

# THE EDUCATIONAL REVIEW.

FOR THE ATLANTIC PROVINCES OF CANADA.

VOL. XI. No. 9.

ST. JOHN, N. B., FEBRUARY 1898.

WHOLE NUMBER, 129.

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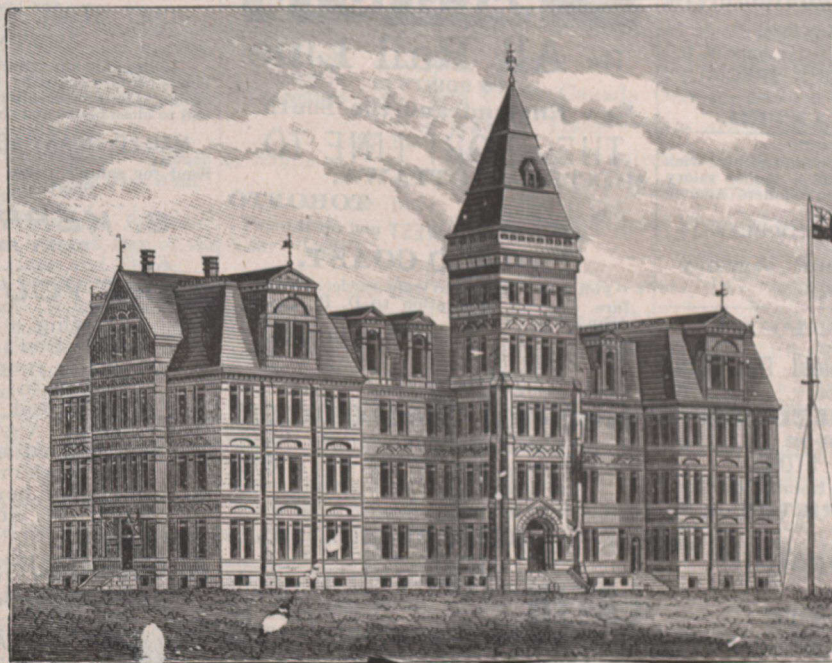
Session begins  
Sept. 3rd, 1897.

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Session begins  
September - - 8th.  
1897.

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Session begins  
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1897.



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# The Educational Review.

Devoted to Advanced Methods of Education and General Culture.

PUBLISHED MONTHLY.

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\$1.00 PER YEAR

G. U. HAY,  
Editor for New Brunswick.

A. McKAY,  
Editor for Nova Scotia

## THE EDUCATIONAL REVIEW.

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### Always Read this Notice.

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Beginning with February and March the number on the wrapper with your address tells to what whole number of the REVIEW the subscription is paid.

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### Special Announcements.

In the last number of the REVIEW it was announced that some of the brightest educational writers and thinkers in Canada had been secured to furnish a series of articles during the present year. We are now in a position to name some of these contributors, and we are warranted in saying that they will help the editorial staff to make the REVIEW one of the brightest educational periodicals in this country. These articles will appear in special numbers during the year, and in our

regular issues as well. The main features of the REVIEW, namely, to make it a constant and helpful ally to the teacher in the school-room, will always be kept in view, so that every teacher and parent will find it more valuable than ever.

PRINCIPAL CAMERON, so well known to readers of the REVIEW, will continue his "Notes on English," with occasional articles on astronomy. Miss ELEANOR ROBINSON, whose introductory article on English Literature appears in this number, will write a series of special articles on that subject for elementary schools. PROF. STOCKLEY, whose able critique on education appears in this number, and PROF. W. C. MURRAY, PROF. W. F. GANONG, PRINCIPAL ANDERSON and J. VROOM, all well known to readers of the REVIEW, will write occasional articles on special subjects. To these we may add the names of PRINCIPAL MULLIN, W. E. MACLELLAN, LL. B., Hon. J. W. LONGLEY, Prof. CHAS. G. D. ROBERTS, Hon. A. A. STOCKTON, Rev. J. DESOYRES, PRINCIPAL PARKIN, of Upper Canada College, and ex-CHANCELLOR Th. H. RAND. These writers are in close sympathy with our educational requirements, and we are sure that, from their scholarly attainments and wide experience, our readers have a great pleasure in store for themselves.

A SERIES of leaflets, designed to furnish supplementary reading in history for Canadian schools, will be issued by the EDUCATIONAL REVIEW. These leaflets are intended to supplement the deficiencies of our present text-book on Canadian history, by furnishing concise and interesting sketches of the leading features and characters of our young nation's history. They are also intended to inculcate a spirit of patriotism in the young by making our history interesting, inspiring and instructive.

The first leaflet will be issued in the course of a month, and will be followed every two months by others, if the encouragement is sufficient, until the series is completed. The first leaflet will comprise the following: The Physiography of Canada, by G. F. Matthew, D. Sc.; Sketch of Madame LaTour, by Jas. Hannay; Cartier's

First Voyage, by W. F. Ganong, Ph. D.; The Legend of Glooscap, by J. Vroom; Selections from Champlain's Voyages, by the editor; Life at Port Royal, by Chas. G. D. Roberts; Story of the Loyalists, by Hon. J. G. Bourinot.

In the course of a scholarly address on Music, delivered before the St. Stephen's Church Guild, St. John, by the Rev. J. deSoyres, the lecturer deplored the lack of education in music. He thought churches might do well to banish the cheap concert, and unite in an effort to bring about a study of the great masters, and be content to begin at the beginning. In Germany, where he had lived for some time, there were towns, not half the size of towns in Canada, in which the study of music was pursued with a purpose and an organization to which we are almost strangers. Music should be taught in our schools, where it might take the place of subjects in the course where condensation might very profitably take place.

In this connection we quote with pleasure the following from the *N. E. Journal of Education*, and commend it, as well as the words of the Rev. Mr. deSoyres, to the teachers and school boards of these provinces:

"It seems incredible that any city or town does not provide for the teaching of music, but there certainly are some of these. If the teacher of such a school sees these pages, it is to be hoped that he will do his best to make up for the folly of the school board."

THE calendar of the Summer School of Science for the Atlantic Provinces has just been issued. The school will meet this year at Moncton from July 7th to 18th.

#### Contagious Diseases.

A writer in one of the newspapers plaintively remonstrates against the tenor of the regulation which debar pupils from attending school who come from families, members of which have such diseases as mumps. He thinks it highly desirable that such diseases should be handed around in youth, as their contraction at the adult stage is attended with added discomfort, and it may be added, with actual danger.

While there may be ground for suspicion that the writer was not entirely disinterested, there is yet a great deal of truth in what he says. While it is most necessary to guard against contagious diseases and difficult to particularize, nevertheless such diseases as chicken pox, mumps, measles and perhaps whooping cough do not call for the exercise of such precautions as those of diphtheria, scarlet fever and kindred diseases. Most parents would prefer, without actually inviting them, that their children should have, at the proper time, the less dangerous diseases incidental to childhood.

By regulation no pupil is allowed to attend school from any house in which there is any contagious disease

and not after without a physician's certificate. To many it seems absurd to deny admittance to pupils who have had such diseases as mumps even though they may be present in the family. In this connection it may be added that where any particularly dangerous disease exists in a district, the Board of Health usually intervenes and closes the schools. This no doubt is as it should be, but what frequently puzzles the residents of the rural districts is when to re-open them. No board of health is on record as having given permission to do this or take a "thought of the morrow." In cases where schools have been closed by or for the health boards, the Board of Education has allowed the teacher fifteen days' government pay, and this may be taken as an opinion of the duration of time a school should be closed under ordinary circumstances.

#### Education and Crime.

The education of the whole people is so vast an undertaking that no other agency than the state is able to undertake it successfully. Certain it is that every other agency has left the mass of the people illiterate. That the state is justified in undertaking the management of the public schools is shown by their effect in reducing crime and in contributing to the stability of society. The statistics of some countries would, however, almost seem to show the contrary effect. In the United States, for example, there has been apparently an increase of crime notwithstanding the great advance of education, and this increase is often attributed to the so-called godless system of schools. But two facts which explain the reason for the rapid increase of crime have been carefully kept in the background. In the first place there has been an enormous immigration of the lower illiterate classes from all countries of Europe settled mostly in the larger cities. In the second place changes of industrial conditions have drawn immense numbers from the farming districts to the towns. We know that civilization has never yet succeeded in developing conditions in large cities favorable to morality for the masses. No doubt the problem will be solved some day and that before long. What the United States would have been or whether it could have existed so long without education we can only imagine.

What education can do and has done in a normal state of society is shown in England, where one of these disturbing elements did not exist and where the other was not so serious as in the United States. We quote from an exchange:

Does education increase crime? We often hear that it does. Years ago some, perhaps many, imagined that education would prove a certain preventive of crime. Perhaps the idea

of the usefulness of education in this direction was extravagant. We need not therefore be surprised if the contradictory notion should gain some currency,—that education is actually a promoter of crime. The experience of England throws light on the subject. It was in 1870 that the great new departure in public education was made in England. Previous to that year crime was on the increase. Since that year the decrease has been steady. In 1860 there were in England in prisons 115 persons of every 100,000 of the population. In 1870 the proportion was 128. In 1880 there was a decrease to 111 in 100,000; in 1890 the number in prison was reduced to 68. This result is wonderful, especially in view of the rush to cities during the years of decrease. The following figures are equally remarkable: In 1870 out of every 13 of the population 1 was on the rolls of the primary schools, and 1 in 280 on the books of the police stations as known or suspected thieves. In 1895, after twenty-five years of compulsory education, the number on the rolls of primary schools had risen to 1 in every 6 of the population, while the number of known or suspected thieves on the police rolls had fallen by about the same proportion, being then 1 to 830.

When account is taken of the crimes of drunkenness and assault the results stand thus: In 1860, in every 100,000 there were 109; in 1870 there were 134; in 1895, just 80. It is stated also that the younger portion of the population do not keep up their proportion of the prison population. Incurable old criminals compose an increasingly large proportion of convicts. The criminals under 16 years of age who, in 1860, numbered 88 in every 100,000 persons under 16, and 113 in 1870, had fallen, in 1894, to 48. If the rate of increase which prevailed from 1860 to 1870 had been unchecked, instead of 6,000 criminal youth, as enumerated in 1894, there would have been 15,000. Much stress has been placed upon the fact that the proportion of illiterate criminals diminishes. This is inevitable under systems of compulsory education. Upon this point, around which has centered much fallacious argument, the English statistics are instructive. They show conclusively that the 80 per cent of regular attendants at school supply only 3 per cent of the jail inmates, while the 20 per cent of "irregulars" are responsible for more than 96 per cent of criminals.

### TALKS WITH TEACHERS.

The columns of the REVIEW bear constant testimony to the zeal and industry of many teachers, whose efforts add so much each year to the equipment of the schools in the way of apparatus and furnishings of all kinds. Many districts owe their complete outfit to such efforts as these, and it is a department of work that should be encouraged, not only because of the direct benefit to the schools, but of the no less important indirect advantage of uniting and interesting in the schools pupils and parents. There are indications, however, that in some districts this work is beginning to be taken for granted and to be presumed upon to lessen the responsibility of the ratepayer, and the tendency is not without danger. It is perfectly laudable and legitimate for a teacher to devise ways and means to add to apparatus, furniture, libraries, and even the improvement of house or grounds by painting or ornamentation; but when they are expected, or almost required, to pay off the district debt by such means, then the line should be drawn, and the usefulness of these efforts has ended. While every one

inside or outside the district may be willing to aid the teacher, few will be found to do so, in order to aid in discharging the liabilities of the trustees.

What this would lead to is very easily seen. Teachers would command positions, not on account of their professional abilities, but by reason of their talent to raise the money wherewith to pay their salaries, and there are so many objections to this that argument is not necessary. Disputes have arisen from time to time as to the custody and disposal of the funds raised at school entertainments. They are usually placed in the hands of the secretary of trustees, which is quite proper, as a matter of courtesy, but not as a matter of right, except the teacher be leaving the district. I know of no regulation giving school officers any title to funds so raised, as they may not have had a larger part in securing them than other ratepayers or non-residents. As the teacher is usually instrumental in raising money, I think he or she should have the chief voice in its disposal, always paying due regard to any objections of trustees. Teachers should absolutely refuse to be parties to the liquidation of district liabilities.

