of education in the province generally are to be congratulated upon having as representatives two such broad-minded men.

A WRITER in the *Chautauquan*, the organ of the Chautauqua Literary and Scientific Circles, tells its readers that

"Most of the Canadian harbors, for instance, are closed to winter navigation, and even those that are usually open are sometimes closed for many days by ice-fields, an experience that, this year, has greatly inconvenienced the shipping at St. John's. This is to the advantage of Portland, whose fine harbor on Casco Bay becomes the winter ocean terminus of the Grand Trunk Railway of Canada."

Of course the writer should know that St. John's is in Newfoundland; St. John, the rival of Portland, is in New Brunswick, and its harbor is *always* free of ice. Any Halifax school boy would have been pleased to impart that information.

THE following is the testimony of A. E. Winship in the New England *Journal of Education* on vertical writing, and such testimony can be corroborated in our own schools:

I have seen no better vertical writing in first and second grades than in the Scottdale, Pa., schools. It seems impossible for children of six and seven years, the former in school less than rix months and the others less than twelve months, to write so gracefully and distinctly as these little people do.

The University of New Brunswick.

The resolution of Mr. Fowler, to withdraw the grant from the New Brunswick University, will do good if it leads to inquiry with a view to reform, or it will work evil as a bad advertisement for that institution of learning. Notwithstanding that large classes from the high schools matriculate at the University each year, it attracts few of them to enter upon a full course; and while the other colleges in the Maritime Provinces are said to be flourishing, the one in Fredericton does not progress in the matter of attendance at least, as its

friends would desire. Various reasons are assigned for this, among which may be mentioned: the change from a three years' course to one of four years, which was regarded by many as being in the interests of the faculty rather than of the students, many of whom can not well afford the extra year's attendance. abolition of residency for a time, coupled with some unseemly wrangles between students and faculty, had a tendency to cause uneasiness on the part of many parents who desired supervision for their boys. The failure of some of the faculty to observe the signs of the times by showing themselves in public to uphold the claims of the University for recognition and to reach out and canvass for students as is being done by other seats of learning. The adverse criticism of the newspapers from time to time regarding the management, which carried more weight as it was believed to emanate from within the University itself. The failure of the college to command the sympathy and support of the teachers of the Province, who should be its most powerful allies, by denying, to all except graduates, the right of representation in the senate and by permitting matriculation by two examinations, the papers for which are set by different examiners and are believed to vary greatly in difficulty. Want of discretion in conferring honorary degrees and the eagerness with which they have been conferred upon some who have doubtful claims upon them, and the denial to others who have been life-long friends to the university or who have spent their lives in preparing students for it.

It can be placed to the credit of some of the members of the faculty past and present, that for three or four years at least, they have by means of university extension lectures, demonstrated their individual strength as instructors, and in conferring benefits upon the public have, at the same time, added strength to the college. The University, however, has not kept pace with other institutions of learning, in attracting students from the schools, which have been drawn largely to other colleges in Canada or the United States.

The Review has nothing but the best wishes for the University and would regard any diminucion of its resources as a calamity for secondary education in the Province, but in pointing out some of its weak points in the past hopes to add to its strength for the future.

We would like to see criticisms on the University and its work take a somewhat higher tone than in the recent discussions in the halls of the Assembly and elsewhere. The value of such a training as the University gives cannot be measured by mere dollars and cents; so that when it is said it costs the province so many hundred dollars to educate one student, we venture the humble opinion that those who make such statements

do not take the trouble to form a proper conception of the far-reaching effects of such an education. Again, it is asserted that students, on completing their education, go elsewhere, and the province loses the services of those whom she has educated at considerable expense. Now it should be a source of pride that when New Brunswick does send her sons and daughters abroad she sends them fully equipped to take honorable and responsible positions-men and women who are of Anglo-Saxon lineage, and who will assert themselves in the struggle of Anglo-Saxon development, no matter in what portion of the world their lot may be cast. The province has a right to expect that the sons she has educated to the best of her ability will remain here and assist to build up her institutions. They have done so, where an incentive to remain was furnished. Take away from the professions to-day the product of the culture and training of the New Brunswick University, and there would be a blank that would lower us in the scale of nations to such an extent that no one would venture to estimate the loss in dollars and cents.

Hence nothing should be done to cripple the University or its resources, and no change should be made in its course without careful consideration and the calling in of expert opinion.

Education in New Brunswick.

The report of the Chief Superintendent of New Brunswick, is a document covering nearly 250 pages and dealing with almost every phase of education in the province. The following points in addition to those published in the March Review will be found instructive: The percentage of the total population enrolled in schools is 20.08 and the average attendance is over 60 per cent. The low average at many of the country schools shows the need of measures to enforce attendance as well as to unite thinly populated districts in central schools. During the first term of 1897, out of a total number of schools in operation of 1737 there were 230 in which the average attendance at each was less than ten pupils -a clear waste of energy and money. That this evil is on the increase is shown in the tendency to subdivide districts still further. The superintendent would have a vigorous effort made to resist a policy that is so weakening in its effects, and cites examples to favor centralization. Inspectors Carter and Meagher favor this, the former giving a practical illustration from many others that might be adduced where it could be put into force with efficiency and economy.

In the matter of secondary education, Dr. Inch points out that the high school system is different from that existing in the other provinces. The so-called grammar schools, provided for in the early history of the province, were grafted on the new school law without change, and although modifications have been made, many of the grammar schools fail to discharge the functions of a high school. "By recent regulations an attempt has been

made to differentiate more clearly the special work of the high school from that of the common school. A superior school must be a graded school, and must have at least ten pupils above grade 7. A grammar school must be a graded school, and must have at least ten pupils above grade 8." In addition to which candidates for grammar school must now pass an entrance examination before admission, the first having been held in June last. The total number of pupils receiving high school instruction last year was: in grammar schools, 687; in superior schools, 541; total, 1,228.

The superintendent, referring to the duties of inspectors, shows that it is impossible for six inspectors to accomplish the work before them, of visiting and examining 1,737 schools, or, on an average, 289 schools for each.

"If, instead of attempting to visit and examine three or four schools a day, travelling in the meantime a distance of from ten to twenty miles, the inspectors were able to spend at least half a day in each school, they would then be able to correct errors and abuses, to awaken emulation in teachers and pupils, to interview and interest trustees in regard to their duties; to hold, when expedient, evening meetings of the rate-payers, and thus to stimulate activity and leave a permanent impress for good on the whole community."

This will occur to the reader as an excellent suggestion. It is difficult to estimate the importance of a thorough and careful inspection of schools, and it is a matter of surprise that the inspectors are able to do such efficient work in the time at their disposal, especially in thinly populated districts—and this is another argument in favor of centralization.

The superintendent in all his reports and addresses never fails to touch that vital point which must be the key to success in any educational system—the character and qualification of the teacher—and these thoughtful words of his should stimulate teachers everywhere:

We have by no means reached the standard of preparation and efficiency in the teaching staff of our schools that is desirable and possible to attain. Everything depends upon the character and qualifications of the teacher; and, therefore, no effort should be spared to encourage self-culture on the part of those now in the profession, and to make the conditions of entrance to the profession, and especially to the higher classes, sufficiently exacting to warrant confidence that those who fairly meet them shall be in every way worthy of the distinctions they may gain. So far as scholarship is concerned, I do not think it desirable or necessary to add to the number of subjects of the syllabus for examinations, but rather to require a more accurate and thorough knowledge of the subjects now prescribed. With this purpose in view, I would suggest that the minimum pass mark in the closing examinations be raised at least ten per cent.

But much more is necessary than the mere ability to pass examination on any prescribed syllabus of studies. Written examinations, however skilfully conducted, are inadequate to determine many of the most important qualifications of the successful teacher. Moral and spiritual characteristics, which all will admit to be of supreme importance, cannot be measured by official tests. But given an irreproachable character and

fair scholarship, more is still needed to make an influential and effective teacher. Practical sagacity, tact, insight, the power to gain and hold interested attention, the personal qualities (whatever they may be called), which make it easy for their possessor to control and guide the young without demonstrative effort; all these must be possessed by the teacher who would have the highest success in the school-room. Such qualifications are partly intuitive, partly the result of careful study and observation, and largely the outcome of

experience in the actual work of teaching.

In so far as it is possible to develop these qualities in candidates for the office of teacher, it is the work of normal schools. The value of a sound professional training cannot be too highly estimated; but it is easy to over-estimate the value of the inculcation of educational theories and pedagogical maxims apart from the practical application of these theories and maxims in the actual work of teaching. There is an art as well as a science of education; and the art is only to be acquired in two ways: By careful observation of the methods of expert teachers in the school-room, and by frequent practice in teaching, under the direction of experts, if possible. The selection and classification of candidates according to their professional fitness and worthiness to become teachers, is the special function of normal schools. Aptness to teach is a rarer endowment than good scholarship.

The Schools of Nova Scotia.

The annual report of the schools of Nova Scotia for 1896-7 is an instructive document, giving much interesting and valuable information of the schools of that province. In Nova Scotia normal school training is optional. It is therefore gratifying to find that the number of normal school trained teachers is increasing rapidly. They are, however, only 752 out of 2,346 teachers, less than one-third of the whole. If professional training is as effective in the improving of teachers as it is in the preparation of lawyers, dentists, physicians and other specialists, then it can scarcely be said that the making such training optional is good because it works smoothly, or because "it gives a chance to the impecunious student to earn money for his advancement to some profession." If the method works smoothly, may it not be on account of the criminal apathy of the people, or because they find the normal school trained teachers to be not much better than the untrained teachers? In the percentage of trained teachers Colchester, Cumberland and Hants stand highest.

The tables show that, although the average provincial grant to each teacher has decreased, yet, through the increased liberality of the sections, the salaries are on an average higher than before. The number of candidates for provincial high school certificates has more than doubled since 1892. That the examination is fairly strict is shown by the fact that of 2,917 candidates only 957 obtained the grade for which they applied.

An interesting table shows that the cost of education per pupil has been gradually rising. In 1832 it was \$3.29; in 1842, \$4.09; in 1852, \$4.74; in 1862, \$4.93; in 1872, \$12.56; in 1882, \$13.31; in 1892, \$14.65. Last year it was \$15.06. The improvement in the

character of the schools has been no doubt proportional to the increase of their cost. In 1896 the cost per pupil in the United States was \$18.92; in the Northern Atlantic States, \$28.28; in Massachusetts, \$36.78.

Pictou Academy is reported as being the best equipped academy in the Maritime Provinces. "The building excels, particularly in its heating and ventilating system and its complete suite of laboratories, museums and accessory rooms, in addition to the commodious classrooms. The chemical laboratory is at present the best model in the province." The Halifax Academy, on the other hand, has a large laboratory, but no apparatus. Music and calisthenics are said to be neglected in many of the academies. In the common schools, however, music receives a fair share of attention. The Provincial High School examinations are conducted at a net cost to the province of \$3089. Their advantages are shown to be very great. Two or three pages in the report are devoted to showing that care has been taken not to allow the cost of text-books to increase. Few countries are so well supplied in this respect and at such reasonable expense. English authorities are quoted to show that our efforts in the direction of practical and scientific work are in the right direction.

