

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/  
Couverture de couleur

Coloured pages/  
Pages de couleur

Covers damaged/  
Couverture endommagée

Pages damaged/  
Pages endommagées

Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées

Cover title missing/  
Le titre de couverture manque

Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées

Coloured maps/  
Cartes géographiques en couleur

Pages detached/  
Pages détachées

Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/  
Transparence

Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur

Quality of print varies/  
Qualité inégale de l'impression

Bound with other material/  
Relié avec d'autres documents

Continuous pagination/  
Pagination continue

Tight binding may cause shadows or distortion along interior margin/  
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/  
Comprend un (des) index

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/  
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title on header taken from: /  
Le titre de l'en-tête provient:

Title page of issue/  
Page de titre de la livraison

Caption of issue/  
Titre de départ de la livraison

Masthead/  
Générique (périodiques) de la livraison

Additional comments: /  
Commentaires supplémentaires:

Some text in Latin.

This item is filmed at the reduction ratio checked below/  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

THE CANADA  
EDUCATIONAL MONTHLY  
AND SCHOOL MAGAZINE.

MAY-JUNE, 1885.

THE FIRST DAY.

BY JOHN DEARNESS, INSPECTOR PUBLIC SCHOOLS, MIDDLESEX.

"We may our ends by our beginnings know."—*Denham*.

"A bad ending follows a bad beginning."  
—*Euripides*.

"MR. B. how is my friend R. getting along?" "I have no doubt," replied the person asked, "that Mr. R. is a very good teacher, but he did not start right in our school. All the children seem to be against him, so I fear he will not do much good there. Perhaps when the larger pupils leave in the spring he may manage better."

Could it be true that a teacher who had hitherto succeeded well, and had given general satisfaction, is now reputed a failure and simply because he "did not *start right*?"

Further inquiry verified Mr. B.'s report. By an ill-considered word and act on the first day the teacher had incurred the implacable opposition of two or three of the larger boys, and they were able to keep rife a spirit of insubordination until two of them were expelled. After their expulsion, the teacher gradually regained the control and sympathy that had marked his former school. If, in

teaching a "bad ending" does not always "follow a bad beginning," yet it frequently happens that a wrong step at the start takes months to recover. Even adults are apt to be influenced for a considerable time of a new acquaintanceship by that instinctive judgment made almost at first sight. (The *almost* may be left out.) The first impression takes a strong hold on a child's mind. If that impression is an agreeable one the teacher has made a confidant and a friend.\*

To secure such a result is worthy of the most careful study on the part of the teacher. Appearance, manner, every word and action will be closely scrutinized. Sympathy or prejudice helps to fill out the measure, and by the time the pupils return to their homes, every one of them is ready with no uncertain answer to the inevitable question: "How do you like the new teacher?" That the verdict—and it is generally unanimous—may be favourable should be

\* Read "Unruly Pupils" in Kellogg's School Management.

the chief purpose of the first day's work. Such verdict ought not to be gained by the allowance of indulgences which are not to be continued. It cannot be gained by a teacher whose behaviour towards any of the children is harsh or unsympathetic; yet it is better to be thought stern than weak. The writer knows one who attributes his success as a disciplinarian to the fact that he "always starts cross," and who says that "much sweetness at first" by a natural law turns to vinegar before very long. Truth in this, as in many other cases, lies between the extremes. It is the purpose of this article to indicate in a suggestive way how the first day may be spent so that its results may prove helpful to the teacher and profitable to the school. The subject is certainly an important one in view of the fact that in any year fully one-half of the schools in the Province have a change of teachers, and consequently a *first day*.

The first day may be occupied in the following manner:

Calling school.

Introductory address.

Calling roll.

Seating and preliminary organizing.

Engaging the pupils in easy exercises in arithmetic, transcription, reading and spelling.

Testing the larger pupils in penmanship, spelling and arithmetic, and the younger ones in reading and slate exercises, such as easy examples in drawing and writing.

Learning the pupils' names.

Should the teacher be early on the first morning or contrive to reach the school just in time to open it? It is a good plan to visit the school-house the day before commencing. Be sure that it is clean and comfortable before the arrival of the earliest pupils on the opening day. If the trustees have neglected their duty to prepare the school-room for the re-opening, do

what you can yourself to make up for their neglect. If the interior appearance of the school-room seems to "welcome" the teacher it will infect the spirit of the children, and, then, whether you reach the school just at nine or earlier will not matter so much. On the whole it is better that the teacher be first at the school; but until school-time keep yourself busy even if at doing nothing.

Here is a good example. On the morning of the 3rd of January at 8 a.m. the new teacher is at the school, a good fire is made, and the room is swept, dusted and comfortably warm. The teacher is seated at his desk making out a list of little services and favours which he purposes selecting scholars to do for him. The first half-dozen to arrive are welcomed with "Good morning" and a pleasant remark. The group around the stove is getting larger and he does not now look up every time the door opens. He is watching closely, however, as a teacher knows how, without directly looking. Presently a lad enters, his words and actions show very quickly that he is a leading spirit, and that he is likely to test frequently the firmness of the government. Such boys are usually early on the first day. The teacher catches his eye—no trouble in this for he is evidently desirous of attracting the attention of teacher as well as of scholars—beckons him to the desk, and with the register open at the last quarter's record, says, "Will you please tell me in which class each of these scholars is; as you read the names and tell me the class I will check them." As the boy reads the teacher notes the pronunciation of the surnames and adds a mark to indicate the class and whether it is junior or senior. In the five minutes thus occupied the teacher wins the sympathy and obedience of a boy who he afterwards learns had been

a thorn in the sides of his predecessors. And now the teacher's pencil requires pointing, and he inquires for a sharp knife although he has a good one in his own pocket. Two or three are volunteered. The boy's is accepted whose countenance seems the hardest; the distinction evidently softens it. Wishing to examine the maps, he asks the help of a third and a fourth to open and roll them, and thus until nine o'clock does he keep himself and one or another of the pupils busy, while the rest looking on are wishing for opportunity to show their willingness to help the new teacher. It is said that receiving a favour of an enemy makes him a friend; it certainly gains the friendship of a new scholar.

If the teacher is possessed of the necessary tact to employ the hour before opening school in making friends of the pupils and at the same time getting everything in readiness for a good day's work, it will be of much advantage to him to be early at the school.

School should be opened by the teacher's calling the children to attention and stating that the exercises of the day will be commenced by reading a portion of Scripture and asking God's blessing upon their work. The teacher can be certain of perfect order during the reverent reading of the Bible and prayer on the first morning, and now having that hold it fast. Immediately proceed with a well-prepared opening address which should be kind, short, practical and very earnest. We can imagine the teacher in whose school we have just spent the hour making an address\* something like this:

*Scholars.*—I am glad to meet and welcome you here and from what I have observed this morning you are

not unwilling to return to school and to extend a kindly welcome to me. We enter a relationship this morning which I hope and trust will result in great benefit and advantage to you and much pleasure and happiness to both you and me. I have come here intending to work hard with you and I will expect you to work hard with me, not under me, or for me, but with me. Surely, I may expect every one of you to be willing to work as hard for himself as I am to work for him, and I shall not ask any one to work harder. I hope to please you by showing you in many ways that my strongest desire is to help you all I can, and nothing else will please me more than to see you willing and anxious to have my help. If we work hard we shall need play, and I would like to play with you as well as to work with you. You will see how to enjoy parsing and spelling and counting with me by watching how I enjoy kicking the foot-ball or holding first base with you. The object of school is to train the mind and heart and will. You have not only to learn to read and write, but also to acquire the practice of right behaviour. Hence I shall be disappointed and grieved to see less friendship and courtesy and forbearance in your intercourse with one another than you show to me. To reach the highest and best results we must be systematic in our work, we must have a proper time and place for everything; there must be order, discipline, observance of rules. To become good men and women obedience must be learned and practised by you just as reading or writing is learned and practised. Rules of conduct must be made and observed. In this school there will be just as few rules as possible, only those that we find necessary to our progress in learning and conduct. These shall be as

\* Read opening address in Bardeen's "Roderick Hume," p. 78.

binding upon me as upon you. If you agree and determine to refrain from unnecessary whispering and disorder so as not to cause interruption of the school-work I shall feel bound to do all I can to make the work interesting and profitable to you. On the other hand if pupils at the seats keep me half my time watching and governing them I can do only half-work for the class on the floor. If you come punctually and work diligently I shall see that you have full recesses and noons, and help you to find healthful, attractive plays and games. In the meantime I ask you to resolve, as I have already done on my own part, that you will rule your conduct by this test, "Is it right?" Ask yourself before intention becomes act, "Is it right?" If you resolve to obey the inner voice that will answer the question we may not need any other rule than this short one "Do right," and then our school will be as pleasant and happy a place as can be found. As soon as I can, I wish to become acquainted with your parents. Your father or mother can tell me much that will be good for both you and me to know. If plans have been formed for the future of any of you I may be able to do you more good by knowing them; so during the term I hope to have a talk with your parents about each and every one of you. Now before we can proceed regularly with our work I must get partly acquainted with you. I need to know your names, and your attainments, what class each one is in, and where to look for him when he is in his seat. I shall begin by calling the roll; this morning each one who is here will please stand and answer "present" to his name when it is called. [If there is any danger of disorder arising during the roll-call it had better be omitted at this stage than to allow so long a time to elapse without occupation of the pupils.]

Are any present whose names I have not called? None, Then I shall now ask you all to stand. The teacher looking at a paper held in his hand says, "Arthur Coyne will please take this seat (pointing to one which he had found was occupied by that pupil in the preceding term). (Laying down the paper.) To save time I shall ask you all to take the seats you had last quarter."

This may seem a small thing, but it is an important point in organization. When the pupils find themselves in their former seats with accustomed neighbours and surroundings, from the force of habit they feel at once that the reins of government have been resumed. The teacher places his most troublesome pupils in seats where they are farthest removed from their particular temptations, or where they can be most easily controlled, hence by requiring all to occupy their former places you step at once into possession of an important part of your predecessor's experience. If you allow pupils to choose their own seats, as is commonly done on the first morning, the most talkative ones are sure to seat themselves together. Uniform promotion examinations are now so well conducted and generally adopted that a prevalent evil of ten years ago is nearly extinct. I refer to self-promotion at the time of a change of teachers. Cases are on record when half or more of the scholars came up on the first morning to the new teacher in the next higher class than that of which they had last formed a part. The temptation to play this damaging ruse is lessened when pupils find themselves in their accustomed places, and it is wholly prevented by taking the precaution referred to above—checking the class of each pupil with the assistance of one or more of the scholars. Allow no self-promotions on the first day upon any excuse whatever.

Now earnestly set about learning

the names. It will be of immense advantage in checking improprieties if from the first you are able promptly to name the offender. What an expensive, ineffectual reprimand to say: "That left hand boy on the second row on the third seat from the back must not turn round and talk." How much better even before he has turned fully round or commenced talking to pronounce his Christian name with the tone and inflection of a kindly reprimand.

The roll is called, pupils are in their accustomed seats; now direct all who can do so to take their slates and neatly write their names, the class to which they belong and the date, in the manner indicated by an example on the blackboard. The classes are called in turn. The teacher asks the name, reads it from the slate and enters it on a list.

As each class is dismissed it is given some easy lesson to prepare, arithmetic is the subject most readily assigned. Pupils are directed to keep their names on their slates. As the teacher passes up and down among the rows of seats, addressing a word to one and another, he should fix his attention on the names, and from the first, call each pupil by name. When the pupils come to class they bring their slates, which may be turned and held so that each pupil's name is easily read by the teacher hearing the class. Any person possessing enough memory and attention to obtain a teacher's certificate, if he sets his mind upon it and proceeds in the right manner, can, before the end of the first day, readily name in class and at seat almost every one of fifty pupils. The result is well worth the effort.

Examinations on such subjects as penmanship, spelling, drawing and arithmetic may be made on the first day. The teacher should distribute a part of a sheet of paper, which he

has provided, to each pupil, with the direction to write a certain stanza or sentence, his name, and the date. These specimens of penmanship are collected and the announcement is made that at the end of the term the same exercise will be repeated to show the improvement by comparison. The papers for the preliminary and for tentative examinations in the other subjects should be long, but the questions easy and much varied. Such papers give more information upon the attainments of the pupils than short but difficult ones.

The work outlined, with the hearing of reading in all the classes, will busily and profitably occupy the first day. Formerly a considerable part of the opening week was taken up in examining children for the purpose of classifying them. But now, what with inspection, promotion examinations, uniformity of text-books, and, chiefly, the training received by teachers at normal and model schools and institutes, the organization of all the schools in the Province is similar in general outline, varying in minor details with the individuality of the teacher; and hence the best plan on taking a new school is to discover, and require immediate conformity to, the organization of your predecessor, and gradually adapt or change it to suit your own preferences. Do not rapidly make radical changes; say nothing, if not favourable of your predecessor and his work. Remember that whether any teaching is done or not in the first few days it is of the highest importance that you should maintain good order, but generally that is best and most easily secured by keeping the pupils busily engaged; leave not a moment unoccupied. On this trying "first day" be scrupulously particular about the smallest details of dress, speech and action. I think it is A. R. Hope who is responsible for the statement that every schoolmaster

has his nickname. Some one has added that it generally describes a mannerism or physical defect that the pupils have noticed at their first acquaintance. "The great object of the teacher's first day's work in school is to make a favourable impression upon the pupils by winning their confidence and respect."\* It is unfortu-

\* Wickersham's School Economy, p. 63.

nately true that the majority of parents form their opinions of the teacher at second-hand; according as the children like or dislike the teacher, so do their parents. The first report carried home usually inclines the parent one way or the other. Hence "that teacher is fortunate with respect to whom on this first day of school their (the pupils') criticisms are favourable."

## THE NEW DEPARTURE IN COLLEGE EDUCATION.

CRITICISM OF IT BY JAMES M'COSE, D.D., LL.D., D.L., PRESIDENT OF PRINCETON COLLEGE, U.S.

I HAVE been drawn into this three-cornered debate by no merit or demerit of mine. I was told by the Nineteenth Century Club that the President of Harvard was to advocate what was called his "new departure," and I was invited to criticize it. I have noticed with considerable anxiety that departure as going on for years past without parents or the public noticing it. I am glad that things have come to a crisis. Fathers and mothers and the friends of education will now know what is proposed, what is in fact going on, and will have to decide forthwith whether they are to fall in with and encourage it, or are to oppose it.

I asked first what the question was. President Eliot has shaped it as follows: "IN A UNIVERSITY THE STUDENT MUST CHOOSE HIS STUDIES AND GOVERN HIMSELF." I saw at once that the question thus announced was large and loose, vague and ambiguous, plausible to the ear, but with no definite meaning. But it commits its author to a positive position and gives me room to defend a great and good cause. The form is showy but I can expose it; I can

prick the bubble so that all may know how little matter is inside.

On the one hand I am sorry that the defence of solid and high education should have devolved on me rather than on some more gifted advocate. But on the other hand I feel it to be a privilege that I am invited to oppose proposals which are fitted, without the people as yet seeing it, to throw back in America (as Bacon expresses it) "The Advancement of Learning."

I will not allow any one (without protest) to charge me with being antiquated, or old-fashioned, or behind the age—I may be an old man but I cherish a youthful spirit. For sixteen years I was a professor in the youngest and one of the most advanced universities in Great Britain, and I have now been sixteen years in an American college, and in both I have laboured to elevate the scholarship. I act on the principle that every new branch of what has shown itself to be true learning is to be introduced into a college. My friends in America have encouraged me by generously giving me millions of money to carry out this idea. I am

as much in favour of progress as President Eliot, but I go on in a different, I believe a better way. I adopt the new, I retain what is good in the old. I am disappointed, I am grieved when I find another course pursued which allows, which encourages, which tempts young men in their caprice to choose easy subjects, and which are not fitted to enlarge or refine the mind, to produce scholars, or to send forth the great body of the students as educated gentlemen.

Freedom is the catch-word of this new departure. It is a precious and an attractive word. But O Liberty! what crimes and cruelties have been perpetrated in thy name! It is a bid for popularity. An entering Freshman will be apt to cheer when he hears it—the prospect is so pleasant. The leader in this departure will have many followers. The student infers from the language that he can study what he pleases. I can tell you what he will possibly or probably choose. Those who are in the secrets of colleges know how skilful certain students are in choosing their subjects. They can choose the branches which will cost them least study, and put themselves under the popular professors who give them the highest grades with the least labour. I once told a student in an advanced stage of his course, "If you had shown as much skill in pursuing your studies as in choosing the easiest subjects you would have been the first man in your class." I am for freedom quite as much as Dr. Eliot is, but it is for freedom regulated by law. I am for liberty but not licentiousness, which always ends in servitude.

