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TORONTO, MAY 16, 1892.

Vol. VI.  
No. 3.

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OFFICIAL CALENDAR

- OF THE -

EDUCATION DEPARTMENT

May:

- 24. QUEEN'S BIRTHDAY (Tuesday.) Notice by candidates for the Departmental Primary, and the High School Leaving and University Matriculation Examinations, to Inspectors, due.
- 25. Notice of the same by Inspectors to Department, due.  
Nomination of Presiding Examiners for same, due.

As the drawing books authorized by the Department were not issued in time to be used conveniently in every case for the July Entrance Examinations, the Examiners are hereby instructed to accept the work of candidates this year either in old or new series. The acceptance of the work in any blank exercise book is already provided for by the regulations.

As the course of the School of Pedagogy is to be extended to one year—probably from September to May—a special examination will be held in December for those who failed at the last examination and for candidates eligible for examination without attendance at the School of Pedagogy.

EXAMINATIONS 1892.

May:

- 24. Notice by candidates for the Departmental Primary, and the High School Leaving and University Matriculation Examinations, to Inspectors, due.

June:

- 1. Notice by candidates for Kindergarten Examinations, due.  
Applications for examination for Commercial Specialists' certificates to Department, due.
- 28. High School Entrance and Public School Leaving Examinations begin.

July:

- 4. Kindergarten Examinations at Hamilton, Ottawa, and Toronto begin.
- 6. Examination for Commercial Specialists' certificates at Education Department begin.
- 11. Departmental Primary, and High School Leaving and University Matriculation Examinations begin.

By the interpretation clauses of the Public Schools Act passed at the last session of the Legislature, section 109 of the statute, is shown not to apply to any portion of township which forms a union school section with a town or incorporated village.

One hour each week must now be employed in teaching Temperance and Hygiene in every Public School, and the inspectors are required to see that this regulation is carried out.

The revised regulations regarding Teachers' Institutes provide for only one meeting each year.

The new regulations regarding the Entrance Examination provide that the names of candidates passed or recommended shall not be published until after the decision of the Minister has been received. Of those who fail, only the following should be recommended: (a) Those who fail to reach the standard prescribed in some subject but who make considerable more than the aggregate marks required; (b) Those who in the opinion of the examiners, on account of age or for some special reason, should be recommended. There appears a general opinion in favor of advancing the standard for admission to High Schools. It may be seen, however, that examiners by closely following the regulations have it in their power to keep up a fair standard for admission.

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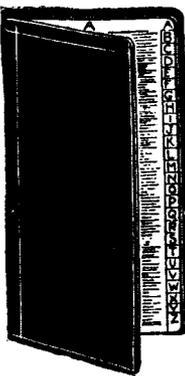
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TORONTO, MAY 16, 1892.

Vol. VI.  
No. 3.

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## \* Editorial Notes. \*

ON retiring from the position of Head Master of the Guelph Collegiate Institute, a position which he has held in that institution continually since February 1875, Mr. William Tytler, B.A., was the other day assured by the Board of Education of that city that the Board and the public gratefully recognize that they owe him a debt of profound gratitude for the grand work he has done for his numerous pupils.

THE Regulations of the Education Department now provide that before being permanently admitted to a Normal School, teachers-in-training shall be examined at the opening of the session orally and in writing by the Normal School masters, with such assistance as the Minister of Education may think necessary, upon the following works:—Hopkins' Outline Study of Man; the first seven lectures. Quick's Educational Reformers, (International Educational Series, 1890 Edition); the first sixteen chapters. Fitch's Lectures on Teaching; the first five lectures. An entrance fee of \$5.00 is also required.

WE have received from Rev. Principal Grant, of Queen's University, some interesting "Notes on Mr. Seath's Paper on University Matriculation in Ontario," which appeared in our last number. We are sorry that previous space arrangements compel us to hold it over for a fortnight. But the article will keep, and in the meantime our readers will have enough to do to study and digest the reasonings and suggestions contained in Mr. Seath's article. The subjects and standards of matriculation have much to do with shaping the courses and methods

of study in the High Schools and Collegiate Institutes, while these, in their turn, materially influence those of the Public Schools.

THE Toronto City Council has voted a sum of money for the purpose of enabling the School Board to provide free text-books for the City schools, in accordance with permissive legislation recently had. Toronto will be, we think, the first city in Canada to make trial of this system, though it has been for years in successful operation in a number of cities and towns in the United States. The result of the experiment will no doubt be closely watched in other parts of the Province, and if the impression made is favorable, as we confidently expect it to be, its adoption in many other of our cities and towns will be only a question of time. Free text-books seem to be necessary to the perfection and symmetry of the free school system.

SOME of our correspondents do not seem to understand the Post Office regulations so well as they should, and in consequence, subject us now and then to a four-cent fine. In order to pass at the one-cent rate, a manuscript for publication must contain no communication of any kind. Even a request for publication rules it out. We have just now received an open envelope, stamped with a one-cent stamp, asking for certain back numbers of the JOURNAL, and, as a matter of course, we have to pay four cents upon it. Some seem to think that because a note is addressed to a newspaper, it is in some way privileged, even though it relate to a purely business transaction. This, of course, is not the case. The law is absolute. No personal or business communication, or correspondence; nothing which is not strictly manuscript for publication, or "printer's copy," can take advantage of the one-cent rate.

A DEPUTATION which waited upon some of the Dominion Ministers the other day soliciting a grant in aid of the forthcoming meeting of the Dominion Educational Association in Montreal, stated that it was expected that two thousand—we think that was the number—teachers would be present at that meeting. Two thousand Canadian teachers gathered together in one place to take counsel together will be something unique in the history of Canada. The outcome of such a meeting should be

highly beneficial to the profession. One of the great advantages of having these gatherings on a large scale is that they give educators an opportunity to get the ear of the public. Between the large numbers who will attend the meetings and the full reports which will go abroad through the press, some good impressions should be made upon the whole people. And, after all, it is the parents and guardians who constitute, to a large extent, the general public, who need the educational enlightenment and impulse even more than the educators themselves.

WE are glad to believe that many of our teachers are becoming fully awake to the importance of the playground as in many respects the most important department of the school, so far as opportunities for moral training are concerned. Touching the question of honor on the playground, the two following incidents, related some years ago by Lord Ardmillan in a school speech, are worthy of reproduction and imitation:

"The Eleven of Merchiston were in the midst of their innings, and playing an uphill game. A fine-spirited youth was at the wicket, with his eye well in, hitting freely and well. The wicket-keeper caught the ball. 'How is that, umpire?' said he. 'Not out,' said the umpire. 'Yes, I am out,' said the youth, 'it touched my bat, and I felt it'; and he walked off from the wicket amid the cheers of every one in the field, in which I heartily joined. Many cricketers would have preserved silence. No rule of the game that I know would have been broken by accepting the umpire's decision, but the spirit of the noble, ingenuous youth spurned the deceit and led him to disclose the fact. That was true honor."

"Long ago, in the days of State lotteries—a very bad institution, which, like many other bad things has passed away in the progress of the nation—two young gentlemen agreed to purchase each a lottery ticket. One who lived in London was to buy both tickets, one for each, in his own name, and he did so. The time for drawing the prizes came, and the one in town wrote to his friend in the country, 'Your ticket has turned up a £5,000 prize.' 'How do you know it is mine?' writes back the 'rusticus abnormis.' 'Because,' wrote the other, 'when I bought the two tickets I put a little mark in pencil on the back of the ticket that was intended for you, and that has gained the prize.' No human being could have known but himself, but he disclosed the truth and gave up the prize, because his honor prompted him to do so."

## \* English. \*

Edited by Fred. H. Sykes, M.A., EDUCATIONAL JOURNAL, Toronto, to whom communications respecting this department should be addressed.

## VERNER'S LAW.

OUR correspondent E.S.H. having asked for an explanation of Verner's Law, we venture to take out of the correspondence column an answer which may serve to supplement the ordinary grammars of English, on a matter which has an important bearing on comparative philology.

In Grimm's Law, it will be remembered that the Indo-European terms *k*, *t*, *p* became in Teutonic *h*, *th*, *f*.

So Lat. cornu was in Gothic haurn—  
frater " " bróther  
pater " " fader

But it will be noticed that the *t* in Lat. pater = *d* in Gothic fader, while the *t* in Lat. frater = *th* in Gothic bróther. This occasional presence of *d* where we expect *th*, and similarly *g* instead of *h*, *z* instead of *s*, for a long time remained a *crux* for philologists. Karl Verner, however (in Kuhn's Zeitschrift, XXIII, 97 ff., 1872), pointed out the law of the phenomena and made to philology the greatest contribution since the discovery of Grimm's Law.

Verner's explanation is based upon the system of accentuation which prevailed in Indo-European and extended into the primitive Teutonic period. This system of accentuation allowed the accent to shift from root to termination,—it was not fixed as in the modern languages (cf. king', king'ly, king'dom, king'ship, etc.) His law was that, when the accent in the original language was on the vowel immediately preceding, the Indo-European tenuis become in Gothic, etc., the voiceless spirants—*h*, *th*, *f*—but when the accent is placed on any other part of the word, these spirants appear, in Gothic, etc., voiced—*g*, *d* (pronounced as *th* in "them") *b* (bilabial = *v*). The law holds likewise in the variations of *s* and *z*, though it must be remembered that in West Germanics *r* took the place of *z* (rotacism).

*S*, Sanskrit *bhrá'tar*, with the accent on the preceding vowel regularly became *bróthar*; but Sanskrit *má'tar*, *pítar* with the accent not preceding became as *módor*, *féder*.

In Anglo-Saxon the operation of the law is restricted mainly to the following variations:—

(1) *th-d*. *cwethan*, to say; *cwæth*, (I) said; *cwædon*, (we) said; *cweden*, said.

(2) *h, g*. *Theon*, to thrive; *thah*, thrive; but *thungen*, (we) thrive.

The termination in the Indo-European being in the case of the infinitive and past singular on the stem, but in the past plural and perfect participle on the termination.

(3) *s-r*: *Ceosan*, to choose; *ceas*, *cwron*, *coren*.

So we explain *was*, plural *were*. The *s* in the past plural became *z*, which in the West Teutonic group became *r*. So likewise *lose* but the old past participle (*for*) *loru*.

## CORRESPONDENCE.

N.E.H.—"Sheelah" in "The Harper" (II. Reader) is the name of a girl with whom "Pat" is in love.

In IV. Reader p. 72, ll.

"I feel like one  
Who treads alone  
Some banquet-hall-deserted,  
Whose lights are fled,  
Whose garlands dead,  
And all but he departed."

The last line is to be taken as descriptive of the "banquet-hall," (1) the lights of which are fled; (2) the garlands of which are dead; (3) and (from which) all but he (have) departed. The last clause is therefore—supplying the words understood—an adjective clause qualifying "banquet-hall;" and because it is the last of three similar adjective clauses, with which it is co-ordinate the conjunction "and" is used.

J. D.—We were glad to receive your note calling attention to the lax treatment of subordinate sentences in schemes of analysis. To our mind the term principal and subordinate clause are gram-

matical terms merely and cannot always be used with perfect exactness. When in the sentence, "When the winter is over, he will return," we say—in grammar—that "he will return" is the principal sentence because it is the main statement, and the rest of the sentence enters in only with the value of some word or other, not as an independent statement. In analyzing the sentence, it seems better to analyze the full complex sentence, rather than the principal clause by itself. This enables us to take in the dependent clause, which cannot properly be separated from the statement it modifies. Moreover, when we have a complex sentence like "That he said so, is true," we shall not need to do the impossible—to separate the principal statement from the subordinate. It is enough to recognize the presence of the subordinate in the complex.

(2) The plural of "brother-in-law" is "brothers-in-law."

## GRAMMAR PROBLEMS.

## FIFTH SERIES.

COMMENT on the relation and function of the italicized words or phrases:

1. Make up your mind which to take.
2. He ordered the criminal to be executed.
3. I was taught astronomy.
4. You are not contented with your estate, a fancy to be plucked out of you.
5. He is an Englishman, and so are you.
6. He could not so much as read a novel.
7. His fame as a preacher was great.
8. I am told that he is a good scholar.
9. I have heard so. (Is "heard" a "regular" or "irregular" verb?)

## NOTES ON FOURTH SERIES (P. 681.)

1. IN constructions with verbs "elect," "choose," "make," etc., it is often difficult in English, from our lack of different forms for the nominative and objective cases of nouns, to decide the case by any special example. In the active voice, "They will elect him governor," it is plain "governor" is objective—what the High School Grammar calls a factitive objective predicate noun, 300 ff. In the passive construction, "He is elected governor," "governor" has predicative relation to "he," just as "happy" has in "He is made happy," and is therefore predicate nominative. So that "governor" in "He is going to be elected governor," "He will be elected governor," is predicate nominative.

2. "To be wise is to be truly happy." The verb "to be" is one of incomplete predication, taking in the present case the adjective "wise" as its (predicate) complement. The infinitive is likewise a noun, and may be used therefore as subject of a verb. The logical subject of "is to be happy" is "to be wise." We might, to show this, use the verbal nouns, "Being wise is being happy." Similarly "happy" is the predicate adjective complement of the infinitive "to be."