CORRECTION.—\$15,000, not \$1,500, as given in the last REVIEW, is the limit for districts in which third-class teachers in New Brunswick may be employed.

For the REVIEW.]

### The Teaching of English Literature.

Among what are technically called "educational," as opposed to "information," subjects, a high place must be assigned to English literature. In the hands of an appreciative and earnest teacher, it will be a powerful instrument in, what Matthew Arnold calls, the "humanizing" of the child.

Professor Shaler of Harvard University, himself a great teacher of natural science, writes thus: "I think that education should begin with what we may, with a new and better meaning, call the humanities; those lines of culture that lead the mind out on the easy way to sympathy and affection for one's fellow-men. . . . There may be minds that can be immediately awakened to life by physical science, for in the infinite variety of man almost any peculiarity can be found, but no observant teacher can feel it safe to begin the intellectual life of the child with things so remote from the old channels of the human mind. Man has had the world opened to him by the gateway of his sympathies, and by that portal he should always be led on his way into life."

The first essential in teaching any subject is to have a distinct aim before you. What are you trying to do? Be sure of that before you begin, and stick to it.

Let it be granted that it is a good and desirable thing that our school children should become familiar with the works of the best English writers. How is this to be brought about? Certainly very little can be done towards it in the short time we can give to the subject in school hours. But if we can give the children a desire to read for themselves, and show them how to do it, we have provided for their carrying on the work after teachers and school hours are left behind. Here we have an aim, then—to make the children like to read, and to teach them how.

The importance of the first point can hardly be exaggerated. Tastes are beginning to form, and if a child does not learn to love books during school days, the chances are that he never will, and only those who do love them, know the loss to his life. Better ignore literature, as such, altogether in our schools than have it handled in a way that will make it distasteful to the children.

No method can be formulated for cultivating a love of reading, but the teacher who cares for literature herself will soon find her pupils doing the same, and no teacher who does not care for it should try to teach it. Enthusiasm is catching; but it must be real enthusiasm, and children have sharp eyes for shams. They will soon know it if you really do not like what you are trying to persuade them they ought to.

There was once a teacher who made his class read Hamlet, without any explanation or discussion. They were very ordinary girls, from twelve to fifteen years old; the print was very fine; some of the reading was very bad, and the class were simply bored. The teacher was shocked and displeased with those who boldly said they did not like Hamlet; but those girls did not believe—one of them does not believe to this day—that that teacher ever read Hamlet for his own pleasure; they were quite sure that they would never read it for theirs, and they resented his expecting from them more appreciation than he showed himself.

A more honest instructor, who did not pretend to admire or to enjoy Wordsworth, put copies of "The Wanderer" into the hands of his pupils and required them to memorize and recite a certain portion each week, without question or comment. Some of them are still grateful that he made them store their memories with those noble lines and let them find the beauties for themselves. For pupils who had already a taste for good reading it was not a bad plan—at least there was no pretence about it; but for those others—and they are the many—who have to be brought to find out that great writers, even the greatest, have much to say that they can understand and enjoy, more delicate handling is necessary.

Experience tends to show that there will always be a few who cannot learn even this much. Even among people who are wide-awake and intelligent in affairs of every-day life, there are always some to whom books mean absolutely nothing; they are dead to what other people have said, if it has been written down. But there are many more of whom we feel that if they had only been brought into real contact with good books at the right time a happy influence would have come into their lives.

Many children who already love reading, and need no urging to read, need help to read wisely. See what Mr. Ruskin says, in "Sesame and Lilies," about reading a passage from Lycidas, and how much study it takes to read a book in his way, and then think how little light a child can get on his reading from his own limited knowledge and experience. A little practice will get him in the habit of connecting the thought in the book with his own thought, and save him from making the separation of books from life, so fatal to true enjoyment of reading.

The milk-and-water stories that children read weaken their power of attention, and it is surprising to find how few get a clear meaning from reading even a simple narrative in poetry. A class of girls, averaging thirteen years, and rather above the average in intelligence and application, were reading the lines—

"For I was near him when the savage yells  
Of Uther's peerage died and Arthur sat  
Crowned on the dais."

The sudden question, "Who died?" drew the general answer, "Uther's peerage."

Two general principles may be laid down: First, encourage every child, by every means in your power, to commit to memory all the good poetry possible; make the selections yourself at first, and only from the best writers; later on let them sometimes choose for themselves. The second rule is negative. Do not, on any account, let the literature lesson be handicapped by any system of marks or examinations.

ELEANOR ROBINSON.

An English schoolmaster once said to his boys that he would give a *crown* to any one of them who would propound a riddle he could not answer.

"Well," said one of them, "why am I like the Prince of Wales?"

The master puzzled his brains for some minutes for an answer, but could not guess the correct one. At last he exclaimed, "I am sure I don't know."

"Why," replied the boy, "*because I am waiting for the crown.*"

For the REVIEW.] **NATURE LESSONS.**

**Pop-Gun Airs.**

Coming suddenly on the play-ground, as I often do, I noticed one of the boys with his hand up to his face, evidently making an effort to conceal the pain of a slap or a blow.

"Well, Arthur," said I, "who has been hurting you, and how did it happen?"

"It was Jack," said he, "but he didn't want to hurt me."

Said Jack, "It was only a pop-gun. I didn't think a little squirt of air could throw a cork so hard as to hurt a person." And he showed me a tube about twelve inches long, with a smooth bore of a little over a half an inch in diameter, into which was inserted a neatly fitting and oiled piston having a broad head on the other end for the convenience of pushing or striking the piston in. An ordinary cork was fitted into the other end to serve as the bullet to be propelled by the compressed air when the piston was forced in. The tighter the cork was fitted into the end of the tube the greater the force with which the piston had to be driven before the cork flew, but when it flew under such circumstances the shot was a "rouser," and it was one of these which hit Arthur on the cheek, although he was at a considerable distance.

Jack looked as if he were to be punished in some way or other, but I said, "I am glad to see that Arthur does not think you wanted to hurt him. It was an accident; but if Arthur gets over the accident easily, I shall be glad you made your gun and brought it here, for we shall have a lesson this afternoon on the pop-gun, and it may be a useful piece of apparatus for several object lessons." Then I walked away, while I heard the word passed around, "Nature lesson on the pop-gun to-day; did you hear?"

LESSON I.

TEACHER.—This is a very good air-gun for our purposes; it is so simple. We can see exactly how it is made and how it acts. There is the tube, the piston and the cork. And when I put the cork in one end and the piston into the other end, there is how long a column of air between the two? Measure.

SCHOLAR (measuring).—About twelve inches.

T.—And the cork which fits into the tube is a little over three-fourths of an inch in diameter, and appears to have a surface of about the half of a square inch. Now, after I put the cork in I want to be able to push the piston in half-way, and, as the piston rod is very nearly as stout as the bore of the tube, I bore a hole through it and put this neat nail through it, so that the

piston can be driven only six inches. Now, from our previous lessons you know how the pressure of air is shown and measured. How much is that pressure generally pretty near?

S.—Very nearly fifteen pounds to the square inch.

T.—What is the pressure of the air on the face of the cork in the tube, then?

S.—About seven and a-half pounds.

T.—Why does not the cork move, then?

S.—Because there is the same pressure on the outside as on the inside.

T.—Very well. I am now going to press the tube with the cork in it down suddenly and strongly against the piston, which I support on the desk. (The cork flies out with a loud report. Applause).

T.—When the piston was suddenly thrust in half-ways, what was the condition of the enclosed air?

S.—It was compressed into one-half its first bulk.

T.—On which side of the cork was there the greatest pressure just before it flew?

S.—On the inside — a great deal more.

T.—Well, I may tell you just now, although we must prove it again, that it has been proved that when you compress any gas into one-half of its bulk its pressure becomes twice as great. What was the pressure on the half a square inch of cork after the piston was thrust in half-way, then?

S.—It must have been about fifteen pounds, acting against the seven-and-a-half-pound air pressure on the outside.

T.—Correct. And the difference caused the cork to fly. But can I put the cork in so tight that it will not fly out when I press the piston in half-way? Let us try. (The cork does not fly.) What have you to say now?

S.—The cork was pressed in so tight that seven-and-a-half-pounds pressure would not push it out.

T.—How can we prove that?

S.—Let the tube be kept firmly upright in the hand while a slender rod is made to rest on it in the tube with a weight of about seven-and-a-half pounds on it. I think that would prove the point.

T.—Well, let us try it. (The cork bears up the seven-pound weight.) Now let me put the cork in as lightly as when it flies. Should the seven-pound-and-a-half weight press it out now if placed on the slender rod resting on the cork?

S.—I think it should, if the theory is true, that pressing into half the bulk doubles the pressure. (The experiment tried, and the cork is pressed out.)

T.—It looks, then, as if the law is true. What should the pressure be were I to press the piston in six inches, then another three inches?

S.—If you were to press the six inches of air into three inches the pressure would be doubled. When the twelve inches were compressed into six the pressure on the half-inch rose from seven-and-a-half pounds to fifteen pounds, and if you compressed that into three inches the pressure should again be doubled. It would be thirty pounds on the square inch.

T.—Well reasoned. The cork would then fly with much greater force. And we would have to put it in tighter, so that it would not fly until the piston was pressed in the required distance. If the piston should be pressed in to within a distance of an inch and a-half from the cork before it flew, what would be the pressure on the half-square inch of cork?

S.—The pressure would have to be sixty pounds, if the law holds true in all cases.

T.—You are quite right. So you see that if one only put the cork in tight enough, and pressed the piston with force enough, the cork could be made to fly with as much velocity as one chooses.

S.—Could it be made to go as fast as if fired out of a gun?

T.—Of course it could; so that you see it is not at all surprising that Arthur's face should feel the impact unpleasantly.

S.—I did not think that air would give such a blow for it is the softest of all things.

T.—True, it is, when in the summer zephyrs it plays with the Aspen leaf, too weak to make anything else flutter. But it is otherwise in the storm, when it tears the branches from the oak and tumbles the giant hemlocks as you would a set of nine-pins. In the tornado the zephyr puffs with such velocity that bark may be scraped from the trunk of a tree, and straws may be shot into the wood as if they were arrows. And in the gun itself, what have we but a gas to deal with? For the powder is converted into a gas, which rushes with such velocity to make room for itself that it throws the bullet before it with irresistible force.

S.—And could air guns be made to fire bullets with as much force as powder?

T.—Your own experiments show that if the law you observed for a little distance holds true in extremer cases, that it must be so. In fact, there is nothing which can give harder blows than soft gas. Nitro-glycerine or dynamite, when exploded, merely passes into a state of gas nearly instantaneously, but the gas expands with such tremendous rapidity that it will puff solid rock away even if there is nothing above it except air, and if common air should in any manner be given the same velocity it would puff, blow or blast everything before it like dynamite.

In our next lesson we shall search for examples of compression and expansion of air in our winds and storms—compression and expansion produced by pressures. We will not have the winds confined in so convenient and simple a pen as our pop-gun tube, but what we have observed in our pop-gun pressures will be of some use to us.

### The Real in Education.

[Read before the York County Teachers' Institute, December 17th, 1897.]

I. "Education does not mean teaching people to know what they do not know. It means teaching them to behave as they do not behave. It is not teaching the youth the shapes of letters and the tricks of numbers, and then leaving them to turn their arithmetic to roguery, and their literature to lust. . . . It is a painful, continual, and difficult work, to be done by kindness, by watching, by warning, by precept, and by praise, but, above all, by example."—*Ruskin*.

A member of this Institute has given those words as a text.

They recall Burke: "What is the education of the generality of the world? Reading a parcel of books? No! Restraint and discipline; examples of virtue and of justice; these are what form the education of the world."

Some one might say: Yes; but we here mean merely intellectual education; we are teachers of the mind only.