I am to follow the President of Harvard in the three roads which he has taken; placing positions of mine face to face with his:

#### I. FREEDOM IN CHOOSING STUDIES.

#### II. FREEDOM IN CHOOSING SPECIALTIES.

#### III. FREEDOM IN GOVERNMENT.

##### I.

*Freedom in Choosing Studies.*—I am for freedom, but it must be within carefully defined limits. First, a young man should be free to enter a university or not to enter it. He is to be free to choose his department in that university, say Law or Medicine or the Academic, terminating in the Bachelor's or Master's Degree. But, having made his choice, is he to have all possible freedom ever after? At this point the most liberal advocate of liberty will be obliged to tell the student, "We are now required to lay some restraints upon you," and the youth finds his liberty is at an end. He has to take certain studies and give a certain amount of time to them, say, according to the Harvard model, to select four topics. He goes in for Medicine: he may make his quartette Physical Geography, which tells what climate is; and Art, which teaches us to paint the human frame; and Music, which improves the voice; and Lectures on the Drama, which show us how to assume noble attitudes. These seem more agreeable to him than Anatomy and Physiology, than Surgery and Materia Medica, which present corpses and unpleasant odours. I tell you that, though this youth should get a diploma written on parchment, I would not, however ill, call him in to prescribe to me, as I might not be quite sure whether his medicines would kill or cure me. Or the intention of the youth is Engineering in order to make or drive a steam-engine, and he does not take Mathematics, or Mechanics, or Graphics, or Geodesy; but as unlimited choice is given him, he prefers drawing and field work—when the weather is fine, and two departments of gymnastics—now so



well taught in our colleges—namely, boxing and wrestling. I tell you I am not to travel by the railway he has constructed. But he has a higher aim: he is to take a course in the Liberal Arts and expects a Master's Degree; but Greek and Mathematics and Physics and Mental Philosophy are all old and waxing older, and he takes French to enable him to travel in Europe, and Lectures on Goethe to make him a German scholar, and a Pictorial History of the age of Louis XIV., and of the Theatre in ancient and modern times. This is a good year's work, and he can take a like course in each of the four years; and if he be in Yale or Princeton College, he will in Spring and Fall substitute Base Ball and Foot Ball, and exhibit feats more wonderful than were ever performed in the two classical countries, Greece and Rome, at their famous Olympian Games and Bull Fights.

I have presented this designedly rude picture to show that there must be some limits put to the freedom of choice in studies. The able leader of the new departure, with the responsibilities of a great College upon him, and the frank and honest gentleman, who has such a dread of a Fetish—the creature of his own imagination—will be ready to admit that in every department of a University there should be a well-considered and a well-devised curriculum of study. It is one of the highest and most important functions of the governing bodies to construct such a scheme. It should have in it two essential powers or properties.

*First, there should be branches required of all students who pursue the full course and seek a degree.* This is done in such departments as Engineering and Medicine, and should be done in Arts. The obligatory branches should be wisely selected. They should all be fitted to enlarge or

refine the mind. They should be fundamental, as forming the basis on which other knowledge is built. They should be disciplinary, as training the mind for further pursuits. Most of them should have stood the test of time and reared scholars in ages past. There will be found to be a wonderful agreement among educated men of high tastes as to what these should be.

There should be included in them the eight studies on which examinations are held in order to entrance into Harvard College. These are: 1, English; 2, Greek; 3, Latin; 4, German; 5, French; 6, History; 7, Mathematics; 8, Physical Science. This is the scheme of preparatory studies just issued by Harvard. It seems to me to require too much from our schools. It will prevent many teachers who have hitherto sent students to college from doing so any more. Teachers in smaller towns and country districts will have to look to this. If the scheme is carried out fewer young men will come up to our colleges from such places. They will find that they cannot get French and German and physical apparatus in the schools available to them. Some of the branches had better be reserved for college, where they will be taught more effectively. But passing this by as not just to our present point, I put all these cardinal studies in the branches which should be required in a college.

In the farther courses of a college other obligatory studies should be added, such as Biology, including Botany and Zoology, Geology, Political Economy or better Social Science, and at least three branches of Mental Science, Psychology, Logic, and Ethics. All these by a wise arrangement could be taught in the three or four years at school and the four years of college. They should be judiciously spread over the years

of school and college training; a certain number of them in each successive year for every student. They should advance with the age and progress of the student. They should follow one after another in logical order from the more elementary to the higher, which presuppose the lower. Thus Mathematics should come before Physics, and Biology before Geology, and Psychology before Logic and Ethics.

Education is essentially the training of the mind—as the word *educare* denotes—the drawing forth of the faculties which God has given us. This it should especially be in a University, in a *Studium Generale*, as it used to be called. The powers of mind are numerous and varied, the senses, the memory, the fancy, judgment, reasoning, conscience, the feelings, the will; the mathematical, the metaphysical, the mechanical, the poetical, the prosaic (quite as useful as any); and all these should be cultivated, the studies necessary to do so should be provided, and the student required so far to attend to them, that the young man by exercise may know what powers he has and the mental frame be fully developed. To accomplish this end the degrees of Bachelor of Arts and of Master of Arts were instituted. These titles have acquired a meaning. For centuries past tens of thousands of eager youths have been yearly seeking for them and the attainments implied in them. True, the standard adopted in some colleges has been low—some who have got the diploma could not read the Latin in which it is written: still it has a certain prestige and a considerable attractive power. It indicates, as to the great body of those who possess it, that they have some acquaintance with elevated themes, that in short they have some culture. I do not wish to have this stimulus withdrawn. I have been labouring

for the last thirty-two years to elevate the requirements for the degree. But let it retain its meaning and carry out its meaning thoroughly. Let it be an evidence that the possessor of it has some knowledge of literature, science and philosophy.

I have no objection that other degrees be instituted, such as Bachelor of Literature, Bachelor of Science, but only on one condition, that examinations be deep, that they be rigid, that they imply a knowledge of the principles as well as of the details of the branches taught, that they cultivate the mind and elevate the tastes as well as fit men for professions. But let us retain in the meanwhile the old Bachelor and Master degrees, only putting a new life into them. They should not be given to one who knows merely English and German, or one who knows merely chemistry and physics, still less to one who knows merely music and painting. Eminence in these has no right to assume, or in fact steal, the old title. Let each kind of degree have its own meaning and people will value it accordingly. But let A.B. and A.M. abide to attract youths to high general scholarship.

Under this Academic Degree I would allow a certain amount of choice of studies, such as could not be tolerated in professional departments, as Law or Medicine. But there are branches which no candidate for the degree should be allowed to avoid. There should be English, which I agree with President Eliot in regarding as about the most essential of all branches, it being taught in a scientific manner. There should be Modern Languages, but there should also be Classics. A taste and a style are produced by the study of the Greek and Latin with their literatures, which are expressively called *Classica*. It may be difficult to define, but we all feel the charm of it. If we lose

this there is nothing in what is called our Modern Education to make up for the loss. President Eliot has a high opinion of German Universities, but the eminent men in their greatest University, that of Berlin, have testified that a far higher training is given in the Classical Gymnasia than in the scientific Real Schule.\*

There should be physical science, but there should also be mental and moral science required of all. In knowing other things our young men should be taught to know themselves. When our students are instructed only in matter they are apt to conclude that there is nothing but matter. Our colleges should save our promising youths, the hope of the coming age and ages, from materialism with its degrading consequences. We must show them that man has a soul with lofty powers of reason and conscience and free will, which make him immortal and enable him so far to penetrate the secrets of nature, and by which he can rise to the knowledge of God.

We in Princeton believe in a Trinity of studies: in Language and Literature, in Science, and in Philosophy. Every educated man should know so much of each of these. Without this, man's varied faculties are not trained, his nature is not fully developed and may become malformed.

A college should give what is best to its students, and it should not tempt them to what is lower when the higher can be had. Harvard boasts that it gives two hundred

choices to its students, younger and older. I confess that I have had some difficulty in understanding her catalogue. I would rather study the whole Cosmos. It has a great many perplexities, which I can compare only to the cycles, epicycles, eccentricities of the old astronomy, so much more complex than that of Newton. An examination of students upon it would be a better test of a clear head than some of their subjects, such as "French Plays and Novels." As I understand it, one seeking a degree may, in his free will, choose the following course:

*In Sophomore Year—*

1. French Literature of the Seventeenth Century.
2. Mediæval and Modern European History.
3. Elementary Course in Fine Art, with collateral instruction in Water-colouring.
4. Counterpoint (in music).

*In Junior Year—*

1. French Literature of the Eighteenth Century.
2. Early Mediæval History.
3. Botany.
4. History of music.

*In Senior Year—*

1. French Literature of the Nineteenth Century.
2. Elementary Spanish.
3. Greek Art.
4. Free Thematic Music.

There are twenty such dilettanti courses which may be taken in Harvard. I cannot allow that this is an advance in scholarship. If this be the modern education, I hold that the old is better. I would rather send a young man in whom I was interested to one of the old fashioned colleges of the country, where he

\*Professor Hoffmann, as Rector of Berlin University, says that it is the opinion of the University that "all efforts to find a substitute for the classical languages, whether in mathematics, in the modern languages or in the natural sciences, have been hitherto unsuccessful." In Princeton College Dr. Young and the scientific professors unanimously are, if possible, more strongly in favour of Latin and Greek than even the classical professors.

would be constrained to study Latin, Greek, Mathematics, Rhetoric, Physics, Logic, Ethics, and Political Economy, and I am persuaded that his mind would thereby be better trained and he himself prepared to do higher and more important work in life. From the close of Freshman year on it is perfectly practicable for a student to pass through Harvard and receive the degree of Bachelor of Arts without taking any course in Latin, Greek, Mathematics, Chemistry, Physics, Astronomy, Geology, Logic, Psychology, Ethics, Political Economy, German, or even English! (If, as President Eliot insists, a knowledge of our mother-tongue is the true basis of culture, what is to be said of this?)

*Secondly. It should be an essential feature of the course for a degree, that the attendance of the student on lectures and recitations should be obligatory.* This is a very important matter. The student may have freedom in his choice, but having made his election he should be bound to attend on the instruction imparted. He should not be allowed to attend the one day and stay away the next. A professor should not be subjected to the disadvantage of only a portion of his students, say a half or a third, being present at any one lecture, and of the students who attend not being the same continuously. Parents living far away from the college-seat should have some security that their sons professing to be at college are not all the winter skating on the ice, or shooting canvas-back-ducks on Chesapeake Bay.

But it is said that if a student can stand an examination, it is no matter where he gets his knowledge. There is an enormous fallacy lurking here. I admit that a youth may make himself a scholar without being at a college or submitting to its examinations. But if he goes to college let him take all its advantages. One of

these is to be placed under a continuous course of instruction in weekly, almost daily, intercourse with his professors, keeping him at his work and encouraging him in it. It is thus that the academic taste, thus that the student spirit with its hard work, is created and fostered.

I have had thorough means of becoming acquainted with those systems in which there is no required attendance; and I testify that they do not tend to train high scholars. Everything depending on a final examination, the student is sure to be tempted to what is called *cramming*. A student once told me what this led to in his own experience. In five of the branches taught to his class, he spread his daily studies over the year; but in one he trusted to cramming. I said to him, "Tell me honestly what is the issue." He answered, "In the five branches I remember everything and could stand another examination to-day, but in the one—it happened to be botany—it is only four weeks since I was examined on it, but my mind is a blank on the whole subject."

I know that in Germany they produce scholars without requiring a rigid attendance, and I rather think that in a few American colleges, they are aping this German method, thinking to produce equally diligent students. They forget that the Germans have one powerful safeguard which we have not in America. For all offices in Church and State there is an examination by high scholars following the college course. A young man cannot get an office as clergyman, as teacher, as postmaster, till he is passed by that terrible examining bureau, and if he is turned by them his prospects in life are blasted.\* Let the State of

---

\*The Germans have, besides, their admirable gymnasien, where all is prescribed, and which give instruction equivalent to that of the Freshman and Sophomore years in American colleges.

Massachusetts pass a law like the Prussian, and Harvard may then relax attendance, and the State will do what the colleges have neglected to do.†

†President Eliot would not have students enter college till they are eighteen years of age. If this be carried out it is evident that we shall have fewer young men taking a college education. A large number cannot afford to continue till twenty-five before they earn any money; not entering college till eighteen, continuing three or four years and

spending other three years in learning a profession. In many cases many young men might be ready to enter college at sixteen, graduate at twenty, and then learn their professions. This would suit the great body of students. But one in ten, or one in five who have acquired a taste for more should be encouraged to remain in college, to take post-graduate courses, and devote themselves to special studies. We encourage this in Princeton by seven or eight endowed Fellowships, and have always 30, 40, or 50 post-graduate students. In this way we hope to rear scholars.—*Pamphlet.*

(*To be continued.*)

### THE PRICE OF INTELLECTUAL LABOUR.

NO one, considering the question as a general truth, will deny that the mind is of higher rank than the body, or that the brain, the organ and exponent of the intellect, is a more costly and perfect instrument than the muscles and sinews. Again, few will object to the statement that brain-work has profited mankind vastly more than muscle-work. Notwithstanding this admission of the truth of the abstract proposition, that the products of intellectual labour are of more value than the results of mere physical exertion, many, very many persons, when they become the employers and paymasters of brain-workers, easily forget to make practicable application of their admissions. They are apt to estimate the amount and value of brain exertion by the amount of physical exertion involved. This tendency is easily explained, for manual labour is something visible and tangible, while the work of the brain is invisible, and cannot be made known to others without some physical and muscular exertion, which latter, the mere expression of the previous brain-work, is very commonly taken to be the whole work performed.

How many persons estimate the labour of the preacher by the time

consumed in delivering his sermon; that of the lawyer by the time he is occupied in addressing the jury; and that of the teacher by the number of hours he spends in the class-room! They forget that such time is occupied only in expressing and applying results attained by many hours and days of previous labour.

Then again many forget that in most cases where intellectual work, especially that of an expert, is called for, a long and costly course of special preparation and training is needed to fit one for such work. This training is costly in the time consumed by it, when no money returns are made. It is costly in the expenditure of brain power involved in prolonged study, and lastly it is costly in the actual money outlay required. In estimating then the money value of any piece of intellectual work, all this must be taken into account. How unjust then it is simply to estimate the time employed by one in using the hand, the tongue, or the pen, to make known the acquired results!

This mode of estimating the value of brain-work eliminates its very essence, and reduces it to mere mechanical tread-mill work. What sort of a teacher would he make who

confines himself to class-work, and does not seek aid and information from books, periodicals and intellectual companionship? He would be matching the spontaneous workings of his single brain against the united brains of the rest of the world. No, in every intellectual profession far more time should be spent in study and preparation than in the using and applying of information and training.

Few who are not physiologists know how exhausting brain-work is, and how much more severely it taxes a man's powers than muscle-work. Severe sustained intellectual work is far harder work than any muscular exertion. Does any bodily labour blanch the cheek, dim the eye, shatter the nerves, palsy and finally destroy mind and body? All this is constantly done by uncontrolled brain-work.

There is another mistake arising from this material view of brain-work against which we are contending, and that is the tendency to regard it as mere merchandise. The safest rule for the employment of all skilled labour is to pay generously for it. This is especially applicable to brain-work which is the highest form of skilled labour. The making mere merchandise of brain-work, which is done when the lowest possible price is paid for it which circumstances will permit, is the worst possible rule to go by, on many accounts. The employer cannot expect to retain his worker a moment longer than he is compelled to remain with him, and permanence is worth more in brain-work than in any other form of labour. Besides, the working brain is not a finished product like a bolt of cloth. It is a machine ever capable of improvement, and ever improving when circumstances are favourable. The sums paid for its labour are not simply the measure of the value of

completed work, but they enter as factors in the improvement and perfecting of the working agent.

No employer of brain-labour can attain the highest results of such labour by niggard treatment. The devising of additional ways and means of gaining daily bread is not promotive of the best results in any intellectual occupation.

Then, too, the worker is tempted to repay in kind, and to make the smallest possible exertion, where the payment is the smallest possible.

There is still another injurious result arising from a stingy mercantile view of intellectual labour. Many men can be found who, while claiming to be advocates of popular education, base their advocacy on very narrow and selfish grounds. They make it a matter of dollars and cents, and would educate the masses only so far as to render them harmless as animals, and efficient as working machines. A certain degree of education is, in their view, necessary in order that the workers may not, in consequence of total ignorance, be easily led by unscrupulous agitators into deeds of violence, directed against the person or property of the wealthy. Yet the imparting of information and intellectual training must not be carried far enough to render the masses dissatisfied with their lot as "hewers of wood and drawers of water."

Now this may do for the "effete monarchies of Europe," but not for America. When a nation is ruled by its masses, the true policy is to make those masses as intelligent as possible. The civilization and power of a nation are mainly dependent upon the amount of brain-power that it can command, and we may safely estimate its standing in these respects, by the esteem in which it holds its brain-workers, and by the rewards and privileges it confers upon them.—*Ex.*

## SCRIPTURE LESSONS FOR SCHOOL AND HOME.

BY THE REV. J. WYCLIFFE GEDGE, M.A., INSPECTOR OF SCHOOLS FOR WINCHESTER, ENG. (NOTES FOR TEACHERS.)

**I**NTRODUCTION. Imagine a country without laws—all people doing exactly as they please—no order, no government, no punishment. Would soon be dreadful confusion—strongest would force weak to submit—would be constant violence and oppression. So all nations make laws, and punish those who break them. Man as soon as created received laws from God. Remind how even in Paradise God taught duty of work—rest on Sabbath—self-restraint (one tree not to be eaten). Afterwards gave laws about murder. (Gen. ix. 5, 6.) At last, time came for His people to receive full system of laws. Shall read of these to-day.