3. "John's being young was against him." The origin and force of the forms in *-ing* we have explained in a special article. "Being" retains its verbal force like other gerunds, and as derived from a verb of incomplete predication, takes its predicate adjective complement "young."

4. "That wife of yours." These forms are explained in notes to 3rd series, 1, 2, p. 681. "Yours" is a possessive adjective pronoun, in the objective case, governed by "of."

5. "Even your little brother could do it." "Even" is an adverb, but it must be noted that it is related rather to the subject than to the verb.

6. "Albert, once a wild youth," etc. We understand an assertion "who once was," so "once" is an adverb of time modifying the assertion in "was."

7. "I knew it to be him." Here "knew" has two objects, (1) it, (2) to be him, of which the second is an objective predicative infinitive noun. "To be" has its pronoun complement "him," which is in the objective case, since it bears predicative relation to "it," which is in the objective case. (cf. "I knew that it was he.") See High School Grammar, p. 302, ¶ 52.

8. "My stay there," etc. "Stay" being derived from a verb, preserves the verbal idea of its original, and this verbal idea, as we have seen in previous examples, may, though contained in a noun, be modified by an adverb as here.

9. "His step was light for his heart was so." "So" is an adverb having the peculiar function in English of representing antecedent predicates. Cf. "He is king, and ever will be so." "He is not clever, though I thought him so."

10. "On becoming king, he reversed that policy." Cf. 1. above. I regard "king" here as predicate objective, complement to the gerund "becoming." If we completed the phrase it would be "On him (his) becoming king," so that the reference would seem to be to an objective. This of course is natural in all infinitive and gerund forms. See High School Grammar, p. 360, ¶ 16.

11. "He prevailed on them to go." "To go" is an adverbial complement to "prevailed," showing the direction of the action expressed by "prevailed."

12. "He was busy ploughing." See our special article. The sentence is a contraction of "busy at ploughing," in which "ploughing" is a verbal noun, the object of "at."

13. "He is to die." This sense of "to be" in the present and past tenses = French *devoir*, German *sollen*. "To die" is an adverbial complement to "is."

14. "Consider the lilies of the field how they grow." The clause must be interpreted according to the syntax of older English, where the subject of a noun clause often, for the sake of simplicity, came first, anticipating the clause. Our sentence means practically, "Consider how the lilies of the field grow." We therefore have in the sentence two objects to "consider," (1) "the lilies," (2) "how they grow." The clause (2) is an objective noun clause, giving closer restrictions to the verb.

15. "He is such a fool as to believe the story." The simple statement is "He is a fool;" the rest of the sentence, therefore, modifies this statement, in restricting the character of his folly. Constructions more or less similar are, "He is fool enough to believe the story," "He is too great a fool not to believe the story," "He is so great a fool as to believe." In all the sentences "a fool" = "foolish." (Cf. our note to First Series, 10, p. 585). So that when we say, "He is foolish enough to believe," "to believe" is the gerundial infinitive (expressing purpose, result) and limiting "foolish." In the comparison, "He is so foolish (such a fool) as to believe," we see the intrusion of the conjunction "as" correlative with the adverb *so*, *as*, *such*, in comparisons; "to believe" remains a gerundial infinitive modifying "fool." It is = a clause of result,—"He is such a fool that he believes," etc.

## \* Science. \*

Edited by W. H. Jenkins, M.A., Science Master, Owen Sound Collegiate Institute.

## BOTANY.

THE season has now arrived for field botany; the laboratory will henceforward be used only to unravel the more intricate questions relating to minute plant structure. Do you, as teacher, start off after four to collect specimens for next day's study, or do you consider that it is a part of practical botany to know the habitat of a plant and therefore demand that the pupil secure this information as he ought to secure all knowledge in science—by his own efforts? Having secured your specimens, how do you proceed to study them? Not, it is to be hoped, by asking such questions as the following: "Do you see these little white thread-like structures? Well, what shall we call these?"

"Now I want you to notice the two little leaf-like bodies just where the leaf and stem are united; do you see them?"

If Botany is to cultivate the power of observation, who should observe—the teacher or pupil?

How, then, can the teacher be sure that the pupil has made all necessary observations? The answer is very simple. Require the pupil to make drawings from the first in a blank book used for that purpose alone. Where a pupil has failed in any point have him copy his drawing on the blackboard, and have another who has made the correct observation put his drawing alongside for comparison. Five or six lessons spent in this way with comparisons made in familiar language will prepare the pupil for a whole list of technical terms of which he knows the exact significance and for which

he can frame definitions often more exact than, and infinitely preferable to many in the text-books. You will be astonished at the *real* progress made and you will teach your pupils what is much more valuable—self-reliance.

In your teaching remember that herbalism is the antipodes of botany. "A man might be an excellent botanist without knowing one plant name from another."

A few lessons given in the manner outlined, with a suitable selection of plants, will lay the foundation for intelligent classification. Much valuable information in connection with the physiology of plants will be obtained if you occasionally ask your pupils to find out, in their search for specimens, where long-petioled leaves are found, where the best fish pole can be obtained, where the leaves are dark and where light green, where the trunks of trees are short and scrubby, and others of a similar character.

#### A LABORATORY EXPERIMENT.

Plant peas in an ordinary flower pot placed near a sunny window. As soon as the stems are about two inches above ground, turn the pot with the opposite side towards the window and leave for a few days, then reverse again. Repeat this for a couple or three weeks, and you have an instructive and convincing lesson in plant physiology.

### CHEMISTRY.

#### JUNIOR LEAVING.

A VERY simple experiment to illustrate the composition of sulphuretted hydrogen may be easily and rapidly performed by the student as follows: Have a fine pointed delivery tube and a copious supply of gas. Light the gas as it issues; place the flame at the mouth of a dry bottle. What elements does the presence of water in the bottle indicate? What is the source of each element? Hold a cold porcelain plate close in the burning jet. What is the deposit? What is its source? This experiment is also useful to illustrate to Senior Leaving students the comparative activities of O and S and the stabilities of H<sup>2</sup>O and H<sup>2</sup>S.

A simple device for preparing hydrogen gas is the following: Remove the bottom from a good-sized bottle. Through a cork in the mouth pass a glass tube a short distance. From the cork suspend by a strong copper wire a good sized piece of zinc. Place the whole in acidulated water, quite filling the bottle. The action can be stopped at once by simply lifting the bottle out of the liquid. This will at once be seen to be a great saving of time in arranging apparatus.

Many teachers who are endeavoring to prepare themselves for a higher certificate by home study frequently complain of lack of success in the science departments, by not having access to laboratories. An earnest teacher who is willing to expend five or six dollars and considerable ingenuity can procure or make nearly all the apparatus required for the experimental course in chemistry at present prescribed for Junior Leaving candidates. For example, for the elaborate apparatus, page 30, Knight's Chemistry, may be substituted two test tubes, graduated by slips of paper pasted on their sides; a small soup plate, a couple of small strips of platinum and a few feet of copper wire, the whole not costing thirty cents. For a cheap battery to use, see under Physics. Those who complain should see that the fault is not in themselves.

### PHYSICS.

A CHEAP and easily constructed battery for home experiments can be made by any boy living in a town where the electric light is used. Procure a few pieces, about four inches long, of the waste carbon pencils to be found near every electric lamp, a few pieces of zinc such as is used in the Leclanche cell, and four ordinary tumblers. Fit a wooden top, with three holes, to each tumbler; place carbon pieces in two of the holes in each top, with a zinc between. Connect the carbons by winding a few coils of copper wire around each. Connect the four cells in series, making firm all connections. The liquid used is sulphuric acid, water and solution of bichromate of potash. With this battery you can perform the experiment mentioned under the head of "Chemistry," and a great many of the experiments in the High School Physics under Electricity. The zincs should be well amalgamated and removed when not in use.

The following experiment will suggest to teachers a simple and forcible method of illustrating divisibility of matter:

Apparatus: purple aniline, a litre flask. In a litre of water put one decigram of powdered aniline. Does it dissolve? Pour out half the mixture and add as much pure water. How much aniline have you now? Pour out half and fill as before. How much aniline left? Continue until you can see only a trace of aniline, keeping strict account. How much aniline have you in each c.c.? Imagine this division to be carried on until you have reached the smallest particle of aniline. Call it the Molecule.

The above experiment and the following on porosity of matter will assist in leading the way to the theory of the constitution of matter. Apparatus: tumbler, salt, air pump. Fill a glass with cold water and allow to stand in a warm room. Whence come the bubbles of air? Can you pump air out of water? Put the tumbler under the bell jar of an air pump and exhaust. When the air is exhausted is the volume of water less? Dissolve some of the salt in water, marking the height of the water before and after the experiment. If there is no increase increase in volume how can you explain the disappearance of the salt? Will a c.c. of water saturated with alum hold as much sugar in solution as a c.c. of water containing no alum? Try it.

The following is an experiment devised by a lad in a junior form of the High School to take the place of the first experiment mentioned in the High School Physics (Am. Ed.). Fasten by mucilage a strip of paper to the inner bottom of a bottle. Cut off the free end at the mouth. Press the bottle mouth downwards into a jar of water. How much of the paper is wet? What do you learn?

#### NOTES AND OBSERVATIONS.

To many progressive teachers, who have for a few years been considering a scheme of Elementary Science teaching in our Public Schools, the following will be of interest.

In a preliminary report on Elementary Science in the Public Schools of Massachusetts occur the following statements made by teachers:—

"Children are using their eyes; they are quicker to observe resemblances and differences."

"Improvement in expression both oral and written."

"A better understanding of objects mentioned in other subjects."

"A quickening of mental power which other subjects have not given."

"It has increased the spirit of sympathy between the teachers and the 'dull' pupils."

In the Public Schools of Ontario the work in Elementary Science is of so desultory a character that undoubtedly much of its value above indicated has escaped the recognition of teachers.

For many years sciences have been taught in our high schools for the valuable information they give for practical life; while this has been the chief aim they became merely "cramming" subjects; now that they have become means of stimulating mental activity they should be taught inductively, and the time has passed, let us hope forever, when it is considered advisable to get them up in a six months' course.

## School-Room Methods.

### COMPOSITION FOR SECOND AND THIRD CLASSES.

BY BARDA.

FROM regarding the subject of composition the most difficult to teach to young pupils, I have come to look upon it as the easiest and most agreeable, and would be glad to help others to change their views on this subject more readily than I did.

I shall have nothing new to say, as, it seems to me, everything to be said, has been said in your pages at some time in the past.

Yet perhaps, a partial *resumé* of the hints I have acted upon, and an account of the experience gained thereby, may be of benefit to some younger teachers. That which leads me to suppose so, is the discovery that there are still some who apparently define composition as I once did, viz., as: "An elaborate expression of mature ideas on important sub-

jects," instead of: "The natural and correct expression of the pupil's everyday thoughts."

Having settled then what we wish to secure, what are our methods?

Shall we assign a subject, which the pupil, feeling all his faculties of expression suddenly benumbed, writes down at the top of his page, and gazes at vacantly for some long minutes, after which he scribbles a few lines, rubs them out to improve them, writes others, is disgusted with them, and rubs them out, repeating the operation, until, perhaps, the last are blotted out by tears, and the time is up, and he confesses to the discouraged teacher that he "can't write compositions."

Or shall we, when we have read "Kitty and Mousie," ask some one to tell a story about a cat he or she has, and after hearing it, ask to have it written in the seats? It will be an uncommonly dull boy who does not listen with interest to his friend's story, and give a pretty faithful account of it.

Shall we afterward hear of some one's pet dog?

Or horse? Or squirrel?

Or talk one day about the squirrel, his looks, his ways of living, his funny tricks, and next day have it written?

Or after reading "The Boy and The Donkey" send a class to desks to write a story of "A Stingy Boy?" Another day, "A Boy Who Was Not Stingy?"

Or after reading "Brave Little Dimple," ask them to describe their feelings when obliged to go alone in the dark?

Or ask them to imagine how a horse feels when he gets out on the grass in the spring, and express themselves in the words he would use if he could? Oh! there is no end to the pleasant and profitable variety to be secured in the teaching of this once dreaded subject, if one may call that teaching which is simply the giving of opportunities.

Try these plans for a while, correcting now and then the construction of a sentence, or the application of a word, seldom if ever the spelling, and instead of the wail, "I can't write compositions," see if your pupils do not beg for it as employment for any spare quarter-hours, or relief from any work that is growing monotonous.

And some day when you have been trying them for some months, and have been gathering pictures and stories in scrap-books, to furnish subjects for stories, and have ransacked your memory and your books for historical and biographical tales for them, ask them to describe the sort of person they like and admire most, and if you do not read something that warms your heart—but you will. The teacher who is sufficiently interested in her work to do all this, is sure of her reward.

### RECITATIONS.

THE most important consideration at the beginning of a recitation is to get the good will and attention of the class.

Require pupils to go to and from the recitation seat quietly.

Announce questions first and call on the pupil second.

Do not have a stereotyped form of asking questions or hearing the class, but present the work in the greatest possible variety of forms.

Devote a portion of the allotted time for each recitation to reviewing the last lesson.

