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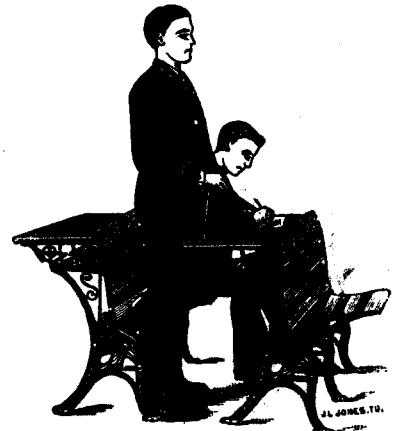
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OFFICIAL CALENDAR

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EDUCATION DEPARTMENT

May:

1. By-law to alter school boundaries—last day of passing. [P. S. Act, sec. 81 (3).]
3. Inspectors to report to Department number of papers required for the High School Entrance and Public School Leaving Examinations. Inspectors' nomination of Presiding Examiners for High School Entrance and Public School Leaving Examinations, due.
6. ARBOR DAY.
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:

1. Notice by candidates for the High School Entrance, and Public School Leaving Examinations to Inspectors, due.
2. Examinations for specialists' certificates (except commercial) at the University of Toronto begin.
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 a 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 considerably 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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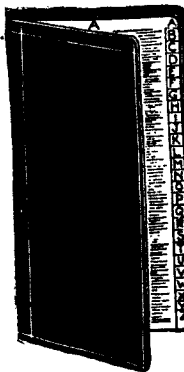
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TORONTO, MAY 1, 1892.

Vol. VI.  
No. 2.

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## \* Editorial Notes. \*

THE editor of the English Department requests us to say that the article on Grammar problems, intended for this number, has of necessity been held over for next issue.

MANY of our readers will read with interest Mr. Seath's able paper on "University Matriculation in Ontario," which we give in full in this number. It is somewhat lengthy, but the connection of thought and argument is such that it seemed necessary to present it as a whole. We have, therefore, curtailed some of our usual departments in order to give it in full.

THE Educational Association has done well to retain the services of Mr. R. W. Doan, who has been for so many years the able and efficient Secretary of the Ontario Teachers' Association, as Secretary of the enlarged organization. It will be greatly to the advantage of the latter to have an officer of so much ability and experience to manage its affairs during the first year of its operation under the new conditions.

"QUESTION DRAWER" is crowded out of this number. In the Drawer in last number we said in answer to a question, "We presume that the High School Book-keeping covers all the ground required for a Commercial Specialist's Certificate." We now learn, on undoubted authority, that this presumption is wrong. Far more than is given in the H. S. Book-keeping will be required. The new circular is not yet out, but we hope to be able to give definite information in next number.

WE are informed that the success which has attended the inauguration of the On-

tario College of Oratory has been most encouraging to the faculty. The second year will open with a summer session of six weeks at Grimsby Park, as advertised in another column. In addition to the regular faculty a number of prominent specialists will participate in the work. Already a large number of applications have been received from all over the continent and a successful time is thought to be as good as assured.

AN explanation and an apology are due to our readers who may be interested in Mr. A. C. Mounteer's series of articles on Physical Culture, on the one hand, and to Mr. Mounteer himself, on the other, for the non-appearance of his closing article in this number. The fact is that the "copy" came to hand too late for last number, and was laid aside with an accumulation of "held-over" MS. and, owing to pressure of matter for this issue, was overlooked until too late. It will appear in the JOURNAL for May 15th.

AN important modification of the examination in Botany comes into effect next July. It is now prescribed that the presiding examiner shall be competent to select the plant for the Primary, and that two plants shall be submitted to the candidate at the Primary and the Senior Leaving examinations, one for description and identification, and one for identification alone. In the latter case the candidate will be allowed the use of his text-book, and we have been informed by the examiners that the plant submitted will not necessarily belong to one of the orders prescribed for the Primary. The object of this change is to enable the examiner to determine with greater accuracy than heretofore to what extent the candidate has benefited from his Botanical studies. In Zoology will also be submitted a "slide" for microscopic examination, which will embrace chiefly the morphological characteristics of the section.

ELSEWHERE in this number will be found a sketch of "The Bad Boy," drawn by a clever writer in the *Christian World*, who evidently knows his subject. The scene is located in an English Sunday-school and amidst its surroundings, but with such modifications and adaptations as the teacher can easily make, the portrait will, in many of its features, do well for the "bad boy," in many a Canadian public school. Do you not recognize him? If you do, note care-

fully the suggestions in the last paragraph of the article. Many a "bad boy" of local notoriety, has in him elements and possibilities of good which in the hands of one who knows how to lay hold of him and develop them, may make him some day a power for good in the community. The teacher who understands the boy nature, knows that there are bad boys and bad boys, and makes a careful study of each individual case before assigning it to the total depravity class.

REFERRING, in his address before the Ontario Educational Association, on Wednesday evening, to the relations between the Education Department and the great body of educators in the Province, the Minister of Education said well that the teachers should guide the Department and not the Department the teachers. Theoretically there can be no doubt of the soundness of this principle. But, practically, do the present organization and methods of the Education Department recognize this principle as it ought? Should there not be some provision in the system whereby the educators of the Province could express and press their views on important questions of policy. In other words should there not be some Central Committee, or other body actually representative of the teachers, authorized to give official expression, if not actual effect, to their views on all matters which primarily involve the application of educational principles in the Public school system?