Such a speaker would be put down in this Institute, sat upon in your minds, if not by your bodies. For we are all pretty well agreed, in theory at least, that human beings are complex creatures, that children's minds cannot be taken out, cleaned, and arranged just as the mental surgeon may wish, after the fashion of his up-to-date physical brother, with our stomachs. We are all pretty well agreed that the teacher is *in loco parentis*, and therefore that he is, in school, to think not only of so many mental machines before him, but of so many responsible beings; in old-fashioned, New Testament language, of so many souls. It is true that mental knowledge is the chief, if not the highest, object of the school. But to whom or to what are you going to give it? to a being of so much heart and feeling, of so much self-will and passion, of so much lightness—good and bad—that one could even despair of training it mentally, at all. Evidently to abstract the child's mind from the rest of him is impossible.

And does he not come to school himself with the unconscious consciousness of this? With what heartiness he often sets off at first; with what good-will he begins to work; how uncertain and unsettled, but how interested; how quick to make friendships, too, and to form new ties; how social, even in his work; how ready, if well brought up so far, to respond to his teacher, if he or she also be made of good stuff, and, we add, be able to show himself for what he is. Ah! there is the beginning of sadness—the misunderstandings, the misjudging, the weariness of mind or of heart, the coldness on one side, the hard dulness on the other. We must escape from all that just now to the ideal, which is also the real. For who will deny that we are helped by even



the very sound of courageous words? If he was right who said that the poet born with every man dies young in three-quarters of the race, then we teachers will be of the quarter in whom the poet does not die. There is drudgery in work; there are bad moments, and sad ones; we fail, or seem to fail, yet perhaps succeed better than the great Miltons among us; and again, because Milton failed as a teacher, shall we not listen to his words of ideal, so often quoted: "I call, therefore, a complete and generous education that which fits a man to perform justly, skilfully and magnanimously all the offices, both private and public, of peace and war." Or, again, that by education, youth "may be drawn in willing obedience, inflamed with the study of learning, and the admiration of virtue, stirred up with high hopes of living to be brave men and worthy patriots, dear to God, and famous to all ages"—famous, shall we add, in the sense of his own poetry:

"Fame is no plant that grows on mortal soil,  
Nor in the glistening foil  
Set off to the world, nor in broad rumour lies,  
But lives and spreads aloft by those pure eyes  
And perfect witness of all-judging Jove;  
As he pronounces lastly on each deed,  
Of so much fame in heaven expect thy meed."

And again, to encourage:

"O welcome pure-eyed faith, white-handed hope,  
Thou hovering angel girt with golden wings."

How much one may quote from Milton of all that lifts and that inspires. What better can a poet do for teachers? Feeling is not practice of virtue; but high and noble expressions of feeling keep before the well-intentioned mind the crown of his endeavour. They are not virtue, but they may readily predispose thereto, and to the humblest, most untiring and most conscientious efforts.

And to what is highest do not fear that children will not in their measure respond. Who but can be affected at the increased courtesy of rough children at school? As the little children of 400 years ago had in their little book:

"All virtues are enclosed in courtesy,  
And all vices in villainy."

That is brutal disregard for others. Or what teacher is not touched by them when they are what we call good, *sages*; when they sit demure, or when they long to learn, and the world is all before them, to live by admiration, hope, and love. He does not know little children who does not know of the soul of a little child—is it the writer of "Dream Children; a Reverie," says?—how "full it is of reverence, and how religious." That reverence may well make us stay a while, when in thought we are now standing in the midst of a school,

with our hopes and fears, our sense of duty, our high resolve, and with those about us so capable of good, so inclined towards evil. And reverence, and awe, the angel of the world, the best part of our nature, as the great poets say—are they leaving us?

We have too little of them—let that at least be said—and we cannot spare any of them at all. Not fear of us, their teachers, or of others, in a cruel or in an impossible sense; no improper distrust of self, and looking to us for too much help; no suppression of reason when, as time goes on, the older pupils know us, perhaps, to be in action wrong. Those are not the things we desire. We? But that means everybody—parents, and society, and the great world, worn and disillusioned. What we do mean is the reverence of purity and of humility, of trust in the goodness of his teacher, in knowledge, as far as the child can have it, that this teacher himself believes in goodness, and will lead him and help him, and deserve those *elans de cœur*, those stretchings out towards enthusiasms for things generous, those indignant scorns for things mean and unkind, by which the young heart would attach itself to its governors as to a prop for its very life.

Those are the things we love to see in the young:

"High instincts, before which our mortal nature  
Did tremble, like a guilty thing surprised."

The young are full of them: the young, and the old. There has come down, perhaps, the mortal coldness of the soul; but as long as the soul is alive the man hopes, and hopes for something better, for some ideal. It is not the young who are most touched by the poet whose childhood is now long ages in the past:

"Happy those early days, when I  
Shined in my Angel-infancy!  
Before I . . . . .  
. . . . . taught my soul to fancy aught  
But a white celestial thought;  
When yet I had not walk'd above  
A mile or two from my first Love,  
And looking back, at that short space  
Could see a glimpse of His bright face."

"The soul is naturally Christian," as one said who was nearly a Father of the church. The bright face the child saw and knew was the face of Him who came, as now, a child to say "Suffer the little children," "Blessed are the clean or pure of heart," and to make "Goodness, not strength, the measure of action." What responsibilities, then, upon teacher and upon pupil. We are acting either for or against the absolute truth: because truth is one; the good implanted in you finds its response in the good that is in the little ones of Christ. And His religion is their standard of behaviour.

For, why should they be humble, why courteous, why

forgiving, why ever cheerful, why never despairing, why courageous, why confident in knowing, why deferential to others, yet sincere to themselves; why should all natural good be trusted, yet all be seen renewed, revived by what is above nature, though not contrary to it, and all, thereby, be seen in real limitations and true proportions? Why is this, but that on the old darkness, as even Shelley said,

“Killing truth has glared”?

As that light is fiercer about a man, so much the more must he answer for his well-seen steps.

And shall we hide these facts from ourselves, and say they are hidden from God?

O my people, wherein have I offended you, how have I wearied you? Answer Me.

Popule meus, quid feci tibi? Aut in quo contristavi te? responde mihi.

To what are you leading us—your hearers? Only to ask yourselves, as teachers of other human beings, why “humility” is a virtue? It was not so before Christianity. Why is education not to foster intellectual pride? And Ruskin, of the text, would answer: because we are Christian, not Pagan.

How do you know that the Everlasting hath fixed His canon against self-slaughter? Because it became a law of His church. What else can you teach your pupils reading *Hamlet* and *Julius Cæsar*? And the question of suicide suggests the whole question of the value, meaning and responsibility of life. Why are wicked thoughts bad, just as are wicked deeds? The world says that is nonsense. The gospel says it is a truth. Are riches and power and worldly success not only the chief and even necessary aims, in a sense, but also the highest? Why should you deny yourself, often to bring yourself nothing but trouble in this world? Why should you be unselfish, and so, as the world says “fail”?

It is vain to treat education with such a text as ours, and yet not to face things as they are. This conspiracy of silence is not fit for adult minds; and even tender minds begin to reason. Do but remember this, in the words of that notable school inspector, Matthew Arnold: “Religion touches on everything.”

But you have not any religion in the schools. That is true, and it is not true. And be it said, religious teaching in schools does not mean *merely* dogmatic, intellectual teaching, whether of Pantheism, Deism, Protestantism, or Catholicism; or, to make two natural classes, of Atheism or of Theism. It means the law and rule of life, the standard, the influence, the example, the resultant. And this you must have. ‘Man can no more refuse to be in his acts an exponent of a certain

belief, principle and ideal of life, which, when reasoned on and expressed is a certain creed, a certain dogma, than he can cease to like and dislike, to distinguish, reject, and prefer about anything whatsoever that may make its appeal to him. Neutral schools are a human (because non-human) impossibility.

Now, please bear in mind that I am not saying anything with which everybody in this Institute does not agree. Everybody *must* agree with this, unless it be that we misunderstand one another as to our terms. For instance, I have here spoken, without offence, as if Christian had for us its meaning of a change of the whole world and of everything in it, necessarily involving the recognition of the fact that the moral and the material become absolutely incommensurate; that sin is the one evil; that the slightest sin—if such a term may be used—of the humblest child is of infinitely more moment than the material ruin of all this universe.

That is a standard, a judgment on life—the true one, if Christianity is from God.

For us, then, we assume Theism and Christianity for our schools. We are not neutral.

But pass to other countries; and in the public schools of Paris you must not have the name of God in any school book; so the non-sectarian school boards decide—boards called of the Christians there by the name “sectarian.” And who in his senses can call their spirit neutral? They, too, set their standard on acts, on vices and virtues; some of them agreeing with the Christian standard, some not. Theists of any sort, Protestants for instance, find something lacking in those schools, just as Catholics find something lacking in ours. It must be so. The standards of life fall short or are otherwise imperfect, or err, in the mind of this person or of that, according as he is bound by a law more or less strict or full. I carry everyone with me so far. We are not discussing here who is right. This is not the place to discuss that. What we are doing is simply this: We are facing facts; that education must, like other human things, touch on morals and religion; that standards of life are formed by beliefs; that these are most practical questions for teachers; and that we must recognize that our assumptions of Theism and of Christianity in some sense are merely accidents, local and temporary; that we have in principle given them up, and that the logic of the world on one side and on the other is against us. As Mr. Leslie Stephen, the eminent agnostic writer, says: If the Incarnation has occurred, nothing is the same in this world as if it had not occurred. Nor can he think that to be a rational being, who, believing it, does not make his chief business to learn as to its application to every single concern of our

existence. Since men believed that, said a poet of scepticism,

“ Une immense espérance a traversé la terre,”

[A mighty hope has passed across the world;]  
this world, O Christ,

“ Qui vivait de ta mort, et qui mourra sans toi !”

[Which by Thy death did live, and which without Thee will die.]

We have been now in the atmosphere when we have felt and seen what is implied by treating education, with Ruskin, as this forming of life according to law—a difficult process, for guidance and sustaining in which we have need of high sanction for our acts, and of knowledge on which to base hope and faith.

By thus examining the ground, by thus reflecting, by thus looking within ourselves, by thus observing facts, we are ready to understand others, both those who believe more than we ourselves may do, and those who believe less. Be large-minded enough, as Cardinal Newman said, to acknowledge that men think very differently from you yourself, and that human minds fall to infinite diversity when left to themselves.

The whole question is, *have* they been left to themselves—in this and in that, here, and there? Your pupils are asked to acknowledge such an idea of greatness as God made—man. Why should they? says the Jew. Or to acknowledge that God may be known from His works? Why? says the agnostic. They may never lie, never do evil that good may come, never injure another's reputation, never think a bad thought, must give up their friends if these become occasions of sin, must take no position, when older, where their religion is interfered with, maintain self-destruction wrong, though all goes badly with them—and even the young commit suicide—then, when they make marriage contracts, must keep them, nor enter on these lightly, under pain of sin, must hold marriage indissoluble, must take no fees as doctor or as lawyer by deceiving patient or client, and must return such if taken, must respect the poor and be gentle with the aged, and count every burden a possible blessing: that is, or may be, as Ruskin says, surely a painful way to start on. But that is behaviour, according to the full Christian law. The burden of it, or the blessing, begins with the very young, and with the teachers and governors of the young. Look at the spoiled children in your schools. Look at young Harvey in Mr. Kipling's *Captains Courageous*.

There are only two possible views of life, the right one and the wrong one. Children don't theorize, perhaps, but they soon practise. If they are not asked—but are they not?—why do this, why do that? Yet you yourselves are asked it, in this busy-talking world. You answer that you are checked here, and checked there,

bound by this law and by that: there is the true answer; adding that the less you are free, you are the more really free. Every truth known circumscribes liberty.

But do not refrain from acknowledging that utility, in a restricted sense, or according to half-knowledge—that is, natural knowledge—will not bear you up. Honesty is the best policy—sometimes. But many of your pupils know perfectly well these times that if you make false returns to a fire insurance company you may lay the basis of a good fortune; that you may drink and over-drink in secret, yet gain political power through good souls moved by your denunciation of intemperance; that lying saves from punishment in the world of school, and that selfish children get their pleasures, and make their parents slave. Bear this always in mind, and use your reason even with the young, and not sentimentality, which enfeebles both speaker and listener, and which runs into great unreality. “Clear your minds of cant,” as that true old realist, Dr. Johnson, cried: for there *is*, as Sir Roger de Coverley concluded, much to be said on both sides; and you will have to meet in the gate of much popular literature—for instance, in the Canadian, Mr. Grant Allen—a total denial of all the morality we so readily assume for our schools\*.