Require pupils to stand while reciting.

Require the pupils to repeat the question in the answer.

Correct disorderly conduct by dismissing from the class (for the one recitation.)

Do not tolerate whispering or any other communication in class.

Require answers in clear grammatical language and allow criticism and friendly discussion. In your explanations use only the simplest language and be sure that you are understood before leaving the subject. Allow pupils to ask questions and give opinions.—*Normal Instructor.*

A GENEROUS man will place the benefits he confers beneath his feet, those he receives nearest his heart.—*Talleyrand.*

WALK on thy way; bring forth thine own true thought;

Love thy high calling only for itself,  
And find in working recompense for work;  
And envy's shaft shall whizz at thee in vain.

—*Charles Mackay.*

# The Educational Journal.

Published Semi-monthly.

A JOURNAL DEVOTED TO LITERATURE, SCIENCE, ART  
AND THE ADVANCEMENT OF THE TEACHING  
PROFESSION IN CANADA.

J. E. WELLS, M.A. - - - - - Editor.

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## TEACHERS' CONVENTIONS FOR MAY.

North York, at Newmarket, May 19th and 20th.  
North Simcoe, May 19th and 20th.  
Lanark Co., at Perth.  
East Simcoe, at Orillia, May 26th and 27th.

## ✻ Editorials. ✻

TORONTO, MAY 16, 1892.

### UNGRADED SCHOOLS.

WHEN the school population of a section is so large that several teachers must be employed, it has been found economical to place all those pupils who are of about equal attainments in the charge of one teacher. Looked at from the standpoint of economy, the graded school is an undoubted success. Yet, as a matter of seeming necessity, it is accompanied with serious defects and disadvantages. It is not, however, our present purpose to discuss these directly, or to consider whether and to what extent they may be removed or overcome. We propose merely to say a word for the ungraded schools. Our attention is called to the subject and old memories awakened by a paper before us, in which a friend, who now occupies an important chair in an Ontario University, recalls "happy days of youth spent in an ungraded school with its forty pupils, some struggling with the difficulties of the alphabet, others preparing

for County Board examinations for teachers."

Ungraded, indeed! the writer exclaims. It was here that grading received its finest touches. When a boy was ready for promotion in any subject he was moved up, no matter whether it was at the middle or at the end of the term. The boy who was anxious to learn and willing to work, was not held back and down by the drudgery of class-work, given to keep the good boys busy while the lazy boys slept. He was encouraged to go ahead independently, and do the best of which he was capable, knowing that as soon as he proved himself fitted for a higher class in any subject he could take his place in that class, without regard to the progress of the drones.

The perplexing question of home lessons did not press for solution then as it does now. There was ample time for the preparation for recitations in school hours. "How thankful we are now that the teacher was so fully employed that he had but little time to devote to us. He set us tasks and we did them; did them in the daytime when we were fresh for work; did them at school, and felt free to spend the evening hour at home in games or childish amusements, without the harrowing thought of tasks unprepared. We had a lock on our desk at school and felt that we could leave our books there over night in safety. In the morning we started out equipped for the day's work with an apple in one hand and a *shindy* stick in the other."

In those days the pupil was not helped over each difficult step in his work. He had not all crooked places made straight for him by suggestive questioning, but was encouraged to work with the expectation of meeting difficulties; with a growing confidence in his own powers, as one by one, sometimes with the teacher's help, oftener without it, he overcame one after another the giants that beset the path of the diligent schoolboy.

"I think now," adds the writer, "that we had a skilful teacher. He seemed to know when he had said enough on a perplexing point. His touch with all classes of pupils, in all stages of development, gave him a more comprehensive grasp of his subjects, and a more thorough knowledge of his pupils than can be gained by the unfortunate *grade* teacher. We are glad that ungraded schools existed in our day, and hope for posterity's sake they may ever exist."

Thus proceeds our friend, in happy reminiscence of the bygone days. We fear that many of our readers who may have reached the middle stages of the life journey, may have less grateful recollections of the schools and schoolmasters of their boyhood.

To some the retrospect brings sad visions of ignorant, irascible tyrants, who knew little and cared less about true educational processes and influences, and whose chief delight seemed to be to maintain a "reign of terror." Yet good work was done in many of those early schools. The very fact that the learner was thrown so largely upon his own resources developed often a strength and independence of mental character that stood him in good stead in all his after life.

The graded school is undoubtedly a present day necessity. It has, too, many advantages of various kinds, for both teacher and pupil. But it is not, to our thinking, the ideal school for children. Our ideal, at least, is that of ten or a dozen—certainly never more than twenty—pupils of different ages and at various stages of advancement, under the charge of a teacher of the highest qualifications, both intellectual and moral, thoroughly acquainted with the idiosyncrasies of each, heartily in sympathy with each, unhampered by the hard-and-fast lines of any programme, free from the fear of any periodical examination, at liberty to vary subjects and methods to suit the capacities and wants of each pupil, aiming only at the fullest and most symmetrical development of the highest faculties and capacities of each, intellectual, moral and spiritual. Such an ideal is, of course, for the most part, now unattainable. But in the good days coming, when parents shall have attained larger conceptions of their duties and responsibilities in the education of their children, and of the possibilities of childhood, they will learn to discard all machine methods, and the demand created will give rise to a supply of the most highly educated and most richly endowed men and women in the nation, who will give themselves with enthusiasm to what will be virtually the duties of a new and noble profession. The cardinal fault of the graded system is that it originates and then acts upon the mischievous notion that the abilities and capacities and salaries of teachers may be graded to suit the stages of advancement of the pupils. We hold it as a theory, which will gradually be reduced to practice as the world grows wiser, that the highest abilities and attainments are not too high for the man or the woman who is to be entrusted with the moulding of the plastic mental and moral natures of a class of children, during even the most tender years of school life.

'Tis not in mortals to command success  
But we'll do more Sempronius: we'll deserve it.  
—Addison.

How beautiful is youth! How bright it gleams  
with its allusions, aspirations, dreams!—Longfellow.

## TEACHERS AND TEACHERS.

THERE are capable and incapable, efficient and inefficient, good and bad, in every profession and occupation, but it may well be doubted whether any other employment presents such contrasts in the matter of competence and general fitness as are to be found in the ranks of the teaching profession, and especially among Public school teachers. Almost side by side, in the country and village districts, and with but trifling differences in the matter of salary, may be found at the teacher's desk men and women of high character and ability, and other men and women, often mere boys and girls, who are utterly incompetent or otherwise unworthy to be entrusted with the serious responsibilities which are inseparable from the teacher's high calling. The former are doing work for boys and girls which will be gratefully remembered as long as life lasts, and will redound to the benefit of the community, or of other communities, long after the individuals shall have gone the way of all flesh. The latter are not only wasting the most precious opportunities for earning the life-long gratitude of their pupils, but are in many cases doing the most serious injury one human being can do to another, viz., injuring the character, and so lowering the type of the future manhood or womanhood. What more serious accusation could one man or woman bring against another than that which the parent of whom Mr. Wilkinson spoke, (see brief outline of his address in another column), brought against the teacher whom he had entrusted with the training of his child.

Under the circumstances, the wonder is that the profession in Canada is able to retain the services of so many teachers of high character and competence. A greater wonder, and a sad pity, is that so little discrimination is made between teachers and teachers by parents and trustees.

As we have often had occasion to point out, a most serious responsibility is thrown upon trustee boards under our system. They, and they alone, have it in their power to make effective inquiry into the moral and religious character of the man or the woman to whose hands is to be entrusted the largest opportunities of influencing for all time to come the principles and habits of the future men and women of a whole neighborhood. In view of this fact, so obvious and so full of the deepest significance, two things are most wonderful. The first is that trustees are so often seemingly almost indifferent to that which should be regarded as the very first essential, an absolute *sine qua non*, in the choice of a teacher—that he or she be a man or woman of the very highest type, not only intellectually, but

morally and spiritually. How often it is the case that this seems to be a matter of secondary importance if not of absolute indifference to the school board in search of a teacher. What is called a "good moral character" will of course be insisted on. But too often this seems to mean simply that the teacher shall be honest and respectable, in the sense of not being addicted to any known vices. Subject to this very loose condition, the question is too often merely one of the smallest possible salary, and a certain minimum of scholarship. The second wonder is of the same kind. It is that parents, who may be supposed to love their children above all money considerations and to desire intensely their highest welfare, are so often careless in their choice of trustees and disposed to approve those who are capable of taking so low a view of their duties and responsibilities. The result is that often, to save a very few dollars, or it may be cents, individually, parents suffer their children to be deprived of the influence of a teacher whose work would have been an inestimable blessing to them in all their after lives, and not to them alone, but to all with whom they may have to do throughout the course of those lives.

To some, possibly to many, such views as these may seem to be very much exaggerated. Those who have seriously reflected upon the potency of the subtle influences which operate day by day and hour by hour, during the plastic period of childhood and youth, in forming that most precious and imperishable thing which we call "character," will see that it is simply impossible to overestimate the importance of having our children subjected, during this period, to the very best influences and placed amidst the very best environments which can possibly be secured. The difference between securing one teacher and another—represented sometimes by a paltry fifty or one hundred dollars—may mean the difference to many a child between a comparatively useless and worthless life, and one dominated by such aims and principles as will make it a blessing to many. Hundreds of noble-minded and eminently useful men and women gratefully attribute the first awakening of high aims and ennobling impulses in their hearts to the influence, it may have been very quiet and unobtrusive, of a true teacher.

HUNDREDS of noble-minded and eminently useful men and women gratefully attribute the first awakening of high aims and ennobling impulses in their hearts to the influence of a true, though it may have been a very quiet and unobtrusive teacher. If it is pleasing for one who has reached maturity and usefulness in life to thus gratefully recognize his indebtedness for what is best in him to the school-master of his boyhood, what reward could be more grateful and precious to the heart of the teacher himself than in his later years to receive such tributes from those who have profited by their training and influences.

## Book Notices, etc.

Any book here reviewed sent post paid on receipt of price. Address The Grip Printing & Publishing Co., Toronto.

*Moffatt's New Schedule Geometry for Standards V., VI. and VII.* London. 92 pp. 6d.

Practical plane geometry is here very satisfactorily and fully presented.

*A Treatise on the Geometry of the Circle, and Some Extensions to Conic Sections by the Method of Reciprocation, with numerous examples.* By W. J. McClelland, M.A. Macmillan & Co. 1891. 300 pp. Cr. 8vo.

"A treatise on modern geometry for the more advanced students in public schools." Chapter III. gives the more recent development of the geometry of the triangle since 1873. The book does not err on the side of simplicity.

*Outlines of Lessons in Botany: Pt. II, Flowers and Fruit.* For the use of teachers, or mothers studying with their children. Boston: Ginn & Co. 1892. 390 pp.

Familiar talks; finely illustrated; large type; clear, simple style; an excellent book for teachers who wish to give their pupils an intelligent interest in the vegetable world. The lessons would prove recreations in any public school in Ontario.

*New Elementary Algebra* (Davies.) Edited by J. H. Van Amringe. American Book Co. 1891.

This is an easy introduction to the science suitable to the junior classes of high schools, or for the senior pupils of public schools. Clear and simple.

*Xenophon's Hellenica: Books V.-VII.* By Charles L. Bennett, Brown University. Ginn & Co. 1892. 234 pp. Large 8vo.

This is a fine specimen of the College Series of Greek Authors edited under the supervision of John W. White and Thomas D. Seymour, whose names guarantee the excellence of the work. It is based upon Büchsenhützel's fourth ed., 1880—footnotes—introduction—appendix with critical notes, etc.—a complete book.

*Laboratory Manual of Chemistry.* By Messrs. Armstrong and Norton, Principals of Chicago High Schools.

Aims at introducing the student to the elements of Chemistry in the only sensible way—by experiments of such a nature that the pupil can easily perform them. The illustrations of the apparatus employed are numerous and well executed, while throughout the text are many valuable suggestions for the preparation of apparatus by the pupils themselves, which will be very useful to students who have not access to a well-equipped laboratory. The questions are pointed and consecutive. Alternate pages are blank for recording observations and conclusions. It is published by the American Book Co.—W.H.J.

*Information Reader No. 3. Man and Materials.* By Wm. G. Parker, M. E. (Boston School Series). Cloth, 325 pp., 60 cents. Boston: Boston School Supply Co.

The Boston School Supply Company have placed the teaching profession under obligations by issuing this notable series of reading-books. Our young folks at school could have no more interesting and profitable reading than the lessons comprised between the covers of the most lately issued number of the series: *Information Reader No. 3.—Man and Materials.* It fully maintains the high standard of its predecessors, and its pleasant, simple, conversational style is well suited to hold the attention of boys and girls.

*Selections for Sight Translation.* For Second Class and Matriculation examinations. By J. Morgan, Head Master of the Walkerton High School. Toronto: Frank Porter, Publisher.

Thoroughly good and may be warmly recommended. Much better adapted for the purpose than ever Mr. Jerram's selections. Mr. Morgan has supplied a real need.

## \* Special Papers. \*

### MEMORY TRAINING IN PUBLIC SCHOOLS.

WALTER VAUGHAN, MONTREAL.