MR. S. B. SINCLAIR, B.A., who was elected to the Presidency of the Ontario Educational Association, is no doubt already well known to many of our readers, personally, or through the medium of his educational writings in our columns and elsewhere. He is an alumnus of Victoria University, and at his graduation took honors in Mathematics and Mental Philosophy. He has for some years been an Associate Examiner in the latter subject. Mr. Sinclair has not only passed through the various stages of the professional training prescribed by the Education Department of this Province, but has had the great advantage of having personally studied the methods pursued in a number of the best schools in the United States and Europe. He is an enthusiastic advocate of progressive methods, and has, as above intimated, written somewhat freely on educational subjects. We congratulate him on the mark of esteem and confidence bestowed upon him by his professional brethren in electing him to this high office, and we have no doubt that by his zeal and efficiency he will amply justify their choice.

## \* English. \*

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

### WORDS IN —ING.

No part of English grammar, perhaps, presents such difficulties to elementary pupils as the words ending in *-ing*. It is the most natural thing in the world for a pupil, who remembers that in the sentence, "The man building your house has been injured," the word "building" is an imperfect participle, to have a sense of personal injury when he is not permitted to say that in "The building of your house is impossible," "building" is likewise an imperfect participle. If he is told that "building" is a noun in the latter case, he finds it hard to understand how a noun may have an object like a verb when we say "building your house is impossible." In short, the forms in *-ing* are the *pons asinorum* of elementary English grammar, and require the most careful and the most painstaking treatment the teacher can give.

Let us take the simplest forms first.\*

A. "Hunting is a pleasant pastime." Hunting here is the name of a sport, it is the subject of a verb; it is clearly a noun.

[Historically, *-ing* represents in nouns the A.S. *-ung*, as *miltung*, mercy (infinitive *miltian*, to pity); *leornung*, learning (infin. *leornian*, to learn); *granung*, groaning; *gytsung*, avarice. These forms were so numerous that they may be said to have in the later development of the language established the law that a noun form in *-ing* (from *ung*) may be made from any verb. Many nouns not originally ending in *-ung* were remade in imitation of this great class; for instance, the noun *huntoth* in A.S. became the noun "hunting" in later English. Because of their origin from verbs, they are usually styled *verbal nouns*.]

B. "He was hunting in the wood." Here "was hunting" is little different from "hunted;" that is to say, "hunting" is plainly connected with the verb "hunt," and with the help of the verb "to be" is able to make statements. So "He is hunting," "He has been hunting," "He had been hunting." Comparing "was hunting" with "hunted," we notice that the first has a notion of the continuation of the hunt, the latter has not. This notion is not conveyed by "was," since in such a sentence as, "He was struck by his brother," we use "was," though the action is completed. The progressive notion is given by "hunting."

Being part of the verb, and indicating an uncompleted or progressing action, we call "hunting," as here used, an imperfect participle. It will be seen by a short examination that "hunting" really describes the person represented by "he"—He hunting was in the wood, and only its strong verbal force keeps it from being called an adjective pure and simple. It is a *verbal adjective*, with reference to its qualitative relation. We consequently find the imperfect participle used independently of the verb "to be," in adjective relation to some noun or pronoun, as in "I saw him hunting in the wood."

Yet we do not call this imperfect participle a verbal adjective for a reason that may be seen from the following sentence:—

"The men hunting deer in the wood were unsuccessful." Here we see that "hunting" is just as much a verb in respect to its expressing an action (hunting) with immediate relation to an object (deer) as "hunted" is, when we say "The men hunted the deer in the wood." We keep, then, for "hunting" and similar words similarly used the term "imperfect participle," meaning by that that a word so called (1) is one of the verbal forms; (2) may form with parts of the verb "to be" various uses that are called "progressive;" (3) that when thus used it has adjectival relation to the subject; (4) that it may be used apart from the verb "to be," in qualitative relation to any noun or pronoun; (5) that even when used apart from the verb "to be" it is not purely an adjective, since, if the

participle form a transitive verb, it may take an object like a true verb.

[Historically, this imperfect participle is a regular successor of the A.S. imperfect participle in *-ende* (*onde*), and is similarly used:—He was gongonde, He was going; He was spaende, He was speaking; He fæth secende, He goes seeking; Thæt hi geseonde geseon, and na ne geseon, That they seeing may see, and not perceive; tha godan lareowas tha haligan gesommunge lærende, the good teachers teaching the holy scriptures (lit. collections).]

C. "That is an interesting book." We have just seen that the imperfect participle is in one respect adjectival and is frequently used immediately to qualify a noun. Nothing could be more natural than that certain participles should from the frequency of this adjectival use attain to full adjectival force, taking the positive and comparative, etc. This change can be seen by comparing the force of "interesting" in the sentence beginning this paragraph with its force in "This is a book interesting us by its faithful details;" or "rising," in "He is a rising man," with "He is a man rising from humble condition;" or "He is a most promising student," and "He is a student promising much but never performing."

This adjective in *-ing* is best called a *verbal adjective*, by which we mean (1) that it was originally an imperfect participle, (2) that it has become entirely adjectival in syntax and comparison, etc. The meaning, moreover, becomes vague and general; the verbal force disappears. Of course, like other adjectives it may take on, when the noun is really understood, a noun force.