**I. THE GIVING OF THE COMMANDMENTS.** (Read Exod. xix. 16-25.) To whom were they given? Israelites had left Egypt fifty days before—were encamped at Mount Sinai, same place where God spake to Moses out of the burning bush. Spoken in very solemn way by God's own voice—afterwards written on two tables of stone "with the finger of God." Copies of these tables always kept in the ark in the "Holy of Holies." There they remained till Nebuchadnezzar, King of Babylon, destroyed the Temple many hundred years afterwards.

**II. THE NATURE OF THE COMMANDMENTS.** God afterwards gave great many other laws about other subjects, such as the Tabernacle, the priests, sacrifices, etc. Those laws had to do with the ceremonies of the Jew's worship—called therefore the *Ceremonial Laws*. These not binding upon us, because customs of religious worship differ in each coun-

try and each Church. Also gave laws about these and other matters relating to the Jews as citizens. These called *Civil Laws* also not binding on us.

Ten Commandments binding on all people, everywhere, because plainly set forth duties and rules of conduct which all are bound to observe. Hence called *Moral Laws*, because all *morally* bound to keep them.

**III. THE KEEPING OF THE COMMANDMENTS.** (Read Matt. v. 17-22.) Christ shows that all must keep God's laws. He explains several of them to show what is included in keeping them. We may learn four things:—(1) *They forbid sin.* Neglect of God, His word, His day; disobedience to parents, covetousness, etc., are sins as much as theft, murder, etc. (2) *They include sins of same kind but less degree.* Not merely the direct sin, but indirect sins; e.g., discontent is to break the tenth Commandment—to copy another child's lesson is to break eighth, and so on. (3) *They include the thought.* See how Christ shows this in the case of murder. So with all the Commandments. Thoughts lead to acts. (4) *They require the opposite.* Each commandment forbids some sin and enjoins some duty. Thus not to steal teaches honesty, and so with them all.

**LESSON.** *Fear God and keep His Commandments, for this is the whole duty of man.*

#### NO. 2. THE FIRST COMMANDMENT.

**INTRODUCTION.** Before attend to any laws must believe that person who gives them has authority to do so. Suppose some one suddenly

came and ordered school to be closed, what should we say? This what Pharaoh said when ordered to let Israelites go—"I know not the Lord," (Ex. v. 2.) Therefore God begins His laws by telling who He is and what He has done. *Who is He?* The Lord—living, eternal, unchangeable. (Ps. xc. 1.) *What has He done?* Set Israelites free from being in bondage—delivered them from hard masters—made them not His slaves but His people free to serve Him. So has redeemed us—from whose slavery? From the misery and bondage of sin. Therefore we will serve Him.

I. THE SIN FORBIDDEN. (Read 1 Kings xvi. 30-33.) Have an instance here of a king forsaking God. Whom did Ahab worship? Gods of other nations. So broke Commandment by worshipping *false Gods*. Read of Israelites worshipping sun, moon, and stars. (Acts vii. 42.) Athens in St. Paul's time full of temples to strange gods—read of such still in India and other countries.

Others, called atheists, worship *no god* at all. Do not believe there is a God. See what St. Paul says about them. (Rom. i. 20.) They are without excuse—because God is known by His works.

Are we tempted to break this Commandment? Certainly, in both these ways. What do we care about most? Some care most for bodily

comforts—eating and drinking. St. Paul says their god is their belly. (Phil. iii. 19.) Others, like Demas, forsake God for this world. (2 Tim. iv. 10.) Or we are tempted to live without God—to neglect prayer and worship—to love others more than God—above all to love *self* best. All this is to have another god.

II. THE DUTY COMMANDED. (Read Gen. xxii. 1-9.) May sum up our duty in two words, *Faith* and *Love*. Abraham an example of both. What did he hear? Believed in God's presence—God's call, and at once obeyed. So he who comes to God "must believe that He is." (Heb. xi. 6.) This faith will make us trust Him for all events of life, feeling sure that all He orders must be right.

The other duty is *Love*. Remind how Christ summed up the teaching of this Commandment. (Matt. xxii. 37.) Must love God with whole heart, mind, soul, and strength, *i.e.*, with all powers. How was Abraham required to show his love? Could any sacrifice be greater? Told to kill his only dearly loved son. But loved God best, so at once obeyed.

We sometimes called upon to give up our best—perhaps health, money, plans, friends, etc. Can we do it willingly, cheerfully? Thus shall show our love.

LESSON. *Thou shalt love the Lord thy God with all thine heart.—Quiver.*

THE HOME OF THE METEORS.—A remarkable theory as to the outskirts of our solar system was advanced last week in a lecture by Prof. Benjamin Pierce, of Harvard College. Briefly his theory is, that beyond the outermost planet bounding our solar system, is a vast spherical shell of matter broken up into small fragments, from which come the meteors and comets. This shell he calls the home of the meteors. He rejects the hitherto accepted theory that

comets may be, and are necessarily, strangers to our system, and thinks they are distributed throughout space with great uniformity; also that a comet would require 867,000,000 years to pass from the regions of terrestrial visibility to the limits of its sphere, and just as long to return. He concludes that the whole number of comets which are capable of being seen from the earth at perihelion, and which are contained in our sun's sphere, may be estimated fairly at over 5,000,000,000. —*J. M.*



## THE EDUCATION OF THE FUTURE.

BY REV. J. B. WASSON.

AMERICANS have now pretty generally gotten over the idea that their public school system is so nearly perfect that it cannot well be improved. Nor is the belief now so frequently expressed that education by itself necessarily makes people wise and good. We are sensibly getting over our "spread eagleism" in this as in so many other matters, and are quite willing to acknowledge that our system of education is far from being perfect, and that, even were it as perfect as possible, no mere knowledge of abstract facts will regulate the conduct and ennoble the motives of men.

There are two directions in which a reform in the system of education seems now to be both probable and possible. These are the recognition of industrial or manual education and physical culture, in some form or other, as necessary elements of a complete system of education. As to the growing need of industrial education there can be no manner of doubt. It is a well-known fact that a large number of the pupils in our public schools are obliged to go and fight the battle of life for themselves at an early age; and in school they learn little that is of any practical use to them. Even the pupils who are able to take the full course of instruction offered in the public schools often find that what they have learned is of little value to them in making their way in life; and, with all their nice catalogues of facts, they are frequently less capable of making an honest living than their former classmates, who long ago left school to

become grimy apprentices or burly butcher boys.

And there is another way of looking at this matter. The industrial supremacy of this country in the markets of the world depends upon the skill of our handicraftsmen in the industrial arts; and this skill would be largely fostered and developed by the establishment of a few great industrial schools in the large manufacturing cities. Such a school is seriously talked of in Philadelphia; and there is no reason why New York should not also have a great institution, where the elements of all the mechanical arts could be learned. England is fully alive to the importance of this matter, and the industrial education which she now gives to the children of paupers and criminals serves the double purpose of training these children to be good citizens, and of adding valuable recruits to her great industrial army. The day is coming when there will be a life and death struggle between Great Britain and the United States for the industrial supremacy of the world, and, if we are wise, we will prepare ourselves for the great conflict.

Besides all this, an industrial training will do what a merely theoretical training will not do. It will act as a preventive of crime. Of the 1,014 prisoners in the Eastern Penitentiary of Pennsylvania, only seven are mechanics, and the English Home Secretary states that eighty per cent. of the vicious boys who have passed through industrial schools, and have learned some honest trade, have been entirely reformed. As a matter of pure

economy, therefore, not to speak of philanthropy, it would be a wise thing to build more industrial training schools, and save some of the money now spent on prisons and reformatories.

The recognition of physical culture as a part of a complete education appears also to be gradually shaping itself into a fact. It will be many years before education will fully recognize the importance of this matter. But the establishment of excellent gymnasiums and departments of physical culture in many of our colleges is an indication of the drift of thought on this subject. The great revival of athletic sports in recent years has so forced the matter upon the attention of teachers that they have been led to revise their old theory that sports were interlopers to be barely tolerated at best, and to be discouraged whenever possible. The very reverse is really

true. Physical exercise is by right as much a part of a complete education as intellectual exercise, and for a large number of the pupils in our public schools is quite as necessary. It seems strange, therefore, that up to the present time so little has been done to encourage or guide the pupils in this important element of training.

While it may be said that these new educational ideas are coming to the front, it is too soon to say how they shall be practically realized. They may be so incorporated into the public school system as to become an integral part of it, although there are serious difficulties in the way of this. It is more likely that industrial and physical culture schools will at first spring up as experiments; and when it is seen that they are wanted, there will be no difficulty in finding the means to support them.—*The Independent.*

## ECHOES FROM THE CLASS-ROOM.

BY A. H. MORRISON, COLLEGIATE INSTITUTE, BRANTFORD.

### III.—SPECIALTIES AND SPECIALISTS.

SOME one has said that an educated man should know something of everything and everything of something. The teacher of the future, the youth or maiden about to embrace pedagogy as a possible life-calling, would do well to examine the foregoing sentiment and lay it thoroughly to heart. Certainly, they that have not had a very extended lease of life, or enjoyed exceptional advantages in education, can hardly be expected to have attained to a universal useful knowledge, much less to have acquired the "everything of something"; but they should be on the road, progressing thitherward,

ever nearing the goal. I say all this advisedly in the face of cavillers at so-called "smattering"; in the face of Elia's cruel taunt: "The modern schoolmaster is expected to know a little of everything because his pupil is required not to be entirely ignorant of anything. He must be superficially, if I may so say, omniscient." The smatterer, let me say, is a power in society, if his smattering be but backed by common sense, and by one reserve force, his *pièce de résistance*, his intimate knowledge of some one educational or professional means; I care not what that means be, mental or manual. We are all smatterers on this earth; the very best and the very worst. For what

do we know of anything? Of learning there is no end, and he that has climbed the highest is but standing on the bottom rung of the ladder of knowledge whose topmost height touches the threshold of the eternal, and is there enveloped in the mists of the unknown—perhaps for us through all time and space, the unknowable.

So far as I can judge, the main use of experience in life is to guide and warn inexperience; to direct the tottering footsteps of an infant humanity, and so to tutor its progress as to enable it to avoid the ditches into which its predecessors have stumbled, and the snares in which they may have become entangled. In the pursuit of this purpose I am inclined to believe that the experience of the humblest may be of service, and he who offers it heartily and voluntarily, so far from laying himself open to the imputation of egotism, deserves well at the hands of an aspiring and constantly increasing humanity, whose earnest cry is ever ascending, "What shall we do for bread?" and that assured, "What for honour?"

Look out into the world and ascertain who are the prosperous, who are the respected, who are the leaders of men, be they philosophers, politicians, priests or pedagogues. Without doubt they are the specialists. I speak conscientiously when I declare that a so-called liberal education without the *one* means to gratify the liberal tastes engendered thereby is not an altogether unmixed blessing. Nay, it may become a curse rather than a blessing. I repeat it is good to have a smattering, if—ah! those "ifs," they are the pitfalls of life—if there be a specialty behind, the one means to excel and make bread, the bread of life, and the bread of success and content, which is more than life; one branch of knowledge, one department of business, one province of

art or trade or mechanical skill in which the toiler is at home, among whose intricacies he can take his stand and say, I know them all as far as humanity can know; other men may be lost in the labyrinthine turnings of the maze, but I can follow each sinuous path to the end with ease and profit; mine is the clue by which the Ariadne of knowledge extricates her hero, and tempts the Minotaurus of doubt and ignorance to its inevitable end.

To the teacher then, as to every other "bread winner," a specialty is an absolute necessity. For general purposes and the common school room course a fair acquaintanceship with the ordinary subjects of the curriculum may seem all-sufficient, as doubtless for a season it is. But there comes a time to every healthy and ambitious intellect when the limits of the ordinary routine seem too narrow, the mind pants for expansion. The earnest seeker after a higher perfection longs to ascend another rung in the ladder of competency. Be assured if no such spirit seizes you, you are in the wrong place in life, a round personage in a square hole, and the sooner you drop through, or scramble out, and insert yourself into another orifice of being, so much the better for yourself and for the world at large. As no two natures are exactly the same, and as the field of educational inquiry is very large, it would be useless to lay down cast-iron rules for the guidance of the individual intellect. Ascertain what you instinctively like, what branch of study is your *forte*, that is, which comes most naturally to you, then gird up your loins and go ahead once and for all. The incomparable Goethe has put good counsel in the mouth of old Meister, the father of his hero Wilhelm, to this effect: "One cannot do a young man any greater kindness than

to initiate him early in the future business of his life." There is, I have seen, a quicksand in life, and on it, in ever shifting symbols, is inscribed a legend: "How long halt ye between two opinions?" Beneath the treacherous surface of this most unlovely quagmire lies the life-work, aye, and the reputation of many a youth and many a maiden, "heaped and pent." Be advised by experience, the experience that cannot err, that cannot be untrue to its own teachings. Avoid this quicksand. He who hesitates is lost. Choose your line once and for all, and having chosen, stand by the colours of your faith. Then, if among the manifold chances of this most uncertain life, you fall, you fall as a soldier should, at your post, having merited a soldier's guerdon, the respect and gratitude of your kind.

Having mastered the specialty, be it language or science or mathematics—I speak to the teacher—then comes the reward. You are now a citizen where before you were but an alien. You are at home where at first you felt strange and diffident. What is more, you are now competent to teach—to call yourself in very fact a teacher. Of course I pre-suppose that you have already acquired the one specialty that every true teacher should possess, namely the ability to teach or convey instruction to others. I have not dwelt very much on this latter topic, for he, indeed, is an exceptional being, who with a full mind cannot impart some of its fulness to his fellows. Again, I say, I advocate no cast-iron rules for tuition. Let each teacher find his own. My coat will not fit you. You cannot see with my spectacles. The dinner I eat would perhaps scarcely suffice to keep you from starvation's door. My methods may not be yours. Study the best books on the subject. Examine

carefully the best methods. Get some practical experience, and then, with reason for your guide, and common-sense for your counsellor, do as you please. Recollect I am advocating the cause of true education. For mere cram, certificates, degrees, I care nothing. They are but the foam upon Niagara. The true stream, the rushing current, the wonderful power is beneath, and its mission is the same, foam or no foam. Our object in life is to succeed, not to borrow empty epithets, which we give in—like our umbrellas in the lobby of an exhibition—at death's door. If we can win titles in addition to any intrinsic worth we may possess, good; they are at least a badge of a possible culture, but I would not make them my chief end. You cannot all be gold medallists, but you can all be thoroughly trained, conscientious, active, useful members of the great guild of this world's workmen. And when Death shall take our tickets he will not bow to our academic letters. The peristyle of Heaven is not lined, like the ante-chambers of an autocrat's court, with stars and garters and ribbons of clay; but with immortal spirits, whose brows wrinkled with life's honest toil, whose intellects chastened by life's earnest studies, whose hearts stamped with the die of loyalty to life and life's mission, are returned, as talents lent for a season, to the great Author and Rewarder of life and life's labour.

And now, in conclusion, a word of warning as to the teaching of specialties in the public school. We are all too liable to be led away by our likings from the path of true duty. It is hard, I know, when we are passionately devoted to language, to have to engage in dull calculations; hard, when we are adepts in mathematical science, to be forced to grub among the roots of half-forgotten tongues. But let us remember that

whatsoever our personal likings may be, and whatsoever knowledge we may possess in any one given subject, the public school room is not the field for the specialist in instruction. Here he may in truth make his influence felt, it cannot be otherwise, but it must not be an undue influence. He must not coerce; for coercion is destructive to specialism. He may lead those minds that show a tendency to follow in his own groove of research, and lend them a helping-hand, but he must not forget

the others whose instincts are not his own, yet who look to him for sympathy and aid. While learning one thing the student-teacher must be broad-minded and tolerate all. Yes, he must himself be a smatterer in all. One, two, three things if possible, thoroughly, and outside of these a knowledge—smattering, if you like so to term it—of many things to minister to the child-mind, and satisfy to some extent at least the cravings of the child's intellectual appetite.

---

## A FEW WORDS ABOUT RELIGIOUS INSTRUCTION AND EDUCATION.

BY THE REV. HARRY JONES, M.A., HON. CHAPLAIN TO THE QUEEN.

ONE mistake of the day is to confound together religious "instruction" and "education." They are really different, though the second can hardly be given without a foundation of the first.

In order to understand any information given, or lessons or truths sought to be taught, or conclusions drawn from many lectures, speeches, sermons, or books, it is necessary to be acquainted with at least the main statements and outlines of religion, such as, with us, are contained in the Bible and the history of the Church of Christ. Unless a man knows something of these, the most ordinary allusions are unintelligible to him. The speaker, preacher, or writer cannot be always going back to the first elements of what he treats about. He assumes a certain basis of knowledge or information in those whom he addresses. He cannot always be stopping to say, "Now, you must know when I mention 'Moses' I mean a famous lawgiver who was engaged some 3,000 years ago in

leading a certain people, who were called the Jews, out of a country called Egypt," and so on. No one could stop at the mention of the name of any place or person, such as Jerusalem, Abraham, Joshua, David, Solomon, Judea, Paul, Samaria, Herod, Galilee, and the like, in order to explain what he meant by reference to the names. He must take for granted that his hearers or readers are familiar with what is generally known about them.