You are bound by an external law, or what you consider sufficient authority. Well and good. You also consider, probably, that the law within answers that external law, and is “the meeting soul” which it pierces; but, once again, be large-minded enough to allow that, though you are bound against dishonourable thoughts even, though you may not save even those

\* “A recent philosopher, who has a respect for logical thinking, courageously presses the evolutionary theory to its conclusions, and rates Mr. Herbert Spencer for inconsistency. Friedrich Nietzsche, who recognizes the absurdity of endeavouring to reconcile Christian morality with evolutionary ethical principles, has exposed the fraud and laid down the true morality that flows from the Spencerian principle. Writing of George Eliot, the poetess of evolutionary ethics, Nietzsche's words are: ‘They have got rid of the Christian God, and now they think themselves obliged to cling firmer than ever to Christian morality; that is English consistency. [Sometimes. And for how long?] With us it is different. When we give up the Christian belief we thereby deprive ourselves of the right to maintain a stand on Christian morality. Christianity is a system, a view of things consistently thought out and complete. If we break out of it, the fundamental idea of God, we thereby break the whole into pieces. If in fact the English imagine they know of their own accord ‘intuitively’ what is good and evil, if they consequently imagine they have no more need of Christianity as a guarantee of morality, [then] *that* itself is merely the result of the ascendancy of Christian valuation, and an expression of its strength and profundity.’

Again:

‘What is good? All that increases the feeling of power—will to power, will in man. What is bad? All that proceeds from weakness. What is happiness? The feeling that power increases—that a resistance is overcome. Not contentedness, but more power; not peace at any price, but warfare; not virtue, but capacity. The weak and ill-constituted shall perish, first principle of our charity; and people shall help them to do so. What is more injurious than any crime? Practical sympathy for the ill-constituted and weak—Christianity.’—(Quoted in the *Catholic University Bulletin*, Oct., 1897, Washington, D. C., from the works of Friedrich Nietzsche, Vol. ix. Macmillan & Co., N.Y., 1896)

dearest to you by even thinking wrong, though your pupils must set out for the world of social and political problems with such principles, yet there is often much to be said on both sides—much to be said for divorce, for infanticide, for neglect of the old, for all sorts of things which the world has often tolerated, and does tolerate, but which the gospel will have it are sins, be the effects to you or on society what they may.

That men have various opinions does not prove that there is nothing fixed, but merely that the versatility and variety of the human mind are remarkable.

So much for that looking to the grounds of things.

Where, indeed, we *should* differ among ourselves here, is when asking how best to preserve our ideal—whether by such a school system as ours, or by one in connection with the church.

But, at least, try to see whence we came, and whither we go, and are going, even here.

II. And, now, as to some of our practice with our pupils, and with ourselves; being in this spirit—so convinced of the good, and of its hardness. As Plato said, “Hard is the good.” We have stirred ourselves to more faith in our pupils, not less. If you must err, trust people too much rather than too little:

“Péchez plutôt encore de cet autre côté.”

It is a capital rule for a teacher. And he need not be foolish, nor lacking in the humour that made a former head of the Fredericton High School say, “I believed thoroughly in boys till I was a boy’s schoolmaster.” Of course there is truth in that. Still, at the risk of being sentimental, I say, to begin with, one must love one’s pupils. One need not, as an American girl says of her German schoolmistress, be constantly falling, melting in tears, on the neck of the beloved pupil even of the same sex. The pupil would have more excuse than Richard III. for turning blessings into contempt. But the relationship between teacher and pupil must be as personal as our system permits of.

And we must recognize the diversity of character, the variety of interest. It is not a teacher’s business to suggest that any side of life is unimportant or uninteresting because it does not make its appeal to him or her. The moral nature is not man’s whole concern, and our pupils should not leave our schools without the acute sense of mental right and wrong, and even æsthetic right and wrong, as well as moral. “Intellectual honesty is a far rarer and more difficult virtue, especially in a democratic society, than the practice of philanthropy.”—(Emerson).

Look at the reading this country—every country—goes in for. How silly not to see the huge evils of reading. How tiresome to hear someone say, look at

its huge good. Anyway, here is a population learning to read. *What* does it read? What do teachers read?

This is a most practical question, and closely concerns teachers—in morals, mentals, and æsthetics.

What do we read?

I shall be forgiven asking questions, as I have been put on the platform and given a chance.

You know all about example and precept. Ruskin reminds us, “Above all, by example.” You speak of practising and of preaching. But you know you will never give what you have not got. You will save others from poor reading by being a good reader yourself. Begin then. Have rules. What rules? Such as these—it is not necessary to make any parade of them: keep them to yourselves; break them, *if* you must be noticed (but there is “much virtue in it”). To read newspapers only after, or at a certain hour, and only for so many minutes, or not to read them at all on certain days; to read no accounts of crimes, shall we say, and little or no gossip; to read no novels without having rational belief they are worthy reading; to read nothing that does you harm; to have no fudge and nonsense about this, but to be decently honest with ourselves, and not be, in any instance, the shameful spectacle of preaching to others and yourself being a castaway. That is an easy thing to be, as we may well guess, with our unguarded lives, when even the apostle of watchings and fastings was afraid of himself. The very position of a teacher to others means a constant danger of hypocrisy and self-deception and humbug, even if our Province has no Eugene Arams facing its children. But how much more severe we ought to be with ourselves; how we ought to be ready to punish ourselves, in small ways at least, to remind ourselves of how much the pupil’s shortcomings are the indirect, if not the direct, result of ours. Why don’t we explain a subject better? The answer is back in the lost days of our own time of school and training. And thus to hold ourselves in check is a guide not only in action but in speech; and others are influenced, though we know it not. It is part of the making ourselves what we say we wish to make others, knowing and mastering themselves. And as a wise modern writer says: “I know of no method of self-discipline, at once so easy to practise, and so effectual, as that of regularly doing certain things in spite of all temptations to resist them.” One of these things, among a teacher’s first duties, is regular reading. A teacher should be ashamed of being supposed to have no intellectual occupation outside school. The educational department of New Brunswick has suggested many good books from which choice can be made. It favours the making of school libraries. And recollect, the supply will increase or create the demand for books.

It is not to the point to say such and such teachers and pupils do not read. They must be given the opportunity, helped, guided, taught. Do not let the household you live in think that every moment in your lives is everybody else's too. "The one great thing is to have a life of one's own," was said by the Père Lacordaire; and who better knew the souls of men? "One can do nothing without solitude, is my great maxim," he explained; and what country more than our modern America needs the best nurse of wisdom, contemplation?—better expressed in French, *recueillement*.

But the indiscriminating, really *un-bookish* appetite for knowing everything will never nourish. "When a man has taken note of everything, he has lost himself."—(Goethe). "All that does not affect me in the least: one is neither the better nor the worse for knowing what the day brings forth" (Ib.); and

"Men learn to live, and love, and die—alone."

Do not let me speak merely generally. Save me from it by applying this individually. Which of us does not need to read more, if wisely? "Reading helps to make conversation harmless, by making it less petty, and less censorious. Our books are our neighbour's allies, by making it less necessary for us to discuss him."

There is another rule for the teacher of better things. What a world of interest about him, and within. What an age of marvellous doings in the world of science; and what freedom, what indifference to nonsense, power over worry, and what sense of proportion can be gained, by thus in wide interest escaping from self and ourselves. What sense of humour, and consequent indifference to people's opinions, what sympathy with others' thoughts are gained by good literature. "The inconceivable levity of local public opinion"—every teacher ought to aim at being as emancipated from it, as was Emerson himself.

Therefore, do not spend your time sitting with people doing nothing, "thinkin' of maistly nowt." "Mental inaction is not resting; it is rusting." There is a frightful idea of holidays abroad. I have known people spend part of a holiday in bed. Every holiday one spends "loafing" is a holiday too many. There is loafing and loafing, however: (that is, *if* we speak this rude word to contemplatives—poets, or saints).

And the effect on the children. "How dull and foolish, and uninteresting and uninfluential must children grow up, if, as their minds expand, they find the conversation of their parents, as the conversation of unreading persons must be, empty, shallow, gossiping, vapid, and more childish than the children's talk among themselves. It is this which explains, what we so often observe, that a taste for reading,

or the absence of it, is hereditary." Teachers can be so different from this, and such a comfort to those about them. In those words one has been quoted who is best known as a good priest, and as preacher and religious writer, but who was eminent in letters as a poet. As a general rule, he held that higher religious life is impossible without mental life and knowledge. Indeed, the two work together, and plot is helped by under-plot.

Therefore, read that others may learn to read. "There is no difficulty in reading what is good, and reading only that. Read those books which the public taste has long decided are worth your reading." Voltaire's advice there is the advice of a sound judge. The decision of public taste is on the whole just; that is a comfortable thought. And Emerson's rule will save us from troubling ourselves while the taste is forming. "Read," he says, "no book that is not a year old." I know that some one will logically object. But I am the preacher here, and objections are not in order. "Read," he says, too, "none but famous books." Ah, do; read none but those, and you will be guides to your generation. What a comfort those books are; what strength, even if what weakness as well; but we read a book for what it *has* got, not for what it has not. Now your trashy book has nothing, nothing to take us out of the littleness of our selves, except when it takes us altogether out of everything possible.

Young people have heroism in them. What appeals to the heroic do our school books make? Religious heroes, national heroes, political heroes—out they go to please this one and that; and, like the man and his anti-black-hair, and anti-white-hair wife, he is left, as would be said in the next country over the sea, without e'er a hair at all. Miss Agnes Repplier, in one of her essays, contrasts her French convent education with its heroic subjects, and the American school with stories that are prosaic, or of love for animals only.

We have to make the best of things. But do not be at the mercy of just what we find, or what happens to be. We learn, and so we judge; we can have our truer mental standards: we need not force them to the front, but we abide by them, and others come and join us. We need not have that "knowingness" so disgusting in its contempt for those who judge less well. Scorn is easy and unscientific, as well as immoral; and we settled about moral obligations being first.

But suppose we are not sitting silent in a parlour; suppose a piano is going—waltzes are being turned out and turned round hundreds of times. In the name of common sense, what effect has that—I do not say on taste, but on energy and manliness, on womanly courage and aspirations? There is little time worse spent than

that spent on reading, Bishop Butler warned people a century ago; and he might have added piano-strumming, if our great-grandfathers' harpsichords had not yet turned into pianos. Reading of the better sort is the chief means to our hand of forming true taste and just judgment. And the only way to do a thing is to go and do it. Get up from a piano—wearying even of self; throw away the news—reading that you are tired with, as well as of. Do something definite, strong, healthy. Your common sense is your first natural guide in taste. Art is based on the natural, on the useful. All this sweetly pretty musical rubbish, and common-place accounts of common things, they waste time; they leave you as you were not so; they lower your healthy common-sense; they make you ashamed of what you should take as your first standard, and they satisfy us with the mean, and we rest in the worship of a mean thing. "It is good enough," "it will do." All these monstrous artistic and intellectual treasuries become the words of our mean gods.

Do not think you are worse off than many others. But when we hear of things better, and read of them, let us do something in accordance therewith. Not to act, when interest is roused and feelings stirred, is as fatal in other things as it is in religion.

If the world has agreed that Schubert can really tell of life, and high hope, and knightly devotion, and generous affection, and can tell, like Virgil, of the tears in mortal things, and yet give a heart of sympathy, not of maudlin sentiment, why not trust the world, and try Schubert's tunes? There is just as much "tune" in him as in Tosti, or any namby-pamby person. You need not be always singing and performing, any more than you need be always reciting good poetry, if you know it; but you will have good music in your inner self sometimes, and literally make Wordsworth truly say of you,

"Your mind shall be a storehouse of all beautiful forms,  
Your memory be as a dwelling-place for all sweet sounds and harmonies."