"The movement for the introduction of manual training into all classes of schools, as a corrective to an excess of book work, seems to be gaining strength in this, as in other countries. It is felt that the exercise of hand and eye, as well as of the memory and the powers of verbal expression, is necessary to true education. It appears to be true that the process of growth in a child's mind is furthered by manual training, and that the latter promotes the attainment of power and accuracy in other studies. . . . We are glad, therefore, to observe that increasing attention is given in our public elementary schools to such subjects as cookery, house-wifery, wood-work, and gardening. . . . We observe with satisfaction that more thought is being given to the ways of teaching these subjects, and we are far from desiring to substitute unreal or fanciful forms of instruction for the more homely, but withal scientific, lessons which best arouse the interest of the children, because they are nearer to their personal experience of daily needs, and to the actual circumstances of their home life. . . . The rural teacher needs special skill in organization, but has also special opportunities of interesting his scholars by illustrations from the common objects of the country. It is desirable that in the training colleges care should be taken to show students that much which will give life and interest to their teaching is ready to their hand in a country district. It is sometimes forgotten that one of the most natural and fruitful methods of education is to train the powers of observation, and to build up intellectual and scientific interests round the natural objects of daily experience. Children are naturally interested in flowers, trees, and animal life, and in country schools an observant teacher, who is fond of such subjects, and has properly prepared himself by studying them, can find in the object lesson a far more powerful instrument of early education than can be drawn from the more lifeless substitutes on which the town teacher is sometimes bound to rely. Much depends on the improvement

of the education in the village school, and on a turn being given to its teaching which will open the eyes of the children to the significance and beauty of surrounding nature. The country child has many advantages of which the town-bred child is unhappily deprived, but these advantages will not be used or appreciated unless the teacher himself realizes and seizes them."

The superintendent of education proposes a very simple and effective method of dealing with irregularity of attendance in country sections. For every day that the child may be absent, without excuse, he would have the parents pay one cent additional poll tax. This is the simplest, and would be the most effective, plan that has yet been suggested. The report concludes with a brief outline of our educational system as a whole. It has for a frontispiece an excellent cut of the public school building of Canso. The people of that section well deserve the compliment that is thus paid to their public spirited enterprise. There are also good cuts of the manual training workshop and the chemical laboratory of the Truro Normal School, and of the biological and chemical laboratories of the School of Agriculture, and of Pictou Academy.

TALKS WITH TEACHERS.

The time has come round again when the celebration of Arbor Day is to be arranged for, and I beg to make a few suggestions that may seem familiar to many of you as having appeared in these "talks" before.

Arbor Day is not a holiday and if you have not a clear idea of some good to be done, do not observe it at all. The inside work is of more importance than tree planting. The instructive nature of your exercises and programme should be your first and chief care.

To clean the room and yard, while very desirable in most cases, seem of themselves alone very barren efforts the results of which will soon be effaced; but the cultivation of correct sentiments regarding the beauty, uses and preservation of trees will leave an impress which will last during the pupil's whole life.

Because your grounds are already planted with trees is no good reason for the non-observance of the day. You have still your programme with its possibilities to interest parents—and do not fail to invite them to participate in the observance of the day. There will always be some necessary work around the house and school grounds and perhaps enough to actively employ you during the whole time of the session, but you need not employ yourselves entirely with them. It has been pointed out to you how you may go out along the road-sides and do much good. If the ratepayers can be sufficiently interested and a healthy sentiment regarding tree planting be developed, there is no reason why our

road-sides should not be planted as the result of Arbor Day observance alone. Do not forget to look after the watering places by the road-sides when possible.

I need not caution you not to mark the attendance on Arbor Day, if a report is made, though for reasons known to you, it may be well to call the roll as usual.

In reporting to the Inspectors do not say "Arbor Day was observed by the planting of trees," or "according to regulation," but after the following form: (1) Number of trees planted. (2) Number of shrubs. (3) Number of flower beds. (4) General improvement. Also report the nature of the observation in other respects.

It will soon be time to send forward applications for the departmental examinations in New Brunswick, and I might say to the pupils: Do not do so until about the middle of May. Do not apply at all if your teacher advises you not to do so. Do not go up for examination as an experiment. If you are eighteen years of age you will do better than if only sixteen. Remain at school until you can work first class papers rather than be content now to work second, and always aim higher than third.

For the Review.] Notes on English.

When you are reading about, and come across a word which is familiar enough to your eye and your intellect, but which your mouth is not much accustomed to use, what should you do? Or rather, What do you do? I would like to get a dozen or a score of answers to this from readers of the Review. It would certainly be interesting, and it would probably be profitable, to compare notes on the subject.

It is all very well to say that you should at once stop reading and turn up the dictionary. This is only an answer to "What should you do?" And it is not satisfactory, for it does not state which dictionary should be used—and frequently this makes quite a difference.

It is "What do you do?" that I am chiefly interested in, and it is the actual doing of some score or so of readers that I wish to get a record of. Not what you now think you will do the next time you find yourself in such a fix, but what, to the best of your knowledge and belief, you have been accustomed to do when such a case has occurred.

Suppose, for instance, you were reading a magazine article aloud, and suppose the conditions and circumstances were such as to preclude the stopping to refer to a dictionary, and suppose the article contained the words ally, isolate, squalor, paresis, prologue, apotheosis that's half-a-dozen, and they will do as well as any others. If you did not feel sure of the pronunciation

of one or more of these words, what would you be likely to call them on the impulse of the moment? And why, as nearly as you can tell, would you do so?

So far as I can remember, I found it necessary to say "squalor" for the first time without any opportunity of referring to a dictionary, and without any recollection of ever having heard the word pronounced. I gave the first syllable the same sound that it has in "squalid." At the time I was distinctly conscious of mentally comparing the two words, and deliberately choosing to pronounce the unknown "squalor" by the analogy of the known "squalid." Afterwards I looked up the word in the two first dictionaries that came to hand-Worcester and Webster-and was surprised to find that neither of them gave my impromptu pronunciation. In both the "squal" was marked so as to rhyme with "pail." That seemed queer to me in my then ignorance, but I didn't feel like knocking under to even a brace of dictionaries, especially since they were only Yankee dictionaries. The next one I got hold of was the New Imperial—an English work in four volumes. It gave my pronunciation as first choice and the Yankee one as second. So I got off safe that time by trusting to the analogical instinct.

More recently a sort of physiological instinct pulled me out of a similar scrape. I was reading an article in Literature (the new English literary weekly) to a class composed mostly of adults. I saw the word "apotheosis" coming. I had at the time no idea how it should be pronounced—that is, whether the accent was on the e or the following o. If the word had been in books in the hands of the class I should 'ikely have tossed it over to the members to discuss, or I might have called it "spoon-handle" and passed on. But the circumstances were such that neither of these modes of disposing the difficulty was deemed available. As the word came nearer, and while the mouth was still busy with those ahead of it, the brain made a sort of toss-up between e and o as to which would fit the mouth more easily. The decision was in favor of o, and the word came out with the accent so placed.

One of the listeners remained after the hour was up. He got the International Dictionary and turned over the leaves. Then he stopped and examined something very carefully. "Ah, I thought so," he said, pronouncing "apotheosis" with the accent on e. "Why did you accent the o?" I could only say, as the Newhaven fishwife said to the schoolmaster about her "caller haarin'," that I thought I got "a better grip o't wi' my tongue."

In this case, as in "squalor," Worcester was against me as well as Webster. And the Standard informs me that, although the Imperial gives o first choice and e second, this order is reversed by the great Oxford Dictionary. The Standard belongs to the same country as Webster and Worcester, and it is just as well not to trust it too much. A reference to the Imperial shows that it has been quoted quite correctly; but this is not exactly true of what the Standard says of the Oxford's position in regard to "apotheosis." The e-accented form does come first in order, and the o second; but the following note is hardly in keeping with the statement that the Oxford Dictionary's "first choice" is the form which it gives as the first in historical order: "The great majority of orthoepists, from Bailey and Johnson downward, give the first pronunciation, but the second is now (1885) more usual.

A. CAMERON.

Yarmouth, April, 1898.

For the REVIEW.]

By-Paths in English Literature.

"And now I must repeat one thing I said in the last lecture, namely, that the first use of education was to enable us to consult with the wisest and the greatest men on all points of earnest difficulty. That to use books rightly was to go to them for help; to appeal to them when our knowledge and power of thought failed; to be led by them into wider sight, purer conception than our own, and receive from them the united sentence of the judges and councils of all time, against our solitary and unstable opinions."—Sesame and Lilles.

The teacher who earnestly desires to lead her pupils to care for good reading, and to read intelligently, will not confine her efforts to the hours assigned for reading and literature lessons.

Let the children see that the toilsome, sometimes dreary, pathway of the text-books leads into a fair and fruitful land, where you live yourself, and whence you bring them treasures until they can reach them for themselves.

Draw upon your own reading constantly to add interest to history, geography, or science lesson.

English literature is full of material for illustrating history. A few familiar examples may be given.

When studying the Crimean War, take up the Charge of the Light Brigade, and tell the children the story, found in Tennyson's "Life"—how a chaplain wrote home about the man who had come through that charge, and had been almost given up by the doctors, and when he heard the poem read to his next neighbor in the hospital ward, he opened his eyes and cared to live—and did live; and how the chaplain begged for some copies to be distributed among the men—"It would do them so much good," he said; and how Tennyson, when he heard this, had a number of copies printed and sent

out. And then, tell them what he said in one of his other poems,

"The singer for his art
Not all in vain may plead,
The song that nerves a nation's heart,
Is in itself a deed."

Longfellow's "Santa Filomena," celebrating the devotion of Miss Florence Nightingale, will also interest children in the story of this war.

Shakespeare, Macaulay, Campbell, Tennyson, are only some of the "wisest and greatest men" with whom Mr. Ruskin advises us to consult, and whose works may be drawn upon in connection with the history lesson.

For patriotism go to Shakespeare always; Gaunt's speeches in Richard II., and Faulconbridge in King John, for example; Tennyson's "Love Thou Thy Land," and his sonnet to "That True North"; Browning's fine words in "Home Thoughts from the Sea," "Here and here doth England help me; How can I help England?" Rudyard Kipling's "Song of the English," and "Recessional," and "Buy my English Posies," may all be found useful.

Perhaps the connection of literature with geography is not so evident; to be sure, geography may always be made vivid and detailed by a judicious use of good books of travel, but even good books of travel are not always—not generally—what we mean by literature; but one can occasionally light up a lesson with something graceful or amusing. Stevenson's verses in "A Child's Garden," beginning "I have a little shadow," will appeal to quite little children, and Marryat's story, "S. by S.W. \(\frac{3}{4}\) W.," about the stupid midshipman who could never learn to box the compass, may make that task easier for boys of to-day.

The text-book from which the writer studied geography years ago was even drier than most of its kind, but it grew eloquent on the beauties of the Thames, and quoted Denham's lines,

"Oh could I flow like thee and make thy stream My great example as it is my theme."

And these suggest other things that have been written about rivers—Longfellow's "To the River Charles," and Shelley's "Arethusa," for instance.

Coleridge's "Hymn before Sunrise" and Jean Ingelow's "Snow Mountains" tell of the glories of mountains and mountain streams.

In astronomy and botany Tennyson is always a delightful commentator, and studies of the heavens and of the stars alike lead us into the wide region of Greek myth, and the literature it has prompted.

The use of the historical novel to add interest to history and aids to memory has been too much insisted on for any need of more than mention here. Stories

must of course be read in other than lesson times, though a chapter or scene from a standard novel will sometimes fit in well with the lesson.