Compare, "The saving are sure of comfort in their old age" with "Saving persons are," etc.

[So in A.S. *neriende* gave *nergend*, the Savior, i.e., the Saving One.]

D. "Hunting deer is not an easy sport." Plainly "hunting" is here a noun so far as it is the name of a sport (cf. A.) Yet it is verbal in so far as it expresses an action that passes over to an immediate recipient. This double force cannot be described by any of the terms we have so far had. It is plainly of verbal origin. It is called a *gerund*, by which we mean that it is (1) a noun, and (2) it is verbal to the extent of having, if derived from a transitive verb, an object, and of often being modified by an adverb.

[Historically, this "gerund" is, as Dr. Morris has pointed out, only a noun in *-ing* of verbal origin with the loss of a following preposition. In Selden we have constructions such as, "The giving a bookseller his price for his book has this advantage," beside such constructions as, "Quoting of authors is most for matter of fact." There can be no doubt that the modern usage of saying "Quoting authors is most," etc., has been greatly influenced by the regular construction of imperfect participle and direct object. In the same way we must deal with such expressions as "The house is a building," which, in its earlier form, was, "The house is in building." Of this once common construction we have left in standard English practically only such expressions, He is gone a fishing, a hunting, where a = in, on.

Etymologically the "gerund" is only the verbal noun (A), but in modern usage it has usurped a verbal construction that differentiates it from the verbal noun.

E. The omission of this preposition in such constructions as "The house is building," has given rise therefore to a form which is felt to be an *imperfect participle with passive meaning*, rather than a noun, and it may thus be described. It is very necessary, however, to keep the origin of the form in mind, so that there may be no confusion with such sentences as, "He was busy writing" = "he was busy at (with) writing."

In conclusion, we have thought it unwise to follow Professor Earle and the H. S. Grammar in regarding such forms as "Seeing is believing" as infinitives. Neither by derivation nor form are they such.

It is held by some that the A. S. dative of the infinitive ending in *-enne* is the origin of the modern gerund. For example, "hlaif to etanne" has become "bread for eating." This is scarcely possible, for readers of Chaucer know that practically both the simple infinitive and the gerundial infinitive had become similar in form *-e(n)*, and very few traces of the gerundial infinitive in *-ing* are to be found in Middle English, and these died out with the extension of the use of the verbal noun (A) about the fifteenth century,

### EXERCISES.

Point out the relation, function and history of the forms in *-ing* in the following:

- A. 1. Seeing is believing.
2. I do not like travelling.
3. The invention of writing was a great step in the civilization of mankind.
4. By carving we mean the art of fashioning wood into artistic forms.
5. The men declared it was impossible to go on with the building of the bridge.
- B. 1. Standing by the river was his young friend.
2. There are few men interesting us by both their genius and their goodness.
3. When arriving at his home, he met with a serious accident.
4. He will be reading when you return.
5. See the birds fluttering, singing, darting in the early morn.
- C. 1. They are interesting people.
2. It is very fascinating to watch that game.
3. Such children are best looking when they are most cared for.
4. The most surprising result was the defeat of our candidate.
5. The living and the dead will one day meet.
- D. 1. Building the bridge was not easy.
2. By seeing your friend you will gain your end.
3. He has gone a-fishing.
4. By quickly withdrawing his forces the General saved his troops from defeat.
5. I was not sure of going or I should have spoken of accompanying you.
- A, B, C, D, E 1. Giving one's best friend money is the first steps towards losing him.
2. They laugh best who, when laughing, are the last to laugh.
3. His travelling there will not prevent my seeing you.
4. I saw vast bridges building.
5. He was long in rising, but once through washing himself, he became anything but lazy.
6. Upon pain of being fined, trespassers are warned from crossing these grounds.
7. Women are angels, wooing.
8. Our birth is but a sleep and a forgetting.
9. The babbling brook ran chattering past his feet.
10. They were busy ploughing.
11. I am weary of talking so much over so little.
12. I purpose starting to-morrow, when you, too, will be leaving.
13. His father's blessing he was desirous of receiving.
14. He goes to a place where there is neither marrying, nor giving in marriage.
15. Brandishing his hunting-knife, he told us a harrowing tale of his thrilling exploits.
16. Speaking of John, what do you think of him?
17. Having given his blessing the old man died.
18. He goes up and down seeking whom he may devour.
19. A deep sound came from the frowning guns declaring that the battle had begun.
20. Your being here is in your favor.
21. "With never an end to the stream of pressing feet—  
Driving, hurrying, marrying, burying,  
Clamor, and rumble, and ringing, and clatter."
22. "Or ravished with the whistling of a name,  
See Cromwell damned to everlasting fame."
23. "In squandering weath was his peculiar art,  
Nothing went unrewarded but desert."
24. "And there was mounting in hot haste; the steed,  
The mustering squadron, and the clattering car,  
Went pouring forward with impetuous speed,  
And swiftly forming in the ranks of war."
25. "Ruling with an iron hand  
O'er the intermediate land  
'Twixt the plains of rich completeness,  
And the realms of budding sweetness,  
Winter! from thy crystal throne,  
With a keenness all thy own  
Dartest thou, through gleaming air,  
O'er the glorious barren glare  
Of thy sunlit wildernesses,  
Thine undazzled level glances,

\* Forms such as *Harding*, *Atheling*, afford no grammatical difficulty. In A.S. they are represented by similar forms, *atheling*, etc. Morning, evening, are later formations on the nouns *morgen*, morning, and *æfen*, evening. Nouns such as *king*, *thing*, etc., need no special mention, as this paper deals merely with forms where the *-ing* is in active use as a suffix.