An unmusical man once said he could not even understand what was meant by saying you had a certain melody in your head. Alas, poor man!

More than that, cannot one have the thrill given by some harmony without being able or willing to recall it? One has it as an ideal; as one has the impression of a great verse which yet one cannot quote.

These are the ways to get rules. For what does the poet of rule say of them:

"What oft was thought, but ne'er so well expressed"?

They are but the resultants.

These are the ways by which we rise out of the mental commonplace, that burden upon us all. These are the ways

by which we fit ourselves for our difficult work, and gain confidence ourselves, and rightly inspire trust in others. What joy for ourselves, too, there is in knowledge—"the second, if not the first," object of our life—if it be not loved with an inordinate love; that punishes, not rewards.

"Intellectual movement from a painful effort will become its own gratification. Your years," said an Oxford teacher, "will not have been spent in laying up a store of regret for your after-life;" and you will get not to mind those depressing people who think your education is over, because you have left school and are, perhaps, fifty years old. "They make one so tired," as the expressive Americanism has it.

But you must not mind them. As long as you are teachers, live as teachers—that is, as learners—and grow in knowledge of how to live.

"The situation of a man is the preceptor of his duty."—(Burke). What for you are virtues might almost be another man's crimes. But take care you are not criminals, if you live as a hotel-keeper may have to live, or as a loafing messenger boy, or as a politician. Be up and doing, and doing your own work. "Let the old tell what they have done, the young what they are doing, and fools what they intend to do."—(Bp. Spalding).

You have your own pleasures. You will never need to say, "life would be tolerable if it were not for its amusements;" or, "if you want to know the sorrows of men, look at their pleasures;" for you have the pleasures—oh, believe it—which are the wisest store for life, the greatest earthly help to knowledge of truth.

Truth is one; think again: good is one. Each portion fits into the whole, though of the whole we only see a part. If we have the justice of the Kingdom of Heaven first, we shall go on, humble and not proud, knowing rather our ignorance than our wisdom, but hopeful and rejoicing in what we know. As Bacon, beautifully quoting and modifying Lucretius in his pagan pride, says, in those words of the essay of Truth, that so haunt the mind that has learned them:

"It is a pleasure to stand upon the shore, and to see ships tossed upon the sea; a pleasure to stand in the window of a castle, and to see a battle and the adventures thereof below; but no pleasure is comparable to the standing upon the vantage ground of truth' (a hill not to be commanded, and where the air is always clear and serene), 'and to see the errors, and wanderings, and mists, and tempests, in the vale below;' so always that this prospect be with pity, and not with swelling or pride. Certainly, it is heaven upon earth, to have a man's mind move in Charity, rest in Providence, and turn upon the poles of Truth."

W. F. P. STOCKLEY.

### Children's Answers.

A correspondent who sometimes makes a note of the answers made by children sends the REVIEW a few specimens. Some are very suggestive—to the teacher.

TEACHER—Where does birch grow?

SCHOLAR—In the West Indies. [The boy is sent to his seat to learn his lesson—to learn where birch grows. He was not asked if he had ever seen a birch. There was a pile of birch stove wood at the school house door, birch bushes near the house, a pile of birch wood at his own dwelling which he had helped to get the day before. Shades of Pestalozzi! the rote system is not dead].

TEACHER—How does the beaver cut the tree so as to make it fall into the river?

ANSWERS—He makes it fall in to the river. He cuts it with his teeth. He cuts it on one side. He cuts it on the side next the river. [I thought I was wondrous wise on this question, but some one who professes to know tells me that the beaver cuts the tree round regularly—takes off chips after cutting two grooves. I should think that the beaver does not want the tree to fall into the river; he wants to cut it into blocks about four feet long and this he can do better on land than in the water.

Another error in natural history, if the above is one, is in First Lesson, II. Book: "The spider in the picture has just got his web done and there he sits in the very middle of it ready to pounce upon a fly." The spider is wary, he knows that he is in danger of being pounced upon, so he has his den underneath his web or in the corner; and they say he holds a telegraph thread in his mouth. I have seen many webs but have never seen a spider on it watching, but I have touched the web and out came the spider. I have noticed the fine threads of the structure directed into the den. The spider is so wary that he gives the fly a hitch or two after it is entangled and then retires, returns again and again and repeats the operation until the fly is fully tucked in, and then carries it into his "little parlour."]

TEACHER—Give some proof that the world is round?

SCHOLAR—Because the globe is round. [Is not this better than "for these reasons?"]

TEACHER—Are we Jews? No. Are we Gentiles? No. What then? Protestants.

Here is a scholar's question which is a perfectly fair one to teachers who read between the lines, "The Corporal was thunderstruck,—it was Washington."

SCHOLAR—Please was he hurt? Did the thunder hit him?

Recently in China a man who killed his father was executed, and along with him his schoolmaster for not having taught him better

### The Heavens in February.

Venus is morning star until the 15th, after which it will be evening star, but too near the sun to be seen for several weeks. Who will be the first to note its appearance in the west and report to the REVIEW.

Mercury and Mars are in the morning sky, but too near the sun for observation.

Jupiter is a conspicuous object in the eastern sky late in the evening, rising about 9 p. m. on February 15th. Later in the evening, when well up in the sky, it is in a good position for contrast with Sirius in the southwest. Turn an ordinary opera glass on the two and observe the yellow disc of the one and the sparkling bluish rays of the others. They present well the difference between a planet and a fixed star. The belted Orion in the southern sky in the early evening is in a fine position for observation.

Saturn rises about two o'clock on the morning of the 15th, and may be seen by early risers a few degrees northeast of Antares, a red star of the first magnitude—another good opportunity to contrast planet and fixed star.

### A Chat with Correspondents.

The REVIEW does not, as a rule, pay attention to anonymous communications. There may be obvious reasons why a teacher does not wish, in ventilating a grievance, to write over his own name, but he should have faith enough in the editor to give his name in confidence. This is only courteous.

Very often it is puzzling to know the sex of a writer, from the signature. If X. Y. Smith writes to the REVIEW, we are anxious, in acknowledgment, to prefix "Mr." or "Miss" to the address in reply. But it is not always safe to rely on chirography as a guide, and we would suggest that unmarried ladies write the first given name rather than an initial in sending their address to the REVIEW.

A CORRESPONDENT doubts the propriety of boxing the ears of pupils and calling such names as "you little fool" and "stupid ass" and others of that nature. So do we. If this should meet the eye of any one who resorts to such methods we would say, read what is said about "millstones" and "offences to little ones." Only a very thoughtless person or a time-server makes use of such practices. And there are other practices but little better—standing pupils in the corner of the room, sending them into the hall, keeping them after school as a punishment for unbecoming conduct. Such methods are unworthy the dignity of a teacher. They do not command obedience and respect. Think seriously of

this, and try to create such a spirit of earnestness and enthusiasm in the school room that there will be no need of resorting to such cheap practices to preserve order and enforce obedience.

"The REVIEW is indispensable to me," says one teacher; "It is suggestive and helpful to me," says another; "It is admirable for its suggestiveness," says one. "Often has one article given a direction to my teaching which produced the most gratifying results." But then comes this startling admission: "The REVIEW is entirely too far advanced for me." Well, we are going to advance it still further and make it still more helpful to the industrious and plucky teachers. If you persist in being a wall-flower, it will not be the fault of the REVIEW.

### Two Schools.

Last term the board of education at H—— granted their principal, Mr. Clayton, leave of absence to visit schools in other cities. One morning he dropped into a publishing house in one of the largest cities in the country and asked to be directed to the nearest public school.

After a short time he entered a rather common looking structure that contained about sixteen school-rooms. The principal was not in his office, so Mr. Clayton stepped into a room of fifth-grade pupils. He was greeted in rather surly tones by the young lady teacher, who was sitting at a desk, and he was told he might take a chair if he wanted to. He obeyed with all meekness, and the tragedy began. Such ruthless slaughter of child life had rarely occurred since the days of Herod the Great. The young lady actually clenched her fists and gritted her teeth as she hurled the verbal instruments of destruction at the defenceless children under her charge.

"Yes, you read all right; but how many thousands of times must I tell you to stand up straight? You'll get zero."

"Mary, for heaven's sake, let me hear you do something more than mew like a kitten when you read."

"James, you're blabbing again. You'll get zero for the whole day's work."

"Didn't I tell you to keep on writing your lessons? Report after school for misconduct."

"Cora, in pity's name, don't sit there as if you were dead."

"Charles, distribute the paper, and don't be all day about it, either. Don't move like a snail."

"This whole class has not done as well in reading as it should. Every pupil in this class will get zero for this lesson. If you don't do better to-morrow, I'll give you all zero for the whole week's work in all studies.

Shut your books. Charles, go to the blackboard and erase that grammar work, and, for goodness sake, walk so that I can see you move. Martha, you have more books on your desk than ten pupils ought to have. Charles, I said 'erase that grammar work.' I didn't tell you to stand at the board like a stick. Stop! stop! don't you dare to touch that next blackboard! Here, what are you writing your name for? I know your name, and that's enough. Take your seat, and report after school for misconduct. George, I'll hit you with this book if you don't shut up," etc., etc.

The pupils were mannerly, and many of them had read very creditably indeed. The girls, especially, were pleasant, obedient, gentle, earnest-looking pupils.

Mr. Clayton's heart was sad when he thought of these poor children, buffeted about hour after hour, and day after day by this termagant, not a word of commendation or encouragement; nothing but withering, blighting criticisms, nine-tenths of which were entirely unjust. If this was the way "work" was conducted when a visitor was present, how was it at other times?

### THE OTHER SCHOOL.

Mr. Clayton decided to spend another day in the same city. This time he made inquiries for one of the best schools in the city, and was directed by several well-informed gentlemen to one that had attained a wide reputation.

The principal, a lady, was very glad to see him, and welcomed him most cordially. On the way to her office he noticed the display of work in sewing, paper folding, and drawing that lined the hallway, in beautiful cases. The office was small, but everything was arranged with refreshing system and neatness. After a few minutes of general conversation, Mr. Clayton was conducted to the highest grade (the fourth), to witness a recitation in geography.

Space would not permit a detailed account of the work seen that day. It seemed as if every teacher in the building had been born to her work. The utmost order prevailed in every room, and yet not one unkind or cutting remark was heard anywhere. "I do not allow any scolding whatever," said the principal. The sympathy between principal, teachers and pupils seemed to be perfect. Enthusiasm was written in the features of every teacher, and of the pupils as a whole. They were all busy. They seemed delighted to work; and when a six-year-old boy was given the privilege of standing up before the whole school, and in the presence of Mr. Clayton and the principal, of telling the story of the three bears, he fairly bubbled over with the pleasurable excitement of the occasion, and he held the closest attention of all.



The snow had just come ; and in nearly every department of work that day some reference was made to the white robe that so delicately enshrouded the earth. A gray squirrel danced about in his cage in a first-grade room, and goldfishes swam about in their tanks, as if delighted to be with so many beautiful children. The teachers were pleased to talk about their aims, and phases of their work ; they had no secrets, but an all-powerful love for their pupils.

"How do you manage to secure all first-class teachers?" asked Mr. Clayton of the principal.

"Well, I recommend to the board those I know to be good, I impress upon the members individually the great desirability of a good education for their children, and that the only way they can get it is to elect the best teachers they can procure ; and the board generally works with me very nicely. There is a certain *esprit de corps* among the teachers that we strive hard to maintain and stimulate.

The atmosphere of this school was saturated with love. The teachers were imbued with an earnest desire to develop the divine elements in the children. They cultivated the plants so assiduously that the weeds had little opportunity to spring up. They breathed an inspiration into their pupils that caused them to surmount the obstacles in their course by the very fervor of their enthusiasm. It was a school such as Pestalozzi dreamt of, and reminded one of

"An Eden  
Like the heaven above."