To many of those who have considered the matter, it must have seemed strange that no efforts, well directed or otherwise, have been made to introduce into our public schools the systematic training of the memory; by which is meant something very different from any, and every, artificial system of memory-aiding. A glance at the history of mnemonics is sufficient to show us that not one of the systems, of which we have any knowledge, has had more than a temporary success—and that undeserved.

How old is the use of artificial aids to the memory we cannot tell. Frequent references in Plato and Aristotle warrant the assertion that it was much favored by the Greek sophists, and we have the authority of Cicero and Pliny for saying that, in their time, the Romans attached considerable importance to the art, the last named writer giving enviable notoriety to one Metrodorus, of whom he said that "he heard nothing that he did not remember." But in the time of Quintilian the art decayed, and we hear little or nothing of it again until the thirteenth century, when Roger Bacon's *De Arte Memorativa*, and many other treatises on the art were published. From that time to the present the art has received attention only by fits and starts, as when public curiosity has been awakened by the writings of a Richard Grey or a Wincklemanu (who introduced the method of giving letters to figures so as to express dates and numbers by words), or when astonishment has been temporarily excited by the mnemonical feats of a Petrus de Ravenna or a Lambert Schenkel. In recent times the "*Memory and the rational means of improving it*" of Dr. Edward Pick, gained a wide circulation; and quite lately one Professor Loiset, hailing from London, must have reaped, and, for all I know to the contrary, may be reaping still, a rich harvest from that field of gullibles, the British public.

Generally, it may be stated, some Simonidean feats every now and then notwithstanding, that every method of artificially aiding the memory has failed, and rightly. They have failed, first, because they were not founded on any rational or natural basis, and, secondly, because to acquire, and be able to readily apply, any one method would entail as great an effort and expenditure of time as a man of ordinary capacity would make in getting a good grasp of one or more of the various branches of knowledge.

Clearly then we cannot look to any method now known to us of artificially aiding the memory as the means whereby to compass the end in view, and we have to fall back on the resources of nature to find what we want.

Memory may be said to comprise three components: reception and retention, reproduction, and localization, or, as it is commonly called, recollection. The first two are innate in the normal man; the last is a purely psychological and subjective faculty. To put it in another way—which may not be the less forcible because, perhaps, unscientific—the brain receives, through the nervous system, certain impressions, and retains all those impressions in much the same way as a sheet of blotting paper receives and retains the impress of an india-rubber marking stamp—but with this difference, that the brain impressions are subject to reproduction; and, as the impressions on the blotting paper are more or less distinct in proportion to the force employed in making them, so the impressions on the brain are more or less clear and well-defined in proportion to their vividness at the time of reception. Again, in like manner as the blotting paper retains all the impressions made on it, so does the brain; and, as in both cases impressions may be made, which overlap, and lie upon, or adjacent to, other impressions, it is the power of localization, or recollection, which is employed in bringing, as it were, to the surface the outline of any one or more individual impressions.

That it is more correct to speak of memories in this connection than of memory, and that impressions are rather stored in cells than impressed (though that also), I am aware; and even though it is highly probable that my illustration in other respects will not receive the assent of scientific

men, yet the principle involved in it is essentially the true one, and, in default of a better, it must serve my purpose.

Of the three components let us direct our efforts of improvement to that which affords us the greatest scope. Reception and retention, and reproduction are natural functions of the human brain, and, in the healthy man, with the *mens sana in corpore sano*, it is right to assume that they are properly developed, and that their operation is perfect. It may be said, nay, it is said, that the receptive and retentive faculties of particular individuals are greater than those possessed by the majority of their class. We speak of Mr. A. or Mr. B. having a very retentive memory—and, perhaps this is true, though it is certainly questionable.

Upon examination it will probably be found that the receptive powers of Mr. A., though apparently, are not really, above the average, but that he gains his advantage by more concentrated attention, and closer observation; and that the retentive power of Mr. B.—and this is obviously easy of demonstration—obtains its comparative lustre only by his faculty of localization or recollection being well exercised and developed.

Regarding this, the notice of the feats of some well-known giant memories is instructive and interesting. Cyrus is said to have known the name of every soldier in, what was in his day, an enormous army. Euler, after he became blind, could repeat the whole of Virgil's *Æneid*. Magliabechi performed an astonishing feat: after reading and returning a borrowed manuscript to the owner, the latter, pretending that it was lost, begged of him to write out as much of it as he could remember; and his request was granted by Magliabechi, unassisted except by memory, writing it in its entirety. Seneca could repeat two thousand words after a single reading; Scaliger a hundred verses or more; but both sink into insignificance when compared with the boy hailing from Corsica, who could repeat forty thousand words, sense or nonsense, backwards or forwards, after hearing them once. John Fuller, a land agent of the County of Norfolk, could correctly write out a sermon or lecture after hearing it once; and one Robert Dillon could, in the morning, repeat six columns of a newspaper, which he had read the preceding evening. Most wonderful of all was George Watson, who, while in all other respects the type of the hobbled boy and country bumpkin, could tell the date of every day since his childhood, and how he occupied himself on that day. Porson had the Greek authors, book, chapter, verse and line, at the tip of his tongue. Mezzofanti is said to have known seventy different languages and dialects, and upon one occasion to have succeeded, after twenty-four's study, in readily conversing in a language, which before was entirely unknown to him, and which seemed totally different from all he possessed. An old beggar of Stirling, some sixty years ago, yclept Blind Alick, knew the whole of the Bible by heart, so that he could give verse, chapter and book for any quotation, or, *vice versa*, correctly give the language of any given verse. These instances could be multiplied; and many well known names will doubtless rise to the mind of the reader. Who does not remember the unique powers of Macaulay? In a different category must be placed the calculating boy, who "saw his sums as in a vision," and the marvellous blindfold chess-playing of Morphy, Blackburne and others.

The foregoing suggests one or two remarks. It is seen that men of low station, comparatively uneducated and illiterate, have shared with others known to fame for their intellectual powers the possession of an abnormal memory; from which it may not unreasonably be argued that they were gifted by nature from the first, with a faculty of recollection abnormally developed. It would also appear that the memories of nearly all I have mentioned, were noticeably strong only in one direction. It is not recorded of Mezzofanti that he remembered so quickly other things than languages, while we know that Polson's memory was sometimes notoriously weak, when he had not to do with his beloved idols, the dead languages. Macaulay perhaps displayed the best developed memory, equal in all its parts, exercised in every direction. Setting aside the exercise of attention and observation, which are great factors when we consider both the quantity of impressions and their vividness, how do we know then that it was the faculty of recollection which enabled these men to shine above their fellows?

We have clear proof of it. If Mr. C., an intelligent man, who has a weak memory, reads, let us say, a chapter of the Bible, he may not be able to quote correctly any connected ten words, but let any one misquote a verse of that chapter, and Mr. C., though he may, or may not, then recollect the right version, will at once remember, and point out, that the one given is incorrect. Again, who of us does not often experience an inability to remember the particulars of some more or less important event in which we were concerned, even after strenuously searching the memory for it; some kind friend mentions but one little fact connected with it, when the scene, the event, and the circumstance—often trivial and of no account—are recalled, as it were, in a flash.

It being then the power of recollection, the subjective faculty, that we must set about improving, what method shall we adopt? and how may it be applied to the best advantage in the public schools. These are two very distinct questions; the ease with which we can answer the one is balanced by the difficulties surrounding a practical solution of the other. I propose shortly to speak of them in their order. But first, what is the condition of the memory of the average individual, child or adult? I fear that most of us can truthfully but echo what Montaigne said of his own:—

"Memory is a faculty of wonderful use, and without which the judgment can very hardly perform its office; for my part, I have none at all. What any one will propose to me he must do it by parcels, for to answer a speech consisting of several heads I am not able; I never receive a commission by word of mouth without a note-book. And when I have a speech of consequence to make, if it be long, I am reduced to the miserable necessity of getting by heart, word for word, what I am to say. I should otherwise have no manner nor assurance from fear that my memory would play me a slippery trick. The more I distrust it, the worse it is; it serves me best by chance; I must negligently solicit it, for, if I press it, it is astounded, and all at once begins to stagger; the more I sound it the more it is perplexed; it serves me at its own hour, not at mine."

Allowing the margin that we usually and indulgently do to this writer, who sacrificed much to the honor of wit and the glory of epigram, we may say with authority that, if these words were true of him, they are also true of the vast majority of us—if, indeed, they are not more applicable to that majority than they were to him. It is then the memory so constituted for which we must seek a method of improvement—this condition of the localizing faculty that we must seek a means of avoiding. To diligently search for and apply that method and those means is so obviously imperative that one would suppose the efforts of every one entrusted with the noble work of education to have been early and strenuously exercised in that direction. If so, those efforts have been startlingly barren of fruit; the practical result may perhaps be mathematically expressed more exactly by a minus quantity than by zero.

Unfortunately (to paraphrase the words of another) teachers generally, forget, if they ever knew it, that their duty consists of *training*, not of mere *telling*. The one result, calling for any notice, is the learning by rote prevailing in most schools, and this, in its method, employment and effect, is I venture to think, so bad as to be the equivalent of a minus quantity. Montaigne says "Scavoir par cœur n'est pas scavoir"; and Herbert Spencer, than whom no one is a greater authority on such matters:—

"The rote-system, like other systems of its age, made more of the forms and symbols than the thing symbolized. To repeat the words correctly was everything; to understand their meaning nothing, and thus the spirit was sacrificed to the letter. It is at length perceived that in this case as in others, such a result is not accidental, but necessary; that in proportion as there is attention to the signs there must be inattention to the things signified."

But of more weight than Mr. Spencer's dictum is the fact itself that the rote-system in use has, after an incredibly long trial, been proved to be utterly worthless, and has been discredited, and discontinued, by many teachers, while all distrust it. Discarding altogether learning by rote, our task is now to find the proper method of improving and aiding the memory, i. e., of strengthening and developing the faculty of localization in the individual. And we need not go far to search for it,

for the most natural and obvious one is, as it is in so many other matters, the proper one.

Hering says (not having it in the original, I take it from a French translation):—

"Daily experience proves that a muscle grows the stronger the oftener it works. The muscle fibre, which at first responds feebly to the excitation transmitted by the motor nerve, responds more vigorously the more frequently it is excited, pauses and rests of course being presupposed. After each action it is fitter for action again, more ready for the repetition of the same work, better adjusted for the reproduction of the organic process.

"It gains more by activity than by long repose. We have here in its simplest form that which approaches nearest to physical conditions—that faculty of reproduction which is found in such complex shape in nerve substance. And what we see in muscular tissue we see more or less in the substance of the other organs. We see everywhere that an increased power of organs accompanies an increased activity with sufficient intervals of repose."

This dictum of Hering's is endorsed by the unanimous assent of all men of science; by common sense; and better than all, by the universal experience of mankind; and to nothing could it be applied with more exactness than to the organs of the brain and the faculty of localization.

The functions of the memory must be trained in a manner similar in all respects to that employed in strengthening and developing the muscles of the well-trained, all-round athlete, not, let it be observed, the athlete, who excels in one or two exercises only,—the specialist athlete.

The athlete is dieted with sufficient, and not more than sufficient, of the most wholesome, nourishing, and strengthening food for giving perfect health to the body, and supplying the muscles with their motive power; so ought the memory to be regularly stored, not overloaded, with that food for the mind, which will afterwards best serve the man.

The trainer first exercises the would-be athlete's muscles very gently and frequently, insisting upon rest during intervals; so must the localizing faculty of the memory be exercised frequently and, at first, very gently—coaxed, not forced—the intervals being spent in repose. The athlete's exercises, from being in the beginning very gentle and frequent, are gradually, very gradually, increased in violence of motion and the length of their duration; so should the exercises of the recollection. It is imperative that the athlete avoid overstraining his muscles or he will break down; so must be avoided the over-straining of the recollection, which in its results, is as bad as, if not even worse than, the over-straining of the muscles. The athlete's exercise must be regular in its graduation, that is, he must not do a very little one day and very much another, but pursue his course as evenly as possible, with neither too violent exertion nor too long a rest, or his muscles will lose the benefit of the exercise; equally regular and unbroken in its periods of excitation and rest must be the exercise of the recollection: as its powers gain strength day by day in an imperceptible quantity, as trifling as possible should be the increase in the task allotted; and, if, upon occasion, it is taxed with more than ordinary severity, it must have a correspondingly larger period of rest. Lastly, the exercises of the athlete must be even, not partial, such as will develop all his muscles and strengthen all his members; similarly should the recollection be exercised in relation to all things worthy of being stored in the memory.

It is not within the scope of this paper to go into the minutiae of such training—perhaps I have omitted even some of the essentials—but enough has been said to suggest to the minds of all the method which I have attempted to outline in brief; the details, the rounding of all its parts, and the finish are left for more competent hands. But carried out consistently, thoroughly, and patiently, who can doubt of the result; its incalculable advantages both as a factor in education, and in the struggle for life? Regarding it in one aspect only, and that by no means the most important, its enormous value as a time-saver is indisputable, and affords more than sufficient ground, if not for its systematic adoption, at all events, for a patient and thorough trial of it.