While thy universal breathing,  
Frozen to a radiant swathing  
For the trees, their bareness hides.  
But what magic melodies,  
As in bord'ring realms are throbbing,  
Hast thou, Winter? Liquid-sobbing  
Brooks, and bawling waterfalls,  
Gurgling meadow-threading rills,  
Lakelets' lisping wavelets lapping  
Round a flock of wild ducks napping,  
And the rapturous-noted woodings,  
And the molten-throated cooings,  
Of the amorous multitudes  
Flashing through the dusky woods,  
When a veering wind hath blown  
A glare of sudden sunlight down?  
Naught of these!"

CORRESPONDENCE.

ENQUIRER.—The scansion of "Resignation" is:—

x — / | x — / | x — / | x — / | x — / | x  
x — / | x — / | x — / | x — / | x — / | x  
x — / | x — / | x — / | x — / | x — / | x  
x — / | x — / | x — / | x — / | x — / | x

That is to say it is (1) iambic (x —); (2) in first and third lines pentameter (five feet), in second and fourth lines trimeter (three feet). The first and third lines have an additional light syllable, which kind of line is described as hypermetrical. In short, then, "Resignation" is written in quatrains (stanzas of four lines), with rhymes a b a b, having lines 1, 3, iambic pentameter hypermeter, and lines 2, 4, iambic trimeter.

SHEBANDOWAN.—For use in P.S. classes the books (I. and II.) of Tarbell (Ginn & Co., Boston) best unite the study of Grammar with Composition.

W.M.L.—Where and when the events described in "The Road to the Trenches" took place—if they did actually occur—we cannot say. The lines you refer to mean:—(1) "Wrap him in this," here the soldier takes off his own cloak and gives it to his dying comrade. (2) "Fear not, they shall know." The enquirer will remember the circumstances of the poem,—the soldiers advancing to relieve another detachment at the outposts, when one falls dying. His comrades advance but leave him with the comforting promise that he must not fear that he will be forgotten and abandoned. They will tell the soldiers they are to relieve of his resting place ("yon stunted larch"). (3) "The others" are the soldiers who have been relieved returning to camp.

SUBSCRIBER.—The closing stanza of "The Village Blacksmith" has the following meaning. The poet thanks the blacksmith for teaching him a lesson of industry, cheerfulness, faith, domestic affection, but especially a lesson of industry. What the blacksmith does in his forge is a type of what each one is called upon to do in the world. The world with its hot activities is the forge in which all our actions, our success or failure, are fashioned and shaped. Every deed, every thought, like the glowing iron hammered upon the anvil, becomes great and brilliant, as the doer or thinker earnestly shapes the deed or the thought in the midst of humanity, where he can see what the world requires. The lines of Proctor's "The Sea,"—

"It plays with the clouds; it mocks the skies;  
Or like a cradled creature lies"

refer to the sea, first in storms, when it surges mountains high as if to play with the clouds, or roars and tosses as if in derision of the sky above it; second, in calm, when it lies peaceful as a sleeping babe.

T. E. ACHER.—The comparison of "blind" in its literal sense referring to the eyesight is scarcely possible; because one has the fullest realization of the state when one simply has it. So also such words as "dead," "unconscious," etc., in a figurative sense applying to the mind. It is not rare to find "blind" compared. "When we love most we are blindest to our friends' defects."

We shall endeavour to have later an article dealing with the Verb.

M.M.—From the article on "Shall and Will," in the last JOURNAL, p. 697, ii. 1, it will be clear

that "shall" should be used rather than "will" in the sentence, "When will you be able to pay me back?" since the speaker is asking not about the willingness of his debtor but of the time in the future. It is the second person, which requires "shall" to express near futurity in questions.

In "The teacher hoped that we would enjoy ourselves," a fault of similar nature is to be noted. Putting it in the present, we say "He hopes that we shall enjoy;" because he hopes that something may come to pass—mere futurity. If he said "He hoped we will enjoy;" it would involve our willingness—"He hopes we shall be willing to enjoy"—which is not his wish. This is the same point of view for the past tense as well. Hence say "He hoped that we should enjoy," etc.

The meaning of the line, "A wet sheet and a flowing sea," will be clear by remembering that "sheet" is used poetically for "sail," as in Dryden's,

"Fierce Boreas drove against his flying sails,  
And rent the sheets."

The sails are sometimes wet, so that by presenting a closer surface, they may better retain the wind. The sea is "flowing" when in regular waves under the influence of a gale.

A.B.C.—The term "Moeso-Gothic" is antiquated; scholars of modern philology speak simply of Gothic. The Gothic language, of which we have literary remains in translations of parts of the Bible by Bishop Wulfila (A.D. 311—381), represents the earliest written form we have of a Teutonic language. It disappeared as a language, giving rise to the new language. The following table will aid in showing the chief relations of Gothic and immediately kindred languages. Of course the reasons for the classification cannot be given here; they can most easily be got in some such work as Whitney's "Language and the Study of Language," or Earle's "Philology."