It is often hard to induce young people to read Scott for entertainment, partly, perhaps, because most of his books are rather hard to get into. It is a fine thing for them, though, if they can be interested in Woodstock, and Waverley, Rob Roy and Anne of Geierstein. Any boy who has the national "delight of battle" in him will enjoy "The White Company" and "A Gentleman of France," and we are fortunate in having so excellent a novel as Mr. Gilbert Parker's "Seats of the Mighty" to illustrate the most picturesque part of the history of our own land.

These are but random suggestions, but they have grown out of experience, an experience which has taught that each teacher must be left to make her own path, though the direction may be pointed out.

You remember Mr. Weller's dictum when his son was writing to his sweetheart—"She'll wish there was more of it, and that's the great art o' letter writin'." And that's the great art of teaching literature—to make the pupil wish there was more.

ELEANOR ROBINSON.

For the REVIEW.

Education in Nova Scotia.

I.

By J. B. CALKIN, M.A.

In his recent valuable report, the Superintendent of Education for Nova Scotia has given us a most instructive and interesting historical conspectus, showing important phases of educational progress in the province for the last three-fourths of the present century. In 1824, it appears, there were but 5,514 pupils in our public schools. In 1865, when the free school law came into operation, the number had risen to 39,461; in the following year, under the more benign influence of this law, it went up at a bound to 50,574; and in the next year it made another leap to 65,896. And so the progress has been almost uninterruptedly continuous, scarcely a year occurring which did not surpass its predecessor, until for the past year the report shows an attendance of 101,158. Both from the report and from other evidences we are led to believe that improvement in the quality of the education imparted in our schools has kept pace with the increase in the number of those who have enjoyed their privileges.

It would not, however, be a pleasant thought that, even with all our educational attainments, we had reached a finality. The possibilities are ever widening; progress, like Longfellow's brook, can go on forever, and the supreme excellence of the ideal recedes as we advance. In his honest and honorable zeal to help forward the advancing cause, the editor of the EDUCATIONAL REVIEW has called on the writer of this article for some contributions that may tend to the promotion of this end

For the good of the cause one might wish that the work had fallen into abler hands. In the endeavor to do what may be possible in the circumstances, it seems necessary, first, to point out some defects in our educational system. But it must not be assumed that this ungracious part of the task indicates any lack of appreciation of the grand results already achieved; nor can the writer suppose that all the changes which he may propose will commend themselves to the wisdom of his fellow-workers in the educational field.

That there is something still to be achieved the superintendent's report clearly indicates. We are told that during the past year there were 6,102 children of school age in the province who did not attend school for a single day. It is indeed to be feared that the case is much worse than it is here represented. For, although the report is not explicit on this point, it may be assumed that these six thousand and odd children are not all the unfortunates in this regard. It is probable that they belonged to sections in which schools were maintained. But the report states further that there were during the year 153 sections wholly without schools from which probably no statistics were obtained. Hence the children in these sections have not been counted, and do not form a part of the 6,102. In regard to some of these sections the superintendent states that "the children can and do attend school in one of the neighboring sections," and he adds that some of them have no children of school age. But, notwithstanding these saving clauses, there is good ground for concluding that many more than six thousand did not attend school. Probably ten thousand would be nearer the mark.

To obtain anything like a correct apprehension of this defect in our system, another element must be taken into account. The superintendent's report shows that, out of an aggregate enrolment of 101,158, the average attendance was but 54,922—that is, on an average, the pupils made but little over half-time. This low average is the result of an attendance on the part of many which was of little educational value. Thus 8,849 children attended school only twenty days or less; and 15,590 attended from twenty to fifty days. On a moderate estimate, it may be concluded that at least one-fourth of the children in the province received little or no educational benefit from the schools.

Waiving the question of the obligation of the province to educate its children, it may be asked if the condition of matters presented above is consistent with the principle on which our free school law is based? At its inception this law aroused strong and widespread opposition. Many who had no children to educate regarded the Act as a most unreasonable and unjust measure. The taking of their money to educate other people's

children seemed to them an outrage almost as flagrant as highway robbery. But they were told, and rightly so, that the education of the children of the country was a public necessity, in which every citizen was deeply interested, and that the payment of their school tax was a righteous condition attached to the economic, social, and political privileges which they enjoyed. Many, perhaps most, of these mal-contents have passed off this scene of turmoil and strife; some of them, let us hope, lived to change their minds and lay aside their hostility to free schools. In many parts of the province a new generation has grown up in harmony with the system.

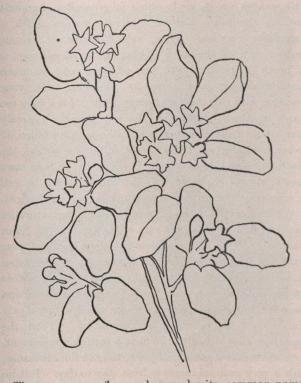
But if the citizen who has no children to educate is compelled to support the public schools on the ground that illiteracy is a menace to the peace and prosperity of the country, he assuredly has a right to demand that protection which he is paying for. Compulsory attendance at the public schools, or at some school, is the legitimate complement of the compulsory school tax. This principle has for several years been publicly endorsed in the compulsory clause in our school law, but that the sort of compulsion for which it provides is merely playing with the matter is evident from the Inspectors' reports. Inspector Roscoe says: "Almost all the sections have submitted the compulsory attendance clause to their annual school meetings, and many voted to adopt it. I am not aware that any put it in force. The trustees hesitate to impose a fine upon their neighbors for non-attendance of their children at school." Other inspectors report in similar terms. The superintendent of education also recognizes the "practical failure" of the law, and propounds a new scheme. His plan, briefly stated, requires an enrolment of the names and ages of all the children in the section. At the end of the year the parent or guardian is to be taxed one cent for each day's absence, unless he can satisfy the trustees that there was good and satisfactory cause for such absence. The tax or fine is to be collected by the trustees in the same manner as the poll tax. The superintendent will, I hope, allow me to suggest that he make the tax apply only to absence in excess of a certain maximum, say thirty days. This will tend greatly to the relief of the trustees when they hold their court of appeal against the tax. Owing to bad weather and other causes few children can make perfect attendance, and it seems unduly exacting to take account of a lost day now and then where there is honest endeavor to do right.

But further, I hope to be pardoned if I question the efficiency of the scheme to accomplish the end in view, as I would question that of any compulsory law that depended on the local authorities for its enforcement, I fear it will fail just where Inspector Roscoe says the present law fails.

Before offering any suggestion of a remedial tendency, I desire to point out some other features of our educational system which do not seem to be in harmony with the principles on which free schools claim to be based. But as this article has already grown to undue length, further discussion must be deferred.

For the REVIEW.]

The Mayflower.



There are many flowers known by its common name, but not one of them equals the Mayflower—which is also called the *Epigwa repens*, Trailing Arbutus, or Ground Laurel—in beauty of blossom and foliage and in delightful fragrance. It abounds in the maritime provinces and parts of the province of Quebec in Canada, and is found certainly as far west as Toronto. It also grows in the New England and portions of the Middle States, and as far south as Northern Virginia. It has long been the floral emblem of Nova Scotia, accompanied by the motto, "We bloom amid the snow."

In the following verses an attempt is made to indicate the methods, phases and habitat of this lovely plant, as well as to extol its many and varied charms:

TO THE MAYFLOWER.

Epigæa repens.

Thou long did'st wait till winter's course was run,
And patiently endured; the nipping frost
Was ever pitiless; the mid-day sun,
Though dazzling, had no warmth; the fierce breeze toss't
The leaves in autumn thick upon thee shed,
And helping thee to live, though they were dead.

Yet even thy seeming foe, the boisterous wind,
Marking thy piteous, helpless, naked plight,
Relented, rough and wild, but not unkind;
And, though a warrior eager for the fight,
Cast over thee a soft white covering,
To hap thee and to shield thee till the spring.

There in the waste, all-silent, bleak and drear,
The weeks passed, but not hopeless, 'neath the snow;
While skies were dull, or heaven was blue and clear;
When the sun hid, or when the stars did glow,
Thou had'st thy secret, cheering night and day;
Thy buds were ready 'gainst the coming May.

Now May approaches. Lo! the warder crow
Cries harshly, "She is near"; behold the brooks,
Late prisoners, spring to meet her; and the snow,
Loath to depart, weeps in the mossy nooks;
But thou, in all thy dainty beauty dress't,
Grateful, dost gently cheer the ling'ring guest.

I note thy petals, some all virgin white;
Others as chaste, but blushing with the hue
Of shell or rose; some shrinking from the sight
Amid thy leaves, rusty or bronzed or new
And shining; all, even in retreat,
Charming the eye and shedding fragrance sweet.

Thy blossoms gladden when no other flower
Appears, and wither ere the wood-birds sing;
Yet, though unaided and alone, thy power
Can give hope wings and consolation bring;
And none could choose a sweeter messenger
To tell the winter's gone and spring is here.

St. John, N. B.

I. ALLEN JACK.

For the REVIEW.]

A Naturalist in the Schoolroom.

In looking over the new synoptical volume on the mosses of Europe and North America by the great Swedish bryologist, Professor Kindberg, I was agreeably surprised to find several references to the work of one of your New Brunswick teachers-and one of your readers, I infer. The naturalist is abroad in the land, and it is a good sign of the times to find him in the schoolroom. What opportunities some of our teachers have if they only knew it! How happy might their sometimes monotonous lives be made by a communion with nature in some of the beautiful rural districts which lie hidden in every direction! And how proud their country might feel to know that some of these modest workers were known with credit in foreign lands, although the whining school boy and the grumbling parent, a specimen of which may be found, perhaps, in every school section, might think them "of not much account." But the naturalist is a loving and a lovely animal in his way; and there will be always some discerning souls to discover and follow him.

I then turned to my collection of mosses, and among parcels from various quarters of the world selected a small one with rare specimens from Queen's County, N. B., among which I was pleased to notice *Hypnum Moseri*, Kindberg.

I next delved into some correspondence of my fellow naturalist; and as it referred to the subject of some of your late articles or lessons on the Fungi, I thought I should use them with some notes of my own, as I fancy you desire. I quote some passages because they picture the way in which a naturalist who has done work which has been recognized already in high quarters, is quietly working in the neighborhood of his schoolroom.

"My experience of the Fungi?" "I have eaten some six or eight of them."

Then follows a description of some of the species and their flavors, a few species of Agaricus and a peppery Lactarius. He then comes to the "Death Cup" fungi—the Amanitas.



"The Amanita looked so nice that I tried it, at first a piece about half as large as my finger, which I did not feel. Then a piece as large as a finger which I did feel. In about eight hours I became sickish with intestinal action, and another experimenter was similarly affected. That was a few days before the article in the Review came to hand. Had it been after, the effects might have been serious though the Amanita would not have been to blame. I went according to the directions: "Eat one, and if you die then it is a toadstool." I have found the Amanita the only fly despatcher." "This is the one I think cattle devour. It physics them strongly, sickens them, and kills calves."

The species here referred to is probably the Fly Amanita, which has the yellowish to orange colored cap with scabes on it, and which is generally abundant towards the fall. But the Spring Amanita which is sometimes very pure white, and often has not a single scab or scale of the volva resting on its smooth cap, is is much more likely to be mistaken and is much more uniformly and intensely poisonous. In your drawing, and that fact was pointed out, there were too many of these patches on the cap shown. Scarcely ever are so many observed, and often all have fallen off or been brushed off by the wind. But the volva—the death cup—at the base out of which the bulbous stem rises is always to be found. I think it might be well to reproduce the cut again, with this note emphasized.