It does not necessarily follow that this religious instruction, these statements of religious and Christian history, should be accompanied by the moral and other lessons to be drawn from them. They must, to a certain extent, be the inculcation of dry statements which it is necessary for the child to remember, if afterwards he is to be able to understand many social allusions, as the sheer knowledge of the addition and multiplication tables is necessary if he is ever called upon to keep any accounts, or to follow references to business

matters in the books and newspapers he may read, or the conversation he may hear about them.

A man of what is called liberal education must be acquainted with at least the outlines of ancient history, art, and modern science, besides divers other matters too numerous to mention, or he will be shut out from very much of the current interest of his age, and be excluded from the advantages of literary culture and information. A very large number of books, the proceedings of many societies and institutions, literary, scientific, political, social, technical, addressed to those of liberal education, will be hopelessly closed to him unless as a child and young man he has been taught the rudiments and outlines, the knowledge of which is taken for granted by all who speak of, or comment on, the events and progress of the world.

Just so in religious education. A certain amount of rudimentary instruction is necessary—in respect to the statements and doctrines of Christianity—in order that lessons of Christianity may be eventually conveyed; in order, *i.e.*, that any religious education may be given.

The child afterwards may make a wrong use, or no use, of the main religious and historical statements contained in that book, but he is unfitted to take his place intelligently in much conversation, or even to read with sufficient perception many allusions of current journalism, if he has never been taught anything about those religious and historical statements. Afterwards when he grows up, he may, wisely or unwisely, form his own conclusions. He will have his own opinion about the lessons and deductions drawn from these statements. But at any rate he should be in early life supplied with some information upon which his views, right or wrong, can be based. For this reason most people insist on some

primary religious instruction. But we must not confound this with religious education. This is another matter. It concerns those moral precepts, those spiritual motives which are intended to influence the conduct of life, which are to create a sense of consciousness, a love of truth, a devotion to the high principles of righteousness.

Religious education concerns itself with the knowledge of God as our Father which is in heaven, and a perception of Divine love and the spirit of self-sacrifice revealed in our Lord Jesus Christ. This can never be conveyed in mere dry lessons. It can come only from the loving heart, and appeals to the conscience. It passes from soul to soul. And it is this which makes the duty of any one who professes to impart religious education of such grave importance.

When, therefore, we talk of religious education as distinct from, as an advance upon, religious instruction, though this may be honestly given in school, it must chiefly be given at home, if the child's character is to be formed on Christian lines. Without righteous home example and influence, woful is the prospect that the child will grow up into a genuine Christian man or woman. It is likely, in time, to take its tone from its surroundings. If they are good—though some children disappoint the best parents—there is obvious hope that the child will turn out well. How many a man and woman, honestly trying to lead a Christian life, traces his or her better mind to the influence and example of a righteous parent! How many parents, humanly speaking, have only themselves to thank when their children turn out ill! Perhaps they have cuffed and scolded them when they have been troublesome; but that is not religious education. Perhaps they have even sent them to Sunday-School and Church; but very possibly that was to get them out o

the way. What they should do is to bring them to church themselves, and back up the teacher's efforts by a personal interest in the lesson.

In short, true religious education is not, and never can be, the sole work of any school, however good. Throughout the whole educational movement, especially of these latter days, many of us have lost sight of what true religious education is. We are a great deal too fond of dividing work into different departments; as if it were the schoolmaster's business to hammer the three R's, and as much else as it can be got to hold, into the child's head; the parent's business to feed, lodge, and clothe the child, and pay its school fees, till it can begin to earn a few shillings a week itself; the Sunday-School teacher's and minister's business to provide its share of religion. But religion, the sense of obedience to high principles, the sense of respect we owe to God, can never be shut up in, and referred to, a mere department, as if it could be taught separately, like arithmetic. If it is anything, it is intended to pervade all work, all life. The spirit of it is needed just as much in the home as in the Church. The Church is not a sort of tank in which so much religion is stored, and out of which people may fill their own buckets if they are so inclined.

Religion is, rather, more like the rain without which no grass can grow, without which no fruit can swell. It is like the dew which needs to fall over the woods and fields and gardens alike, and without which all natural life would be dried up. When we talk of religious education, we think of the influence which should descend upon and pervade every so-called Christian society, having, it may be, different forms, but having this one thing in common; high motive, purpose, and effort to lead a righteous life, desire to know and to do the will of God; desire, that is to say, to know and do what really are the laws

by which we should be guided; desire to follow them, and not merely please ourselves. That which thus concerns our whole course and work is no mere educational department, confined to one section of instruction.

Religious education! This, or its opposite, inevitably goes on in every circle, every home, every part and branch of society. We are all called to be teachers and scholars in this matter. It ceases at no period of our growth and life. It is perpetually the subject of learning and examination.

The world is the great school in which it is required, and God is the Head Teacher and Chief Inspector therein. We distort its meaning, and cramp it down, when we talk of its being the business of this or that set of people only. It is not a special, but a universal subject, in which we, all of us, cannot help, for good or evil, having a hand by our character and example. But when we think of it in relation especially to children, the first responsibility for the imparting of religious education lies with the parents of the children themselves. It rests primarily with them to make or mar the whole matter. The Sunday-School, or such religious teaching in the Church as children can understand, is no substitute for the righteous teaching and influence of the Home. It should rather be a support to the example and instruction of the parent. It is the Home, and the continuous atmosphere and tone of the Home, which moulds the child. Home is the chief first source of the impressions which the child receives in its most impressible state. If those are unrighteous, the influence of the Church and School is miserably narrowed and weakened. If, on the other hand, those impressions are righteous, then the child is supported in its right course by a double power, and increased blessing may fairly be expected to descend upon the training of the Home, and the lessons of the Church and School.—*Quiver.*

## LAUREL.

A PICTURED face, in frame of gold.  
Large, tender eyes, and forehead bold,  
And firm, unflinching mouth ;  
A face that tells of mingled birth—  
The calmness of the northern earth,  
The passion of the south !

The one face in the world to me,  
The face I never more shall see  
Until God's kingdom come !  
Oh, tender eyes ! oh, firm strong lips !  
What comfort in my life's eclipse ?  
What succour ? Ye are dumb !

I brought the blossoms of the spring  
To deck my true love's offering,  
While he was far away :  
With rose's bloom, with pansy's grace,  
I wreathed the well beloved face :  
I have no flowers to-day.

But laurel, laurel for my brave,  
My hero lying in his grave  
Upon that foreign sod !  
He passed amid the crash of guns,  
Beyond the farthest sun of suns,  
A kingly soul, to God !

He died upon the battle-field,  
He knew not, he, to fly nor yield,  
Bold Britain's worthy son !  
And I will wreath his laurel crown,  
Although the bitter tears run down—  
I was his chosen one.

He loved his country, so did I ;  
He parted forth to do or die,  
And I—I let him go ;  
Oh dear, dear land ! we gave thee all,  
God bless the banner, and the pall,  
God help the mourner's woe !

I hear the bells ring loud and sweet,  
I hear the shouting in the street,  
For joy of victory ;  
The very children cease their play,  
To babble of the victor's bay,  
And pennons flutter free.

I hear the vivas long and loud,  
As they ride onward through the crowd,  
His comrades bold and brave ;  
The shouts of triumph rend the air,  
Oh, he must hear them lying there,  
My hero in his grave !

I do not grudge thee, darling mine !  
I, the last daughter of a line  
Whose warrior blood ran free,  
Upon the battle-fields of old ;  
Thou wast not mine to have and hold,  
The land had need of thee.

I do not grudge thee ; I shall smile,  
Beloved, in a little while,  
And glory in thy name ;  
I hold love's laurel in my hand,  
But take thou from the grateful land  
Thy wreath of deathless fame !

—All The Year Round.

## HERAT.

IT is one of the oldest cities of the East and was once one of the richest. To use the words of a Persian geographer, "the city has been fifty times taken, fifty times destroyed, and fifty times it has arisen from its ashes." Six hundred and sixty years ago it contained, according to the records of the period, 12,000 retail shops, 6,000 public baths, caravanserais and water-mills, 350 school and monastic institutions, and 144,000 occupied houses, and was yearly visited by caravans from all parts of Asia. . . Our generals and the generals of

Russia value Herat, not solely on account of the city, but on account of the resources of the district in which it is situated—resources in corn and beef, which, if swept into any point of the Herat district, not necessarily to Herat itself, would feed an army of at least 100,000 men; and sustain them during the final advance upon India. It is this great campaign ground, and not exclusively the town of Herat, that is the Key of India. If a line be drawn south of Herat 100 miles to Furrah, a second west 70 miles to Kusau on the Persian frontier,



and a third 120 miles north, behind the points occupied by the Russians, a rough idea may be formed of a district as fertile as England throughout, and possessing marvellous mineral resources. This is the camping-ground, this is the place of arms, which Russia wants, in order that she may be always able to threaten India. There is no such camping-ground anywhere between the Caspian and Herat, and none again between Herat and India. Hence, not without reason, have the ablest generals of England and Russia designated the district the Key of India.

General MacGregor put this plainly enough in his "Khorassan," in 1875: "From the fort attached to the village I had a fine view of the valley of Herat, which stretched in every direction but the south, one sea of yellow fields and verdant trees.

Without going further, it was easy to see the value of Herat to any Power with intentions on India, and to recognize the justice of the dictum which termed it the gate of India. Just as in the minor operations of the capture of a city the wise commander will give his troops a breathe on their gaining the outer defences, so must every general coming from the west rest his men awhile in this valley. And no better place could be found for this purpose: abundance of beautiful water, quantities of wheat and barley and rice, endless herds of cattle and sheep, good forage, and a fine climate—all combine to make the Herat valley the most apt place for a halt before entering the desolate country between Furrâh and Candahar." — *Charles Marvin, in "The Russians at the Gates of Herat."*

---

### NOTES FOR TEACHERS.

SILENCE never shows itself to so great an advantage as when it is made the reply to calumny and defamation.—*Addison.*

Of all the foolish ideas that enter the minds of teachers, the most foolish is that they do not need to read educational papers. There is that withholdeth more than is meet, and it tendeth to poverty of thought.—*School Journal, N. Y.*

As in geometry the oblique must be known as well as the right, and in arithmetic the odd as well as the even, so in actions of life whoever seeth not the filthiness of evil wanteth a great understanding to perceive the beauty of virtue.—*Sir P. Sidney.*

---

#### FOUR PRINCIPLES OF EDUCATION.—

1. Youth should not hear of anything

that may awaken unchaste-desires until they are acquainted with the dignity and loftiness of human nature.

2. Youth should endeavour to obtain a ripe development by means of effort.

3. Parents are the proper educators.

4. Education should extend over the whole period of youth.—*Pythagoras.*

---

LOYALTY is an indispensable element in a teacher; loyalty in manner, speech and thought. It will be easy for you to find things to dislike and criticize in everybody you deal with in school matters, in everything that occurs; but you owe it to yourself to smother every tempting impulse to censure, either publicly, privately or in the sacred retreat of your confidential friends.

IN the course of his articles on schools and school-masters Prof. Tyndall characterizes earnest, honest teaching as the noblest of employments; protests against the "cramming" process so common in schools; alludes to Fichte, Emerson and Carlyle as great and noble men; says that Bunsen, the chemist, was the nearest approach to his ideal of a university teacher; and asserts that "hard thinking and fleet talking do not run together."

HON. A. P. STONE, of Springfield, Mass., severely criticizes some of the present conditions of the public educational system. He says the greatest need of a large number of teachers is a knowledge of their business; that in very many cases pupils are taught to memorize instead of being led to a working understanding of fundamental principles. "There is no disguising of the fact," he remarks, "that all along the educational horizon there is going on a contest between training and cramming; between independent and routine work." He regards it to be the chief duty of the teacher to make well-trained, self-raised men rather than produce mathematicians, chemists, or literateurs. These views of the teacher's obliga-

tions to society have been so frequently expressed of late as to indicate a decided reaction against the machine system. The personality of the teacher himself is growing to be regarded as more and more important. That which was so good in the character of the old schoolmaster of a long time ago is finding its proper appreciation. It seems to be the opinion of the best authorities that children cannot be coined like dollars.

OH, brother schoolmaster, let us remember evermore the exceeding dignity of our calling. It is not indeed, the holiest of all callings; but it runs near and parallel to the holiest. The lawyer's wits are sharpened, and his moral sense not seldom blunted, by a lifelong familiarity with ignorance, chicanery, and crime. The physician, in the exercise of a more beneficent craft, is saddened continually by the spectacle of human weakness and human pain. We have usually to deal with fresh and unpolluted natures. A noble calling, but a perilous. We are dressers in a moral and mental vineyard. We are under-shepherds of the Lord's little ones; our business is to lead them into green pastures, by the side of refreshing streams.

## THE TOPICAL METHOD OF RECITATION.

WHILE the topical method of reciting when properly used tends to keep the pupils' thoughts connected and in order, and also to cultivate the power of expression, it is evident that, as frequently employed, the method fails to accomplish much less than all a person has reason to expect from it.

This failure is perhaps due to the act that many teachers seem to act

on the belief that a school conducted on the topical plan is virtually a self-running machine, and, as a consequence, they do little more during the recitation than announce the topic and read over the text (because a teacher of this class takes no pains to post himself on the lesson before-hand) while the pupils are reciting. The more nearly the pupil follows the language of the book, the higher his

grade on the recitation. As a result the pupil contracts a parrot-like habit of going over the terms and leaves the recitation without the remotest idea of anything that would be in any way beneficial to him.

It is needless to add that this practice fails so far of attaining the object to be reached by the topical method that it renders the attainment of these objects impossible. The practice is at variance with every principle of educational science and has been condemned by intelligent people everywhere for generations.

A thorough test should always be made of the pupil's understanding of the lesson, and he should be required to express the thought clearly and concisely, but in his own language. The more independent he can be of the language of the book, providing he sets forth the ideas completely and in the proper manner, the more successful will be the recitation.

But the teacher should not stop here. He must go outside of the book, and perhaps outside of other books also, for things that will aid him in explaining or illustrating difficult and important parts of the lesson. This will have a tendency not only to make the impression stronger on the minds of his pupils, but also to lead the pupils to investigate for themselves—a thing to which too much attention cannot easily be given. As conducive to having each pupil master the whole lesson, it is well not to have the members of the class recite in any fixed order of succession, and, in general, after any one of them has recited, the others should be tested on the part of the subject handled by him. If he has done well, the teacher should assure himself as to whether the others could also have done well or not; if he has not done well, perhaps some other member of the class can do better.

It is erroneous to suppose that the

topical method is altogether independent of every other method. In reality it embodies what is good in all others, and the method itself is in no way responsible for the miserable caricature of itself by which it is so often judged.

#### QUESTIONING.

No matter what method a teacher may adopt in conducting his recitations, the nature of the work required of him necessitates the use of questions during his class exercises, and his real merit as a teacher may in many instances be measured by the character of the questions he uses and his manner of propounding them. It is not sufficient that these questions be brief, pointed, void of ambiguity, and suited to the advancement of the pupils to whom they are directed. In addition to these things, every series of questions on any topic should be arranged with a definite object in view and to be reached through them. The order of succession of the questions should be their natural order of dependence, although the system behind them should be concealed from the pupils, and the teacher, like Socrates, act as if he like themselves were working indefatigably for the discovery of truth. The following dialogue illustrates the method of questioning employed by Socrates, and hence called the Socratic method. The *Meno* represented is not the traitor *Meno*, but a young philosopher, and the boy is one of his attendants. The illustration has been used for our purpose many times. Mark how beautifully the object is attained.

*Meno*—"We come to you feeling strong and wise; we leave you feeling helpless and ignorant. Why is this?"

*Socrates*.—"I will show you." Calling a young Greek to him and making a line in the sand, he said: "Boy, how long is this line?"

Boy.—“It is a foot long, sir.”

Socrates.—(Drawing another line)  
“How long is this line?”

Boy.—“It is two feet long, sir.”

Socrates.—“How much larger would be a square constructed on the second than on the first line?”

Boy.—“It would be twice as large, sir.” Under the direction of the boy the squares are then constructed.

Socrates.—“How much larger than the first did you say the second square would be?”

Boy.—“I said it would be twice as large.”

Socrates.—“But how much larger is it?”

Boy.—“It is four times as large.”

Socrates.—“Thank you my boy, you may go. Meno, that boy came to me full of confidence, thinking himself wise. I told him nothing. By a few simple questions I led him to see his error and discover truth. Though really wiser, he goes away feeling humbled.”—*Normal Teacher.*

## EDITORIAL.

HERE WE HAVE NO CONTINUING CITY.