Having shown that the localizing faculty of the memory is the one for which we should seek the best method of development and improvement; and having, it is believed, found that method, how can

it be put to practical utility in the public schools? The object of this paper is to offer a suggestion upon this point, and while my remarks may apply to all schools without discrimination, they are especially intended for the schools of the lower and middle classes; for the students who attend them, on the average enjoy a shorter course, earlier seek their livelihood, and have less time in after life to devote to the pursuit of knowledge, than the usually more fortunate students whose fathers are blest with much bullion.

It has been said that the unerring destiny of all reforms is finality; and the method, which I am about to propose, of carrying out the one indicated is offered in the belief that a better one will quickly be defined, and with the hope that it will ere long be the means of suggesting the best. Several ideas more or less practical, and all attended by many difficulties, have occurred to me. I give the one, which I have thought the least difficult of execution; and most likely to lead to practical results, though I fear that, seriously considered with a view to its possible adoption, it may startle the pedagogue and violently disturb the stagnant mind of the average schoolmaster. It is this: that each school should be provided with a memory-master, whose whole duty should be to train the memories of all the scholars. That proposition looks very simple on paper but I think I hear him of the stagnant mind saying "Most impracticable; surrounded with difficulties." Let me clear some of them away. The memory-master need not himself be the possessor of an abnormal memory, for he will not be called upon to exhibit his own powers in that direction, but he must understand thoroughly the rudiments, at least, of contemporary science, physiological, and psychological, of the organism and functions of the brain so far as, if no further than, they relate to the memory. The memory-master need not be a very learned man. It will be sufficient if he keep himself informed of what has been and is being taught in each class of his school, and, himself, keep abreast with that teaching; not, in the ordinary school, a hard task for an ordinary intelligence.

The memory-master, cannot, of necessity, train the scholars individually. Let him train them class by class, always remembering that a class is composed of individuals, in any two of whom the characteristics are not precisely similar. His duties may be these: to exercise the recollections of the members of each class once, twice, thrice, as often as possible, in every week, the exercise occupying from fifteen minutes to an hour in duration; to embrace in his exercise not only the instruction a class has immediately before received, but all knowledge which the members of that class have at any time acquired, or are supposed to have acquired, from the lessons and instruction they have received; the master, for example, questioning one scholar, one moment upon a problem of Euclid studied two years before; another scholar, the next moment, upon the construction of a line or verse of a Latin author studied six months earlier; a third upon some historical event discussed a week ago; and so on, constantly changing his subject and dodging about the class, paying particular attention to, coaxing and encouraging the members who display the least power of recollection. As a corollary of this, the scholar must not know the ground to be covered in any exercise, or have any inkling before hand of the questions to be asked.

If prizes are given, those allotted to the scholars displaying the largest powers of recollection should be greatest in number and the most honorable, for the measure of recollection is the measure of general knowledge. In schools, if there are any, in which the individual thought of the scholar is called into play, recollection must, of course, yield pride of place, but I believe that such schools are very few and far between.

There are schools whose funds are not sufficient for the additional burden of a memory-master's stipend? In them let the teacher of each class conscientiously perform kindred duties. The government, on economical or other grounds, will not make the necessary provision for carrying out the reform in the national schools? If, in the private or endowed schools, the reform is introduced, and is eventually endorsed by success, the government, which is but the creature of public opinion, must follow.

Conceding, what is highly probable, that this plan for carrying out the suggested reform is far from being the best; recognizing its imperfection, the

objections to and the difficulties surrounding it, but making allowance for the vagueness, indefiniteness and want of finish of the outline, who will deny that even this plan, carried out thoroughly and patiently, will indubitably result in good? Will it advantage the scholar if his learning be more thorough and his knowledge more abiding; if his time be not largely wasted by needless repetition; if he be enabled to utilize the time now wasted, in adding to his store of mental wealth; if, in after life, he has a well-trained memory, reliable, agile, full of resources, and ever ready to respond when called upon? Then let this method I have suggested be seriously and earnestly tested, or cast aside in favor of better.—*Education.*

## For Friday Afternoon.

For THE EDUCATIONAL JOURNAL.

### THE FOREST BRIDE.

BY BARDA.

ALL the night the rain had fallen,  
Freezing quickly as it fell,  
Making all the land around us,  
Glitter like a fairy dell.

I was sitting by a window  
Looking out upon a wood,  
Where a cedar, slender, graceful,  
'Mong the pines and birches stood.

Like a bride among her maidens  
Stood that frost-gemmed forest tree,  
All displayed the Frost-King's magic,  
But the best-beloved was she.

Therefore stood she dressed in garments  
Of the purest, purest white,  
Glistening in her bridegroom's jewels  
'Neath the sun's rays smiling bright.

### TOMMY'S SCHOOL.

"GEOGRAPHY's a nuisance, and arithmetic's a bore!"

Said Tommy, with a frown upon his face.

"I hate the sight of grammars, and my Latin makes me roar;

It's always sure to get me in disgrace.

When I'm a man," he added, as he threw his school-books down,

"I'll have a school that boys will think is fine!

They need not know an adjective nor adverb from a noun,

Nor whether Cæsar bridged the Po or Rhine.

"I don't care if they think that George the Third was King of Spain,

When those old fogies lived so long ago.

Or if they all should answer that the Volga is in Maine,

What difference would it make, I'd like to know?

But instead of useless things, I'll teach 'em how to coast and skate;

They all shall learn to row and sail a boat,

And how to fire a pistol, and to shoot a rifle straight,

And how to swim, and how to dive and float.

"We'll play at tennis and at cricket all the livelong day;

And then there's polo, and—Oh, yes, football;

And base-ball they shall every single one learn how to play,

For that's the most important thing of all.

I tell you," finished Thomas, "I'll have one of just that kind;

Then all the boys, you see, will want to go,

They will not run away and say my school's an awful grind,"

Or call the lessons dull and hard, I know."

—Gertrude Morton, in *May St. Nicholas.*

ERRORS like straws upon the surface flow;  
He that would search for pearls must dive below.  
—Dryden.

EVIL is wrought by want of thought, as well as want of heart.—Hood.

## Contributors' Department.

## THE REDMAN'S ENGLISH.

IOTA NORTH.

ONE of the things which strikes the beginner in Indian work in the Canadian North-West is the queer way in which Her Majesty's English is twisted by those Indians who are so far emerged from barbarism as to understand it sufficiently for trading purposes, while clinging to the native tongue for ordinary conversation. This is largely due to the peculiarities of our language and also to the "Shetlandisms," if I may so term them, brought in by the original employees of the Hudson Bay Company, and handed down from that time. For instance, a cup is a "pot"; a pail, a "kettle"; a woman, a "wife," and so on through quite a list of words. It is quite amusing and to new workers very startling to read in a letter sent by a boy in an industrial boarding school to his little sister, "now you be good wife and do what your mother *he* tell you," for the pronouns are also helplessly mixed. A tall young lady was one day passing across a field in view of some Indian boys, when one said: "My, he's a long wife." And it does not mean that polygamy is practiced when you hear an Indian say: "My little wife is sick." To bear one's weight on anything is to "pack" it. Thus, when a storekeeper called to a boy to lift his hand from the scales he said: "Well I didn't pack it." The verb slack is retained in its old force, and if an Indian child comes on a cold morning with the cheering intelligence that the "fire is slocked" (not slacked) you may make up your mind that it has gone out. Then our plurals of singular words such as scissors, etc., get fearfully handled. "I can't find a scissors," "That boy has got a new trousers." And then the poor verbs, "Please sir, I can't found him," "I am put on my boots." Some of the mistakes are simply amusing, others carry more with them. For instance, if a boy cannot find a broom, you say: "Can't you find the broom?"

"Yes, ma'am."

"Well, where is it?"

"Please, ma'am, I can't find it."

"Well why don't you say—er—ah. Well, go and look out in the porch," and you see that really the boy has answered the question correctly and yet not as we say it.

Some of the errors are very pretty, as note: "Please ma'am, the kettle isn't boiling. I think there are too many waters in it."

"I am thinking long to see you" (longing to see you, i.e., it is a "long think," a thought reaching out to the other person.)

Thus in the midst of the tedious task of getting these forest children to grasp this queer language of ours there is many a bright gleam of humorous construction or quaint phrasing that is well worth noting both for its intrinsic value and for the light it gives us on the state of the mind of the learner. For you remember, Indian children are always carried on the mother's back and generally look at things wrong end foremost.

## PHYSICAL CULTURE.

FIFTH LETTER.

BY A. C. MOUNTNER, SECRETARY ONTARIO COLLEGE OF ORATORY.

III.

HOW TO ATTAIN THE OBJECTS AIMED AT IN THE EMERSON SYSTEM.

THE exercises in this system are arranged with a view to following the maxim—"From rest to climax, from climax to repose." It is a well-known fact that to suddenly begin or cease from violent physical exercise is a most dangerous violation of natural law, and one which is frequently attended with fatal results.

Those who have followed me in this series of letters will have noticed that the exercises of the first division, as outlined in my last letter, are as mild as is compatible with definiteness of result. Each subsequent exercise of the second and third divisions becomes stronger than any preceding until the climax is reached in the third division. Then gradually diminishing in force we merge into the fourth and last division, where the primary object is to develop beauty or grace of movement.

I shall outline, as briefly as possible, the exercises of the second and third divisions. The move-

ments of the fourth division are so varied it would be impossible to present them here without accompanying illustrations; hence I shall only attempt a few general suggestions regarding them.

## SECOND DIVISION.

1st Exercise.—Hip movement. Points of fingers resting on shoulders. Weight entirely on right foot, body sunk, hip projecting as far as possible. Then transfer weight over to left foot without lifting the body. This can only be done by bending both knees at once. Alternate from right to left several times. This exercise develops ease in walking, the legs serving the trunk and not the trunk following the legs—a very common fault.

Second Exercise.—Waist movement. Thick of hands placed against floating ribs. Then contract the waist slowly, reaching the smallest possible limits. This *not done by pushing* but by *drawing in* with all of the muscles that have to do with waist contraction. Then gradually expand those muscles to the utmost. Breathing is strictly forbidden, notwithstanding the exercise will be found to greatly develop the muscles of respiration; and all physiologists know that a healthy condition of these muscles has much to do with good digestion. Repeat the alternate contraction and expansion several times.

Third Exercise.—Chest movement. Ends of fingers on chest in vicinity of third ribs. Gradually depress the chest, making all parts assist or act in harmony with the utmost possible depression. Then gradually lift the chest to the highest possible point, throwing the head back and up, repeating the alternation several times. Like the preceding, this exercise is purely muscular and voluntary, and breathing is not allowed. The chest thus lifted and depressed alternately, the muscles supporting it are developed and the capacity of the chest itself greatly enlarged.

4th Exercise.—Bending body above waist. Hands on hips, fingers pointing down, hips kept well forward throughout the exercise to prevent the possibility of bending at that point. With the head and neck perfectly passive, following rather than leading the trunk, bend body directly forward above waist, then around to right, back to front and over to left, repeating several times from right to left; then the same, bending directly back and from left to right, making a complete circle with the head revolving around body. In this exercise the muscles surrounding the abdomen and stomach receive alternate contraction and expansion, and the organs themselves are alternately crowded and relieved, thus inducing a healthy action in perfect harmony with natural laws.

Fifth Exercise.—Neck movement. Chin brought close to chest in front, then to right shoulder, keeping as close to chest as possible all the way around. Then tip head back on to left shoulder; then bring chin back to right shoulder, afterward coming slowly around to front again and repeating with chin on left shoulder. This exercise induces circulation and healthy development of the muscles and nerves of the neck, which is a great relief to the brain, especially of of overworked students.

## THIRD DIVISION.

First Exercise.—Holding breath and revolving arms. First fill the lungs; then make two complete revolutions with right arm, carrying the hand as far forward and back as possible, and using the shoulder as an axis. Exhale; then with renewed breath repeat the exercise with left arm. Then renew the breath and repeat with both arms. The cells in the upper part of the lungs are by means of this exercise filled with air. Consumption nearly always begins its deadly work in the apex or upper part of the lungs, for the reason that in ordinary breathing these cells are not used. If taken in time, any ordinary case of consumption can be completely cured by the faithful and regular practice of this exercise.

Second Exercise.—Bending movements. These include bending body forward, backward, laterally and diagonally forward and backward. It would be difficult to describe these movements in detail without illustrations. They are the most violent of all the exercises. No part of the physical organism is missed. They bring all of the organs into responsive co-operative action.

Third Exercise.—Reaching movements. These like the preceding, cannot easily be described in detail. They include stretches in every direction, using the right arm and left leg as opposites

and *vice versa*, left arm and right leg. This alternate tensioning and relaxing of muscles and nerves in both the trunk and extremities tends to bring all into harmonious relation, the extremities always acting as servants to the trunk.