With reference to the experimentation, our naturalist was too fast in dealing with an Amanita. William Hamilton Gibson's rule, which was given in one of your articles is quite safe. Twenty-four hours should elapse between each trial, for in the Amanitas the poison does not act until after a considerable number of hours and these are the most dangerous. Those which act promptly can be met as promptly by an emetic. Then the quantities should begin with first a tasting experiment. then the smallest portion of juice, then of the substance, with a very gradual increase from day to day. But no one should thus experiment unless he is making a scientific study of them, when he can have a very good idea of the character of the species beforehand from his knowledge of their classification and the experiments of others. In such cases we should always obtain the experience of others first, when that is possible. That is a good rule in all scientific research. He continues:

"There is another one-sided, fan-shaped species growing on old stumps, tastes very much like the Amanita, but milder. Ate a larger amount of it than of the Amanita."

This might have been Agaricus osteratus, the "oyster" mushroom, a very edible species. He observed no maggots in the Amanitas. Maggots are the larva of certain insects which deposit their eggs in the young mushroom so that the larva may have an abundance of healthy food for the young. Each insect therefore is likely to have the instinct of placing its eggs in a mushroom which will not be poisonous to its young. Halifax, Nova Scotia.

[The teacher referred to in this communication is Mr. John Moser of Canaan Forks, Queens County. For years he has been a close student of the mosses of New Brunswick, a llst of which he has prepared, and which will shortly be published by the Natural History Society of N. B. It is greatly to Mr. Moser's credit that he discovered two species of moss, new to science, one of which bears his name—a distinction that comparatively few naturalists attain.—Editor.]

Inspector Morse.



L. S. Morse, Esq., B. A., Inspector of Schools for Inspectoral District No. 4, Nova Scotia, the subject of the foregoing photo-gravure, was born at Nictaux, in the County of Annapolis, in 1843. He was educated at Horton Academy and Acadia College, from which he was graduated at the head of his class in 1866, having been at the same time awarded diplomas for honors in classics. He studied law in the office of the late T. D. Ruggles, Q.C., in Bridgetown, and of the late Hon. J. W. Ritchie, in Halifax, and was admitted to the bar in 1870, having obtained a first-class certificate at his final law examination. He began the practice of law at Bridgetown in partnership with the late Hon. J. C. Troop, at that time the Speaker of the House of Assembly. On the death of Mr. Troop he entered into partnership with J. G. H. Parker, Esq., which continued until 31st December, 1879.

In March, 1871, he was appointed Inspector of Schools for the County of Annapolis, and in 1876 was commissioned a Master of the Supreme Court.

In 1877 Mr. Morse went to Great Britain as a delegate to investigate the claims of the descendants of Annie and Lydia Church to the "Church estate." In 1879 the old system of inspection by counties and by those outside the profession was condemned as being an unsound educational policy. The province was

divided into ten inspectoral districts, over each of which was placed an experienced educationist. Although Mr. Morse had not up to this time wholly discontinued the practice of his profession, yet he gave such general satisfaction in his management of the schools of Annapolis County that he had no difficulty in obtaining the appointment for District No. 4, including both Annapolis and Digby Counties. In consequence of the increase of his inspectoral duties, Mr. Morse, at the beginning of the year 1880, discontinued the practice of law and has since given his whole time to the discharge of the duties of his present office. His previous knowledge of teaching as a profession gained during his inspectorship of nine years was considered the equivalent of actual practice in the schoolroom, while his knowledge of law was of very great advantage to him in dealing with the general business matters relating to the schools.

Throughout his long inspectorship-the longest in Nova Scotia-Mr. Morse has done much to raise the educational status of his district. Possessing in a remarkable degree the suaviter in modo with the fortiter in re he commands the respect of the teachers and trustees alike. He neglects no fair means by which he can stimulate his teachers to put forth their best efforts. The Teachers' Institutes of his district have been regularly kept up, and have been always very successful. Although having to deal with so many diverse interests he has always steered clear of every difficulty. His school reports have been clear, condensed and full of valuable suggestions. Being prompt, painstaking and accurate in the discharge of his official duties he enjoys the fullest confidence of the Education Department at His uniformly even temper, courteous manners, good judgment, and large heartedness have secured for him the highest respect of all educationists who are brought into contact with him, and of the general public, With his large store of professional experience, and being as yet scarcely past the prime of life, we may predict for him a long period of yet greater usefulness.

In 1891 Mr. Morse removed from Bridgetown to Digby where he is at present residing.

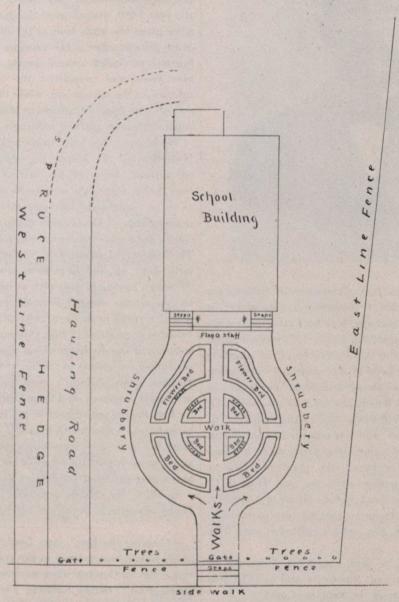
"Crossing the Bar," says Lord Tennyson in the life of his father, was written in the poet's eighty-first year, "on a day in October when we came from Aldworth to Farringford. Before reaching Farringford he had the 'Moaning of the Bar' in his mind, and after dinner he showed me this poem written out. I said, 'That is the crown of your life's work?' He answered, 'It came in a moment.' He explained the 'Pilot' as 'That Divine and Unseen Who is always guiding us.' A few days before his death he said to me, 'Mind you put "Crossing the Bar" at the end of all editions of my poems.'

Plan of Superior School Grounds, St. Martins.

By the kindness of Dr. Inch we are enabled to reproduce the above plan—which was published in the Chief Superintendent's report—of the school grounds, District No. 2, St. Martins, Mr. Geo. J. Trueman, teacher. The work of laying out the grounds was accomplished by the older pupils of the school under the

school building above, he wished that every teacher could see it and note the pride and satisfaction that the pupils took in their work, and their apparent determination to maintain and increase the beauty of the grounds from year to year.

Now, every energetic country school teacher may accomplish just what Mr. Trueman has led his pupils to accomplish, and thus make Arbor Day a perennial source



direction of he teacher, assisted by the trustees and people—a happy co-partnership arrangement that one would like to see formed in every school district.

But the work of preparing the sketches, planning and constructing walks, beds, etc., was done by the pupils. Last summer when the writer saw the plot of ground rising with a gentle slope from the side-walk to the neat of instruction and delight. There may not be much area comprised in some school grounds, and money and time will not be available to a great extent, so the trees and shrubs must be inexpensive and most of them obtained from the nearest woods. Have one or more of the species of trees that the neighborhood affords, and rarer ones may be obtained from a distance, making the

grounds represent, as far as possible, an arboretum of native trees—elms, maples, oaks, cherry, spruce, firs, pines, etc.; and shrubs—sumac, dogwood, hazel, honey-suckle, with a sprinkling of foreign kinds such as lilacs, syringas, etc. It would be a pleasing combination to plant wild flowers with these, such as violets, trilliums, adder's tongue, hepatica, mayflower (under the evergreens), anemones, etc., taking care to set out nothing but hardy plants which will take eare of themselves from year to year. While it is well to have a sufficient variety of plants on the school grounds, there should not be any attempt to make a museum, but rather such a tasteful display as will please as well as instruct.

Much will depend on making a sketch of the ground first and carefully laying out all the details. Walks should be straight if possible. A gravel walk is cheapest and serviceable in all kinds of weather. A neat fence is a necessity. Somewhere in the arena there should be a stretch of velvety turf, as neat and as well kept as possible. In a corner or two of the grounds rockeries may be built up and hardy plants reared upon them. The Virginia creeper, virgin's bower, and wild grape vine can be made to produce fine effects on fences, out-buildings or on stumps in the yard. Plan the position of everything so that the grounds will be as natural as possible, without stiffness.

The advice of some one who has had practical experience in laying out grounds should be secured if possible.

It is worth attempting, the conversion of barren and unsightly school yards into things of beauty. If the teacher is to remain many terms in that community, to make such surroundings will give pleasure to himself as well as the whole neighborhood. If he is to remove at the end of the term there could be no better monument left of his energy and good taste. The moral influence upon children of such surroundings is worth all the improvement costs. Perhaps the most serious weakness in our system of education is its failure to accustom the eyes of children to the beautiful.

Teachers should begin early to talk about and plan improvements so that when Arbor Day comes there will be donations of labor and material from every one in the district, and what is most important, public sentiment aroused, that will help on the work, take pride in it when it is done, and seek to sustain and improve it in coming years.

You have possibly heard of the reply of the president of Oberlin College, when a young man asked if he could not take a shorter course. "O, yes," said the president, "but that depends on what you intend to make of yourself. When God wants to make an oak, he takes a hundred years; but when he only wants a squash, he takes six months."

Suggestions for Nature Study.

APRIL AND MAY.

The following suggestions, with articles in previous numbers of the Review, will aid teachers in beginning nature work afresh. In plant study there is no need to wait for the common spring flowers. If you look around you there is abundance of material in the buds and blossoms of trees. The first birds have already put in an appearance, and the leafless groves are daily becoming animated with the busy songsters. Insect life is already active.

PLANT STUDY.

This is the season of buds. The leafless branches of our deciduous trees are everywhere inviting study. Bring in cuttings of convenient lengths and place them in water in some sunny window and await developments. A drop or two of ammonia in the water may hasten the process of unfolding. Lilac, horse chestnut, maple, beech, cherry, amelanchier, apple, balm of Gilead, and other buds under the influence of moisture and warmth, will form a prologue to the "blooming wonders" that will be ushered in in a few weeks. And, while awaiting the unfolding, there is much in the markings on the branches that will awaken interest: the scars, showing the position of last year's leaves; the rings around the branchlets, indicating the position of last year's buds, and the distances between these sets of rings, telling the measure of growth for each season; the scales which protect the buds during winter, the breaking off of which produce the circular markings.

The horsechestnut branches show these markings,

large and distinct. The beechtwig, shown in the drawing, can be more easily procured in the country, and shows the markings very clearly. Its alternate branching will be another subject of study. It will be interesting to take off the scales of the buds and come to the miniature leaf within, and study how it is folded up (vernation). (a) Leaf-scar; (b) scale-markings.

The silvery catkins of the willow are among the first advertise-

ments of spring. Who but the initiated would suppose that these catkins are made up of hundreds of tiny flowers? To come upon these will be a revelation indeed

to the youthful student. In one kind of catkin (the male) there will be found flowers (a) with two little stamens; in another (female), found on a different tree, flowers





consisting of one pistil (b). The catkins, when very young, are protected from the cold by a brown scale, which serves as an overcoat to protect the little floret household within from the wintry blast. Inside are small scales, fringed with hairs to form a soft covering for the little flowers which nestle at the base. As the spring advances the flowers grow larger, overtopping their scaly protectors, the stamens hanging out their pollen-covered anthers as a sign for the bees to begin their work and receive the much-coveted wages of pollen and nectar.