P. S.—This principal's salary was \$1,000.—*H. Krebbs in N. Y. School Journal.*

#### Hints for Teachers.

To know what to do, and how to do, is a want felt by the great majority of teachers. If we ask the question and are told what to do in one instance, the question often has to be repeated and directions given for the next step. The first thing then, for the teacher to do is to get as clear a conception as possible of the aim of school work. As teachers we are all engaged in education, and should formulate in our minds a definition of education that will be a worthy goal toward which we may push forward with intelligent zeal ; a goal which we can keep in view and say with all truthfulness and enthusiasm, "I press on toward the goal unto the prize of the high calling." Such a worthy aim is found in Ruskin's definition of education, "The leading of human souls to what is best, and making what is best out of them.

\* \* \* \* \*

The teacher wants more definite direction. Then here, if your school is in or near the country, have the

pupils bring in specimens of all the nuts that can be found in the woods, have them bring also, a small branch of the tree, or at least the leaves. Give the children an opportunity to tell all they know about these nuts, it will be a practical lesson in language, and will be leading them to the best use of language. Have different specimens of wood brought, draw from the pupils all they know about wood and its uses, also, their knowledge of the sizes of different trees. This will give the older pupils a chance to compute the amount of valuable timber in a tree. It will naturally lead up to the question of forests, the time of their growth, the advantage of forests to a country, and the means used for their preservation. The question will also arise as to what climate has to do with the growth of trees. The beds of coal, the different kinds and their formation will naturally come up for discussion. We see how a simple talk about an acorn, a chestnut, a hickory-nut, a beech-nut, or any of the common nuts of the forest, will lead the mind to the consideration of all that is best and most practical in all the grades from kindergarten to university. Under the direction of a wise teacher the soul may also be led to what is best, and what is best made out of it. Take an acorn, consider the beauty of its unique formation, have the children draw a picture of it, consider the causes of its shape, if you can learn them, why there is meat in the nut, plant some of them, watch them grow, and the soul that is wisely directed will come to reverence the power, the intelligence, the wisdom, the love that caused the formation of an acorn.

This will be educating, leading the human soul to what is best and making what is best out of it. This is the kind of work to which pupils have a natural born right. As teachers we must be broad minded, liberally educated, refined and cultured, able to feel, to know the spirit of the good Father, who loves all his children and who animates all nature. We must grasp the fact that :

"Earth's crammed with Heaven,  
And every common bush afire with God ;  
But only he who sees, takes off his shoes."

—*C. R. Morford in Educ. Gazette.*

Here is the latest story of Mr. Gladstone. The venerable statesman was asked on the eve of his departure for France whether he did not think his continuous reading and literary study might have had some undesirable effect on his nerves, and given rise to his neuralgia. "My dear sir," replied Mr. Gladstone, in a tone whose seriousness was not stimulated, "can you imagine what would be the condition of my nerves if I were compelled to do nothing?"

### Value of Scientific Training.

In the admirable article by Mr. H. G. Wells, in the columns of the *Daily Mail* a fortnight ago, he showed in how many ways the neglect of science has told against British industries; how the scientifically-trained German manufacturer has been able to filch away whole departments of trade and build up new industries upon the basis of scientific discoveries that originated in England. But behind the lack of technical and scientific training there stands the still more serious defect—that of the lack, in London at least, of facilities which a teaching university might afford for the higher education, not only in science, but in literature and scholarship. Mr. Wells has well said that the commercial Sedan in the economic war has been won by Germany because of the good modern teaching of her schools. But the schools are well taught because the school-masters are well instructed. And who is to instruct the school-masters if there is no university?

For this purpose Oxford and Cambridge are hopelessly mediæval. London needs a modern university, accessible for training its school-masters as well as its professional men. . . . Oxford and Cambridge are admirable in their way. But London needs a university very differently organized if it is to do for London what the Scottish universities do for Scotland, or the German universities do for Germany.—*Prof. S. Thompson in London Daily Mail, Dec. 15th.*

### Parents should Visit the Schools.

Visit the schools; it will do more good than to visit the jails and houses of correction. If good women would use their influence in the schools more, the schools would be fuller and the jails, penitentiaries, houses of correction, etc., emptier. "An ounce of prevention is worth a pound of cure." If some of the talks that are partly wasted on grown people in public halls were judiciously given to the children, much more good would be done and much harm prevented. If the city people would give freely to decorate and put good influence before the children, they would not need to be called on to establish "homes" for wayward girls.

And what a beautiful thought for the boys and girls to look upon pictures and other adornments in the school room, that their mothers or aunties had helped to place there. Let the mothers visit the schools and let the boys know that you are interested in their welfare, further than to be rid of their noise about the house. Of course fathers should visit the schools too, but the father's working hours and the school hours come at the same time and they cannot so conveniently go.—*National Educator.*

### Letter Writing in School.

Not long ago a school received a formal invitation to an entertainment. The teacher took advantage of this to give a lesson in letter-writing. An hour was spent in this exercise, working with economy and success, because these were real letters. It is easy to find twenty or more suitable topics and occasions for writing actual letters for social purposes. The pupils send these letters to their friends, if they choose, and the remainder are mailed to some distant school that has promised to reply. With a little care, a considerable number of business letters may be written which can actually be used. Many examples from the language work might be cited showing that this principle has wide application, and that a large amount of language, penmanship, spelling, social and business forms may be taught with absolutely no drudgery. The contrast between the quality of this work and that which the child knows will be thrown away is significant. Teachers who try this plan do not care to go back to the other. It need not surprise us that the children put their best efforts upon this real work. It is the same with us. Do we write letters or essays with enthusiasm and painstaking accuracy only to throw them into the waste-basket?—*Anna Buckbee, California.*

### The Cigarette Habit.

The teacher of a public school in Chicago found that eight of her scholars smoked from two to twenty cigarettes a day. Six only of these boys were able to do good work in their classes. The victims of the cigarette habit confessed that they were suffering constantly from headache, drowsiness, and dizziness. Many declared they could not write well because their hands trembled. A number were "shaky" when they walked, and were unable to run for any distance. They could not rouse themselves to meet the examination test.

The teacher reported that these pupils were sure to fail if asked to memorize anything. Several of the smokers were from four to five years too old for their grade, and it was found that after they began to smoke, their progress ceased.

Except in three instances, the scholars hardest to discipline were smokers. Truancy and theft were directly traced to indulgence in the habit. Boys who had reformed and joined the Anti-cigarette Society said they "felt like different boys." The power and perniciousness of the cigarette habit are revealed by this fresh testimony from a competent and careful observer.—*Youth's Companion.*

So many gods, so many creeds,  
So many paths that wind and wind,  
While just the art of being kind  
Is all the sad world needs.

—*Ella Wheeler Wilcox.*

**A Sonnet in Quotations.**

The sonnet which follows has been sent to us by an ingenious contributor, who has compiled it from the works of thirteen well-known writers. Who were the thirteen?

"The curfew tolls the knell of parting day,"  
 "The vapors weep their burthen to the ground,"  
 "The lone and level sands stretch far away;"  
 "Nothing but plane to the horizon's bound."  
 "The holy time is quiet as a nun;"  
 "Oh! deep-enchanted prelude to repose!"  
 "Last in the shadows when the day is done,"  
 "The toil-worn cotter from his labor goes."

"The moon is rising, broad, and round, and bright;"  
 "Mother of light! how fairly dost thou go!"  
 "All sleeps in sullen shade or silver glow,"  
 "Within the hollow silence of the night;"  
 "And lovers loitering wonder that the moon  
 Has risen upon their pleasant stroll so soon."

—*London Journal.*

**A Departure in Education.**

With the beginning of the year 1898, Teachers' College, New York, entered upon a new era. Sympathy, proximity, and, from an educational point of view, necessity, have brought about an alliance with Columbia University by which the college has become one of the schools of the university on the same basis as the law and medical schools, with the important difference that the teachers' college retains its corporate existence with its separate board of trustees and financial independence. The college will be under the direct administration of President Low, and a number of the university professors will occupy seats in the college faculty. The teachers' college was founded in 1887, and its first president was Prof. Nicholas Murray Butler, of Columbia University, and several of its original trustees were also members of the Columbia faculty. In 1893 the college moved to its present site on Morningside Heights, New York, immediately adjoining the grounds of the university, the land on which its buildings stand being the gift of George W. Vanderbilt. It is considered to be one of the best housed and equipped institutions in the world for the training of teachers, its buildings and grounds alone having cost over \$1,200,000.

One of the more striking effects of the new union is to put under the control of Columbia the most complete opportunities for the education of teachers enjoyed by any university, either in this country or abroad; for, coupled with the theoretical work in pedagogy, is a school of observation and practice, in which each successive step in teaching, from the kindergarten to the high school, can be practically demonstrated. A feature not to be overlooked is that all these opportunities are offered to both men and women on the same footing, and that the opportunities for observation likewise embrace the teaching and management of both boys and girls. The importance of this elevation of the profession of teaching to university rank cannot be overestimated. It places the professional study of education on the same high plane as the study of law, medicine, theology and engineering.

**PRIMARY DEPARTMENT.****The Study of the Weather.**

The following points are from an interesting paper on "The Study of the Weather in Elementary Schools," by Miss Williams-Wilson, read before the Educational Club of Philadelphia:

"In the intermediate grades it is better to begin work by teaching the points of the compass. Several short excursions to observe the direction of the wind will also be necessary. Teach them at the same time to estimate roughly the velocity of the wind by using accurately the old nautical terms—calm, light, moderate, strong, gale. Take advantage of the short excursions to teach them the names of the commoner cloud forms.

After they have become accustomed to daily observations of the wind, its direction and force, and a blackboard record of the same, each child should be given a blank on which there are spaces for these facts.

At the Practice School, following this, the children are given the next month another blank, with an additional column for the clouds. Later in the year a third blank is given them, with additional columns for the temperature and rain or snow. In the grammar grades a fourth form has additional spaces for wet and dry bulb readings of the thermometer, relative humidity, and the barometer.

When the children have become somewhat familiar with the phenomena of weather, give them an insight into some of the causes which produce clouds, rain, snow, dew, and frost. Let them then explain clouds, their structure and formation. Make rain in the school-room by still further condensation of the steam clouds, perhaps, on the cold surface of a plate. Let the dew form on a pitcher of cold water. If it is not convenient to watch the formation of snow and frost crystals, it is instructive, easy, and agreeable work to watch the formation of crystals from a warm supersaturated solution of oxalic acid or lead acetate."

**Nature in Winter.**

"Outdoors" does not come to an end with summer or autumn. Winter has much to offer to seeing eyes.

If there is a little cold "dry" snow, try a little window work. Bundle the children into hats, coats, and mittens; give each one a slate, and open a window.

Let each child hold his slate out under the falling snow until it is lightly powdered with flakes—then look at them?

Beautiful? Indeed they are! And what infinite variety of shapes! But there is one characteristic common to all, six ways or points. That is the law for snowflakes when formed under favorable circumstances undisturbed. They are crystals and are always true to their type as are any of the gems or other durable crystals.

But there are many and most beautiful variations of the type, all keeping the six rays, but decorating them, and forming designs which will suggest to you cathedral windows, or beautiful old carvings or fretwork.

Hold a magnifying glass over each one and let the children look through it. Children always love a magnifier, and I never saw a child who did not also delight in snowflakes.

Give each one a turn at holding his slate out for more ; the variety is infinite, and you will not be likely to find too many alike. Some may be broken so that the six points cannot be counted, but this is easy to explain.

The question is pretty sure to come, "Why don't the great big snowflakes have pretty shapes too? and this may be answered—"Because they are wetter and made up of many little snowflakes frozen together."

The room has grown too cold to keep the window open longer? Then off with the coats and hats and let the children group themselves into the shapes of some of the snowflakes; then huddle two or three snowflakes of children into one big bunch, and they will easily see how the little ones lose shape in joining together to make one big one.

Let them draw snowflakes on the board or slates (they always enjoy this), and after once doing all this they will never forget snowflake beauty.