ORIGINAL TEUTONIC			
WEST TEUTONIC		EAST TEUTONIC	
Low German	High German	Gothic	Scandinavian
Anglo-Saxon, Frisian, etc.	New High German		Swedish Norwegian Danish Icelandic

R.M.—Questions asking for "change in construction" are ambiguous. When verbs are involved, as in the sentence you quote, "Put plants in the window and see how they creep up to the light," the change required is probably a change of voice, "Let plants be put," etc.

ENQUIRER.—The verbs *may, can, will, must, ought*, are used in the subjunctive mood, but have no special forms for that mood. If we compare "If he were able, he would do it" with "If he could, he would," we find that "could" has exactly the same function as "were able," so that we can say that "could" is imperfect subjunctive. So we can say "If he would, he could;" "If he must, he must;" "If he ought to do it, he must do it."

For Friday Afternoon.

DOESN'T WANT TO BE A BOY.

It isn't much fun a living  
If grandpa says what's true,  
That this is the jolliest time of life  
That I'm a-passing through.  
I'm afraid he can't remember,  
It's been so awful long,  
I'm sure if he could recollect  
He'd know that he is wrong.

Did he ever have, I wonder,  
A sister just like mine,  
Who'd take his skates, or break his kite,  
Or tangle up his twine?  
Did he ever chop the kindling,  
Or fetch in coal or wood,  
Or offer to turn the wringer?  
If he did, he was awful good.

In summer it's "weed the garden;"  
In winter it's "shovel the snow;"  
For there isn't a single season  
But has its work, you know.  
And then when a fellow's tired,  
And hopes he may just sit still,  
It's "bring me a pail of water, son,  
From the well at the foot of the hill."

How can grandpa remember  
A fellow's grief or joy?  
'Tween you and me, I don't believe  
He ever was a boy.  
Is this the jolliest time of life?  
Believe it, I never can;  
Nor that it's as nice to be a boy  
As a really grown-up man.  
—Eva Best, in Harper's Young People.

THE HONEST OLD TOAD.

(Recitation for a small boy).

Oh, a queer little chap is the honest old toad,  
A funny old fellow is he;  
Living under the stone by the side of the road,  
Neath the shade of the old willow tree;  
He is dressed all in brown from his toe to his crown,  
Save his vest, that is silvery white.  
He takes a long nap in the heat of the day,  
And walks in the cool dewy night.  
"Raup, yaup," says the frog,  
From his home in the bog,  
But the toad he says never a word;  
He tries to be good, like the children who should  
Be seen, but never be heard.

When winter draws near, Mr. Toad goes to bed,  
And sleeps just as sound as a top;  
But when May blossoms follow soft April showers,  
He comes with a skip, jump and hop.  
He changes his dress only once, I confess—  
Every spring; and his old worn-out coat,  
With trousers and waistcoat, he rolls in a ball,  
And stuffs the whole thing down his throat.  
"K-rruk, k-ruk," says the frog  
From his home in the bog,  
But the toad he says never a word;  
But he tries to be good, like the children who  
should  
Be seen, but never be heard.  
—Our Dumb Animals.

MRS. ARITHMETIC'S PARTY.

MRS. ARITHMETIC gave a fine ball  
To little and great, to big and to small;  
No one was neglected; she tried very hard  
Not to leave out one person who should get a  
card.  
There was sweet Miss Addition, the first one to  
come.  
And she footed it gaily with young Mr. Sum,  
Who, 'twas easy to see, was her favorite. Though  
Subtraction proposed, she had answered him—No!  
This refusal, of course, made Subtraction quite  
solemn,  
And he left very early, hid away in a column.  
Then Multiplication, that jolly old elf,  
Who was always on very good terms with himself  
(Though all those who knew the same Multi-  
plication  
Declared that he caused them unending vexation).  
Division came later, and, needless to say,  
Behaved himself meanly, as is always his way,  
He made friends into foes, and spoiled all the fun  
Of the poor little figures, from 9 down to 1.  
The cute little Fractions were there (very small)  
With their brothers, the Decimals, not quite so  
tall,  
And every one present had brought his relations,  
None prouder than Lord Algebraic Equations.  
The Duke Logarithm and the Count Trigonometry  
Had quite a long chat with the Marquis Geometry.  
Only five of the figures danced in the quadrille,  
Six, Seven, and Eight went away feeling ill,  
While old Mr. Nine, who ate a large supper,  
Sat down in the library and read Martin Tupper.  
At last it was time for the people to go;  
Each charming young figure selected her beau,  
And in leaving their hostess, they said, one and  
all,  
They had greatly enjoyed Dame Arithmetic's ball.  
—St. Nicholas.

## The Educational Journal.

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Editor.

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## TEACHERS' CONVENTIONS FOR MAY.

South York, at West Toronto Junction, May 12th and 13th.  
East Kent, at Ridgetown, May 12th and 13th.  
Oxford, at Woodstock, May 12th and 13th.  
Prince Edward, at Picton, May 12th and 13th.  
North York, at Newmarket, May 19th and 20th.  
North Simcoe, May 19th and 20th.  
North Hastings, at Madoc, May 12th and 13th.  
Lanark Co., at Perth.  
East Victoria, at Lindsay, May 5th and 6th.  
East Simcoe, at Orillia, May 26th and 27th.  
South Wellington, at Guelph, May 6th and 7th.