The long tasselled catkins of the poplar and alder and those of the birch and hazel will all come in for the notice of sharp eyes, when once directed to these simple early flowers of the trees. Do not fail to notice the brilliant red female flowers of the alder and hazel, situated on the same branch as the male flowers. The cut shows three catkins of the hazel (corylus rostrata), (b)



a single male flower, enlarged, with bract, (c) a group of female flowers, (d) a female flower, enlarged.

Much, very much, more might be told of these simple tree flowers of early spring, but space will not permit, and we can only indicate guides for fuller study1.

Plant early in window boxes or flower pots seeds of beans, peas and Indian corn, so that these may be available for study in a few weeks.

BIRDS.

Are you preparing to make a record of the earliest visits of birds, as well as of the opening of the earliest flowers? The books named below will help you to study our birds2. The robin is one of the first comers of spring, and not far behind is the song sparrow.

"I hear the song sparrow practicing his first matins for the year. No wonder his song has been compared to the tinkling of bells! A more vibrating, resonant quality there is not in the whole choir of native-bird voices. His ditty consists of three short introductory notes (embodying the theme or motive, perhaps); these three notes translating themselves, to my ear, in the syllables "sweet, sweet, sweet," with a drawing in of the breath each time, following by a bewildering succession of delicious tintinnabulations."—Edith M. Thomas.

INSECTS.

Are you preparing to make a study of insects this spring, and to direct some of your brightest students in the work? If so, the directions in the March REVIEW and the prizes offered there (only for New Brunswick students) has claimed your attention.

Some Canadian Birds, by M. Chamberlain. Price, 30 cents. The Copp, Clark Co , Toronto.

Arbor Day Notice.

To the Teachers in Inspectoral District No. 1:

DEAR TEACHERS, -It is not unknown to you that, heretofore, Arbor Day results have been very disappointing and that tree-planting has been an entire failure, except in a very few districts. In many districts the day has not been observed at all; in others the manner of its observance has defeated the end sought. This year I desire to see one or more healthy trees planted in each district in this inspectorate. I am sending out the notices earlier than usual to give you plenty of time for preparation. Have your trees selected beforehand, or have some one engaged to bring them. Dig them up with as many small roots and as much earth attached as possible; don't tear them up. Enlist the assistance of one or more trustees or ratepayers in digging, transporting and planting, Confine yourselves to elms and maples where they can be got. Along the exposed parts of Bay Chaleur plant willows and Lombardy poplars. Don't plant switches and bushes and call them trees. Be sure that the holes for the trees are big enough to allow the roots to be placed in their natural position and that the soil placed around the roots is moderately rich and finely pulverized. Cut back the tops of the trees as much as the roots have been cut back. Pack the earth firmly about the roots, but do not tramp the surface earth, nor heap it up about the tree. Cover the earth close to the tree with loose sods or a mulch of straw to keep the earth moist. If you have no fence. put a rough paling about each tree to protect it from cattle, sheep, etc. If you have plenty of trees in the school grounds, plant a few along the street or highway. first getting permission from the commissioner.

Do not let the children shake the trees till they have taken firm root. Perhaps "hands off" at all times ought to be insisted upon.

Yours sincerely,

GEO. W. MERSEREAU.

Doaktown, N. B., April 2nd, 1898.

A Mystery Solved.

Within the crevice of a rock A little wild flower grew; I strove devoutly to unlock The mystery of its entity, And why it drew Subsistence from that breast of stone To live and flourish there alone.

A humming bird found in its heart A sip of nectar dew A butterfly and honey bee Came also, and a chickadee, To sip the nectar and depart --And then I knew -Fred F. Clyde in Northern Christian Advocate.

¹ Newell's Outlines of Lessons in Botany, Parts I. and II. Ginn & Co.,

²Birds of Eastern North America, by Frank M. Chapman. Price. \$2. D. Appleton & Co., publishers, New York.

ARBOR DAY.

There is sufficient in this number of the Review to give an impetus to the observance of Arbor Day. Our readers are referred to previous Arbor Day numbers of of the Review for materials to assist in making up a literary programme.

Arbor Day Contest.

The answer to each of the following questions is the name of a well-known flower. Next month correct replies will be given. The questions are taken from the Rochester, N. Y., Educational Gazette, which in turn has taken them from "a very popular periodical." prize of a handsome book will be given to the one sending first a correct list of answers. [EDITOR REVIEW.]

An old name for a prayer book. Part of a toe.

What does a young man say to his sweetheart when he bids her good night?

To whom does a young man apply for the girl's hand? What did he, when he popped the question? What minister married them?

What is the national flower of Scotland?

English name for a trunk?

Name of an English coin. An adjective applicable to any reigning family.

A gay and ferocious animal.
A nickname for a physician?
What Cinderella lost at the ball. 10. 11.

A national emblem. 12

What flower was once the craze in Holland? 13.

What is a favorite musical instrument? 14.

115. 16.

Mention a favorite winter sport.
What did the bad boy's father give as punishment?

Name of a novel by Eugene Sue. 17.

18. Name of a young man who married for money.

19. Name a very old-maidish rose What may the sunrise be called? 20.

21. A summer resort on the Eastern coast. 99

A vehicle for transporting passengers, and the people under any form of government.

A canine blossom.

24. Insert a letter in a small horse.

What did a father say to his son in the early morning?

A falsehood. To be in need of rest.

Mention the fragrant letters of the alphabet.

A country of Asia. A well-known New York family.

Small in number. Title of the ruler of Asia.

What church office does Mr. Smith occupy?

In what flower should a secret be kept?

A bird. Part of the equipment of an ancient knight.

A mineral. The slang name for child.

My first must pass before my next will bloom.

A famous character in "Pinafore." 31. 32.

33. 34.

What occurred on the announcement of Mr. McKinley's 36. election?

Exercise for Five Pupils.

- 1. Our word book is from the beech tablets on which men used to write.
 - 2. Our Bible is from the Greek for bark of a tree.

Our word paper is from papyrus.

- 4. Our word library is from the Latin liber, bark of a tree.
- Literature is traceable in the growth of trees, and was originally written on leaves and wooden tablets.

The Maple Tree.

What wonder, then, wherever it is known, the maple tree holds first place in our hearts? The oak may be king, the graceful pine tree, queen, but we crown the maple empress of them all. And well does it deserve its crown. All nature seems to love it, the storm king seldom slays it, the lightning seldom rives it, and songsters love to nestle in its leaves. The song-bird's nest swings from its swaying branches, while from its topmost bough he carols forth his song, and from its shade the lute notes of the woodthrush fall like silver hammers striking golden strings, and up and down its lichened bole the busy creeper runs, while at its feet the little chipmunk chirps by his door. Its summer dress of glossy green makes coolest summer shade, but autumn brings a glory all its own! the palest yellow, the deepest orange, with tints of red from scarlet to maroon, with here and there a hint of purple and bronze, are blended in one gorgeous robe beyond the art of poets to describe; and from the threads of sentiment and old associations, time has woven a protection about it which 'mid the wreck and ruin of our once noble forests, here and there, has saved to us groves of sugar maples, to remain, let us hope, "a joy forever." - Selected.

This and That.

I look on the naked forest; Was it ever green in June? Did it burn with gold and crimson In the dim autumnal noon? I look on the desolate garden: Is it true the rose was there? And the woodbine's musky blossoms, And the hyacinth's purple hair?

Is the stem of bliss but withered? Does the root survive the blast ! Are the seeds of the future sleeping Under the leaves of the past Ah, yes, for a thousand Aprils The frozen germs shall grow And the dews of a thousand summers Wait in the heart of the snow

Bayard Taylor.

Where in the field the melting snow Leaves hollows warm and wet, Ere many days will sweetly blow The first blue violet.

Tennyson.

Arbor Day Hymn.

AIR-My Maryland.

Now join we all in gladsome song, This Arbor Day, glad Arbor Day; · And lift a chorus sweet and strong To hail the balmy month of May. The birds are singing in the trees The flowers are springing at our feet, And sunshine tempers every breeze This Arbor Day, glad Arbor Day.

O nature fair, we sing to thee, This Arbor Day, glad Arbor Day; Rich nature, who with hand so free Hath lavished beauties in our way. God give us eyes thy works to see God give us hearts that know thy love, And souls that feel thy harmony

This Arbor Day, glad Arbor Day.

— Vernon P. Squires in Arbor Day Circular.

THE 'ROUND TABLE TALKS

BETWEEN EDITORS AND READERS.

L. A. D.—(1) I would like to have such a sentence as the following analyzed through the Educational Review: He said, "Let us go." Would the sentence, "The question is, Did he tell the truth?" come under the same treatment as the one given above?

(2) May I also ask you to solve Example 216, p. 370, Hall & Knight's Algebra?

(3) In mathematical drawing exercises, given at N. S. High School Examination in July, is it necessary to write out the method of constructing and measuring the figure, or is it sufficient to put down the figure with the value of required measurements simply marked where they belong?

L. A. D.—(1) He said "Let us go," is a complex sentence. He said, principal clause; let us go, subordinate noun-clause, object of said. A connection is not always necessary, as, for example, in the sentence, Dost thou know who made thee? In the sentence, The question is, Did he tell the truth? the second clause is a noun-clause, and is in opposition to question.

(2) Solve: When
$$x = \frac{\sqrt{3}}{4}$$
 find the value of
$$\frac{1+2x}{1+\sqrt{1+2x}} + \frac{1-2x}{1-\sqrt{1-2x}}$$
(a)
$$\frac{1+2x}{1+\sqrt{1+2x}}$$
 the first expression,
$$= \frac{2(1+2x)}{2+\sqrt{4+8x}}$$
 obtained by multiplying both terms by 2,
$$= \frac{2+\sqrt{3}}{2+\sqrt{4+2\sqrt{3}}}$$
 obtained by substituting
$$\frac{\sqrt{3}}{4}$$
 for x ,
$$= \frac{2+\sqrt{3}}{2+(\sqrt{3}+1)}$$
 obtained by extracting the square root of $4+2\sqrt{3}$,
$$= \frac{2+\sqrt{3}}{3+\sqrt{3}}$$
Similar the standard of x and x are x and x are x and x are x are x and x are x are x and x are x and x are x are x and x ar

Similarly, the second expression = $\frac{2 - \sqrt{3}}{3 - \sqrt{3}}$.

Therefore the whole expression =
$$\frac{2 + \sqrt{3}}{3 + \sqrt{3}} + \frac{2 - \sqrt{3}}{3 - \sqrt{3}}$$

= $\frac{(2 + \sqrt{3})(3 - \sqrt{3}) + (3 + \sqrt{3})(2 - \sqrt{3})}{9 - 3}$
= $\frac{3 + \sqrt{3} + 3 - \sqrt{3}}{6} = 1$.

(3) In mathematical drawing exercises given at the Nova Scotia High School Examinations it is not necessary to write out the method of constructing and measuring the figures. If the figures are accurately constructed and the values of the lines and angles are given the answer will be considered perfect.

Subscriber.—In looking over Preliminary Examination Paper for N. B. Normal School on English Grammar and Composition for 1895, I find the following question: For each verb in the following sentences give the conjugation, kind, voice, mood and tense. This may be done in tabular form, or otherwise: (a) He was coming home; (b) They had been waiting; (c) If I had done it I should be ashamed of myself; (d) Seeing the danger he ought to have made his escape; (e) Spring is come; (f) They set out yesterday; (g) Have you set out any tomato plants? (h) Their complaints are set out in full. Would you please give me an answer to that question in the Review? The trouble I find is not in doing it, but in doing it and seven other moderately difficult questions in two hours. Please give me what you think would be sufficient answer.