Tyndall's "The Forms of Water," page 32, gives fourteen different shapes of snow crystals clearly figured.—*E. B. Gurton in Primary Education.*

#### Words Never Known Too Well.

To, too, two.	Dear, deer.
Their, there.	Ours, hours.
No, know.	Sea, seen.
Which, whose.	So, sow, sew.
Chose, choose.	Piece, peace.
Loss, lose, loose.	Die, dye,
Should, would.	Sent, cent, scent,
Were, where.	Be, bee.
Straight, strait.	Four, fore.
Won, one.	Bear, bare.
New, knew.	Hail, hale.
Ate, eight.	Vane, vein, vain.
Blew, blue.	Told, tolled.
Earn, urn.	Write, right, rite,
Bow, bough.	wright.

Wrong, enough, twelfth, ninety, stitch, scissors, with, any, been, close, every, evil, friend, field, pencil, truly, wholly, said, good-by, does.

#### New Books for Primary Teachers.

"A Study of English Words." By Jessie McMillan Anderson. (American Book Co., N. Y. City.)

"Life Histories of American Insects." By Clarence Moores Reed. (The Macmillan Co., N. Y. City.)

"Nature Study." By Mrs. L. L. Wilson, Ph.D. (The Macmillan Co., N. Y. City.)

"Familiar Features of the Roadside." By F. Schuyler Matthews. (D. Appleton & Co., N. Y. City.)

Nature's Diary." By Francis H. Allen. (Houghton, Mifflin & Co., Boston.)

#### THE CLASS-ROOM.

##### COMMON-SENSE GRAMMAR EXERCISE.

Write the correct abbreviation of each of the following words: Sunday, Wednesday, September, Mister, postmaster, principal, superintendent, barrels, dozen, interest, month, number, post-office, first, second, fourth.

Write the plurals of the following names: Tree, bird, wing, grasshopper, cricket, stick, stone, flower, meadow, potato, cargo, family, turkey, hawk, woman, gas, bench, tooth, knife, wolf, thief, plow, monkey, handkerchief, country, cherry, buoy.

Write the feminine forms of the following names: Lion, poet, prince, adventurer, actor, executor, testator, king, father, negro, emperor, duke, hero, widower, tiger.

Write sentences containing the following words used (1) as nouns, and (2) as verbs: Man, load, pass, work, play, hand, whip, heat, chain, stand, fly, rock, strap, point, milk, fan, iron, water, fire, sale.

Substitute a single word for each of the following metaphors: Earth's white mantle; the land of nod; the vale of tears; the staff of life; the king of the forest; the ship of the desert.

Which of the bracketed words is preferable? It tastes quite [strong, strongly] of cloves. He told them to sit [quiet, quietly] in their seats. They live just as [happy, happily] as before. The carriage rides [easy, easily]. Your piano sounds [different, differently] from ours. Doesn't that field of wheat look [beautifully, beautiful]?

Copy the following words, correcting errors in spelling: Sacramento, kernal, cymbol, manouver, bachelor, asylum, gipsy, parsly, pulleys, forfeit, Margeret, counterfet, seperate, associate, exagerate, advertize, insolveny.

The plurals of some nouns differ in meaning from the singulars: as salt, salts. Give other illustrations.

You are secretary of the Young People's Association of your town: Write a newspaper local calling the members together for a special meeting.—*School Record.*

##### RECITATION RULES.

If you expect to have lessons learned, make them short.

Assign but few lessons to be learned at home; children must have time to work, play, eat, sleep, and grow.

Keep your explanation down to the level of your pupils' minds. A great deal of teaching "flies over the heads" of your pupils. You must learn to talk in household Anglo-Saxon, such as men use in business and women at home.

Your chief business is to make pupils think, not to think for them; to make them talk, not to talk for them; to draw out their powers, not to display your own.

Keep your voice down to the conversational key. A quiet voice is music in a school-room.

Train your pupils to recite in good English, but do not worry them by interruptions while they are speaking. Make a note of incorrect or inelegant expressions, and have them corrected afterwards.

*Seldom repeat a question.* Train your pupils to a habit of attention, so that they can understand what you say the first time.

Give your slow pupils time to think and speak. The highest praise given by an English inspector to a teacher was "that he allowed his slow boys time to wriggle out an answer."—*Swett's Monthly Teaching.*

**THE LONGEST DAY OF THE YEAR.**—It is quite important, in speaking of the longest day of the year, to say what part of the world we are talking about, as it will be seen by reading the following list, which tells the length of the longest day in different places. How unfortunate are the children in Tornea, Finland, where Christmas day is less than three hours in length! At Stockholm, Sweden, it is eighteen and one-half hours in length. At Spitzbergen the longest day is three and one-half months. At London, England, and Bremen, Prussia, the longest day has sixteen and one-half hours. At Hamburg in Germany, and Dantzic in Prussia, the longest day has seventeen hours. At Wardbury, Norway, the longest day lasts from May 21 to July 22, without interruption. At St. Petersburg, Russia, and Tobolsk, Siberia, the longest day is nineteen hours, and the shortest five hours. At Tornea, Finland, June 21 brings a day nearly twenty-two hours long, and Christmas, one less than three hours in length. At New York the longest day is about fifteen hours, at Montreal, Canada, it is sixteen.—*The Christian Intelligencer.*

#### CORRECT USE OF GUESS AND THINK.

The following suggestive lesson is taken from Tarbell's *Lessons in Language, Book I:*

"To guess" means to judge without knowing, to conjecture.  
"To think" means to believe, to consider.

The forms of these words are *guess, guesses, guessing, guessed; think, thinks, thinking, thought.*

Use some form of *guess* or *think* in each of these sentences:

1. Can you — the answer to this riddle?
2. I saw the man, but I could not — who he was.
3. I — I must soon stop writing.
4. He said he — it was all right.
5. Mary covered my eyes and said " — who it is."
6. Can any one — what I have in my hand?
7. Well, I — 'tis time to go.
8. She — she knew enough not to get lost.
9. I — you will do better next time.

#### GEOGRAPHICAL CONUNDRUMS.—MAP OF EUROPE.

1. What city is a useful appendage to a bottle?
2. What islands are a dwarf pony?
3. What island names a girl?
4. What city names another girl?
5. What city is not too tight?
6. What islands are not wise?
7. How many colored seas do you find?
8. What island is a person?
9. What city is a relative?
10. With what country would you celebrate Thanksgiving?
11. With what country would you cook it?
12. By changing the last letter of a river what piece of your body would appear?
13. What island is almost the name of a fish?
14. What city would you choose when buying china?
15. What city would you select for a loaf of bread?
16. What city for a favorite style of steak?—*School Record.*

#### THINGS USEFUL TO TELL.

**STATE ABBREVIATIONS.**—The most egotistical state, "Me."; most religious, "Mass."; most Asiatic, "Ind."; father of states, "Pa."; most maidenly, "Miss."; best in time of flood, "Ark."; most useful in haying time, "Mo."; decimal state, "Tenn."; state of exclamation, "La."; most astonishing state, "O."; most unhealthful state, "Ill."; state to cure the sick, "Md."; state for students, "Conn."; state where there is no such word as fail, "Kan."; not a state for the untidy, "Wash."; suggestive of mineral wealth, "Ore."; of military distinction, "Col."—*Selected.*

It would be a good exercise to propose some of these conundrums to brighten up students occasionally.

**FOR ARTICULATION.**—1. "Let lovely lilacs line Lee's lonely lane." 2. "He drew long, legible lines along the lovely landscape." 3. "The old cold scold a school coal scuttle." 4. "Did you ever see a saw saw as this saw saws?" 5. "Eight great gray geese gazing gaily into Greece." 6. "Some shun sunshine; do you shun sunshine?"—*Selected.*

The above is valuable for drill to secure clear enunciation.

Sir John Lubbock has gone to the ant again, and if he keeps up his visits, and others imitate him, that interesting insect will become useless for Sunday-school purposes. Sir John succeeded in getting fifty ants helplessly drunk, and then placed them outside an ant hill. The sober ants came out, picked up their friends, and put them to bed to sleep off the effects of Sir John's liquor; the strangers, however, they sternly rolled over into the ditch.—*Scientific American.*

FAMOUS AGED PEOPLE, 1898.—Bismarck is 82 ; Sir Henry Bessemer, inventor of Bessemer steel process, 84 ; Pope Leo XIII., 87 ; W. E. Gladstone, "Grand Old Man," 84 ; Cassius M. Clay, once an eminent American, 88 ; Prof. Mommsen, historian, 80 ; King Christian of Denmark, 80 ; Herbert Spencer, 77 ; Florence Nightingale, 77 ; Baroness Burdett-Coutts, 83 ; James Martineau, philosopher, 92 ; George Macdonald, novelist, 73 ; Queen Victoria, 78 ; ex-Prime Minister Crispi, 78 ; John Ruskin, 78 ; Prof. Goldwin Smith, 75 ; Samuel Smiles, author, 85 ; Rosa Bonheur, 75.—*Condensed from N. E. Journal of Education.*

Get your scholars to tell what they can about these famous men and women.

SHOOTING STARS.—Many people are under the impression that a meteor is a falling star, but in reality a star never shoots or falls. The nearest star is 200,000,000,000,000 miles away, while a meteor is never more than eighty, and can never be seen above the earth's atmosphere. Further, a star is always luminous, while a meteor is never incandescent until it reaches the earth's atmosphere ; it is heated white-hot by the friction of the air. Before a meteor reaches the earth's atmosphere and becomes luminous it is called a meteoroid. There are billions of meteoroids floating like tiny planets around the sun in their own orbits. When overtaken by the earth they tumble to it as any rock would, and become "shooting stars." It is estimated that 20,000 meteors fall daily, but only a small number of these reach the earth. The others are entirely burned up by the friction of the air. One of the largest, weighing ninety tons, has been found by Lieutenant Peary and brought home from Greenland.—*The Great Round World.*

It is amazing, if you have never tried it, how many meteors you can count in the sky of a clear evening. Some will be brilliant flashes of light that every one sees. Others will be only discernible as faint, tremulous lines, vanishing in an instant.

Klondike is said to be derived from the Indian words "thron dak" or "druck," which mean "plenty of fish."

HOW BEE WAX IS MADE.—One of the most taxing of the bee industries is the making of wax. Bees gorge themselves with honey, then hang themselves up in festoons or curtains to the hive, and remain quiescent for hours ; after a time wax scales appear, forced out from the wax pockets. The bees remove these scales with their natural forceps, carry the wax to the mouth, and chew it for a time, thus changing it chemically. Thus it may be seen that wax-making is a great expense to the colony, for it costs not only the time of the workers,

but it is estimated that twenty-one pounds of honey is required to make one pound of wax.—*The Chautauquan.*

A talk upon bees, the double purpose that is accomplished in their visits to flowers, the process of manufacturing honey, etc., would be interesting in connection with the above.

POPULATION OF EGYPT.—The census of Egypt taken on June 14th, showed a population of 9,700,000, an increase of 2,900,000 since 1882 ; in other words, a gain of 42 per cent. in fifteen years.—*Evening Post, N. Y.*

POPULATION OF RUSSIA.—A census of the Russian Empire was taken on February 9th, none having been taken since 1851. The total population is now given as 129,211,113, having about doubled in a period of forty-six years.—*Science.*

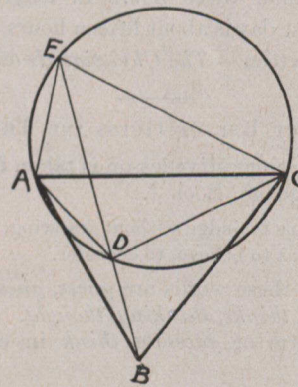
### QUESTION DEPARTMENT.

S.—Will you kindly publish in the next issue of the EDUCATIONAL REVIEW a solution of Example 17, in Heights and Distances in Eaton's Practical Mathematics? Following is the problem: Lines joining three objects are, respectively, 125.6, 130.4, and 112 furlongs in length, and at a station outside of the triangle the first and the last of these lines subtend angles which are, respectively,  $48^{\circ} 58'$  and  $25^{\circ} 52'$ . Required the distance of the station from each of the three objects.

Let the three objects be represented by A, B and C and the distance  $BC = 125.6$ ,  $AC = 130.4$  and  $AB = 112$ . At the point A make the angle  $CAD = 48^{\circ} 58'$ , and at C the angle  $ACD = 25^{\circ} 52'$ . About the triangle ADC describe a circle. Produce BD to E. The point E will denote the observer's position, since the angles AED and ACD are equal, as also are CED and CAD (III. 21).