THE late Mr. Robert Little, Public School Inspector in the County of Hatton, who died at his own residence in Acton on the 8th inst., was born at Woolwich, England, in 1835. His father was a native of Berwickshire, Scotland, and his mother was born in Edinburghshire. Mr. Little received his education in Edinburgh, where he spent his boyhood. So satisfactory was his early progress that in his thirteenth year he was employed as an assistant teacher in the Lancasterian night school of the Scottish capital. He afterwards taught in one of the Edinburgh Sessional Schools, where under an accomplished rector the foundation of his success as a teacher was laid. While in this situation he was a successful student in the Academy of Arts. He also received instruction in the elements of Latin, and afterwards carried on his studies therein until he became a respectable scholar in that language.

On the arrival of the family in this country in 1852, Mr. Little presented a letter of introduction from the Rev. Dr. Crawford, of Edinburgh, to the Rev. Dr. Barclay, of Toronto, who

introduced him to the late Rev. Professor Gale, of Knox College, by whom he was recommended to the late Rev. Peter Ferguson, of Esquising. Through the latter gentlemen he was engaged as teacher in one of the schools of the Township, where his abilities so displayed themselves that trustees soon competed for his services. Next year he was induced to remove to another school in the neighbourhood, in which he remained nine years. He took charge of Acton Public School in 1863, and notwithstanding various advantageous offers, he remained in that position until in 1871 he was appointed Inspector of the schools of the County, in which position he continued till the day of his death.

Mr. Little was a noble specimen of honour, integrity, industry, and steadfastness. He was faithful and trustworthy, both in his private and public capacity. He was so devoted to his own duties that he had neither time nor inclination to meddle with other people's affairs. Few men exemplified the character of a Christian gentleman more than he did; for though his was a well informed and clear mind, he received instruction from the public preaching of the word of God with the

docility of a child. Being an extremely modest man he made no display of his religious views or feelings, but the principles of the Gospel regulated every department of his life. He shrunk so much from publicity that though the author of the two Geographies now in use in the schools, the publisher of those books, Mr. Lovell, of Montreal, and a few other friends, could not prevail upon him to permit his name to appear on their title pages. He was an indefatigable worker, for—besides the thorough discharge of his official duties—he prepared the School Geographies referred to, and performed several extra duties for the Educational Department, such as the organizing of public school sections in the Districts of Algoma and Parry Sound, and within the past year the preparation of the School Readers in connection with Messrs. Bryant and Embree. The toil of the last undertaking told so severely on his exhausted constitution that a cold in a few days developed into a pernicious typhoid fever of which he died in less than a week. It is worthy of notice here that during his last sickness, when he wandered a good deal, he did not utter a discontented or coarse word. Though his speech was often incoherent, it was always pure, cheerful, and friendly. This fact shows the elevated tone of his mind during his life. The writer of this sketch had the privilege of his intimate friendship for years, but never heard him utter a frivolous word, even when enjoying the pleasures of free conversation in private. When he uttered a joke it was instructive.

As a Public School Inspector it would be hard for any man to be more respected and beloved than he was; in him firmness and gentleness were so well combined that he successfully prevailed on trustees to provide comfortable accommodation for the children,

and secured well qualified teachers for the County. While strict in the discharge of his duties, he was honourable and judicious, and therefore full confidence was reposed in his integrity. The Principal of Acton Public School says:—"During my acquaintance with Mr. Little, he discharged, as an Inspector, most thoroughly, exactly, and conscientiously his duty, attending to every department of the work most minutely. In his intercourse with the teachers he was always gentlemanly in his deportment, and ever ready to give advice in the kindest manner. During the six years I enjoyed the pleasure of his Inspectorship, I have never heard him utter one unkind word, but always found him the true friend of the teacher and of the educational interests of the community."

Of Mr. Little's success as a teacher there can be no better evidence than the number of gentlemen who were once his pupils, and now occupy positions of honour and usefulness as clergymen, physicians, and lawyers. It should not be omitted that he taught a daily Bible lesson in school. He was not satisfied with reading a few verses himself; but made the scholars read and then, by a few judicious questions, showed the meaning and practical bearing of the passage. If teachers love the word of God it is not at all likely that they experience any difficulty in carrying out the same method that Mr. Little pursued; for the inhabitants of Ontario are a religious people, and appreciate Scripture instruction.

He was remarkably disinterested, for over and above his official duties, he laboured in the cause of education in various ways without any expectations of pecuniary advantage. For the Geographies he received no remuneration, he made no stipulation with the Education Department for his last literary labours, nor did all he

received for his visits to Algoma quite pay his expenses. Mr. Little devoted himself to the advancement of the educational interests of his adopted country, and indeed it may be said that he fell a martyr to his zeal in that cause. "He rests from his labours, and his works do follow him."

Though he said little about his acquirements, yet Mr. Little was a scholarly man who pursued his studies beyond the requirements of his office. He gave his attention to Egyptology, and by his investigations of the Chronology of the Kings of Israel and Judah he satisfactorily removed the difficulties that presented themselves to so many minds. It is to be hoped that his labours in that department shall not be lost, but that they may be published for the benefit of Bible students.

This sketch has been written with an affectionate regard for the deceased gentlemen, of whom it may justly be said that he was a man among men.

#### ANNUAL REPORT OF THE SUPER-INTENDENT OF PUBLIC INSTRUCTION, QUEBEC.

FULL extracts from this Report (which embraces those of the local Inspectors) are given in the Quebec *Educational Record* for April.

Most interesting information about all points of importance in the educational standing of the Province is presented. The number of school sections or municipalities, schools, teachers and pupils is rapidly increasing, there is also a decided improvement in the number of important subjects studied; but the statement is made that the education of many of the teachers employed in the primary schools is superficial and their professional knowledge very slight, and as a natural sequence to this state of matters the average salaries of the teachers are very low,

indeed, so serious has this become that the reports recommend that a minimum salary should be fixed by law, and in order to place the granting of teachers' certificates on a more satisfactory footing changes of a vital character are imperative so as to provide means for raising the standard of qualification, and also offer inducements for competent persons to enter the profession and remain in it. The present standard of qualification, or at least the interpretation put upon it, is largely left to the various examining boards, and therefore uniformity is impossible. The majority of the teachers are women and there is much difficulty in securing them because almost any other employment is preferred. The local Inspectors are unanimous in the opinion that the smallness of the salaries offered is an insuperable obstacle in the way of improving the standard of attainment, and when it is stated that in some districts \$77 is the average salary, and that it is not unusual for a female teacher to receive \$72 per annum and heat the building at her own expense comment is unnecessary. Frequent change of teachers, the want of attention on the part of parents to the hours fixed by regulations, and the general irregularity of attendance of the pupils also call for special notice. We here quote from the Report items of much interest about the McGill Normal School, Academy Diplomas, and general Public School Statistics:

In the course of the year an exhaustive report was prepared by the Principal of the school as to the manner in which the teachers trained in it have fulfilled their obligations to teach. It was found possible to obtain exact information respecting 700 out of 1,099 persons educated in the school since its commencement in 1857. These have taught for an average of five and a-half years each, and there

is no reason to doubt that those not heard from have attained a similar average.

With reference to the last five years, it was found that 265 persons have received diplomas, and information was obtained respecting 238 of these. Of this number 196 are known to have been engaged in teaching and 159 are still employed. The total possible number of years of teaching of the whole number trained was 542 years, and the actual number of years ascertained was 443, or more than 80 per cent. These results are most satisfactory, and, taken in connection with the excellence of the training given, show how great the benefits of the school must have been.

Of the students and teachers in training in McGill College and the Normal School, more than four hundred are persons not residing in Montreal, but attracted to it by the educational advantages offered by the University and its affiliated institutions.

In the School Examinations of June last, 33 candidates were successful; of whom 28 passed as Associates in Arts, and 5 for the Junior Certificate. Ten of the successful candidates were young women, two of whom stood at the head of the list. The candidates were sent up from seven schools, two of them in the city of Montreal.

Two of these schools, viz., the Lincoln College, Sorel, and the Cowansville Academy, become entitled to rank as affiliated schools.

Extract from the Minutes of the Department of Public Instruction, Quebec, Feb. 25:—

The committee agree to receive and adopt the following regulations in regard to Academy diplomas, and that Sir William Dawson, and Dr Cornish be a sub-committee to prepare a sketch of examination under rule 2 (b) for next meeting.

1st. That hereafter the Academy diplomas granted by Boards of Examiners be known as "Academy Diplomas, Grade 2."

2nd. That graduates from any British or Canadian University, (a) who have taken the course and passed the examinations in the art of teaching at the McGill Normal school, or (b) who take *first rank* in the special professional examination, provided from time to time for such graduates in the Normal school, or (c) who shall have received a certificate from the Academy Inspector that they have taught successfully for two years, shall receive Academy diplomas to be known as, "Academy Diplomas, Grade 1."

3rd. That graduates who take *second rank* in the professional examination shall receive the "Academy Diploma, Grade 2."

4th. That teachers in training at the McGill Normal school, who pass the Intermediate examination, or in case of female candidates, the examination for senior associate in arts (taking both Latin and Greek) of the University of McGill, or Bishop's College, shall receive "Academy Diplomas, Grade 2."

The *Grand Statistical Table* is compiled from the returns of the School Inspectors, and reports the schools which come under their observation during the year. From this table it appears that the Inspectors visited 5,059 schools during the year, in which there was an attendance of 250,000 pupils. Of these 361 were independent schools, with an attendance of 35,134 pupils. This serves to explain in a measure the statement contained in another part of this table that there were 570 female teachers and 68 male teachers without diplomas. The large majority of these are teachers in independent schools who are under no obligation to provide themselves with diplomas. Many of them, however, are engaged in the

public schools of poor and outlying municipalities, on the ground that certificated teachers could not be obtained. An examination of the facts of the different cases would, no doubt, show that in many instances the difficulty of obtaining certificated teachers arose from the small salaries offered. These six hundred and thirty-eight teachers without diplomas, along with the 1,749 ecclesiastics, &c., who are exempt from examination by law, gives a total of 2,387 teachers engaged in the schools of the Province without passing the usual examinations. It can scarcely be considered satisfactory that one-third of the teaching staff of the Province is carrying on the work of public instruction without having submitted to any official test of their fitness for that work.

The *Monetary Tables*, which are prepared from the semi-annual reports from the different municipalities, give detailed information concerning the number of pupils of school age in each municipality, the government grant to each municipality, and the amount of the yearly assessments of various kinds raised in each municipality for school purposes.

Apart from the cities of Quebec and Montreal, reports from which are not complete, it appears that there were two hundred and sixty-three thousand two hundred and sixty-three children of school age in the Province, of whom one hundred and eighty-eight thousand seven hundred and ninety-six, or 71 per cent., attended school for a longer or shorter period during the year; that a government grant of \$152,763.00 was paid to the different municipalities, and that the municipalities themselves contributed for school purposes, \$711,615.38, \$76,758.45 of which were levied as monthly fees.

## ARBOUR DAY.

WE congratulate the Hon. the Minister of Education on the forward step he has taken in having appointed an "Arbour Day" for the Ontario Schools.

There are many considerations which render the cultivation of trees around our dwellings and public buildings very desirable, and we are glad to see that our neighbours in the Province of Quebec have moved in the matter.

It is a good thing to foster among our youth thought and care for anything that grows, and many other sentiments are called out besides a love of the beautiful, although that is well worth our attention; but the care of these products of nature thus early begun will grow with our children and yield an inexhaustible fund of pleasure and enjoyment; the people too will recognize the need for protecting trees, which will be far more effective than laws for the protection of forests.

How frequently we have regretted the wholesale destruction of the beautiful forest trees of Ontario, and the bare and uninviting surroundings of farm-houses in the newly-cleared parts of the country. Perhaps in clearing new land it was impossible always to save a few trees, but where this could not be done, steps should have been taken earlier to replace such beautiful objects. We hope the day is not far distant when *all* rural school houses will be tastefully surrounded by trees, and that travellers will at once recognize such buildings by this desirable feature.

In towns and cities the value of trees, plants and flowers in a sanitary direction is manifold and too frequently overlooked. The roots feed on organic matter which would otherwise undergo decomposition, polluting the air and surface water; they also



absorb the excess of moisture and drain the soil. The scents of many plants are of great value, and the leaves of all trees and plants, by reason of the power they possess to split up carbonic acid and generate ozone, remedy some of the evil effects of bad ventilation. Much has also been said by scientific men about the value of forest trees in intercepting marsh miasma and malaria germs.

---

#### BRITISH COLUMBIA NOTES.

**T**HE cause of education is prospering in this Province under the able superintendency of Mr. Stephen D. Pope, who is not only a man of large experience in educational matters, but who is most assiduous in his efforts to improve the school system. The Provincial Government supports the schools most liberally,

builds the school-houses, pays the teachers, provides maps, etc., does everything in fact—nothing being left to local effort. This system has its advantages; it is perhaps the only system that could be operated successfully in a Province like this where there are so many little communities far apart; but it has its drawbacks. Every district where there are fifteen children of school age, and where an average attendance of ten can be maintained, is by law entitled to a school. Such communities are fast springing into existence and the Government is beginning to feel that the support of education constitutes a very heavy drain upon its resources and a drain that will continually be getting heavier. A normal school is needed, a university is needed, but where is the money to come from? This is getting to be a serious question with our legislators and the friends of education generally. D.

**THE WASHINGTON MONUMENT.**—The United States Washington national monument was formally dedicated at the capital on Saturday, February 21, with imposing ceremonies, by President Arthur. The first public step towards erecting this monument was taken in 1783—one hundred and two years ago; various delays occurred from time to time in the maturing and carrying out of the plans. At length the corner stone was laid in 1848, and when the shaft had reached the height of 156 feet it stood thus for nearly a quarter of a century. Subsequently, the foundation was materially deepened and extended, and the shaft was completed by the laying of the capstone on the 6th of December last. It was at one time intended to lay the remains of General Washington under the monument; but that idea was finally abandoned, for, although Mrs. Washington had given a reluctant consent, the representatives of the family that followed her were

unwilling that the body should be disturbed. A large number of memorial stones have been sent in by different states and territories, as well as by foreign countries to assist in the building, and many of them were used in the first part of the work, but the character of most of them was such that they could not be used in the shaft, and it is intended to place them as panels in the interior walls of the monument. The column is over 555 feet high, the base 55 feet square. The foundation rests upon a stratum of fine sand two feet thick, and this again upon a bed of boulders and gravel; the bottom of the foundation is two feet above the level of high tides in the Potomac. 14,000 barrels of cement and 9,613 stones have been used in the new portion of the shaft. The cost of the work up to the present time has been \$1,187,710. It seems to have been completed by a monument committee presided over by Col. Casey. No accident involving loss of life has occurred in its construction.

SCHOOL WORK.

MATHEMATICS.

ARCHIBALD MACMURCHY, M.A., TORONTO,  
EDITOR.

UNIVERSITY OF TORONTO.

ANNUAL EXAMINATIONS: 1885.

ALL THE YEARS.

Problems. — Honors.

Examiner: A. K. Blackadar, M.A.

1. The lines drawn from the centre of the circle described about a triangle to the angular points are perpendicular to the sides of the triangle formed by joining the feet of the perpendiculars of the original triangle.

2. A straight line is drawn from the vertex  $A$  of the triangle  $ABC$  through the middle point of the base to a point  $D$  below the base; the lines  $AB, CD$  are produced to meet in  $P$ , and the lines  $AC, BD$  in  $Q$ . Prove that  $PQ$  is parallel to  $BC$ .

3. Prove that the factors of the sum of the squares of two numbers prime to each other, are themselves the sum of two squares.

4. If  $A, B, C$  be the angles of a triangle, prove that 
$$\frac{\cot A + \cot B}{\cot \frac{1}{2} A + \cot \frac{1}{2} B} + \frac{\cot B + \cot C}{\cot \frac{1}{2} B + \cot \frac{1}{2} C} + \frac{\cot C + \cot A}{\cot \frac{1}{2} C + \cot \frac{1}{2} A} = 1.$$

5. Sum the following series to infinity:—

$$(1) \frac{1}{1 \cdot 2 \cdot 3} + \frac{1}{5 \cdot 6 \cdot 7} + \frac{1}{9 \cdot 10 \cdot 11} + \dots = \frac{1}{2} \log 2.$$

$$(2) \frac{1}{1 \cdot 3 \cdot 5} + \frac{1}{5 \cdot 7 \cdot 9} + \frac{1}{9 \cdot 11 \cdot 13} + \dots = \frac{1}{2} \left( \frac{\pi}{4} - \frac{1}{2} \right).$$

6. Prove that the continued fraction,

$$\frac{\sin \theta}{\cos \theta} - \frac{1}{2 \cos \theta} - \frac{1}{4 \cos \theta} - \&c. = \frac{\sin n\theta}{\cos n\theta}.$$

if  $\frac{1}{2 \cos \theta}$  is repeated  $(n-1)$  times.

7. Given  $\tan^{-1} x^2 + \tan^{-1} x = \tan^{-1} \frac{1}{2}$ , find  $x$ .

8. A circle is inscribed in the triangle  $ABC$  touching the sides in the points  $D, E, F$ . If  $l+m, m+n, n+l$ , be the lengths of the sides of the triangle, show that  $2 \Delta ABC + \Delta DEF = \frac{1}{2} (lm+mn+nl) (\sin A + \sin B + \sin C)$ .