If I were required as a candidate to answer the question which seems to have puzzled this correspondent, and if the examiner's use of certain terms seemed to me peculiar, I should probably reason somewhat in the following way: We are asked to give the "conjugation, kind, voice, mood and tense" of ten verbs. Evidently this does not mean that we are to conjugate all these verbs in full, as that would take up too much time, and after doing so it would be of little use to give the voice mood and tense of each separately. I conclude, therefore, that we are to tell whether each verb is of the weak or the strong conjugation, and also what kind of verb each one is, as employed in the sentence given.

VERB.	Conjug.	KIND.	Voice. Mood.	Mood.	TENSE.
a Was coming	Strong.	Intrans.	(Active)	Indic.	Past Imperf.
b Had been waiting	Reg. Weak.	do.	Active.	do.	Past Perf. Contin.
c Had done	Strong.	Trans.	do.	Subj.	Past Perf.
Should be		Intrans.	(Active)	do.	Past Indef.
d Ought	***************************************		do.	Indic.	do.
To have made	Irreg. Weak. Trans.	Trans.	Active.	Infin.	Pres. Perf.
e Is come	Strong.	Intrans.	(Active)	Indic.	do.
f Set	Irreg. Weak. do.	do.	do.	do.	Past Indef.
g Have set	do.	Trans.	Active.	do.	Pres. Perf.
h Are set	do	do	D	do.	7 7 7

J. F. L.-Please give solutions of the following questions in April Review, viz.: Question 30, p. 158, Todhunter's Algebra. (1) A railway train, after travelling an hour, is detained 15 minutes, after which it proceeds at 3 former rate, and arrives 24 minutes late. If the detention had taken place five miles further on, the train would have arrived three minutes sooner than it did. Find original rate, and distance travelled.

(2) Trisect a finite straight line:

(1) Let x = the rate and y = the distance.

Then time for 5 miles, at the rate of x miles = $\frac{5}{2}$

Therefore
$$\frac{5}{3x} - \frac{5}{x} = \frac{3}{60}$$

$$x = 33\frac{1}{3}$$
, $\frac{3}{4}$ of this rate = 25.

After travelling 1 hour the remaining distance would be

$$y - 33\frac{1}{3}$$
. Therefore $1 + \frac{15}{60} + \frac{y - 33\frac{1}{3}}{25} = \frac{y}{33\frac{1}{3}} + \frac{24}{60}$
 $y = 48\frac{1}{3}$.

(2) Trisect a given finite straight line. Let AB be the given line. Upon AB describe an equilateral triangle CAB. Bisect the angles at the base by the lines AD and BD. Through D draw DE and DF, cutting the base in the points E and F and parallel to CA and CD, respectively. It can be easily shown that DEF is an equilateral triangle, and that AE, EF and FB are equal to each other.

A. M. K.-(1) Explain why a minus quantity multiplied by a minus quantity gives a plus quantity.

(2). A man discounts at the bank, at the rate of 6 per cent. per annum, a note for \$100, payable in three mouths. What rate of interest does he pay for the use of the proceeds?

(3). What is Queen Victoria's private name?

(1). Let it be required to multiply -a by -b. Here the negative multiplier — b, indicates that — a is to be taken subtractively as many times as there are units in b, and since a negative quantity becomes a positive by subtraction, the product must be positive. See also Hall & Knight's Algebra, paragraph 36.

(2). The discount will be $100 \times (\frac{1}{4} + \frac{3}{365}) \times .06 =$ \$1.55 nearly. Proceeds = \$98.45. If the interest on \$98.45 for $(\frac{1}{4} + \frac{3}{365})$ years is \$1.55, what is the rate

$$\frac{155}{98.45} \times \frac{1460}{377} = \$6.09 + .$$

(3) Alexandrina Victoria is her baptismal name. Guelph is the family name.

SUBSCRIBER. - Please answer the following questions in the REVIEW, and oblige a subscriber: Some form of the theory of evolution seems to be generally accepted by modern writers on biology. If all plant forms now living are descended from one, or a few original forms, then, since the vegetable and animal kingdoms merge into each other, does it not follow that the same is true of animals, including man? If so, is not this irreconcilable with the Mosaic account of the creation? Consequently with the integrity of the Bible, and therefore with the Christian religion?

The EDUCATIONAL REVIEW would be turning aside from its proper work if it took up questions relating to theology. The information wanted can be obtained from the work of Romanes or Pres. McCosh, or from Prof. Bascom's "New Theology," Dr. Gordon's "The New Theodisy," or Prof. L. Conte's "Evolution in Relation to Religious Thought."

H. W.-(1) Kindly solve question 153 in last Examination Paper, Hamblin Smith's Arithmetic. A and B start to run a race; their speeds are as 17 to 18. A runs 23 miles in 16 min. 48 sec.; B finishes the course in 34 minutes. Determine the length of the course.

(2) In Example CXXV., 7th question, is the answer correct?

(1) This exercise is ambiguous. If it be understood that A ran 21 miles and that B ran the remaining distance in 34 minutes, then we have this solution:

In
$$16\frac{4}{5}$$
 min. A ran $2\frac{1}{3}$ miles.
1 " " $2\frac{1}{3}\div 16\frac{4}{5}$.
1 " B " $2\frac{1}{3}\div 16\frac{4}{5}\times \frac{1}{18}$.
34 " " $2\frac{1}{3}\div 16\frac{4}{5}\times \frac{1}{18}\times \frac{3}{18}$.
" " " 5 miles.
 $5+2\frac{1}{3}=7\frac{1}{3}$.—The answer in the book.

(2) In Example 7, CXXV., Hamblin Smith's Arith, the correct answer is 1408815 tons of 2000 lbs. each.

N. G. P.—Does the government allow a teacher pay for a day on which the school was closed on account of a special school meeting?

No. You will have to teach an extra day to make up for the time lost, to secure the government allowance for that day.

(5) Divide, using factors,
$$(m+1)$$
 $(bx+an)$ $b^2x^2 - (n+1)$ $(mbx+a)$ a^2 by $bx-a$.
$$bx-a \begin{cases} (m+1)$$
 $b^3x^3 + n$ $(m+1)$ $ab^2x^2 - (n-1)$ $ma^2bx - (n+1)$ a^3 $(m+1)$ $b^2x^2 + (n+1)$ $(m+1)$ $abx + (n+1)$ a^2
$$(m+1)$$
 $(m+1)$ $ab^2x^2 - (n+1)$ $ma^2bx - (n+1)$ $(m+1)$ $ab^2x^3 - (n+1)$ $(m+1)$ $a^2bx - (n+1)$ a^3 $(n+1)$ $a^2bx - (n+1)$ a^3 $(n+1)$ $a^2bx - (n+1)$ a^3

- L. A. M.—(1) One of my school children, while rambling in the woods a few days ago, found a little bird, dead. I never before saw anything like it here so early. It was so very thin, it must have starved to death. Length, $3\frac{1}{2}$ in. from tip of bill to tip of tail; bill, $\frac{1}{4}$ in. long; color of breast, dirty white; back wings and tail drab gray tinged with yellowish green; short wing, feathers tipped with white; middle wing feathers banded with black. It wears a yellow cap bordered with black. Is it a goldfinch?
- (2) Please solve Ex. 40, p. 148, Hall & Steven's Geometry: Produce a given straight line so that the rectangle contained by the whole line thus produced and the part produced may be equal to the square on another given line.
- (3) If those "school helps" are altogether evil, why do our best educational papers advertise them? asks a young teacher. I don't know. Will some one explain?
- (1) Probably the Golden Crown Kinglet (Regulus Satrapa), which remains with us all the year.
- (2) Let AB be the given line to be produced and MN the other given line. Bisect AB in D. From B draw BC at right angles to AB and equal to MN. Join CD and produce AB to E, making DE = DC. Then the rectangle AE, EB = the square on MN. Produce DA to F, making DF = DE. Then by (II., 14) FB · BE = BC²; that is, AE · EB = BC² = MN².
- (3) When "school helps" are used instead of prescribed texts their use is flegal. Pupils who are properly taught make their own abstracts of the subjects which they study. If the "helps" are used only after this has been done they may be useful.
- J. F. L.—(1) Two passengers have, together, 5 cwt. of luggage, and are charged for the excess above the weight allowed, 5s. 2d. and 9s. 10d., respectively. If the luggage had all belonged to one of them, he would have been charged 19s. 2d. Find how much luggage each passenger is allowed without charge.
- (2) Is it true that widows are not exempt from taxes? Are spinsters exempted? When was this law passed?
- (1) Suppose that x lbs. of luggage are allowed to each passenger, and that y pence per lb. are charged for overweight. Then

$$(560 - 2x) y = 180, \text{ and } (560 - x) y = 230$$
By division
$$\frac{560 - 2x}{560 - x} = \frac{18}{23}$$

$$x = 100.$$

- (2) Widows, wives deserted by their husbands, and spinsters are exempt from taxation on real and personal property and income to the extent of \$300. This law was passed in 1889.
- Of the 500,000,000 people who speak the modern European languages, 125,000,000, or one-fourth, speak English. But it is said that two-thirds of all the letters which pass through the postoffices of the world are written in English. This fact is eloquent in showing the supremacy of the English tongue in the world's civilization, and it may well be pondered by our educators.—Learning by Doing.

SCHOOL AND COLLEGE.

The trustees of Mount Holyoke, Mass., have decided to grant the degree of A. B. to scientific and literary students, the same as to the classical, who have completed a full course of studies. This action is important, for it gives practical expression to the idea held by so many leading educationists that Latin and Greek are no better instruments of mental culture than English and German, or than physics and chemistry.

The woman teachers of Chicago have won a notable victory. After a well-organized canvass they have succeeded in having their salaries raised so that within three years they will all be receiving at the rate of \$1,000 per year.

Miss Mary Hawkins, teacher at Pennfield Centre, Charlotte County, has, by means of a concert and social, been able to provide her school with some excellent blackboard surface.

Miss Emma Veazey, teacher at Old Ridge, Charlotte County, has, by means of a very successful school entertainment, been able to add largely to her school apparatus, and to make beginning toward a library.

Inspector Carter, who has recently visited the schools in Westfield and Greenwich, Kings Co., reports great zeal and activity on the part of the teachers in those parishes in the matter of equipping their schools. There is scarcely a teacher engaged there but has done something already during the year, or proposes to do so. Some of the entertainments have been of very high order and realized quite a sum of money. The following may be mentioned as having been accomplished:

Mr. B. W. Robertson has added largely and judiciously to the excellent library at Westfield Station. He also proposes to purchase a flag.

Miss Maud Gibson, at DeVeber, has purchased a fine globe and slate blackboard service.

Miss Edith Belyea, at Land's End, has assisted to raise money to repair the school-house.

Miss Sarah Daly, at Carter's Point, has raised enough to fence and ornament her school grounds handsomely .

Mr. Jephson London, at Cheyne, has enough money raised to purchase a dictionary and some new furniture.

At Greenwich Hill the trustees have supplied some excellent slate blackboard surface—the first in the parish.

Mr. J. L. Allingham, at Round Hill, has equipped his school with some apparatus and slate blackboard surface.

Miss Jennie Holder, at Oak Point, has supplied her school with new blinds, dictionary and a teacher's desk. She also has nearly enough to purchase a globe.