## \* Editorials. \*

TORONTO, MAY 1, 1892.

THE ONTARIO EDUCATIONAL  
ASSOCIATION.

THE thirty-first annual convention of the Ontario Teachers' Association, which met from the 19th to 21st ult., in this city, was in respect to numbers in attendance, and probably also in regard to the general interest and importance of its discussions and deliberations, the most important meeting of the Association which has yet been held. The new departure made possible by the change of date of meeting, whereby teachers can have an opportunity of attending without sacrificing their summer vacation, or a part of it, bids fair to have an excellent result upon the character of the meetings, and the future of the Association.

In view of the number, variety, and length of papers presented, and of the proceedings of the various meetings and sec-

tions, we shall not, in this number of the JOURNAL, attempt more than a general account of some of the more important matters which occupied the attention of this large and representative gathering of the teachers of Ontario, reserving more particular discussion of any of the special subjects dealt with for future numbers. We shall hope, also, to be able to present to our readers, from time to time, as opportunity offers, at least the substance of a number of the able papers read before the general association and some of the numerous sections of which it is now composed.

First in order, not of time but of importance, is the change of name and the adoption of a new constitution for the society. It is henceforth to be known as "The Ontario Educational Association." This change was necessary in order to admit of an important enlargement in the terms of membership. Hitherto, as our readers are aware, only those actually engaged in teaching were eligible to membership. Under the new Constitution the doors are thrown open for all who are interested in education. This is a change in the right direction, for there are many enthusiastic friends and promoters of education, who are not actually engaged in teaching, but whose advice and assistance may do much to promote the objects of the Association. Some of these objects, as defined in the new Constitution, are to elevate the character and advance the interests of the teaching profession, and to promote the cause of education in Ontario. The Association is now organized with the six following departments:—(1). The Public School Department. (2). High School Department. (3). Training School Department. (4). Inspectors' Department. (5). University Department. (6). Kindergarten Department. Provision is also wisely made for the inclusion of additional departments, as may at any time be found desirable. The Association is to be congratulated especially on the addition of the University department, and it is to be hoped that the members of the teaching staff of every University in the Province will avail themselves of the privilege. We make bold to say that those of them who have the interests of higher education intelligently at heart will not fail to do so, for this annual meeting and mingling with representative educators of all grades, with its new acquaintanceships and interchanges of views on a variety of topics, will afford them an unique opportunity to stimulate scholarly ambition and elevate the educational ideals of those who have probably more influence than any other persons in shaping the ambitions and aspirations of the youth of the country. In saying this we are far from meaning to intimate that the advantages of

the contact, either personally or professionally, are going to be all on one side. On the contrary we make bold to express our opinion that there are professors, not a few, occupying chairs in some of our highest institutions of learning, who might obtain very valuable hints in the science of teaching from some of their fellow-teachers occupying much less prominent positions. This is, we believe, true, particularly in regard to the teaching of English literature, a subject which is, we have reason to believe, better taught in several of our high schools and collegiate institutes, and probably so far as opportunity offers, in some of the public schools also, than in most of the Universities of the Provinces.

When we turn our attention to the regular work of the Convention in its various departments, we find ourselves overwhelmed by the disparity between the number and importance of the papers, addresses, and discussions with which we should like to deal, and the space at our disposal. In the general meetings we have the following: "County Model Schools," by Rev. J. Somerville, M.A.; "Formation of Character in Public Schools," by Mr. William Wilkinson, M.A.; the President's Address, by Mr. W. Mackintosh; "Twentieth Century Education, a Forecast and a Criticism," by Mr. J. E. Bryant, M.A.; "Physiological Psychology," by Professor Hume; "Modern Methods in Teaching Geography," by Inspector Hughes; "Tact in Teaching," by Rev. G. M. Milligan; "The Object of Early Training," by Miss E. Bolton, of Ottawa; "Physical Culture," by Miss Laura E. Giddings, of Boston, U.S.; "Home Preparation of School Lessons," by Dr. I. J. Birchard, and perhaps others which at this moment escape our notice. Every one of these papers and addresses dealt with an interesting and important subject. Several of them were of more than ordinary merit, and some of them elicited discussions which were no less interesting and valuable than the papers themselves. When we consider, in addition to all these, the still larger number and variety of subjects which were dealt with in the different sections:—the Public School, the High School, the Inspectors', the Mathematical, the Classical, the Science, the Modern Language, the Kindergarten — which we cannot now even enumerate by titles and names of writers, it will be evident that any attempt to speak of each separately, within our space-limits would be worse than useless. We can only, as we have intimated, take up a few of them from time to time as occasion may offer.

We may confess that we have had some mental queries as to the effect which the organization of an Association for the Dominion might have upon the Provincial Asso-

ciation. This first spring meeting of the old society and its successful re-organization on a broadened basis have dispelled any doubts or misgivings as to its future. There is, it may be hoped, room enough for both. We hope to see the Dominion Association take root and flourish and become a bond of union and a point of contact between educators all over the Dominion, But we cannot shut our eyes to the fact that there are serious obstacles to be overcome before this end can be reached, the "magnificent distances" which are one of the physical characteristics of our Dominion, being of course the chief. But whatever may be the future of the larger Association, the teachers of Ontario have done well to rally to the support of their Provincial society in a manner which is full of hope for its future development. The Education Department, too, has done well in making this possible, by its new and liberal provision for giving leave of absence to teachers to attend it. The Department evidently has faith in the convention idea. That faith is, we are sure, well founded, "Iron sharpeneth iron : so a man sharpeneth the countenance of his friend."