9. Prove the following formulas:—

(1) When  $n$  is even

$$\frac{1}{1 \cdot 2^{2n-1}} + \frac{1}{3 \cdot 2^{2n-3}} + \dots + \frac{1}{(n-1) \cdot 2^{n+1}} = \frac{2^{2n-2}}{2^n}.$$

(2) When  $n$  is odd

$$\frac{2}{1 \cdot 2^{2n-1}} + \frac{2}{3 \cdot 2^{2n-3}} + \dots + \frac{1}{(n)^2} = \frac{2^{2n-1}}{2^n}.$$

10. Two debts are incurred, one of  $P$  with interest at rate  $r$  per annum, the other of  $P'$  with interest at rate  $r'$  per annum. The whole amount is to be paid off by equal instalments of  $M$  a month, covering principal and interest. Show that the number of payments to be made will be very nearly

$$\log \left( 1 - \frac{P+P'}{M} \left\{ (1+r)^{\frac{1}{12}} - 1 \right\} \right) \div \frac{1}{12} \log (1+r)$$

where  $\rho = \frac{Pr + P'r'}{P+P'}$ .

11. If  $a$  and  $\beta$  be the extreme, and  $\gamma$  the mean, angles of a harmonic pencil of four lines, prove that

$$(1) \cos(a+\beta) = \cos(\beta+\gamma) \cos(\gamma+a).$$

$$(2) 2 \tan a \tan \beta \tan \gamma \tan(a+\beta+\gamma) = \tan(a+\beta+\gamma) \tan \gamma - \tan a \tan \beta.$$

12.  $AB$  is the double ordinate to the axis of a given parabola,  $BR$  is a diameter,  $AR$  any line cutting the curve in  $Q$ ; then if  $AP$  be taken in  $AR$  equal to  $QR$ , prove that the locus of  $P$  is a parabola.

13. If  $PQ$  is a chord of a central conic, normal at  $P$ , and if the normal at  $Q$  meets the tangent at  $P$  in  $N$ , and  $Y$  is the foot of the perpendicular on the tangent from its

centre; prove that  $PN:PY = PQ^2:OR^2$ ,  $OR$  being the semi-diameter parallel to the tangent at  $P$ .

14. Let  $ABC$  be a plane triangle;  $DEF$  the triangle formed by joining the points where perpendiculars from the angles  $A, B, C$ , meet the opposite sides;  $O$  the centre of the circumscribed circle, and  $R$  its radius;  $P$  the intersection of the perpendiculars; and  $\rho$  the radius of the circle inscribed in  $DEF$ ; prove the following relation

$$AP^2 + BP^2 + CP^2 + OP^2 = 5R^2 \pm 8R\rho,$$

the upper or lower sign being taken according as the triangle  $ABC$  is obtuse or acute.

15. The diagonals of a four-sided figure are  $h$  and  $k$ , and the area is  $A$ ; show that the area of the circumscribing square is

$$\frac{h^2 k^2 - 4A^2}{h^2 + k^2 - 4A}$$

16. A conic is described having a common

focus with the conic  $\frac{c}{r} = 1 + e \cos \theta$ , similar

to it, and touching at the point  $\theta = a$ ; prove

that its latus rectum is  $\frac{2c(1-e^2)}{1+2e \cos a + e^2}$ , and

prove that the angle between the axes of the

two conics is  $2 \tan^{-1} \frac{e + \cos a}{\sin a}$ .

## MODERN LANGUAGES.

Editors: { H. I. STRANG, B.A., Goderich.  
W. H. FRASER, B.A., Toronto.

## EXERCISES IN ENGLISH GRAMMAR AND COMPOSITION.

1. Substitute words for the italicized phrases:

(a) He came *with the intention* to remain.

(b) It is *beyond all doubt* the best of the lot.

(c) I hope that the stoppage will be only *for a time*.

(d) She showed it *in a manner not to be mistaken*.

(e) It is said to be a custom among the *people of Norway*.

(f) *In consequence of this* some change will be necessary.

(g) Can you explain *in what way* it is done?

(h) They accused me of *being ungrateful*.

(i) He was well liked by *those in the same class with him*.

(j) They were accompanied by the band *belonging to the regiment*.

2. Expand the following simple sentences to complex ones:—

(a) I supposed him to be the proprietor.

(b) He is not the man to refuse such an offer.

(c) It is impossible for such a result to happen.

(d) His successor will have a difficult task.

(e) You would be very foolish to try it.

(f) His telling you that makes no difference.

(g) She is almost certain to forget about it.

(h) For fear of frightening him I did not tell him.

(i) Explain the construction of the air-pump.

(j) To deceive her he wrote the following letter.

3. Change the following complex sentences to compound ones.

(a) Though he has left us we shall not forget his kindness.

(b) If he did not write it he got some one else to write it.

(c) I could not buy it as I had no money with me.

(d) After he had read it through he handed it to me.

(e) If you will call for me I will go with you.

(f) His father, who was working in the next field, came to his aid.

4. Combine the following groups into single sentences:—

(a) He wrapped a handkerchief round the wound. He hastened from one rank to another. He encouraged his soldiers. He exhorted them to be steady. He exhorted them to reserve their fire.

(b) They scrambled up. They held on by roots and branches. They were guided by the stars. These stars shone over the top of the cliff.

(c) It was a bag. He did not know that. He had been looking for a passage to China. Had he discovered it? He hoped so. He indulged this hope for some time.

(d) Icicles are hanging from the caves. There is snow on the roof. This snow melts. The icicles owe their origin to this. In the same way glaciers are formed. The mountains are covered with perpetual snow. This snow keeps melting.

(e) There were rejoicings throughout all the land. There were illuminations. The only exception was a Kentish village. The name of the village was Westerham. Wolfe had been born there. His mother lived there. She was a widow. She mourned the death of her son. He was her only child.

5. Change the voice of the verbs in the following sentences:—

(a) No one believes the statements which he has made.

(b) He had been seen by them to enter the house.

(c) The store was broken into during the night.

(d) The doctor will not allow any one to visit him.

(e) The secretary should have notified the judges.

(f) The question which we have to consider is how shall we get rid of it.

6. Paraphrase the following extracts, changing (b) to the indirect form:—

(a) Such dupes are men to custom, and so prone  
To reverence what is ancient, and can plead  
A course of long observance for its use,  
That even servitude, the worst of ills,  
Because delivered down from sire to son,  
Was kept and guarded as a sacred thing.

(b) But after a suspended pause,  
The baron said: "Of nature's laws  
So strong I held the force  
That never superhuman cause  
Could e'er control their course;  
And, three days since, had judged your aim  
Was but to make your guest your game.

But I have seen, since past the Tweed,  
What much has changed my sceptic  
creed,  
And made me credit aught."

7. Which of the italicized forms in the following are correct:—

(a) *Yours (your's)* seems quite new compared to (*with*) mine.

(b) Two *spoonsful (spoonsfuls)* of brandy would not have had such an *effect (affect)* on him.

(c) Ten dollars for a few *minutes (minute's)* (*minutes'*) work *seems (scem)* too much to pay.

(d) He was quite *conscious (aware)* that his two rivals hated *one another (each other)*.

(e) More than one case *has (have)* occurred where an innocent man has been *hanged (hung)*.

8. Write the following:—

(a) The plural of sheaf, hoof, motto, Hindoo, valley, chorus, formula, asylum.

(b) The corresponding gender form of sir, roe, heifer, hero, executor, negro, abbess.

(c) The present and the past participle of rely, forget, begin, re-write, incur.

9. Give examples of the following:—

(a) A noun in the nominative absolute, nominative of address, predicate nominative.

(b) An infinitive mood subject to a verb, object of a verb, object of a preposition, attributive adjunct, adverbial adjunct.

(c) *That* beginning a substantive clause, an adjective clause, an adverbial clause.

(d) A word in *ing* used as a preposition, an adjective, a participle, a gerund (or verbal noun).

(e) The different kinds of adverbial clauses.

10. Write sentences in which the following words are correctly used:—

(a) Straight, strait, tracks, tracts, coarse, course, council, counsel, principal, principle, statue, statute, practices, practises.

(b) Syllabicate and accentuate the following words:—Adult, ally, advertisement, clan, destine, conversant, coquetry, deficit, despicable, formidable, inquiry, horizon, indisputable, maintenance, medicinal, opponent, photographer, peremptory.

11. Analyse and parse the italicized words:—*During* the reign of the Roman Emperor *Justinian*, two *monks*, returning from China, brought with them some silk-worms' eggs, carefully concealed in a piece of hollow cane.

12. Criticize and correct the following:—

(a) Most of them were as large, if not larger than these.

(b) I never remember of seeing it before.

(c) The main conclusions to which he arrives are as follows.

(d) A legal monopoly is where competition is prohibited by law.

(e) I expect that he had forgot to tell her about it.

(f) I long for the time when I will be able to visit it.

(g) It only made them fight fiercer than ever.

(h) We must apply the axe to the source of the evil.

(i) I have no doubt but what he felt kind of disappointed.

(j) When he went for to pick it up it was gone.

(k) Not only Mr. A., but even your brother were inclined to believe it.

(l) It couldn't have been she that you seen, I don't think.

(m) I wish that boy wasn't in my class.

(n) Each of these pieces were then cut into ten others.

bine these manifold uses, or whether we consider the dense fog which envelopes this mood for the beginner, and the desperate parroting of (to him) mystical catch words (such as "dependent sentence," or "reported speech,") in which he entrenches his bewildered faculties against examination, the importance of the subject cannot be overrated. To understand it thoroughly would be a feat not unlike, in character and in difficulty, the mastery of high problems of mathematics or metaphysics. No other language shows in this respect the same logical consistency or affords the same discipline. In English the subjunctive mood is fast disappearing; in French and German it survives only in a much attenuated shape; in classical Greek, though more prominent, its appearance is very haphazard and a question largely of taste: it is eligible under certain conditions, but it is not always necessarily elected.

The simplest and widest rule may (at the outset) be stated as follows:—The indicative mood expresses a fact as such; *i.e.*, a fact regarded as independent both of all other facts and also of all subjective qualifications, such as the particular opinions or assertions of any particular person. The subjunctive mood expresses thoughts; whether these be (a) contingent facts, *i.e.*, mere thoughts (at present) without any corresponding realities; or (b) existing facts looked at in relation to (1) the words or opinions of some particular person; the facts *i.e.*, are given as "reported" by, or as influencing the mind of, some one; or to (2) some other fact outside themselves; either to a previous fact, to which they stand as consequences to cause; or to a subsequent fact, to which they stand as causes to consequences; or, shortly, the indicative expresses existing things; the subjunctive, thoughts of things; both of things existing and things contingent.

If this is not very clear or intelligible at first sight, illustrations may do something to disperse the darkness.

To return to the definition and expand: the fact expressed by the indicative mood is conceived as independent; is stated nakedly as a simple fact; stands on its own base; is

## CLASSICS.

G. H. ROBINSON, M.A., TORONTO, EDITOR.

### THE PRINCIPAL USES OF THE SUBJUNCTIVE MOOD IN LATIN.

BY MAURICE HUTTON, M.A., FELLOW MERTON COLL., OXFORD, PROF. OF CLASSICS UNIV. COLL., TORONTO.

It is unnecessary to dwell at any length upon the significance of the subjunctive mood in Latin, or the multiplicity of its uses. Whether we look to the accurate habits of thought and the subtlety of analysis which are developed by the effort to comprehend this significance, and to distinguish or com-

not regarded in its connections with other facts, whether as their cause or their consequence, nor as dependent on any man's veracity or knowledge. It makes no difference whether a clause be the principal clause in a sentence or a minor clause; its verb so long as it expresses a fact of this character will stand in the indicative mood. For this reason the phrase "subordinate clause" as a reason why a verb is found in the subjunctive mood is most misleading and incorrect. The verb of a "subordinate" clause (in the natural sense of the word, *i. e.*, a "minor" clause,) may be in the indicative, for such a clause may be quite independent of the main clause, though of minor importance.

For example, "They administered the State." *Rempublicam administrabant* here is an independent fact standing by itself and expressed by the indicative. This is clear enough. Now alter to "Those who administered the State were dishonest."

(ii) *qui rempublicam administrabant improbi erant*.

The clause in which the verb "administrabant" stands is a minor or subordinate clause; but the verb is still in the indicative mood, because the fact of "administration" is regarded as independent of the other fact of dishonesty; and independent also of any particular person's opinions or assertions.

The test, therefore, for the use of the subjunctive mood is not the "subordination" of the clause but the dependence of the fact which it expresses. The trouble has arisen from the different meanings attached to the word "subordinate."

Once more, keeping almost the same words but altering their significance, we may say, "The other, who was a politician, was dishonest," meaning now that the fact of administration was not independent of the other fact of dishonesty, but was the cause (or result) of it: he was dishonest because he was in politics (or, he was dishonest and therefore he engaged in politics).

The subordinate clause, "who was a politician," is now dependent on the other clause, "was dishonest," and the mood will be the subjunctive.

*Ille—qui rempublicam administraret, improbus erat.*

No doubt, be it marked, is thrown on the fact of administration; the administration is a fact as before; but it is no longer regarded as an independent fact, rather as bound up with the further fact of dishonesty. If it were convenient to always insert inverted commas wherever the sense implies them, and to alter the order accordingly, we might print

*Ille erat "improbus qui rempublicam administraret."*

He "being a politician was dishonest."

So in Virgil, *Æneid VI.*, 590-591—  
*Demens qui nimbos et non imitabile fulmen,  
Ære et cornipedum pulsâ simularet equorum.*

"Fool to mimic the storm-cloud and the portentous thunderbolt with the tramp of horn-hoofed horses on a bridge of brass."

The mimicry here was a fact, but not a fact regarded as standing alone, rather as giving the reason for the epithet "demens," "fool to mimic," etc.

So in the familiar but difficult "*sunt qui putent*," "*erant qui putarent*," the subjunctives express facts conceived as consequences of causes tacitly implied—persons are (or were) found to think; there are (or were) persons of such character that they think (or thought); in short, the words are equivalent to "*quidam tales (or ii) sunt ut putent*;" *qui=ii (or tales) ut*; some persons have that temperament and habit of mind that they (necessarily) think, etc. Where there is no such notion of cause and consequence, where the verb following the "*qui*" expresses a fact regarded as independent of any implied cause, there is no need for the subjunctive.

Thus in Virgil, *Georgic IV.*, 165.

*Sunt quibus ad portas cecidit custodia sorti.*

The last word, "*sorti*," shows that the selection of some bees as gate-keepers is arbitrary; the poet does not say that "some bees are so endowed by nature that they are especially serviceable as gate-keepers," but simply that "there are some bees appointed to keep guard;" the appointment is a fact independent of their qualities.

## NATURAL SCIENCE.

H. B. SPOTTON, M.A., Barric, Editor.

THE following true anecdotes will interest all lovers of Natural History :

A quaint, old-fashioned, rambling garden, with its buttercups, lilies, larkspurs, spineas, rosebushes, and spikes of monkshood, here and there overgrown with tall rank grass ; beds of beets, turnips, cauliflower and cabbage ; again, untrained, straggling raspberry, currant and gooseberry bushes ; apple, cherry and plum trees, the homes of successive generations of robins and thistle birds ; an equally old-fashioned, rambling log-house, partly clap-boarded and partly roughcast, under whose sheltering eaves many a "pee-wee" and swallow has been born and has thriven.

It is curious in this old garden to note how not only has each bird its ancestral home intact, but how each bird keeps its own tree or bush for itself, and woe betide the intruder, whether it be beast, bird or reptile, who thinks himself at liberty to share in this privilege. Even other individuals of the same species are unceremoniously driven off, although but one little nook of the tree had been required annually. Thus one apple tree has for many years been the undisputed homestead of a certain pair of robins, or rather was till the season of 1883, when, arriving from some unknown cause much later than usual, another—a strange pair—were found safely domiciled there. After a sharp but short contest the invaders retired, and were apparently lost sight of. Weeks passed on, and before the eggs were hatched a violent yet most welcome rain filled cistern and barrel, and quickened the growing wheat and corn. Then it was noticed by the inhabitants of the quaint old house that although the rain poured off the eaves, yet the cistern remained dry. Investigation showed the cause to be the nest of the expelled pair of robins, which had chosen the eave-trough for a home, and had taken the precaution to lay a floor of almost impervious blue clay with walls six inches thick, and had then nearly hooded the entire nest with the same

material, the whole forming a mass over sixteen inches in diameter and nearly eight inches in height. Then it was remembered that after the above-mentioned contest, both first and second pair had been seen carrying mud, apparently to the roof, as much as to say, "Although you (the intruders) may not stay with us, we will at least help you to build a home for yourselves." To the best of the writer's knowledge there is no other instance recorded of a robin building in such an exposed situation as an eave-trough, fence-corners, bushes and trees being preferred. The reader will not fail to note the intelligence of the birds in providing a roof for their dwelling, a precaution made necessary by the unprotected situation, unnecessary in ordinary circumstances.