[Note.—Care must be taken to place the angle as here stated, for the point E may take six different positions, and there may be as many different sets of answers, some one of which may have been given in the book other than the right one, as we have not verified the given answers.]

To obtain the required answers the following steps



will be necessary:

- (1) AC and angles DAC and DCA being known DA may be found ;
- (2) AB, BC and AC being known the angle BAC may be found ;
- (3) Angles BAC and DAC being known the angle DAB may be found ;



B. W. R.—In the January number the following statement is made: "No contract is legal except the prescribed one which bases salary at the rate of so much per year." Is that not according to the old contract? Does not the amendments to the contract passed 1897 base salary so much per term as per year?

A teacher can enter into a contract for so much for the term, and if notice be given this may be continued indefinitely; but if the contract continues in force in the absence of notice, then his salary is based upon the rate it would be per year.

### SCHOOL AND COLLEGE.

Hugh Graham Creelman, B.A. (Dal.), who studied for some years at Edinburgh and Berlin, has received an appointment to the Physical Laboratory of Purdue University.

According to the report of the Minister of Education for Ontario, which has been just issued, the pupils attending all the public schools in 1896 decreased by 3,676. In the Roman Catholic separate schools there was an increase of 1,073. In the public schools were 441,102 pupils; R. C. schools, 40,846.

Mr. A. F. Haché, principal of the graded schools at Salmon River, Digby Co., fell upon the ice on his way to school on the 26th January and broke both bones of his left fore-arm.

A school concert at Rothesay, N. B., under the management of the teacher, Miss L. Ingraham, has raised upwards of \$12 for a school library.

Miss Minerva Murphy, teacher at Crocker Hill, Charlotte Co., has raised the sum of \$25, with which it is proposed to purchase new furniture.

Inspector Carter will, during February and March, be engaged with country districts of Charlotte, St. John and Kings Counties in the order named.

The school at Upper Letang, Charlotte Co., has been supplied with some slate blackboard surface, through the exertions of the teacher, Miss Jennie McIntire.

A Yaggy's astronomical chart, a globe, new blinds, and chemical apparatus have recently been purchased for the school in Union District, Springfield, Kings Co. Miss W. A. Toole is the teacher.

Miss Mabel Morrell, former teacher at McMinn, Charlotte Co., has provided the school at McMinn, Charlotte Co., with two excellent slates and a map of the world.

Through the efforts of Miss Nellie McCann, former teacher, enough money has been raised to paint the house and provide a fence for the school grounds at Greenoch, Charlotte Co.

Miss A. M. Waldron, teacher at Waweig, Charlotte Co., has raised, by means of a school entertainment, enough money to start a school library.

Liverpool (N. S.) academy was destroyed by fire last week. The building cost about \$10,000 and was insured for only \$5,000. Other rooms will be at once secured until a larger and better building replaces the old one.

The trustees of No. 12, Sussex (Erb), N. B., have placed in their school-house a set of new furniture and a blackboard.

Through the zealous efforts of Miss Annie M. Hayter, teacher at Holderville, Kings Co., N. B., by school entertainments, a complete suite of new furniture has been obtained,—cost, \$45.

By means of a concert Mr. Samuel Worrell, teacher at Bay-side, Charlotte Co., has begun an excellent school library, which will no doubt be appreciated and added to by that fine district.

Miss Mercy Murray, teacher at the Ledge, Charlotte Co., has, by means of a school concert, raised an amount sufficient to paint the interior of her school-room, varnish the furniture, and supply blinds.

Miss Ruth A. Ryan, the efficient and popular teacher at Model Farm, Kings Co., N. B., has greatly improved the appearance of her school-room. New furniture has also been provided—the whole at a cost of \$43.

The death of Miss Sara Curran removes one of the best primary teachers of Chatham, N. B. She was much beloved by her pupils and in the social circle. Her place in the Wellington Ward schools has been filled by her sister, Miss Maria Curran.

Mr. Geo. M. Huggins, principal of the graded schools at Granville Ferry, Annapolis Co., has resigned his position, and has started for the Klondike gold fields. He has been succeeded in the principalship by Mr. Faulkner, a student of Acadia College.

The heavy snow storms have interfered very much with the work of inspectors during the early part of the month of February. Inspector Mersereau intends to take Alnwick and Shippegan this month, and the graded schools of Restigouche and Gloucester in March.

Mr. J. L. Allingham, teacher at Round Hill, Greenwich, Kings Co., recently held a very successful concert, the proceeds of which will be devoted to slate blackboard surface and other apparatus. Through the exertions of Mr. Allingham and former teachers, Round Hill school is one of the best equipped to be found in any country district.

We extend to Inspector McIsaac, of Antigonish, our congratulations, wishing for him and his bride a long and happy life.

### Science Notes.

W. F. Ganong, Ph.D., Professor of Botany at Smith College, Northampton, Mass., published, in a recent number of *Garden and Forest*, a plan and map of the college botanic garden, of which he is the director. The plan is, as far as possible, educational, aiming to group and present for study those forms of plants best suited for the purpose.

At the suggestion of Prof. O. A. Derby, now chief of the State Geological Survey of Sao Paulo, Brazil, the Para Natural History Museum has undertaken to publish the unpublished papers of the defunct Geological Survey of Brazil relating to the geology and physical geography of the lower Amazon. The October number of the *Boletine* contains the first instalment of these papers. Among them is one on "The Rio Tocantens," by Prof. Chas. Fred. Hartt. Others, including a paper by Prof. Hartt, on "Monte Alegre and Erere," are to follow.



### Educational Articles in the Magazines.

Mr. Russell Sturgiss, the eminent architect and architectural writer, contributes to the February *Atlantic* an article upon the "Education of Architects," which is of great general interest, and will attract widespread attention. . . . *Littell's Living Age* takes from the *Spectator* an article on "Modern Education," by Prof. J. P. Mahaffy, which has aroused much interest and criticism. . . . In the *Canadian Magazine* for February, Wolfe, Montcalm and their great struggle form the theme of Dr. Bourinot's fourth paper on "The Makers of the Dominion of Canada." . . . In Appleton's *Popular Science Monthly* for February the question of "Physical Training in Colleges" is treated by Dr. F. E. Leonard, of Oberlin College, Ohio. . . . Brander Matthews, in the February *Century* writes an interesting sketch of "A Noted American Scholar," Professor Lounsbury of Yale College. "How Every Child can have a Home Museum," is told in the *Ladies' Home Journal* of Philadelphia. . . . In the *Forum* Major Powell has an interesting article, "Whence Came the American Indian?"

### Education Department—Province of New Brunswick.

#### Official Notices.

##### I. DEPARTMENTAL EXAMINATIONS.

(a) *Closing Examinations for License.*—The Closing Examinations for License, and for Advance of Class, will be held at the Normal School, Fredericton, and at the Grammar School buildings in St. John and Chatham, beginning on Tuesday the 14th day of June, 1898.

The English Literature required for First Class candidates is Shakespeare's Henry V., and Byron's Childe Harold, Canto IV.

(b) *Normal School Entrance Examinations and Preliminary Examinations for Advance of Class.*—These examinations will be held at the usual stations throughout the Province, beginning on Tuesday, July 5th, 1898, at 9 o'clock a. m.

Candidates are required to give notice to the Inspector within whose inspectorial district they wish to be examined not later than the 24th day of May. A fee of one dollar must be sent to the Inspector with the application.

(c) *Junior Leaving Examinations.*—Held at the same time and stations as the Entrance examinations.

The Junior Leaving Examinations are based upon the requirements of the course of study for Grammar and High Schools as given in the syllabus for Grades IX and X, and will include the following subjects: English Grammar and Analysis; English Composition and Literature; Arithmetic and Book-keeping; Algebra and Geometry; History and Geography; Botany; Physiology and Hygiene; and any two of the following: Latin, Greek, French, Chemistry, Physics. (Nine papers in all)

The pupils of any school in the province are eligible for admission to this examination. Diplomas are granted to successful candidates.

Fee of Two Dollars to be sent with application to Inspector, not later than the 24th of May.

The English Literature for the Junior Leaving Examinations will be Select Poems of Goldsmith, Wordsworth and Scott, as found in collection published by W. J. Gage Co., 1897.

(d) *University Matriculation Examinations.*—Held at the same time and stations as Entrance examinations. Application to be made to Inspector, with fee of two dollars, not later than May 24th.

The Junior Matriculation Examinations are based on the requirements for matriculation in the University of New Brunswick, as laid down in the University calendar. (Candidates will receive a calendar upon application to the Chancellor of the University, or to the Education Office.)

The English Literature subjects are, Shakespeare, Henry V. or Richard II., Rolfe Edition, and Byron's Childe Harold, Canto IV., Gage, Toronto, 1897, or Selections from Tennyson, Gage, Toronto, 1895.

The Department will supply the necessary stationery to the candidates at the July examinations, and all answers must be written upon the paper supplied by the Supervising Examiners.

In the June examinations the candidates will supply their own stationery.

Examinations for Superior School License will be held both at the June and July examinations. The First Book of Caesar's Gallic War will be required in both cases.

Forms of application for the July examinations will be sent to candidates upon application to the Inspectors, or to the Education office.

(e) *High School Entrance Examinations.*—These examinations will be held at the several Grammar and other High Schools, beginning on Wednesday, June 15th, at 9 o'clock a. m. Under the provisions of the Regulation passed by the Board of Education in April 1896, question papers will be provided by the department. The Principals of the Grammar and High Schools are requested to notify the Chief Superintendent not later than June 1st, as to the probable number of candidates.

##### II. THIRD CLASS TEACHERS.

*Regulation 33. Employment of Third Class Teachers.*—Add to Regulation 33 the following Sections:

6 Third Class Teachers shall not be employed (except as class room assistants) in Districts having an assessable valuation of fifteen thousand dollars or upwards, unless by the written consent of the Chief Superintendent.

7. Third Class Teachers who have received License after attendance at the French Department of the Normal School, and who have not subsequently passed through the English Department of the Normal School, shall be employed only in Acadian Districts or in Districts in which the French language is the language in common use by a majority of the people, unless by the written consent of the Chief Superintendent; and no such teacher shall be employed in any District, whether such District is Acadian or French speaking as aforesaid, or otherwise, if the Chief Superintendent shall notify the Trustees of such District that no such teacher shall be employed therein; provided that if such teacher is engaged under contract entered into with the District prior to the giving of such notice the employment of such teacher shall continue only to the end of the term current when such notice is given, and shall then terminate, unless previously terminated by the terms of the contract itself.

J. R. INCH,

Chief Superintendent of Education.

Education Office, Dec. 1st, 1897.

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WRITE FOR PHOTOS.

Education Office, Nova Scotia,  
3rd January, 1898.

Ordered by the Council of Public Instruction of Nova Scotia, on the above given date, that the Grade A Syllabus, Paper [A], 3, BRITISH HISTORY, be amended to read as follows:

(A) Imperative for both sides.

3. BRITISH HISTORY.—As in *Green's Short History of the English People* and CLEMENT'S HISTORY OF CANADA."

The amendment is the substitution of the last four words above in capitals for the words "with the Canadian Constitution," as they appear in the October *Journal of Education*, 1897, on page 127.

A. H. MACKAY,

Superintendent of Education.

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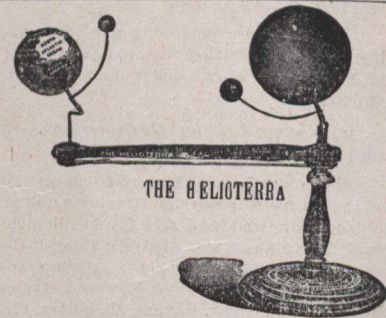
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The next Academic year, '98-'99, begins September 29th, 1898, when the Scholarships for the Counties of Restigouche, Gloucester, Northumberland, Kent, Westmorland, Albert, Charlotte, St. John, Kings, Queens, Sunbury, York, Carleton and Victoria will be vacant.

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Express from Moncton, daily,.....	10.30
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Railway Office,  
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