## Examination Papers.

EAST SIMCOE PROMOTION EXAMINATION  
—APRIL 13 AND 14, 1892.

### GEOGRAPHY.

#### SECOND CLASS.

1. Define River, Hill, Township, Village and Town.
  2. Tell the shape of the earth and give the cause of day and night.
  3. In what School Section is your school? In what township? In what part of the township?
  4. Draw a plan of your schoolroom, marking on it the teacher's table, the door, and the stove, and the North, East, South and West sides or ends.
  5. What ocean lies between America and Europe? Between America and Asia?
  6. Define Town-line, School Section, Lot, City, Island and Lake.
  7. Name the principal things raised and made for sale in your section.
  8. Name the boundaries of your county, and give the names of its towns.
  9. Draw a river, showing its sources, mouth, tributaries and basin.
  10. Draw a map of the township in which you live, and mark the position of its towns and villages.
- Values—10, 10, 10, 15, 5, 12, 10, 10, 8, 15.

#### THIRD CLASS.

- Juniors take from 1 to 5. Seniors from 6 to 10 inclusive.
1. Define Isthmus, Cape, River, Bay and Delta.
  2. Name cities of Ontario and tell where each is situated.
  3. Tell the occupation of the people of Ontario.
  4. Name towns in Ontario bordering on the Great Lakes.
  5. Through what waters would a boat pass on a trip from Port Arthur to Montreal?
  6. Name the northern and the southern tributaries of the Ottawa River?

7. In what direction from Toronto is Guelph, St. Catharines, Orillia and Ottawa?
  8. Draw an outline map of North America showing countries and capitals.
  9. Into what waters do the following rivers empty : Thames, Nelson, Saskatchewan, Columbia and Grand?
  10. What and where are following : Kempenfeldt, Quinté, Scugog, Severn and Matchedash?
- Values—5, 10, 10, 15, 10, 10, 10, 15, 10, 10.

#### JUNIOR FOURTH CLASS.

1. Define Confluence, Tributary, Tropic, Equator, and Watershed.
  2. Name the useful animals of Ontario, both wild and domestic, and tell what uses are made of them.
  3. Draw an outline map of South America, marking its rivers, mountains and capes.
  4. Name the exports and imports of Canada.
  5. Name the chief cities of Europe and tell the situation of each.
  6. What and where are the following : Boothia, Crimea, Land's End, Ceylon and Bothnia?
- Values—10, 10, 15, 10, 10, 10.

#### HISTORY.

##### THIRD CLASS.

Junior III. will take the 4th and 7th questions with any other three. Seniors the whole paper.

1. When and by whom was America discovered? Where did he think he was sailing to? Name three other explorers, telling what country sent them out.
  2. Tell what you know of the Indian tribes of North America, giving the names of the tribes, the locality in which each lived, and their habits and relations with the French and English colonists.
  3. State the cause of disputes between the English and French colonists which led to the capture of Quebec.
  4. When was Quebec taken by the English? What battle was fought? Who were the leaders? What treaty was formed, and what did England receive by this treaty?
  5. Canada was governed for a time under Military Rule. What do you understand by "Military Rule?" What laws were in force during this time, and what act terminated the rule?
  6. Write notes on three of the following : Frontenac, Wolfe, Mackenzie, United Empire Loyalists, Act of Union.
  7. By whom are the affairs of a Town, County, and a Township managed? What do you call the leading officer in each?
  8. State the cause of Riel's first Rebellion.
- Values—10, 12, 10, 10, 6, 12, 9, 8. Five marks extra for neatness. 48 marks a full paper for Juniors ; 75 for Seniors.

#### JUNIOR FOURTH CLASS.

Only six questions to be attempted, two of which must be taken from Group B.

##### A.

1. Describe the government of Canada from 1760 to 1774. What led to the passing of the Quebec Act?
2. State (a) The cause of the war of 1812-14, and what success Canada had in this war. (b) The cause of the Rebellion of 1837.
3. Write notes on three of the following : William the Conqueror, Cromwell, Elder Pitt, Frontenac, Lord Durham.
4. When, and by what act did Canada become a Dominion? Name the Provinces that united at that time, and state why this union was necessary.
5. Of what does the Dominion Parliament consist? How do the members of each element receive their office, and for what length of time do they retain it?

##### B.

6. Describe the habits and customs of the ancient Britons. Why did the Romans invade Britain? Were the English natives of these islands? If not, where did they come?
7. Name two writers living in reign of Victoria,

one in reign of Elizabeth, and also name two of the early English writers.

8. Describe as fully as you can two of the following : Feudal System, Magna Charta, Reform Bill of 1832.

Values—10, 10, 10, 10, 10, 10, 10, 10. Five marks extra for neatness.

## School-Room Methods.

### MORAL INSTRUCTION.

CAN anything more be done in school than is done in the regular studies to accomplish the highest ends in education? Two direct ways present themselves—ways that are at once practicable and effective. The first of these ways is instruction.