Under the eaves of this same house, on one fine spring day, while a pair of "white-bellied" swallows were engaged in completing their nearly-built nest, they were unceremoniously interrupted in their labours by the arrival of a strange bird, perhaps the cow-bird (*Molothrus*), perhaps a tyrant fly-catcher—for the writer's informant was not a naturalist, and knew little beyond the fact that the intruder was not a swallow. The stranger at once possessed itself of the nest, nor could the efforts of the pair effect a removal. They then flew off a short distance, and returned reinforced by some sixty or seventy comrades, of whom some hovered round the bird keeping guard, while the others, each conveying a small quantity of mud in its beak, proceeded to wall up the stranger in a living tomb. In a few minutes, on the principle that "many hands make light work," this was so satisfactorily accomplished, that several persons who were very shortly called to see the nest refused to believe the story ; nor would they believe till the crust of now dried mud had been broken and the unfortunate, half-dead captive set at liberty. It is needless to add that it did not revisit the spot either then or during succeeding seasons.

D. F. H. WILKINS, B.A., B.Sc.

INFORMATION was received by the last British mail that Sir William Dawson has

been nominated by the Council of the British Association for the Advancement of Science to be President for the meeting of 1886, which is to be held in Birmingham, and will probably be one of the larger and more important meetings of the Association. The nomination is not only an honour to Sir William, but may also be regarded as a compliment to Canada, and an additional evidence of the satisfaction of the Association with its Montreal meeting. Sir William was President of the American Association in 1882, and should he preside at Birmingham will thus have had the honour of occupying the chief office in both of these great scientific societies.

### THE CLASS-ROOM.

DAVID BOYLE, Editor, Toronto.

#### NORTH HASTINGS

UNIFORM PROMOTION EXAMINATIONS,

MARCH, 1885.

*Entrance To Fourth Class.*

GEOGRAPHY.

Time—2 Hours.

Note :—Spell correctly, write and arrange answers neatly.

1. Define zone, tropic, equator, meridian, gulf, headland, peninsula.

2. Draw an outline map of Canada, showing the names and positions of the Provinces and their capitals.

3. State the exact position of the Soudan, and give the names of six of the most interesting places in it mentioned in the War Despatches.

4. State the exact position of each of the following Canadian towns:—Kincardine, St. John, Sarnia, Collingwood, Oshawa, Cornwall, Three Rivers, Hull, Brandon, Sherbrooke, Orillia, Strathroy.

5. What is the largest Ocean? Name the countries which border upon it, and five groups of islands located in it.

6. Through what waters would the British transport vessels pass in carrying troops to Suakim, on the Red Sea?

7. What and where are the following :—Panama, Cyprus, Birmingham, Malta, Good Hope, Vancouver, Bengal, Levant, Tasmania?

8. In travelling, by the most direct route, by rail, from Coe Hill to Pembroke, what railroads will be used?

Accept 100 Marks as a Full Paper. Deduct marks (not more than 10) for lack of neatness.

GRAMMAR.

Time—1½ Hours.

1. Analyse, naming the simple subject, the enlargements of the subject, the simple predicate, the object and the adverbial enlargements of the predicate :—

(a) *In* severe cases, a *physician* was called *in* to administer *calomel*.

(b) *In the course* of the evening, the *big* boys of the little village *learned* very *thoroughly* a valuable *lesson* from the little boy.

(c) *Beneath*, in the churchyard, *lay* the *dead*, in *their night* encampment on the hill.

2. Parse, in full, the italicized words in the sentences for analysis.

3. Write the past tense and past participle of strive, win, set, fly, bring; the present indicative second singular of die, quit, fly; the plural possessive of woman, miss, bandit.

4. Write a list of, at least, three nouns having the same form for both singular and plural.

5. Correct what is wrong in the following sentences ;—

(a) I find them in the garden,

For there's many hereabout.

(b) You are stronger than me.

(c) The teacher learns us our lessons.

(d) I do not know who done it.

(e) Let every child bring their books.

(f) I will ask my teacher if I can leave at two.

(g) John, leave your seat and bring me some wood.

(h) He was a child when he seen the comet.

(k) He does not care for nobody.

6. Define Voice, Active Voice, Comparison, Case.



## COMPOSITION AND LANGUAGE.

Time—1½ Hours.

1. Write, in your own words, a story from the following hints :

A little mouse playing near a vat full of beer—careless—fell into liquor—asked a cat who looked over the edge to help him out. "I will, if you will let me eat you when you get dry." Mouse agreed (*give reasons for this*). The cat put down her paw. The cat helped him out. The mouse sat quietly until he was nearly dry. He then popped into a hole near by. Soon the cat arose. The cat began to lick her jaws. She said to the mouse. "You are dry. Come out and let me eat you." The mouse refused. The cat reminded him of his promise. "True," said the mouse, "I did promise, but *I was in liquor then.*" Men do not always escape from promises made when they are in liquor as easily as did the mouse. State moral of story.

2. Give the pupils a piece of glass. Let them use, in examining it, their senses of sight, feeling, taste and smell, and then write a composition, consisting of several sentences, describing its manufacture, qualities and uses.

3. Write a letter to a friend in Jamaica, describing the county in which you live, its size, form, climate, rivers, lakes, principal places, productions and sports.

4. Express, in prose, *in your own words*, the thought of this passage:—

What doth the poor man's son inherit?—  
Stout muscles and a sinewy heart,  
A hardy frame, a hardier spirit;  
King of two hands, he does his part:  
In every useful toil and art;—  
A heritage, it seems to me,  
A king might wish to hold in fee.

## SPELLING.

Time—30 minutes.

N.B.—The pupils must insert punctuation marks.

1. He translated, during his leisure, valuable authors and portions of the Holy Scripture.

2. At Alfred's proposal, multitudes assembled to witness the unrivalled spectacle.

3. The principal Saxon chiefs readily agreed to this principle.

4. After a few years' interval of peace, he was made sovereign owing to his perseverance.

5. He was preparing to quit the ravine by the beech tree and regain the beach when the trickling of water upon pebbles attracted his notice.

6. Any consciousness, dogs' tails, perceiving, believing, embarrassment, apology, Soudan, General Wolseley, Captain Burnaby, Khartoum, beseeching, foreign, ingredients, odoriferous, daubing, nauseous, travellers, diligence, facetiously, hoar-frost, artillery, chivalry, sepulchre, foam-wreathes, missiles, felon, collar, syrup, yeast, chieftain, appellation, occurred, college, series, paroxysm, buried, gambols, sheriff, registrar, bailiff, gaol, their doom. Britain regarded her naval supremacy as indisputable.

Value, 100.—Take 3 off for each misspelled word; for each error in the use of capitals, take 2 off; for each error in punctuation, deduct one-half a mark.

## MENTAL ARITHMETIC.

Time—30 minutes.

N.B.—The work must be wholly mental, and the answers placed in the allotted spaces in this paper.

Values—12 1-2 marks each.

1. Eleven times 13, + 11 - 14, are how many times 7? *Ans.*

2. Three-fifths of \$2,000, + \$120, equals B's fortune; how much is B worth? *Ans.*

3. A pole, whose length is 16 feet, is in the air and water; and 3-fourths of the whole length, *minus* 4 feet, equals the length in the air; required the length in the water. *Ans.*

4. 11 times 15 - 10 + 15 are how many times 17? *Ans.*

5. Fourteen-ninths of \$27 is equal to 7 times the cost of a pair of boots; required the cost of the boots. *Ans.*

6. Find the sum of  $\frac{1}{2}$ ,  $\frac{3}{4}$ ,  $\frac{5}{8}$ , 3-16ths. *Ans.*

7. John gave two sevenths of his money to Charles, five-twenty-firsts of it to Ida, and had 20 cents left; how many cents did Charles and Ida each receive? *Ans.*

8. What is the greatest and what the least number that can be subtracted from 153 an exact number of, times? *Ans.*

ARITHMETIC.

Time—2 Hours.

N.B.—Full work required.

1. What is a Measure of a number, a Common Measure of two or more numbers, and the Greatest Common Measures of two or more numbers? Give all the measures of 48.

2. By how many inches do 3 acres 14 sq. rods 5 sq. yds. exceed 752 sq. yds. 5 sq. ft. 73 sq. in?

3. From how many lbs. must 2 cwt 75 lbs. be taken 8 times so as to leave a remainder which will contain 1 ton 200 lbs. 16 times?

4. (a) What is the amount of the following bill: 17,432 feet of lumber at \$11 per 1,000 ft., 1,654 feet of scantling at \$1.56 per 100 ft., 315 lbs. nails at \$4.50 per cwt.

(b) If \$120 be given as part payment, how many lbs. of beef at \$9.50 per cwt. will pay the balance?

5. If a turkey is worth 75 cents, and a goose 55 cents, how many turkeys and geese can be obtained for a pile of cordwood 24 feet long, 6 ft. high, and 4 ft wide, at \$2.60 per cord?

6. Find the sum of the greatest and least of these fractions:— $\frac{5}{8}$ ,  $\frac{3}{4}$ ,  $\frac{13}{16}$ ,  $\frac{19}{24}$ ,  $\frac{17}{20}$ , and subtract this sum from the sum of the two greatest.

7. If a person owns seven-tenths of a farm of 120 acres and divides it into lots of 32 sq. rods each, find the value of the whole at \$210 a lot.

8. How many yards of carpet 2 ft. 6 inches wide will be required to cover a floor 18 ft. long and 15 feet wide.

Count 100 marks a full paper. The teacher will please note that full marks are to be given for correct solutions only. For answers nearly correct (where the method is quite correct) from 10 per cent. to 50 per

cent. may be given. In marking, neatness of arrangement, etc., should be taken into account.

COUNTY OF VICTORIA PROMOTION EXAMINATIONS.

DECEMBER, 1884.

(Continued from March No.)

Senior Third.

ARITHMETIC.

Time  $1\frac{1}{2}$  hours. Value, 10 marks each.

1. Multiply 1 mile, 2 fur., 3 rods, 4 yds., 1 ft., 2 in., by 96.

2. A farmer bought a strip of land 3 miles long and 148 feet wide, at \$60 an acre. How much did it cost him?

2. A's farm contains 45 acres, 3 roods, 4 per. B's farm contains 15 times as much as A's, and C's farm contains 10 acres 1 rood, 5 per. more than A and B's together. How much land has C?

4. Sam gave one-third of his marbles to Tom, one fourth to Will, and one-sixth to Fred, and found that he had 24 marbles left. How many had he at first?

5. If 18 cows cost \$576, for how much must 7 of them be sold to gain \$30.

6. Find the cost of

27 yds. Flannel at 35 cents per yard.

17 " Cotton " 15 " "

19 " Linen " 64 " "

33 " Cloth " 95 " "

GRAMMAR AND COMPOSITION.

Time,  $1\frac{1}{2}$  hours. Value, 1, 2 and 3, 10 each; 4 and 5, 15 each.

1. Define adverb, phrase, preposition, gender, relative pronoun.

2. State the different kinds of modifiers of the subject of a sentence, and give an example of each kind.

3. State the predicate in each of the following sentences; write the modifiers or completions in each; and state the kind of modifier or completion.

(a) John went to town.

(b) James learns his lessons easily.

(c) The blackboard is too high.

(d) The boy is a scholar of great promise.

(e) He made his appearance at various European courts.

4. Name the class (part of speech) and sub-division (kind) of each word printed in italics, in the following sentences:—

(a) *Thomas lost his patience while* trying to get his ball.

(b) *Two little boys ran home yesterday because they feared* the master who had threatened to punish them.

5. Express the following properly:—

I saw a little boy. The little boy had a pail in one hand. The pail was full of water. The little boy had a basket in the other hand. The basket was full of eggs. The little boy fell on the road. The road was hard. The little boy was hurt by the fall. The eggs were broken by the fall. The water was spilt by the fall. The little boy cried when he saw that the eggs were broken, and his clothes were wet. The little boy did not cry because he was hurt.

#### *Third Class Junior.*

##### LITERATURE.

*Readers may be used.*

"A Friend in Need," Page 22.

1. Explain:—Subsistence, solicit charity, repulses, greens, pastry, fatigue, delicacies, invalid, initials.

"Man Overboard," Page 35.

2. Explain:—Reduce sail, shrouds, main-top-sail yard, masts, oakum, leeward, lockers.

"Vision of Mirza," Page 41.

3. What and where are Grand Cairo and Bagdad?

4. Explain:—Oriental manuscripts, the fifth day of the moon, departed souls, Paradise, genius, melancholy, rock of Adamant.

#### *Third Class Intermediate.*

##### LITERATURE.

*Readers may be used.*

"The Rat," Page 111.

1. Explain:—A lenient judgment, infirm, its own species, a truthful and sharp-sighted observer, captivity, turnkey.

2. Where are St. Germain and Vincennes?

"Anecdote of the Humming Bird," Page 117.

3. What and where are Philadelphia and Delaware?

4. Explain:—Anecdote, ruby-throat, debilitated, avidity, corolla, velocity, honey-suckle, syrup, solicitations, diluted, peregrinations.

#### *Third Class Senior.*

##### LITERATURE AND HISTORY.

*Readers may be used.*

"Taking of Louisburg," Page 235.

1. What and where are Portsmouth, Halifax and Louisburg?

2. Explain:—Disembarkation, shoal-water, assailants, fugitives, siege artillery, sortie, ramparts, citadel.

3. What had Pitt to do with the taking of Louisburg? Name some of the gallant men he had chosen.

"Pontiac's Attempt," Page 243.

4. Explain:—Confederacy, ingenious stratagem, mortification, fiendish, tomahawks, piazza.

5. What parts of America were first settled by the British, the French and the Spanish respectively?

#### *Fourth Class Junior.*

##### LITERATURE AND HISTORY.

*Readers may be used.*

"Fisheries of British Columbia," Page 14.

1. Explain:—Fish of prey, impetuous current, meandering streams, abraded, lustreless, immunity from danger, phenomenon.

"Fire in the Woods," Page 69.

2. Locate.—Halifax, Truro, Pictou, St. John's, Quebec, Bermudas, Chaleur.

3. Explain:—Corduroy, rarefaction of the air, undulating hills, horizon, Scotch emigrant.

4. How did Edward I. add to his territories?

5. When and how did Ireland become part of the British Empire?

6. For what were the following persons noted:—Humphrey Gilbert, Jacques Cartier, Verazzano, Montcalm, Henry Hudson, Perkin Warbeck?

## NOTES ON GEOGRAPHY.

THE largest boulder in America is the Shenegan Rock, near Norwich, Conn. It is forty-five feet in height, seventy feet in length, and is estimated to weigh about ten thousand tons.—*Exchange*.

SOUTH of Long Island, six fathoms beneath the Atlantic, are the remnants of a vast marsh. In very clear water, roots of great trees can be seen from a boat; and, in stormy weather, masses of decayed wood and peat are thrown upon the shore.—*Exchange*.

THE total number of Indians in Canada is 131,952, of whom 39,011 are in British Columbia, 34,000 in the North-West, 16,900 in Ontario, and 2,000 in Quebec. In the various Indian schools there are 4,306 pupils, 1,930 being from Ontario.—*Exchange*.

IN connection with geography and history it is very important that the teacher be able to tell his pupils what is going on now in different parts of the world. He may very profitably make this a special topic for discussion every day. Devote ten or fifteen minutes to it; encourage your pupils to read the general news, and discuss the various events of the day with your class.

THE origin of Herat can be traced far into antiquity. To the ancients, the province of which it is the capital was known as Aria and Ariana. The name was, in the course of time, gradually changed to Heri, a name which still survives in the river flowing to the south of it, Herirud, the river of Heri—and later to Herat. Tradition has brought here Nebuchadnezzar and Semiramis. There can be no doubt that it was the gate through which Alexander the Great passed to the conquest of India.

GAS-LIGHTED BUOYS.—The number of gas-lighted buoys in use is rapidly increasing. Two have just been sent out to Canada for use in the St. Lawrence, and three more have lately been added to the nine already in use on the Clyde. The Garmoyle lightship, also on Pintsch's system, is in course of being altered from an oil lightship with a crew to a gas lightship without one, the light being of six weeks' duration. Plans

are, moreover, being prepared for placing a gas light on the Gantoch rocks, while the small gasworks on Pintsch's system, put up for the Trinity House at the South Foreland, are reported to have proved a great success, and to form a special feature in the lighthouse experiments there.—*Scotsman*.

THE FUEGIANS.—According to Dr. Hyades, who has lately returned from Tierra del Fuego, whither he was despatched on a mission by the French Government, the Fuegians are the lowest human beings in the scale of existence. Their language contains no word for any number above 3; they are unable to distinguish one colour from another; they have no religion and no funeral rites; and they possess neither chiefs nor slaves. Their only weapons are bone-pointed spears; and, as they grow neither fruits nor vegetables, and their country is naturally barren, they are obliged to live entirely on animal food. Even these savages possess, however, some social virtues. They are not cannibals; they ill-treat neither their women nor their old people; and they have only one wife.—*School Newspaper*.