Miss Ella M. Wetmore, at Milkish, has raised enough money to oil and shellac the sheathing of her room and to purchase a globe.

Miss Maggie M. Seely, teacher at Sea Dog Cove, has been able to purchase a globe for the use of her school.

Miss Emily Hunter, of Bayswater, Miss Mildred Parker, of Public Landing, and Miss Bessie Colwell, of Lily Lake, are also planning to add to the apparatus of their schools before the end of the term.

Twenty-four schools in 'New Brunswick have, since January 1st, procured sets of minerals and apparatus to assist in the teaching of nature lessons. The greater part of these schools were in the counties of Kings and Carleton.

President Eliot, of Harvard University, advocates a three years' college course.

A system of pensioning teachers, who have taught a certain number of years, is being considered in Philadelphia.

The University of Paris has nearly 30,000 students enrolled in its several colleges, more than three times as many as any other educational institution in the world.

The population of the United States is now estimated at about 75,000,000.

Miss Gertrude Morrell, teacher at Beulah, Kings Co., has, by means of a "mysterious tea," procured blinds, maps and other apparatus for the new school-house.

The Sydney Academy issues a very neat calendar for 1897–8. The frontispiece gives a good half-tone cut of the building, which has been lately put into thorough repair. It is heated by steam and is well supplied with apparatus for the teaching of elementary science. Graduates are prepared for the arts, law and medical courses of the colleges, and for the London University matriculation. A Students' Debating Society, The Academy Record, and a good library give additional training. The students are chiefly drawn from Cape Breton Island, but there are a few from the Peninsula. Gold and silver medals, books and money prizes stimulate to good work.

On invitation of the Calais Association of teachers, Miss Daisy Hanson, of St. Stephen, gave a lesson to a class of pupils before that society.

Inspector Carter has been engaged with the schools of St. Stephen, Milltown and St. Andrews during the latter part of March. He expects to complete the inspection of the schools in the south and west ends of the City of St. John during April and May, after which, for the balance of the term, he will visit the schools on the islands of Charlotte County.

Inspector Mersereau has appointed May 13th Arbor Day throughout his inspectorate.

By means of a social Miss Greta Pearce, teacher at Creek Road, Havelock, N. B., raised the sum of twenty dollars, the proceeds to be used for school apparatus.

Inspector Inglis C. Craig, of Amherst, who has been in poor health for some time, recently paid a visit to Boston for the purpose of consulting a specialist, and undergoing treatment. Since his return, he is much improved and gives promise of soon being completely restored to health, which his many friends will rejoice to hear. While in Boston, Inspector Craig visited many of the schools of the "Hub" and suburbs, and received many attentions from the educational authorities.

The trustees of Milltown, Charlotte County, have, by the expenditure of \$130, supplied the pupils of the nine schools in that town with all materials required for one year. It is safe to say that such supplies have been more uniform, of better quality and much cheaper than if purchased by parents.

Friday, May 6th, has been named as school Arbor Day by Inspectors Carter and Steeves. Inspector Mersereau examined the graded schools of Restigouche and Gloucester in March. During this month he will visit the graded schools of Northumberland, in May the ungraded schools of Gloucester, and in June those of Northumberland.

Annie M. McLean, M.A. (Acadia, 1894), has been spending several months during the past year in Digby county gathering information on the early French settlers, for preparing a thesis for the degree of Ph. D. which she will receive from Chicago University next year.—Kentville Advertiser.

It is proposed by Inspector Carter, as opportunity is afforded him, to organize the teachers and school officers in each parish in his inspectorate into an association to deal, not only with the internal work of the schools, but to interest and obtain the co-operation of parents in the work, as well as to bring about a better understanding between them and teachers regarding the scope and nature of their respective responsibilities. It is hoped that each association will hold at least one or more public meetings in some part of the parish each year. To this end he has named a committee, consisting of teachers and trustees of St. Stephen, Milltown and St. Stephen parish, to arrange for a meeting at an early date to organize an association. In conjunction with Mr. B. W. Robertson, principal at Westfield Station, Kings Co., he is arranging for a public educational meeting in May.

By means of a pie social the school at Chance Harbor, St. John Co., Miss Emma R. Gillies, teacher, raised \$44.30, with which the trustees of the district have purchased needed school apparatus.

Mr. H. F. Perkins, teacher at McAdam Junction, N. B., has completed the course of study required by the Illinois Wesleyan University for the degree of Bachelor of Philosophy, which he will receive in June next. Mr. Perkins began to study for his degree in 1889. In 1891–92 he attended the University of New Brnnswick, getting credit in his course for work done there. In zoology, astronomy, English literature and history he passed with honors. It is very creditable to Mr. Perkins that his pluck and perseverance have enabled him to overcome many obstacles that lay in the way of pursuing his advanced course, in the completion of which he has been so successful.

Mr. William Brodie, the esteemed principal of the St. Andrews, N. B., High School, has organized a Shakespearian club, embracing some of the most prominent business and professional men of that town. Great interest and enthusiasm have been manifested by the members, and Mr. Brodie has established yet another claim upon the good-will of the citizens.

Miss Olivia Maxwell, the efficient teacher at Little Ridgeton, Charlotte Co., has by means of a very successful school social been able to provide her school with some excellent apparatus.

Miss Maggie M. Hyslop, teacher at Second Falls, St. George, Charlotte Co., has raised enough money wherewith to decorate the interior of her school-room.

Miss Mame Shaughnessy, teacher at LeTete, Charlotte Co., has raised money to purchase slate blackboard surface.

Mr. Edward Ganong, of St. Stephen, recently presented the school at Little Ridgeton, Charlotte County, with a handsome portrait of the Queen.

Mr. A. W. Hickson, the energetic principal of the Welshpool, Charlotte Co., schools, has recently added to his slate blackboard surface.

O. P. Goucher, B. A., the efficient and popular principal of the public schools of Middleton, Annapolis Co., has succeeded during the past winter, by means of a course of literary entertainments and public lectures, in raising funds for the purpose of founding a school library for that town.

Principal J, M. Longley, B. A., who last summer took charge of the public schools of Parrsboro, Annapolis Co., assisted by Miss Edith M. Balcom, the teacher of the elementary department, has recently furnished the public of that community with some school entertainments of a high order of merit, and has thereby been successful in providing a more liberal supply of apparatus for the school under his charge.

At the completion of his work of inspection of the schools of St. Stephen, Milltown and St. Andrews, Inspector Carter invited a combined meeting of trustees and teachers to discuss matters of interest relating to the conduct and management of the schools. The meetings were all well attended, and a very useful interchange of views was had.

RECENT BOOKS.

There is something akin to the pleasure of meeting an old friend in reading Dr. Stockton's addresses1, some of which one has heard delivered. Those who were fortunate enough to be present when these addresses were delivered, whether in the library of the university, or on the various occasions in St John, will take up the book with a lively recollection and keen appreciation of their enlightening force. The addresses are eminently educative and enlightening, as becomes their origin, and they are fitted to perform the same function for the general public which they have performed so well for the fortunate hearers. It is not often that a practical politician can be induced to lay aside the idolu of his calling and discuss the meaning and purpose of legislation and government, and stil, rarer that one who is supposed as a politician to regard every thing as ancient history which happened before the last general election is ready to make such a masterty historical review of a pressing political issue as Dr. Stockton makes in this volume of the Monroe Doctrine. The list of authorities cited shows how thorough his investigation has been; and his exposition of the real meaning and true inwardness and outwardness of the famous doctrine, of its limitations and its imperfect authority as a maxim of international law, and of the inadequacy of any appeal to it in sanction of the attitude of the United States about Venezuela, was a genuine contribution to knowledge. The volume can indeed add but little to Dr. Stockton's reputation as a constitutionalist and publicist, but it can give to a wider public that opportunity of forming wider and saner views which the lecturer gave to his hearers. The book shows the combination of these qualities not always combined, great

historical learning, genuine eloquence, and what Plato called the knack of hitting the joints. The last quality, in view of the nature of the subjects, was that most requisite, and Dr. Stockton shows a remarkable sense of what is important for a full and clear understanding of the subject on the part of his hearers. The titles of the lectures, The Monroe Doctrine, The Aim of Legislation, Material Development or Moral Improvement? The Object of Law, Fifty Years a Queen, Sixty Years a Queen, are sufficiently indicative of the varied contents of this learned and attractive volume, which should be in the hands of everyone who heard these lectures and addresses, and of every one who regards politics as more than a game at which a few men play.

The University of New Brunswick has, with more or less of reason, been attacked because of the small part it plays in the life of the province. The charge may possibly reflect more on those who make it than on the university; but it is at least one service it has rendered to the public of the province that it was at least the occasion for three of these addresses being prepared and delivered.

John Davidson, D. Phil.

University of N. B.

There are interesting details and incidents of romantic interest in our history, which it is the province of the poet, the writer of romance, and the teacher to elaborate and use. The first systematic attempt to provide such historical literature for Canadian students and teachers who have limited library privileges, has been made by the EDUCATIONAL REVIEW. It is intended to cover all periods of Canadian history and all portions of the Dominion in the Series, 1 which will be issued in quarterly booklets, and will contain articles from leading writers in Canada, and interesting records from original documents in our history, hitherto not accessible to the children in our schools. The first number, in addition to the introduction, contains the following: The Physical Growth of Canada, by G. F. Matthew, D. Sc., an article of the greatest interest to students of Canadian geography; The Legend of Glooscap, by Jas. Vroom; Cartier's First Voyage, edited by W. F. Ganong; Winter at St. Croix Island, edited by G. U. Hay; The Story of Lady La Tour, by James Hannay, a vivid narrative; The Story of the Loyalists, by Dr. Bourinot, which will be read with the keenest interest.

An impetus was given to history writing in Canada a few years ago by the offer of prizes for the best history of the Dominion. The result of the competition is well known. Of the fifteen manuscripts handed in, three have since been published—Clements' History, which is now authorized for schools in Canada; Roberts', a popular edition of which has been recently published in Boston and Toronto, and Calkin's, which gained a prize of \$200 in the competition, and has just been published. The merits of these three, with others of the fifteen that may see the light in the future, will naturally be compared. Criticism will have a beneficial effect in bringing out more exact ideas of what historic material should be put into the hands of Canadian boys and girls.

Calkins' History is a volume of 464 pages, with handsome, clearly-printed pages—a credit to the publishers. The illustrations are numerous, and the subjects, for the most part,

¹ The Monroe Doctrine and Other Addresses, by A. A. Stockton' LL. D., D. C. L. St. John. J. & A. McMillan.

¹ Educational Review Supplementary Readings: Canadian History. Number 1. March, 1898. Issued quarterly. Price, 15 cents.

²A HISTORY OF THE DOMINION OF CANADA, by John B. Calkin, M.A., Principal of the Normal School, Truro, N. S. Price, 50 cents. A. & W. MacKinlay, Halifax, N. S., 1898.

well chosen. The historian has done his work well. From the immense amount of available material, he has given, within the compass of a small volume, the leading points in our history, presenting a consecutive, well-arranged compendium, valuable to the general reader and student who may wish to grasp the salient features of Canadian history, with but little outlay of time and expense. There is of course much omitted from the volume that one would like to see, especially in reference to his own province, and, what could ill be spared, some treatment of our literature; but it must be remembered that a book had to be written of a certain number of pages, gathering fragmentary portions of provincial history into a united whole.