It will thus be seen how gradual and thoroughly philosophical have been the steps taken in this series of exercises. First: A good standing position is secured, each part of the organism having plenty of room to act in its own capacity without producing friction with any other part, either because of crowding or lack of harmony with the law of gravitation. Second: The vital organs are lifted, and the muscles surrounding and supporting them strengthened. Third: Branching out from the trunk, the extremities are exercised in such a way as to preserve a harmonious relationship with this "factory of life" contained in the trunk. Fourth: Having secured the necessary strength at the centre as well as established the true relation of all parts with that centre, the student is led in the fourth division to the practice of exercises that will develop smoothness, ease, grace and beauty, the fundamental law of æsthetics: "True grace is always *strong*," being intelligently obeyed.

The exercises in the fourth division include nothing but curved line movements in almost every possible direction from the centre, each movement, however, representing some emotion such as sympathy, benediction, adoration, scorn, etc. In every movement taken the mind gives intelligent direction.

Thus I have endeavored to present briefly the chief features of a system of physical culture, the faithful practice of which has given a new lease of life to many a consumptive and dyspeptic. Dr. Emerson himself was, when he began his investigations along this line, given up as a hopeless consumptive. No more perfect specimen of health can be found anywhere than he is to-day. I have not been able to give all the exercises in a form that students can practice them; but enough has been given to produce beneficial results to all who will follow the practice I have outlined. Having received several inquiries about the system, I would like to add, although I am not an agent, that Dr. Emerson's book containing full description and illustrations of all the exercises can be had of Edgar S. Werner, Publisher, New York. As we use this book in our college and have to order in quantities, I can furnish it at the regular retail price in the States (\$2.00) without any extra cost for duty or postage, to any who would prefer ordering in that way.

If in these letters I have succeeded in creating an interest in a new phase of the subject of Physical Culture among Canadian teachers; and especially if any, through the practices of the exercises I have outlined, receive a tithe of the benefit therefrom that I have experienced myself, I shall feel amply repaid for the labor it has taken to prepare them.

## FOR CONCERT RECITATION.

WE'LL all rise up together,  
We'll clap our hands together,  
And show you how  
To make a bow;  
And all turn round together.

We'll raise our arms together,  
We'll let them fall together  
And show what fun  
It is to drum;  
And all sit down together.

We'll fold our arms together,  
We'll sit up straight together,  
Good children we  
All mean to be,  
Let's sing a song together.

"Sing Pat-a-cake," etc.

—Primary Speaker.

"I HOLD all scholarship that ever man had to be infinitely worthless in comparison with even a very humble degree of spiritual advancement." These words of the great scholar, Arnold of Rugby, deserve to be written in letters of gold. They remind us of the words of the learned and saintly Archbishop Leighton, who said, pointing to his books: "One devout thought is worth them all."—*Christian Advocate*.

## Teachers' Meetings.

## ECHOES FROM THE ONTARIO EDUCATIONAL ASSOCIATION.

FOLLOWING are some extracts from the newspaper reports of some of the more interesting papers and discussions at the late meeting of the Ontario Educational Association:—

## COUNTY MODEL SCHOOLS.

Mr. W. J. Somerville, M.A., Owen Sound, was then introduced to open a discussion on County Model schools. Mr. Somerville read a paper which called forth some discussion. He began his remarks by saying that the educational and the moral work should be combined. He said that he had received a good many answers in reply to a circular sent out by the Trustees' Association, some dealing with the subject thoroughly, others speaking as if the trustees were the enemies of the Public school teachers. In Owen Sound there was an impression that the Model school teachers were injurious to the Public schools, and it required considerable effort to keep the board from asking for its removal. He discussed the teaching staff, and said the feeling was that the appointing of substitutes to the work of the classes was injurious to the pupils. He thought that ten lessons by a live headmaster properly criticized would do more good than the present system of thirty lessons in six weeks. If the Model school was to be an apprenticeship to teaching then a term of ten weeks was far too short. If the term was only for theoretical teaching then it was far too long. He told several humorous stories illustrative of the faulty manner in which grammar is taught. The leading argument in his paper was to reduce the number of the Model schools and to increase the grant. In this way the Model schools should go into the matter thoroughly theoretically and leave the Normal schools to train High school teachers and Public school inspectors.

In the discussion which followed the reading of Mr. Somerville's paper, Mr. F. C. Powell, Kincardine, said that in his school he found much advantage from the variety of teaching, the pupils often gaining additional light because of the changes of the teaching staff. The method he adopted was first to explain the theory carefully to the students, then ask them to illustrate it in their teaching of the classes.

Mr. McAllister, Toronto, said that he considered the conditions in Model school work far different from the ordinary school work. He endorsed what Mr. Somerville said about the apprentice system, and moved:—"That in the opinion of this association no Model school system is satisfactory which does not provide for extended training under the conditions that afterwards obtain in actual teaching."

Mr. Wilkinson, of Brantford, in seconding the motion, said the time was altogether too short for the model school course. Dr. Kelly, inspector of Brant, held that the model schools had accomplished their purpose, and the need was for another normal school to take their place.

Mr. Robert Alexander made a strong plea for an extension of the time of training, and in detail criticised the somewhat radical changes proposed.

Mr. Campbell, of St. Thomas, related his experience with specially drafted classes, left entirely in charge of the students, to be taught as they would be in a rural school. The children and the parents rather liked it, and the model school certainly did not hurt the public schools.

Mr. L. E. Embree admitted that as at present worked, the model schools interfered with public school work. They did not afford a long enough term of teaching, and much of the teaching was done in graded classes, while the teacher afterward had to take charge of ungraded classes. He suggested that a number of schools in each county be designated as model schools, and students might spend the greater part of the year in the circuit of these schools, where different methods of training could be seen. The interference with regular school work would thus be greatly lessened.

A motion was adopted referring the question to a special committee of Model School Principals for a special report.

At a later stage of the proceedings Mr. S. B. Sinclair, of Hamilton, who is now president of the Association, submitted the following:—

## PROPOSALS FOR EXTENDING MODEL SCHOOL TERM.

That (a) any Model school having (1) a separate class room for teachers in training during the entire year, (2) a library containing standard books of reference on the history and science of education, (3) a staff of teachers competent to give special instruction and training in all subjects of the Provincial Normal School course, (4) classes in which teachers in training will be permitted during the second half-year to gain practical experience in teaching and supervising, (5) at least six students who have passed the third-class professional examination and the High school junior leaving examination, and who desire to continue their professional training for a full year, be permitted to extend their Model School course to a full year, and that in addition to the Government grant of \$150 to County Model Schools every such school receive a Government grant equal to one-half the principal's salary during the second term.

(b) The second term to begin on the 3rd day of January and end on the 30th day of June, with holidays during the week following Easter Sunday.

(c) The principal to devote at least one-half his time during the second term to the training and supervision of Model School students.

(d) Teachers who hold a third-class professional certificate and at least a high school leaving certificate to be admitted to the second term, and on passing the examinations prescribed to be awarded a third-class certificate for six years.

(e) The regulations governing course of study, text books and examinations of the second term to be the same as those for provincial normal schools, as provided in clauses 59, 60 and 61 of Departmental Regulations, with the exception that at the final examination the paper be the same as those for provincial normal schools, but the examiners be the County Board of Examiners.

After the summer holidays we hope to publish an article by Mr. Sinclair, dealing more fully with the subject.

## CHARACTER TRAINING.

Mr. Wm. Wilkinson, M.A., of the Brantford Model School, read a most interesting paper on the formation of character in public schools. He pointed out that to this end it was necessary to be a student of child nature, to have some knowledge of cause and effect and to be watchful of individual characteristics. The power of imitation in stimulating the child mind to action and growth toward the character of the teacher was undoubtedly very great. "You have ruined my boy," said a parent once to a teacher. "He has copied your manners, and your tyrannical character has made him deceitful." That was a true estimate, and the future bore it out. The teacher should be a man showing good temper and a generous disposition. In a school the speaker had visited, the teacher used stinging sarcasm, odious comparisons and coarse jests, and one could fancy the faces of the pupils reflected the traits of the teacher.

Continuing, with a wonderful wealth of illustration, Mr. Wilkinson showed how a clean school on a fine site, well kept, had a tendency to teach the children that cleanliness which is next to godliness. So again a school where there was neither undue hurrying nor too much leisure was a training place where contented minds were formed and steady habits acquired. Life there became, as Goethe said, a constant stream in whose current character was developed. Conscience itself might be greatly changed in school, for each school has its own standard of right that long training had produced, and the pupil became indoctrinated with industry and good habits and a high standard of morals that had great effect all through life. The exercise of the will in opposition to the desires and fancies was urged, for the child naturally preferred the easy thing to the right thing. The schools were too much places of instruction and too little of training, too much of knowledge and not enough of culture. Religion—that religion which is more a temper than a creed—should permeate the school room, and should be exemplified by love, mercy and kindness.

We hope to be able to give this admirable paper in full at a later date.

## THE PRESIDENT'S ADDRESS.

Following is a too brief outline of the excellent address of the retiring President, Mr. W. Mackintosh. As our readers are already aware, the broadening of the membership, methods and aims of the Association,

recommended by Mr. Mackintosh, was to a considerable extent provided for in the change of name and organization made before the close of the session.

Mr. Mackintosh thanked the members for having raised him to the place of honor in an association of which he had been a working member for twenty-five years, an association that had done much to advance the cause of popular education and had brought about many important reforms in the school laws of Ontario. Since the formation of the association the teachers had learned the idea of brotherhood in an ennobling but poorly-paid vocation. All classes of teachers, those laboring in colleges and high schools, and those who formed the great body of public school teachers, would, he trusted, soon fraternise for protection against the common enemy. That this had not before the present time been done had resulted in a distinct loss of influence to the profession. One of the chief causes of the lack of interest manifested in certain quarters, this tendency to segregation, was selfishness combined with an absence of knowledge as to the aims of the association. Some method would doubtless be found of making the association more effective as a centre for all engaged in educational work. The National Educational Association of the United States with its splendid annual meetings was pointed to as an admirable example of brotherhood in educational work. In 1890 there were in Ontario 8,180 public school teachers, 452 high school teachers, 569 separate school teachers and 18,000 school trustees. Here was a promising field for recruiting for such an association as the N. E. A. of the United States. All teachers and trustees, those of public schools and colleges as well as university senators and professors, might well unite in one common association, with the object of advancing the interests of the profession and of education. The Ontario Teachers' Association might, with but slight changes in its constitution, be transformed into such a central, all-embracing association, with sections and sub-sections.

We propose to continue to give further extracts from the proceedings of the Association in future numbers. Receiving them thus in instalments and at intervals, our readers will be able to "inwardly digest" the papers and discussions more at leisure than if all were crowded into a single number.

## EXAMINATIONS.

The other night I went to bed,  
But not to sleep, for my poor head  
Was filled with a most awful dread,—  
Examinations!

I thought of this, and then of that;  
Of set and sit; which goes with sat?  
I fear my brain has run to fat,  
Examinations!

Next came the base, and rate per cent.  
Of money to an agent sent,  
And with that word all of them went,  
Examinations!

Then my hard words I try to spell;  
Which words have two, and which one "L"?  
Oh, my poor brain! I cannot tell.  
Examinations!

Where is Cape Cod, and where Peking?  
Where do the rivers all begin?  
A high per cent. I cannot win.  
Examinations!

Who was John Smith? What did he do?  
And all the other fellows, too?  
You must tell me, I can't tell you.  
Examinations!

Oh, welcome sleep! at last it came;  
But not to rest me, all the same;  
For in my dreams this is my bane—  
Examinations!

—Selected.

TORONTO PUBLIC SCHOOL BOARD,

TORONTO, March 21, 1892.

GRIP PRINTING AND PUBLISHING CO.

DEAR SIRS,—I beg leave to acknowledge, with thanks, the receipt of a copy of "Arithmetical Problems," compiled by Mr. G. H. Armstrong.

Collections of practical problems are always of great service to live teachers and are exceedingly acceptable. Mr. Armstrong has certainly conferred a boon on his fellow-teachers by giving them access to such a useful book.

Yours faithfully,

W. F. CHAPMAN.

## \* Hints and Helps. \*

### MATHEMATICAL GEOGRAPHY.

BY JOHN M. SANBORN.

DURING many years' experience in the work of examining teachers, the writer has found a large percentage of the applicants for certificates to be sadly deficient in this department of geographical knowledge. He therefore hopes that what is said will be helpful to some of the teachers who read this journal, and at the same time interest the popular reader. He therefore presents a few questions that will bring out points not always clear to the mind of the teacher.

1. If one were at either pole of the earth on the 21st of March or the 23rd of September, what would be the sun's path in the heavens as viewed by us?

2. (a) If an observer were at the north pole on the 21st of June, what would apparently be the sun's path? (b) If at a point of 80° north latitude? (c) If on the arctic circle?

3. Are there any points on the surface of the earth where the days and nights are of equal length—twelve hours each—throughout the year?

4. If one were at the equator on March 21st, September 23rd, June 21st, and December 22nd, what would be the sun's apparent path at each time?

5. If we could be suddenly transported to some new planet, how might the following queries be settled? (a) Is the axis of the planet perpendicular to the plane of its orbit? (b) If not perpendicular to the plane of its orbit, what is the amount of its inclination? (c) What is the observer's latitude? (d) What is the time of the earth's revolution around the sun?