NEW IRON FINDS IN CANADA.—Several important discoveries of iron-ore deposits have recently taken place on the property of the Central Ontario Railroad Company. The most important find is said to be in the township of Tudor, county of Hastings, Ontario, about fourteen miles south of Coe Hill Mine. If present appearances are to be trusted, these developments will, it is said, prove the richest that have yet been made in Canada. From measurements thus far made, the vein is believed to be not less than sixty feet wide, and of very considerable depth. The discovery was purely accidental and came about by the uprooting of several large trees, which, falling, stripped the surface of the earth for some distance around, exposing what is apparently a very large body of ore. A short distance west of the railroad two additional deposits have very recently been discovered, one of them of an ascertained length of 3,000 feet. Analyses of specimens show 65 per cent. of metallic iron, 0.02 per cent. of phosphorus, and an absence of titanium and sulphur.—*Exchange*.

## ARITHMETICAL PROBLEMS.

By LEO. B. DAVIDSON, Head Master,  
Goodwood Public School.

1. (a) The H. C. F. of two numbers is 15 and their L. C. M. is 840. Find the numbers. *Ans.* 70, 105.

(b) There is a number comprising 3 digits, which can be divided by 8, 9, 10, 15, 16, or 20, leaving in each case a remainder of 5. Find the number. *Ans.* 725.

2. A sold a horse to B, who immediately sold it to C. at a gain of  $\frac{1}{3}$  of cost price. C. ascertains afterwards that the horse cost him  $\frac{7}{10}$  more than it did A. How much did A. gain? *Ans.*  $\frac{1}{4}$ .

3. At a promotion examination, a candidate obtained as an answer to a problem 272 ft. 6 in. The teacher upon examining the pupil's work notices that he has used as a multiplier 5.45 instead of 5.54. What was the correct answer? *Ans.* 277 ft.

4. A grocer, upon being asked the weight of a chest of Japan tea marked @ \$1 per lb. replies; "I purpose gaining at that figure, \$11 on the whole, or  $\frac{1}{4}$  of what it cost me." Find the weight of the tea. *Ans.* 55 lbs.

5. A teacher is assessed for all his salary above \$400, @ the rate of  $4\frac{1}{2}$  mills on \$1. After paying his tax he finds he has a net income of \$798.20. Find his salary. *Ans.* \$800

6. A piece of work valued at \$12 66 $\frac{2}{3}$  can be done by A in  $\left(7 \cdot 5 + \frac{1 + \frac{2}{3}}{1 - \frac{2}{3}} \div \frac{1 + \frac{1}{4}}{1 - \frac{1}{4}}\right)$  days, and by B in  $\frac{1}{2} \left(\frac{1 + \frac{2}{3}}{1 - \frac{2}{3}}\right)$  of 2 days.

They work together in company with a boy, and thus finish the work in 4 days. Find the boy's daily earnings. *Ans.* 82c.

7. Find in Canadian Currency the value of the following invoice in Sterling :—

13 $\frac{1}{2}$  cwt Scotch Sugar @ £1 0 6 per cwt.  
53 $\frac{1}{2}$  yds Irish Linen @ 0 0 7 $\frac{1}{2}$  per yd.  
65 yds English Silk @ 0 4 8 $\frac{1}{2}$  per yd.  
15 yds Scotch Tweed @ 0 5 0 $\frac{1}{2}$  per yd.  
*Ans.* \$167.90

8. \$146. Goodwood, May 2nd 1885.

Three months after date I promise to pay Messrs. James Ross & Co. the sum of \$146 with interest @ 7 $\frac{1}{2}$  % for value received.

(Signed) John Jones.

What must John Jones pay to discharge this note when due? *Ans.* \$148.76

9. A room is 20 ft. long and 15 ft. 6 in. wide. It costs \$43.40 to cover the floor with carpet worth 77 cents per yd. Find the width of the carpet. *Ans.* 22 in.

10. A square metal plate whose side is 10 inches, is 1 inch thick; out of this is cut a concentric square with a side of 8 inches. Find the side of a square sheet of gold,  $\frac{1}{4}$  inches in thickness required to cover this metal ring with plate  $\frac{1}{8}$  in. in thickness. *Ans.* 8 in.

## ENTRANCE TO HIGH SCHOOLS.

## GEOGRAPHY.

1. Define peninsula, archipelago, strait, oasis, isthmus.

2. (a) What is the highest possible degree of longitude, also of latitude?

(b) What is the latitude and longitude of a place situated on the Tropic of Cancer due south of Greenwich?

3. Tell what is the longest railway in Canada, and name five of the principal stations on it.

4. Name the Provinces of the Dominion of Canada.

5. Mention the chief bodies of water through which you would pass on a voyage from Liverpool to Calcutta, and name six islands passed on the way.

6. Where are Rio de Janeiro, Herat, Tasmania, New Orleans, Khartoum, Juan Fernandez?

## CONTEMPORARY LITERATURE.

Toronto: Copp, Clark & Co.

COLERIDGE'S ANCIENT MARINER AND HIS FIVE CHIEF ODES. Edited with notes, etc., by J. W. Connor, M.A., Headmaster Berlin High School.

THE poet Swinburne, himself a high authority on the art of lyrical expression, says that "for height and perfection of imaginative quality, Coleridge is the greatest of lyric poets." The dictum must go unchallenged; indeed, it receives confirmation in the fact that some of the best verse of Coleridge has been put on the curriculum of Toronto University for critical study, and we have in Mr. Connor's work a capital presentation of it. In the volume, besides the "Ancient Mariner," that "phantasmagoria of mystery and sublimity," there are the five following odes, viz., the beautiful reminiscence, "Youth and Age;" the unspeakably sad dirge, entitled "Dejection;" friendship's noble tribute, "To Wordsworth;" that crooning bit of song, "To the Departing Year;" and the patriotic apostrophe, "To France." If we could have had that fervent hymn, "Chamouni," though it is a paraphrase from the German; the wild dream-poem, "Kubla Khan;" and the curious piece of supernaturalism, the fragment entitled, "Christabel," we should have all the poet's verse we care to see preserved, if we except the deliciously limpid lyric on "Love." But if we can't have all the jewels in the casket, we must be content with the treasure we have.

The critical work Mr. Connor has given us, though it is not extensive, is good. He has put his strength into the annotations, for the preparation of which he was well-fitted. These bespeak his sound scholarship and his devotion to philological studies. The quaint phraseology of the "Ancient Mariner" receives under his hand all necessary elucidation; while the notes to the odes, both literary and historical, are instructive and helpful. They are marked by judgment

and good taste. The biographical sketch of the author brings out all important facts, and appreciatively estimates Coleridge's genius and character. Mr. Connor has laid the Canadian literary student under no little obligation in the preparation of his book; and we hope that both the editor and the publishers will meet with substantial acknowledgment of this obligation in the favour with which the work is regarded. We heartily commend the book to students and to the profession.

WARREN HASTINGS; An Essay by Lord Macaulay. Edited for High-school use. Introduction, notes etc., by G. Mercer Adam, late editor of *Canadian Monthly* and CANADA EDUCATIONAL MONTHLY.

THIS neatly got up little work has been prepared for school use to meet the requirements of the new matriculation curriculum of Toronto University, according to which English composition will, and should, receive more attention than has been the case in the past. In future, candidates will be allowed a choice of themes based on certain standard prose selections, that for 1886 being the essay mentioned above. We have not had time to examine the result of Mr. Adam's labours as fully or as closely as we should have liked, but as far as we have gone we have been very much pleased and think that he has shown excellent judgment alike in the matter and the manner of the help he has furnished. In addition to concise yet clear explanatory and critical notes on the body of the essay he has given in the introduction brief sketches of Macaulay, Hastings, the History of India, a map and lists for reference and also some very useful hints on English composition with a list of suggested themes, including one outlined and partly extended, as a specimen for students. Unquestionably, any one who studies the essay, according to Mr. Adam's suggestions, and with the help furnished by him, even without dipping into any of the

many works referred to, will not only have a very thorough knowledge of the subject matter of the essay, but will have done much towards acquiring a habit of reading similar works with profit. Our only fear is that Mr. Adam has set the standard rather high and that some will think that he has overlooked the fact that the curriculum says that candidates will be expected to have a *general* acquaintance with the subject.

We have only to add that the book is issued in Messrs. Copp, Clark & Co.'s excellent style.

---

**MODERN CLASSICS ; A Library in thirty-three volumes.** Boston : Houghton, Mifflin & Co. Toronto : Williamson & Co.

THIS Library is one of the prettiest products of the Riverside Press—the volumes contain essays, tales, and sketches from the works of standard authors.

Vol. XV. for example, is "Favourite Poems from Burns and Scott." Vol. VII. from Wordsworth & Coleridge, and Vol. XXVI. from Macaulay & Aytoun. Among the prose volumes are No. XXVIII.—Nathaniel Hawthorne, and No. VI.—Charles Dickens.

Lovers of books—and we hope most teachers are—will be delighted with "Modern Classics."

---

**CAPTAINS OF INDUSTRY ; or men of business who did something besides make money.** Boston : H. M. & Co.

THIS is "a book for young Americans," but it will be interesting to many others. The author, Mr. Parton, has attained considerable eminence as a biographer.

---

**LUDLOW'S CONCENTRIC CHART OF HISTORY.** By James M. Ludlow, D.D. New York : Funk & Wagnalls. Toronto : William Briggs.

SO ingeniously contrived as to be almost amusing, this chart has already met with a cordial reception and will no doubt find a corner in many a student's den. It consists of a number of large fan-shaped pieces of

cardboard, fastened at the smaller end and having printed on them events and dates, arranged not only according to centuries but also so that on opening the "fan," the contemporaneous history of any country may be seen at a glance, and thus much time saved, which would otherwise be spent in searching for the desired information.

---

**CHINESE GORDON ; The Uncrowned King.**

THIS timely little volume is compiled from General Gordon's private letters, and gives his thoughts on many subjects; it will be read with interest, bearing, as it does unconscious testimony to the nobility of his character.

---

**HEROES OF SCIENCE ; Mechanicians.** London : The Society for Promoting Christian Knowledge.

THE biographies of great men have an influence for good, particularly among those whose life lies before them "in bright uncertainty." The present series comprises lives of Watt, Stevenson, Arkwright, Crompton, Maudsley, Clement, Nasmyth, Whitworth, and Babbage. The author, Prof. Lewis, of the Government College in Lahore, India, was called to his present far-away field of labour very shortly after undertaking to write this volume and so was somewhat hampered by want of material. But let any boy read the sketches given, let him mark the industry, the patience, the usefulness and the success, in the truest sense, of these lives, and he will feel that a life like that is a life worth living.

---

**A HISTORY OF THE UNITED STATES OF AMERICA.** By Horace E. Scudder. Philadelphia : J. H. Butler.

THIS handsome and complete text-book is highly spoken of by the United States press. The narrative is clear and interesting, but it cannot be said that the historian is altogether impartial. Numerous illustrations and some beautiful maps are inserted.

## RECEIVED.

QUEEN OF HEARTS. A Dramatic Fantasia, being Vol. I. of Diversions for Students. By J. B. G. Boston: Ginn, Heath & Co., 1885.

PHRENOLOGICAL ALMANAC FOR 1885. Fowler & Wells Co.

BUILDING FOR THE CHILDREN IN THE SOUTH. (Department of the Interior, Bureau of Education). Washington: Government Printing Office.

CIRCULARS OF INFORMATION OF THE BUREAU OF EDUCATION. No. 6. Rural Schools: Progress in the Past: Means of Improvement in the Future. No. 7. Aims and Methods of the Teaching of Physics. By Prof. Wead, of Michigan University. Washington: Government Printing Office.

OUTLINES OF THE PHILOSOPHY OF RELIGION. (Dictated portions of the Lectures of Hermann Lötze). Translation edited by Professor Ladd, of Yale College. Boston: Ginn, Heath & Co., 1885.

## NOTES.

EDUCATORS will be glad to learn that Macmillan & Co. purpose issuing immediately an American edition of Fitch's admirable Lectures on Teaching, with an Introductory Preface by President Hunter of the Normal College, New York.

EXAMINATIONS.—Junior Matriculation, June 23. Admission, into High Schools 2nd and 3rd of July: Nonprofessional, for third and second class certificates begins Monday 6th July: First class grade C. 15th July; grades A. and B. 23rd July. Professional examinations for first class 22nd July.

FROM the annual report of the McGill University, Montreal, for 1884, it appears that in the present session, the number of students in McGill College is as follows:—Students in Law, 26; students in Medicine, 233; students in Arts, Undergraduate, 109; students in Arts, Partial and Occasional, 54; students in Arts, Special Course for Women, Undergraduates and Partial, 15; students in Arts, Occasional, 14; students in Applied Science, Undergraduates, 48.

MESSRS. SELBY & Co. whose advertisement appears in another column, it will be observed, have removed to 28 Wellington Street East. This firm has employed Mr.

A. J. Reading to deliver lectures on elementary drawing at Teachers' Associations, and from what we know of the repute in which this gentleman is held as a teacher in connection with the Ontario School of Art, there can be little doubt that his labours will meet with acceptance before the educators of the Province. Those wishing to secure Mr. Reading's services should correspond immediately with Selby & Co

MC GILL UNIVERSITY.—The following list shows the results of the examinations of the first year, the only one in which the course of study was in operation last session. Beside the nine students who have passed the sessional examination, it is expected that several of these who are partials will make good their standing in the second year. Rosalie McD. McLea, Girls, High school, Montreal, prizes in Greek, Latin, French and Chemistry. Octavia G. Ritchie, Girls, High school, Montreal, prizes in Mathematics, English and German. First rank general standing—McLea and Ritchie, equal. Passed sessional examinations—McLea and Ritchie, equal; Cross, McFee, Foster, Murray, Reid, Evans, Simpson. Passed in certain classes as partial or occasional students—Blackader, Murphy, Turner, Van Horne, Bagg, N. Jamieson, E. L. Johnson, J. J. MacFarlan, Robinson.



At the monthly meeting of teachers of the Lindsay Public Schools, March 27th, the question of the spelling of geographical names was discussed. A great deal of inconvenience often arises from the same word being spelt two or more ways, sometimes in the same text book. One teacher adopts one spelling, another teacher adopts a different spelling. The pupils as they pass from room to room have to learn the different methods in succession, a very unnecessary labour. A list of names having been prepared each word was written on the black-board with its various spellings and discussed. The decision was unanimous in each case. The following are the names with the spelling adopted.—Azov, Tchad, Brahmapootra, Cambodia, Bab-el-Mandeb, Kertch, Egean, Gulf of Lyons, Hindoo Koosh, Nieuweld, Kamschatka, Verde, Philippine, Aux Sables.

WE are gratified to learn that Mr. G. Mercer Adam is engaged in the preparation of a popular work on the present troubles in our North-West, to appear shortly from the press of Messrs. Hunter, Rose & Co., the Toronto publishers. An announcement of the forthcoming book appears in our advertising pages. From Mr. Adam's prospectus we transcribe the following brief paragraph as an indication to our readers of the comprehensive and interesting character of the projected work. Says the author: "It will be the purpose of this book to narrate the incidents of the present rebellion; to trace historically the events that gave rise to it; and to tell the story of the past and present of the country, first, as the vast game-preserve of a great fur-trading company, and secondly, as the home of the settler, and the rich and, possibly for a time, troublesome, acquisition of the colonizing Canadian people."

THE annual convocation of Queen's University took place on the 28th and 29th April. There were 26 graduates in Arts. The medallists are:—The Carruthers gold medal in chemistry, C. A. Scott, Kingston; Mayor's gold medal in mathematics, J. C.

Connell, B.A., Durdan; Princess of Wales silver medal in natural science, W. Nico, B.A., Cataraqui; Prince of Wales silver medal in classics, G. W. Mitchell, Kingston. Fourteen students received the degree of M.D., one that of B.D., and one that of D.Sc.; and the following honorary degrees were conferred:—D.D., Rev. Prof. Currie, Halifax; Rev. Geo. Smellie, Fergus; LL.D., James MacLennan, Q.C., Toronto. The Governor-General's prize in books was won by W. Clyde, for general proficiency, and the Hague prize of \$20 for the best essay by C. J. Cameron. The graduates and benefactors of Queen's College held a meeting at Kingston on the 28th ult., at which the Chancellor submitted his report on the College Confederation scheme. Circulars were issued, and in the replies received not a single person was known to favour the scheme, and all held very strongly the opinion that Queen's should remain at Kingston. Circulars were not sent to Kingstonians, the official resolution answering for them. From outsiders 349 replies were received. They were from representative men of all classes and all shades of politics from all parts of Canada. The trustees pointed out that about \$250,000 would be required to transfer Queen's to Toronto, and asked the friends if they would be prepared to assist in moving the institution to Toronto. A very large percentage of all heard from state emphatically that they will give nothing whatever, and the majority of them indicate that if Queen's enters the Union they will withdraw the assistance they are now giving or have promised to give. Ninety-nine per cent. of all heard from every quarter, and 100 per cent. of all west of Kingston were decidedly opposed to Queen's entering the scheme. The total east of Kingston was 107, total west of Kingston 18. Principal Grant declared that the question of the removal of the University from Kingston should never again come up. The question was settled now and for ever as Queen's must either sink with its colonnaded to the mast-head or prosper where their fathers had placed her.