A glance at the name on the title-page of this new work on botany¹ recalls to the writer the time when the author and he were students at the same college. Then it was the old-fashioned style of botany—a delightful ramble through woods, fields, and along water courses, a return with the treasures, to "run them down" in Gray, place them in driers, and ticket and label the "specimens." That the author has not forgotten his first love a glance through the book plainly reveals, for we have a temptingly arranged spring flora, with a delightful smell of the woods about it. The plan of the work is admirable in its suggestiveness. There is scarcely a topic in the ordinary range of botanical science but what is touched upon and dealt with in a way to arouse an interest in the study.

A book on botany that gives a fair outline of its different divisions, with hints and suggestions for practical study, has, perhaps, good reasons for its existence. Dr. Kellerman's is an excellent work for beginners. It is not overburdened with technical terms. It treats concisely of the physiology of plants, their economic uses and distribution, and is such a book as will meet the needs of a great many teachers who are seeking suggestions and directions for practical experimental work, rather than a work burdened with too many details.

The excellent little manual of the spring flora, should start the beginner profitably on his investigating trip into the plant kingdom.

This volume? is one of the delightful Golden Treasury Series. Like the others, it is intended for lovers of literature. The editor, in the introduction, attempts a "critical estimate of Heine's genius as a lyrical, as a descriptive and also as a humorous and political poet." The notes are brief and chiefly of a literary character. The selections contain the best of Heine's lyrics, sea-odes, ballads, romances and songs of liberty. The need of making a selection is generally admitted; even the poet justified such a course by his omission and alterations in the French edition, so the editor claims. "Those well acquainted with Heine's works may possibly miss some poems with which they have been long familiar, but after all the poems in this selection amply illustrate his brilliant qualities as a purely noble and withal humorous poet."

Perhaps an extract from Matthew Arnold's Essay on Heine may not be out of place. "The wit and ardent modern spirit of France, Heine joined to the culture, the sentiment, the thought of Germany. This is what makes him so remarkable; his wonderful clearness, lightness and freedom, united with such power of feeling and width of range."

The author of this new work on English Grammar¹ states in the preface that it was suggested by an experience extending over many years, chiefly in an eastern country (India), where English is studied with extraordinary keenness, and every effort is made to find out the best means of teaching it. It is a graduated method, part I. covering the familiar ground of accidence, analysis, syntax and punctuation. Part II. discusses the idiomatic uses of the different parts of speech, and Part III. deals with the subject of historical English and derivation. It is the most complete work, within a comparatively small compass, that we have ever seen, and would form an excellent work of reference for teachers or private students. There is scarcely a question relating to the three branches of the subject above given but what can be answered from this text-book.

In the March Review there was a misprint in the notice of Prof. Davidson's Book, "Bargain Theory and Wages," Illustrations were said to be taken from *Great Britain*. It should have read Cape Breton. An outstanding merit of Dr. Davidson's book is its frequent use of Canadian illustrations.

W. C. M.

BUOKS RECEIVED.

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Books received, to be reviewed, if space will permit, in future numbers:

AN ARITHMETIC FOR SCHOOLS, by S. L. Loney, M.A., pp. 432 + xliii., price 4s. 6d. (A very complete work, with answers.) Macmillan & Co., London and New York.

THE TEACHER'S MANUAL OF OBJECT LESSONS IN DOMESTIC ECONOMY, by Vincent T. Murche. Price 2s. 6d. Macmillan & Co., London and New York.

Scenes of Child Life in Colloquial French. Price 2s. 6d. (A bright idea for beginners in French.) Macmillan & Co., London and New York.

NICOTIANA and DER ZERBROCHENE KRUG, in Heath's Modern Language Series." Price 25 cents each. D. C. Heath & Co., Boston.

THE HISTORY OF MANKIND, by F. Ratzel. To be completed in 32 parts. Price 1s. each. Part 24. Macmillan & Co., London and New York.

SIMPLE EXERCISES IN WORD BUILDING, DERIVATION AND COMPOSITION, by Robt. S. Wood. Booklet, price 6d. Macmillan & Co., London and New York.

Gun and Rod in New Brunswick. A pamphlet issued by the Crown Land Department of N. B. Hon. A. T. Dunn, Surveyor General.

SIMPLE LESSONS IN COOKERY, by Mary Harrison. Price, 1s. 6d. Macmillan & Co., London and New York.

¹ English Grammar, Past and Present, by J. C. Nesfield, M.A. Pp. 470. Price 4s 6d. Macmillan & Oo., London and New York.

THE APRIL MAGAZINES.

The April Canadian Magazine is an Easter number with a handsome and appropriate cover. The two illustrated art articles in the issue are worthy of attention. Mural Decoration, by G. A. Reid, R. C. A., is very instructive, and The Academy Exhibition, by Norman Patterson, deals with the recent exhibit

¹ A TEXT-BOOK OF ELEMENTARY BOTANY, including a Spring Flora, by W. A. Kellerman, Ph. D., Professor of Botany, Ohio State University. Cloth. Price, 95 cents. Eldredge & Brother, Philadelphia.

² Heine Lieder und Gedichte. Selected and arranged with notes and introduction. By C. A. Buchheim, Ph. D. London, Macmillan & Co., Pp. xxiv, 376. Price 2s. 6d. net.

of pictures made by the Royal Canadian Academy of Arts. The illustrations of both of these are magnificent, and are a considerable art education in themselves.... In *Popular Science Monthly* an article on Evolution and Teleology, by the Rev. J. A. Zahm, shows that the theory of evolution is not contradictory to the fundamental doctrines of the Church but is in harmony with them, and particularly that it is entirely consistent with teleology. Clemens Winkler has an article on the Discovery of New Chemical Elements, in which he gives a brief historical sketch of the rarer and more curious elements... No one who is interested in the best contemporary French literature can afford to miss the series of sketches and stories by Paul Bourget, which began in The Living Age for April 2. These sketches have been but recently published in France, and this is their first appearance in English dress. They are extremely clever and characteristic The April Century has a group of papers on the Pennsylvania coal regions. Henry Edward Rood tells of the supplanting of the English speaking miners by foreigners from Austria-Hungary and Italy, his paper being entitled "A Polyglot Community....The April number of St. Nicholas has a varied table of contents, including many seasonable features. Miss Ida Tigner Hodnett writes of The Little Japanese at Home, describing the typical homes of Japan and the sports and pastimes of the children. Miss Hodnett also tells of the "growing up" of the Japanese boy, and of the family festivals that are held to mark the important events of his life....In Forum are many articles of interest just now such as England and France in West Africa, The Political Situation in Europe and the East. Hon. W. T. Harris, U. S. Commissioner of Education, has a suggestive article entitled is there work enough for all?... The Atlantic Monthly has many articles of special interest, and is of more than usual excellence. Among the subjects treated are: The Evolution of Satellites, by G. H. Darwin; On the Teaching of English, by Mark H. Liddell; The Romance of a Famous Library, and others.... The Ladies' Home Journal, of Philadelphia, is a magnificent Easter number.

A Few Words About the Review.

I am pleased to note that the Review has improved very much since you have given your whole time and attention to it. I now take pleasure in recommending it to teachers.

INSPECTOR, N. S.

I like the Review better than any educational journal I have taken or seen, and I hope you will be successful in your efforts to increase its circulation. It deserves the support of all our teachers.

M., Northumberland Co.

I have but lately become a subscriber to the Review, but have found it so helpful that I think I shall never again do without it.

C., Halifax Co.

I have been a subscriber since 1891, and have the numbers on file. I feel I could not afford to be without the Review were it twice the price.

I. J. C., CHARLOTTE Co.

I have received three copies of the Educational Review, and am very much helped by it, as there seemed to be something in each number that I needed. . . . I look for its coming with pleasure.

K., Kings Co., N. B.

I derive a great deal of pleasure and profit from reading the Review, and always find the time long till it arrives. Wishing the Review success.

H., Halifax Co.

I have been debating in my mind whether to take your paper again or not, but the benefit derived from such a journal has overbalanced the financial side of the question. Please find enclosed one dollar for another year.

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Educational Institute of New Brunswick,



The Institute will assemble in the High School Building, St. John, N. B., on Tuesday, JUNE 28, 1898, at 2.30 p.m.

· PROGRAMME · · ·

TUESDAY, JUNE 28, 2.30 p. m. Enrolment of members and election of secretaries. 3.30 p. m., Address, "Unfinished Work," by Rev. W. O. Raymond. 8 p. m., Public Educational Meeting.

WEDNESDAY, JUNE 29, 9 a. m., "The Advantages of the Concord System," by Supt. Stetson, of Maine. Discussion opened by Inspector Carter. 10.30 to 12, "How Others Do."

Professor W. C. Murray will read a paper on Education in the German Schools, and L. Mitchell, B. A., on the Schools of Massachusetts. 2 p. m., "The Teacher's Ideals," by Prof. Anderson, of Mount Allison University, Discussion opened by Miss M. E. Knowlton. 3.30,

Election of Executive Committee, and Representative to University Senate. 8 p. m., Conversazione, Natural History Society Rooms.

THURSDAY, 9 a. m., "Some School Studies in Relation to Mental Development," by H. C. Henderson, B. A. Discussion opened by Principal Mullin and Mr. Wm. H. Parlee. 10.30 to 12, "The Teaching of Agriculture in the Public Schools," by W. W. Hubbard, Esq. Discussion opened by G. J. Oulton, B. A. 2 to 3 p. m., Discussion on the advisability of Supplying Free School Material to Pupils. 3 p. m., General and Unfinished Business.

The usual arrangements for reduced fares will be made with the Railway and Steamboat Lines.

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The Legend of Glosscap, -by Jas. Vroom, Esq.
The Physical Growth of Canada, -by G. F. Matthew, D. Sc.

The Winter at St. Croix Island in 1604-5,—Edited by G. U. Hay.

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The next Academic year begins September 29th, 1898, when Fourteen County Scholarships will be vacant. These Scholarships (value \$60 each) will be awarded on the results of the Entrance Examination to be held July 5th, at all the Grammar School centres. The Wilmot Scholarships (value \$300) will be offered for competition in September, and to candidates who hold a Provincial School License of the First Class an Asa Dow Scholarship (value \$150) will be offered in competition in September.

The Departments of Civil and Electrical Engineering are now open to properly qualified students. Copies of the Calendar, containing full information, may be obtained from the undersigned.

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1870,	\$9,698.89	\$6,216.00	\$521.650 00
1876,	38,794.30	81,105.00	1,634,156,00
1886,	315,802.22	909,489.73	9,774,543,00
1896	760,403.34	3,404,907.79	20,000,000.00

E. M. SIPPRELL, St. John, N. B.

Canadian Govt. Railway System.

Intercolonial Division.

ON and after Tuesday, the 1st March, 1898. trains will run daily (Sundays excepted) as follows:

TRAINS WILL LEAVE ST. JOHN,

Express for Campbellton, Pugwash, Pictou,	
and Halifax	7.00
Express for Halifax, Express for Quebec and Montreal,	18,10
Express for Sussex,	16.40

Passengers from St. John for Quebec and Mon-treal take through Sleeping Car at Moncton at 19 35 o'clock.
Dining and Buffet cars on Quebec and Montreal

express

TRAINS WILL ARRIVE AT ST. JOHN.

Express from Sussex	8.30
Express from Halifax	16.00
Express from Halifax, Quebec, & Montreal, Accommodation from Pt. du Chene & Monc-	19 25
ton	12.30
Accommodation from Moneton	23,45

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