We assume in the outset that the teachers understand that the earth's axis is inclined about 23 1-2 degrees from a perpendicular to the plane of its orbit, and that this inclination determines the position of the tropics and polar circles. The following are the solutions and answers:—

1. As the sun shines from one pole to the other at such times it would neither rise nor set, but would seem to pass around the observer every twenty-four hours, remaining in the horizon throughout its entire course.

2. (a) On the 21st of June the sun shines 23 1-2 degrees beyond the north pole; then if an observer were at the pole at this time, he would see the sun making the circuit of the heavens every twenty-four hours, and keeping 23 1-2 degrees above the horizon throughout its course. (b) As the sun is 23 1-2 degrees above the horizon at the north pole at this time, it is evident that as the observer travels away from the pole, the sun's path is continually rising before and nearing the horizon behind him, and when he shall have reached a point ten degrees from the pole, or 80° north latitude, the sun will be 33 1-2 above the horizon at noon, and 13 1-2 degrees above the horizon in the north at midnight. (c) Should an observer take his position on the arctic circle June 21st, he would be 23 1-2 degrees from the pole; the sun would be 47 degrees above the horizon at noon: it would touch the horizon in the north at midnight.

3. Yes, at the equator. This may be demonstrated by a simple illustration. Take a smooth, round apple to represent the earth; thrust a small wire through it from stem to blossom, and let this wire represent the earth's axis: the ends of the wire without the apple will represent the poles. Now draw a line around the apple midway between the poles to represent the equator. Thrust a second wire through the centre of the apple at right angles to the first, cutting the line representing the equator on opposite sides of the apple. Place the latter in a vessel of water so that it will float one-half in the water and one-half out. Now turn the apple so that both wires lie on the surface of the water. The position of the apple will represent the position of the earth at the times of the equinoxes in March and September. The half of the apple in the air represents the hemisphere that the sun shines upon, and the half in the water represents the side that is in the shade. The sun shines from pole to pole; one-half the equator is in the sunshine and the other is in the shade. Notice that one-half the line representing the equator is in the air and the other half in the water. Let us now lift one of the poles of the apple out of the water. The other pole at the same time drops

below the surface of the water, and the apple will revolve upon the wire passing through the equator, and this wire will remain at the surface of the water. The half of the line representing the equator will be above the surface of the water, and the other half below. Moreover, this condition will continue however much we may elevate the pole of the apple until the axis of the apple shall be perpendicular to the surface of the water, when the line representing the equator would lie in the plane of the surface of the water. The illustration will make it plain that one-half of the equator is always in the sunshine and one-half in the shade—a condition that would cause the days and nights there to be of equal length.

4. Since the days and nights are of equal length at the equator, the sun always rises due east and sets due west of the observer there. At the time of the equinoxes in March and September, the sun is in the zenith at noon. On the 21st of June it would be 23 1-2 degrees north of the zenith at noon, and on the 22nd of December 23 1-2 degrees south of the zenith at noon. In imagination let one make a trip from the equator to the north pole, starting from the equator on the 10th of June, and reaching the pole about the 25th. On the day of departure the sun rises due east and sets due west. On each succeeding day the observer will notice that the points of sunrise and sunset are moving northward along the horizon, making the days longer. When he reaches the arctic circle on the 21st of June, he will see the points of sunrise and sunset meet in the horizon at midnight in the north. At this latitude the sun does not set, and when he arrives at the pole the path of the sun will lie 23 1-2 degrees above the horizon.

We can understand now how farming operations are successfully carried on in high latitudes. The sun being above the horizon so many hours of the twenty-four, the climate is not so cold as the latitude might indicate. Again, the long nights in the torrid zone make the climate there much colder than it would be were the nights as short as they are in higher latitudes.

5. (a) If we found the points of sunrise and sunset to be directly opposite each other in the horizon, we should know that the days and nights were of equal length at that time, but it would not follow that they were equal throughout the year. For it might be that we were at one of the equinoxes. If the points of sunrise and sunset were not opposite each other, we should know that the days and nights were of unequal length, and that the axis of the planet was inclined more or less from a perpendicular to the plane of its orbit. Let us, therefore, erect a straight pole vertically on a level plane, and mark the point on the plane where the end of the shadow rests each day at noon. If this point remains fixed for several consecutive days, the sun's position when on the meridian is the same each day, and the planet's axis is perpendicular to the plane of its orbit. Should the shadow shorten or lengthen, then the sun's path in the heavens is changing, and the axis of the planet is inclined from a perpendicular to the plane of its orbit. (b) It now remains to determine the amount of this inclination. We will suppose that the shadow is shortening and the sun is approaching the zenith. We will mark the point where the end of the shadow rests upon the plane each day at noon. After a time there will be a few days when no sensible difference in the length of the shadow is noticed at noon. We are north of the equator, provided the sun has now reached its greatest northern declination. We may then determine the sun's elevation above the horizon at noon, by drawing a line from the top of the pole to the point in the plane marking the shortest length of the shadow at noon. Note the angle that this line makes with the plane, and this will give us the sun's elevation. Suppose this angle to be eighty degrees, then the sun was eighty degrees above the horizon at noon, and it was ten degrees from the zenith. Had we been ten degrees farther south, we would have been at the tropic north of the equator, and the sun would have been in the zenith at noon.

Now let us locate the other tropic. We continue to mark the length of the shadow at noon each day as it lengthens, till there is no apparent change in the length of the shadow for a few days. The sun has now reached its greatest southern declination. At this time we take the sun's elevation as before. Suppose we find the elevation to be thirty degrees. Subtract thirty degrees from eighty degrees, the sun's greatest elevation, and we get fifty degrees,

this gives us the width of the torrid zone of the planet. The tropics are twenty-five degrees from the equator, the polar circles are twenty-five degrees from the poles, and the temperate zones are each forty degrees wide; and since we had previously found ourselves to be ten degrees north of the tropic, our latitude is thirty-five degrees north. (c) To determine the length of the year we continue to mark the length of the shadow each day at noon, until it is the same as that of the first shadow measured. The number of days from the time we first measured the shadow till the last, is the length of the year for this planet.

One must bear in mind, however, that these results are only approximations. There are elements entering into this last problem, as the penumbra at the end of the shadow, and the fact that these angles should have been taken at the centre of the earth, which would render our results slightly inaccurate.—*Goldthwaite's Geographical Magazine.*

### A MANUAL OF PUNCTUATION AND SOME MATTERS OF TYPOGRAPHY

DESIGNED FOR PUPILS, TEACHERS, AND WRITERS.

BY JAMES F. TAYLOR, LINDSAY.

(Continued.)

107. But, as I may not have occasion to mention the other two, I shall just remark here, that Watson died in my arms a few days after, much lamented, being the best of our set.—*Franklin.*

108. You impose conditions on your master; you require oaths: if the conditions are just, an oath is superfluous; if unjust, it is criminal.—*Gibbon.*

109. Thus, the Severn has its source in the Welsh mountains; the Thames in the Cotswold Hills; the Rhine and the Rhone in the Alps; the Missouri in the Rocky mountains; and the Amazon in the Andes of Peru.—*Fourth Reader.*

110. Thrice was he the Ambassador of his Sovereign to those great historic congresses that settled the affairs of Europe; twice was he Secretary of State; twice was he Commander-in-Chief; and once he was Prime Minister of England.—*D'Israeli.*

111. The recent logical discoveries of Sir W. Hamilton, Archbishop Thompson, Prof. D. Morgan and especially the late Prof. Boole, cannot yet be fully adopted in an elementary work, but I have attempted to give a clear notion of the results to which they inevitably lead.—*Jevons's Logic.*

112. At Toronto, a political association was formed, which established relations with all the standing committees of Lower Canada, in order to give added weight to its own discourses and resolutions.—*Garneau.*

113. In support of this remark, let it be observed that the noun *sail* in our tongue is frequently used, and by the same trope that the noun *puppis* is in Latin, to denote a ship.—*Campbell's Rhetoric.*

114. He accused the members of having treated him unjustly; and declared, that, if the government adopted the opinions embodied in their report, it would soon find itself involved in great perplexities.—*Garneau.*

115. The disorders of the moral, are sometimes corrected by those of the physical world; and an acrimonious humour falling on a single fibre of one man, may prevent or suspend the misery of nations.—*Gibbon.*

116. Thither have been carried, through successive ages, by the rude hands of gaolers, without one mourner following, the bleeding relics of men who had been the captains of armies, the leaders of parties, the oracles of senates, and the ornaments of courts.—*Macaulay.*

117. Kingston, May 25, 1891.  
Sirs,—Your advertised price of "The History of Manitoba" is one dollar. The dollar enclosed is for a copy. Will you kindly post it at once?  
Your servant,  
Messrs. Holt & Co., Toronto. George Gribbin.

118. First, where was it fought? secondly, why was it fought? thirdly, how was it won? and fourthly, what was the result of it?—*Fourth Reader.*

119. The one, according to a scholastic distinction, (most beneficially revived by Leibnitz), is a mere *principium cognoscendi*; the other (a ground of value) is a *principium essendi*.—*De Quincey.*

120. The departure of Rev. W. Morley Pugh for England, after a few years' sojourn in

## Primary Department.

## THE HEIGHT OF LETTERS.

THE following is a story by which Miss Waldron, of P.S. No. 32, Brooklyn, attained success in teaching the height of letters: Edna may read the sentence, "Lily Smith is a good girl." Annie may point to and trace, with the pointer, all the capital letters in the sentence. Cassie may point to all the letters that are as tall, or high as L and S. Now, children, we will call L and S the parents of all these little letters (pointing to the letters one space high), and this, pointing to the letter l, is aunt l who has come to help mamma L take care of the children. You see she is just as high as mamma or papa, and she is kept very busy looking after the little ones who have just commenced to go to school. These little ones are in Miss L's room. Their feet rest on the baseline (explain what the base of anything is), and their heads touch the line above, which we call the head-line. Now we come to r and s. These are the children who have been promoted once. They are now in this class; their heads you see, come a little way over the line. (Make the parts of the r and s that extend over the line with colored chalk.) Here we come to t and d. We will call them our brother and sister who are up stairs; they are two stories high. Last, but not least, comes the baby of the family, g. Her head is between the lines, like a, but her clothes are so long that they hang two spaces below the base line.—*Primary School, N.Y.*

## BRIGHTEN THE SCHOOL-ROOM.

RHODA LEE.

WE all know that it makes a great difference in the mental and physical well-being of teacher and pupils whether they find themselves in an airy, well-lighted room provided with good furniture, pictures, maps, charts, flowers and other adornments, or in a room dark, dingy and altogether lacking in the little accessories necessary to making a place cheerful and attractive. Some rooms are old, very old and very bad, but no one of them is so bad as to be beyond redemption.

Of course, if nothing is done to improve matters, the old furnishings are bound to get rapidly older, and the shabby ornaments shabbier day by day, but let a live class and teacher undertake a reformation, and what a change will take place in the dingy workshop!

Order and general neatness is the first requisite. "A place for everything and everything in its place." Blackboards and brushes well kept and attended to once or twice a day at least, desks tidy, books carefully arranged, etc. As to wall decorations and other ornamentations they may be of different kinds. Pictures such as appear with the illustrated papers, are in many cases useful and suitable for the school-room. One or two plain brackets such as your boys could make, would fill up the bare places between the windows, one for the clock, another for a collection of seeds,

woods, or rocks, and yet another for a jar of flowers or trailing plant of some kind. A few well-drawn maps mounted on paste-board, collections of leaves, flags, banners, and last and best at this season of the year—flowers—complete my list.

A pot of cypress, heliotrope or mignonette on your table at this time of the year is a positive delight, while by-and-by when daisies, columbine and other flowers are plentiful, a jar of these is enough in itself to rob any room of its dullness.

Instead of allowing lunch baskets, books and other things to litter window-sills, encourage the children to fill them with plants. Hanging baskets can so easily be filled and look so graceful and pretty, that it would be a pity to leave them out of our Spring decorations.

When the Spring sunshine finds its way into our homes we begin to turn over in our minds ways and means of brightening up and making the best of things. Let the inspiration extend to the school-room. There is a best and a worst to every room. Let this Spring see the cheeriest, brightest, most homelike class-room you have ever had yet, and mark the effect.

## WRITING.

ARNOLD ALCOTT.

"STRIVE with the wanderer from the better path, Bearing the message meekly, not in wrath; Weep for the frail that err, the weak that fall, Have thine own faith, but hope and pray for all."

—*Oliver Wendell Holmes.*

"But this peculiarity attends them, that while his animal faculties act powerfully of themselves, his rational faculties require to be cultivated, exercised, and instructed, before they will yield their full harvest of enjoyment."—*Combe.*

The foregoing selections are surely very pertinent to the thoughtful teacher. I see you coming home after a particularly dull, miserable day, yet I know by your face and gait, that though the clouds have hidden the sunshine from your view for a time, in your classroom there have been gentleness and sympathy shown to the weak, yet buoyant natures of your little ones. You have had good lessons to-day, and now I want to tell my readers something about your Writing.

This subject must be of importance to readers of the JOURNAL, for we are told that the chirography of the boys and girls of to-day, as a rule, is not what we would wish it to be.

This spring season suggests to me the thought that we are apt in our "blue" moments to regard our pupils as mere bulbs, somewhat unpromising-looking, and very commonplace, forgetting the wonderful revelations which a few years of tender care and development will bring. There is good in every human heart, if we can only learn to say the magic words "Open Sesame" with true earnestness. Now about

## THE WRITING:—

Let this cardinal principle be firmly established in the minds of my readers, viz:—*that freedom of movement rather than precision of form is our aim.* Modern thought, especially that developed from the disciples

Canada, took place on the May 24, 1873, (the day on which the first number of *Grip* appeared.)—*Grip.*

121. The rich and the poor, the noble and the plebeian, the educated and the uneducated, the professional worker and the manual worker, the members of distinct professions, have each their peculiarity not readily understood by the rest.—*Bain's Rhetoric.*

122. The Figure of a syllogism consists in the situation of the Middle term with respect to the Extremes of the Conclusion, [i. e., the major and minor term.]—*Whateley's Logic.*

123. Accordingly in May, 1720, its authors, finding it impracticable either to sustain a paper currency, which then amounted to 2,235,000,000, or to withdraw it from circulation, reduced its value one-half, by seven successive reductions, to take place between May and December.—*Old Advanced Reader.*

124. Our Monday's milk porritch, blue and tasteless, and the pease soup of Saturday, coarse and choking, were enriched for him with a slice of "extraordinary bread and butter," from the hot loaf of the Temple.—*Chas. Lamb.*

125. *Whatever is*—so much I conceive to have been a fundamental lemma for Hazlitt—*is wrong.*—*De Quincey.*

Subsequently he became deeply fascinated by a young woman, in no very elevated rank,—for she held some domestic office of superintendence in a boarding-house kept by her father,—but of interesting person, and endowed with strong intellectual sensibilities.—*Id.*

126. Praise the Lord; for the Lord is good: sing praises unto His name; for it is pleasant.—*Ps. cxlvi. 3.*

127. Out come all his roughness, all his dulness, all his incapability; shame upon shame, failure upon failure, pause after pause: but out comes the whole majesty of him also; and we know the height of it only when we see the clouds setting upon him.—*Ruskin.*

128. During this momentous array of public events, the English universities were founded or regularly organized; the stream of learning which had descended from preceding generations was turned into a new channel, giving birth to some of the greatest philosophers and scientific men of the Middle Ages; the romantic poetry of northern France continued to flourish, and now began to be transfused into a language intelligible throughout England; and, above all, the Anglo-Saxon tongue passed, in the course of this century, through the last of those phases which transformed it into English.—*Spalding's Literature.*

129. But it is the cradle and the refuge of free principles, though often persecuted; the school of religious liberty, the more precious for the struggles through which it has passed; the tombs of those who have reflected honor on all who speak the English tongue; it is the birthplace of our fathers, the home of the Pilgrims,—it is these which I love and venerate in England.—*Everett.*

130. To continue my illustration: like the fortress that has been often besieged, the sentry upon the walls keeps more vigilant watch; his ear detects the far-off clank of the dread artillery; he marks each parallel; he notes down every breaching battery; and, if he be captured, at least it is in fair fight.—*Chas. O'Malley.*

131. The names of the men thus cast away are as follows:—Lieutenant Bligh; John Fryer, master; William Elphinstone, master's mate; John Hallett, midshipman; Thomas Hayward, midshipman; William Peckover, gunner; William Cole, boatswain; William Purchell, carpenter; Thomas Ledward, surgeon's-mate; John Samuel, clerk and steward; David Nelson, botanist; Lawrence Labogue, sailmaker; Peter Linkletter, quarter-master; John Norton, quarter-master; George Simpson, quarter-master's mate; Thomas Hall, ship's cook; John Smith, commander's cook. Robert Lamb, butcher; and Robert Tinkler, a boy.—*Bligh's Voyage.*

132. A good portly man, i' faith, and a corpulent; of a cheerful look, a pleasing eye, and a most noble carriage; and as I think, his age some fifty, or, by'r lady, inclining to threescore; and now I remember me, his name is Falstaff; if that man should be lewdly given, he deceives me; for, Harry, I see virtue in his looks.—*Falstaff.*

of Froebel, has tended strongly, and is tending strongly to emphasize the power on the mind and body of freedom in all the physical movements. Witness the reform in dress, and in physical culture. Having given the golden rule let me say that this rule is not compatible with the old copy-books, in which we used to try so carefully and with such a cramped position to pen: "A man of honor is respected," and other equally wise sayings.

Our modern educators abolish the copy-book. It goes forever, and the place is supplied by blank paper. Manilla paper is excellent. In it we have the double advantage of soft color combined with plain surface. A sheet eight inches by four inches should have the small letter 'm' extending from side to side once, when we are first teaching FREEDOM OF SWEEP.

Blank paper and plenty of it is the best thing a school board can supply to any school. Pads are much better than exercise books. Better facility for correction is offered. Every writing lesson is preceded by gymnastic movements with the inverted pen or meat skiver.

The small letters are best taught in the following groups:—

i	u	w		
n	m	v	x	
o	a	c	e	
r	s			
t	d	p	q	
l	b	h	k	f
j	y	g	z	

Of course these letters are woven into little stories illustrative of their forms. "M" is the little dog who broke his leg on the car track, and so lost half of it. "F" represents the engine and railway carriage, and of course these have to keep on the same track, or else there is trouble and someone is hurt. A story like the preceding prevents the formation of "f" into the old-fashioned "s" thus "f."

#### TIME-TEST.

A time-test in writing may be given. Near the close of the writing lesson the teacher says: "You have five minutes in which to write the copy as often as you can, of course holding pen properly, sitting well and writing your very best."

Patience, praise and a good example are the teacher's best friends in this work.

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#### LANGUAGE EXERCISES FOR THE WEEK.

RHODA LEE.

1. Make sentences containing each set of words.

- sun, green, grass.
- seeds, farmer, ground.
- birds, trees, chestnut.
- flowers, woods, going.

2. Ask a question beginning with either *do* or *does*, regarding each of the following,—

boys, flowers, roots, birds.  
arbor-day, rain, violet, fish.  
chestnut-trees, lady, flies, kitten.

3. Write a letter to your cousin telling
- What spring flowers you have seen.
  - What the trees look like just now.
  - What the farmers are doing.
  - What holidays you have had lately.
  - What games you play in spring.

4. Fill in blanks with "Is there" or "Are there."

- a cloud in the sky?
- any plants in our room?
- a tree in the play-ground?
- thirty-one days in May?
- any nice flowers out yet?
- any ferns in your garden?
- a picture of a duck in your book?
- any new pupils this week?
- any girls away to-day?

#### \* Question Drawer. \*

R.H.G.—(1) Canada has no mint. Her coins are all made in England.

(2) Your question is too indefinite. We are not sure that we understand what you wish. Strictly speaking, the Dominion Government does not "issue money." It does issue promises to pay money, that is, Dominion notes, up to a certain sum fixed by statute, and of such denominational values as the Governor-in-Council may direct. At present only the smaller denominations (below five dollars) are issued. The Minister of Finance and Receiver-General are bound to hold, as security for the redemption of these notes, which are issued through the banks, an amount in gold or guaranteed securities equal to one-fourth of the whole amount issued, and the remaining seventy-five per cent. in Dominion debentures. With this exception Canadian currency is issued by the private, incorporated banks. We have no national banks, such as those of the United States.

J.W.D.—(1) XXXIX and LXXXIX, not XII and XIC. The Roman law of Numeration was that when any of the characters to which a fixed value was attached, such as V, X, C, etc., was followed by one less or equal value, the expression denoted the sum of their simple values; when preceded by one of less value, the difference; but we do not think that an expression consisting of more than one letter, as XI, was ever placed before one of larger value, as L, or C, to denote the difference between the two.

(2) Have a pupil who has been attending school two years or more. She cannot count without objects before her. Would some experienced teacher kindly suggest plans I might adopt to enable her to do so?

(3) How can talking be stopped? What are the best preventives? Also preventives for window-gazing?

SUBSCRIBER.—Writing in any blank exercise book will be accepted. It must show the candidate's work in writing for at least three months.

ARISTOTLE.—(1) There is no grading of Specialists' Certificates. At least nothing is said of any in the "Regulations."

(2) Every candidate for a H. S. Assistant's certificate must pass the examination of the School of Pedagogy, and all must also attend the School of Pedagogy, with the exception of those who, having two years' experience, hold Second Class (Prof.) Certificates from the Normal School.

(3) The cities of Quebec, as given in the *Canadian Almanac*, which is presumably correct, are:—Montreal, Quebec, St. Henri, Sherbrooke, Ste. Cunegonde, Three Rivers, Levis, St. Hyacinthe, Sorel, Valleyfield.

(4) Yes. The ebb tide certainly flows down the river.

L. McF.—Many hints for busy work for pupils just entering school will be found in back numbers of THE JOURNAL, especially in the Primary Department. To our thinking, one of the very best devices is a box containing the letters of the alphabet on cardboard or stiff paper. If the children can read they should be encouraged to spell out words and sentences of their own choosing. If they cannot read they may copy in this way easy words and sentences from the reading cards or First Book. It should not be difficult to interest them in such work, and in no other way, probably, will they so soon learn to read and spell.

A.M.B.—(1) Temperance, Hygiene and Agriculture are optional. No one of them is compulsory.

(2) Orthoëpy is not named as a subject for Entrance Examination. It is stated, however, that the examination on all subjects shall be "as prescribed for Form IV. of the Public Schools," and the programme for that form includes Orthoëpy with Orthography. It seems likely, therefore, and it is certainly desirable, that Entrance pupils should be expected to know the correct pronunciation at least of words that may have occurred in their reading course in the Public School.

(2) "Mr." is merely a complimentary prefix. The fact that M.A., or any other letters denoting literary or professional standing, are appended to the name, is, therefore, no reason for omitting the "Mr." The custom of omitting the prefix seems to be growing, a consequence, we suppose, of the tendency of the time to haste and "rush," in consequence of which everything is cut short. In this country the affix "Esq." is often used in a merely complimentary sense, thus becoming equivalent to "Mr." Both "Mr." and "Esq." should not, therefore, be used, because they mean essentially the same thing.

J.S.—Copies of the School Law can be procured from the Education Department. Price, fifty cents.

C.D.—Yes. Only a letter, and a narrative or description, each about thirty lines in length, will be required from Entrance pupils as a test in Composition. See editorial in JOURNAL of February 15th, page 652.

J.M.—The Queen's surname is D'Este.

REPLYING to "G.F." in a recent number, we said that we were not aware that Inspector Hughes had published a "topical" history of England. We are now informed that such a work by Inspector Hughes is published by W. J. Gage & Co.



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 BULFINCH—"Well, I thought I should feel easier."  
 WOODEN—"What made you think that?"  
 BULFINCH—"Well, you see, I told the office boy he could take yesterday afternoon off and go skating; and he said: 'Thank you, sir; I accept the half holiday, but, if you please, I will not go skating; I have long wanted to dust all the top shelves and wash the windows, and this will give me just the chance.'"—*Boston Courier.*

**THE CANADA BUSINESS COLLEGE.**  
 The handsome catalogue of the Canada Business College, Hamilton, Ont., R. E. Gallagher, principal, indicates a prosperous institution. A note-worthy feature is a half-tone plate showing clearly two hundred portraits of students. The description of the course of study shows a high grade of work.

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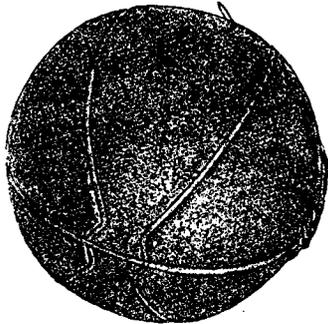
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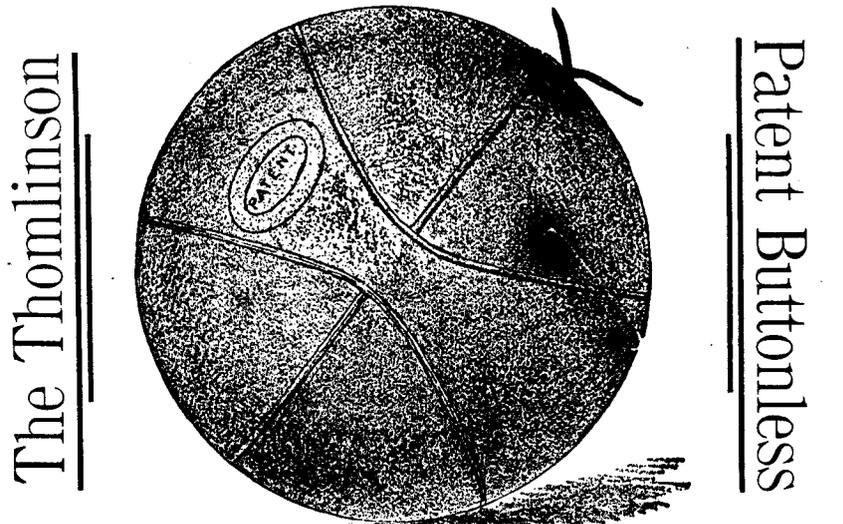
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