*Regular Talks.*—The use of regular talks with pupils upon subjects connected with morals has been spoken of. It is true that these exercises are deprecated by many teachers. But a little observation may convince us that those who deprecate most strongly the practice of giving regular talks to their pupils seldom resort to other and better methods. Of course it would not be necessary or well to give set discourses upon the various virtues to young children. But if—say upon every Monday morning—the teacher should direct the attention of his pupils to some one subject, such as honesty, forgiveness, temperance, justice, kindness to animals, and the like, by giving appropriate illustrations and anecdotes, who can say that some seed may not be sown upon good ground? The stories may be of incidents in the lives of illustrious men and women, or they may be of incidents which have actually occurred within the observation of the teacher.

*Incidental Instruction.*—But useful as such exercises are, they should not take the place of what may be called incidental instruction. In every school events are constantly happening in connection with which some good lesson may be given at the time of their occurrence. A boy has, perhaps, found a knife and not restored it to the owner; or a pupil has copied a lesson or an examination from a classmate's paper; or the boys have been playing marbles "for keeps;" these and a hundred other incidents of school life may furnish the very best text for a talk with the pupils, when the wrong or injury done is fresh in their minds.

*Devotional Exercise.*—There is another exercise of the school which should have an elevating influence upon the children, and that is the devotional exercise. As commonly conducted, this exercise has little or no good moral influence; indeed, when conducted, as it too often is, in a cold, careless, or perfunctory way, there may be more harm than good done by it. Indifference on the part of the teacher induces indifference and disorder on the part of the pupils, and when disorder accompanies the devotional exercise, there is encouraged in the children a spirit of disregard and contempt for serious things which may affect the whole future of their lives. The devotional exercise must be marked by a devotional spirit on the part of the teacher. More will depend upon that than upon what is done. When the hands of the clock indicate that the time for opening has come, let every pupil be in his seat; and when there is absolute stillness in the room—not before—let the teacher take the Bible reverently in his hands and read slowly a few verses. Then let him repeat slowly and devoutly the prayer with which all are familiar, and to conclude let the children sing two stanzas of some familiar hymn. It may take less than five minutes for all this; but if it is done as it should be, in a subdued and devout spirit, it will have an effect upon all the subsequent work of the day. Moreover it will lead the children to respect and venerate all the counsels that the teacher may give, for they see better than any one else that such counsels come from a Christian spirit of love.

*Memorizing Gems.*—Akin to this exercise in its effect is the recitation by the children of gems—noble sentiments in prose and poetry. A stated number of lines weekly—say from five to ten—should be memorized and written correctly in books prepared for the purpose. For this purpose two or three of the best books of selections should be upon the table of every teacher. These and the ordinary reading-books will furnish material with which the children's minds may be elevated and enriched. —*Prince's Courses and Methods.*



## \* Special Papers. \*

### UNIVERSITY MATRICULATION IN ONTARIO.\*

BY JOHN SEATH, B.A., HIGH SCHOOL INSPECTOR.

OUR topic is University Matriculation, but we cannot discuss it properly apart from the High School examinations wholly controlled by the Education Department. Many candidates take both the Matriculation and Leaving examinations; by far the greater number take the purely Departmental examinations, and the options for the latter largely determine the options for Matriculation. University men, too, are beginning to see that, while they possess the right to prescribe the courses of study for matriculation, no satisfactory scheme can be devised which ignores the predominating influence of the Primary and Leaving examinations. I propose, therefore, to consider in connection with the question of matriculation, the whole system of related examinations.

FIRST, then, as to

#### THE PRESENT REQUIREMENTS OF THE MATRICULATION AND JUNIOR LEAVING EXAMINATIONS.

(1) *The standards are different*; that for the July Matriculation being twenty-five per cent. on each paper and forty per cent. of the aggregate; while that for the Junior Leaving is thirty-three and one-third per cent. on each paper and fifty per cent. of the total—a distinction with a considerable difference. The September Supplementals held by the Universities themselves, present a still lower standard for Matriculation. The percentage is nominally the same, but it is an open secret that the papers are easier and the examiners more accommodating than in July.

The following statistics, which, I believe, are substantially correct, speak for themselves:

At the July examinations held by the Provincial Board of Examiners, 500 candidates presented themselves. Notwithstanding the fact that only 170 passed, we have at present in the first years of the four chief universities about 333 students, of whom about 198 passed in July or presented *pro tanto* certificates, 65 passed a supplemental, and 70 are non-matriculants, seven of the last, however, having partially matriculated. These totals are made up as follows: In the Provincial University, about 151 passed the July examination or presented *pro tanto* certificates, 24 passed the supplemental, and about 50 are non-matriculants. In the three other universities, 47 passed the July examinations or presented *pro tanto* certificates, 41 passed a supplemental, and 20 have not, or have only partially matriculated.

(2) *Not all the subjects prescribed for the Junior Leaving and Matriculation Examinations are identical, nor are all the papers the same in those subjects that are identical.*

English, History and Geography, and Mathematics are obligatory at both; but, with a view to make the Matriculation standard lower, it is provided by regulation that, in these subjects, the papers for pass matriculation either shall be distinct from those for the Junior Leaving Examination, or shall be supplemented by questions especially adapted to the latter class of candidates. Latin is prescribed for the Matriculant only, while Mensuration, Chemistry and Sight-Work in English Literature are prescribed for Junior Leaving candidates only. The options are also different, being for the Junior Leaving, Latin, Greek, French, German, and Physics, and for the Matriculant, Greek, French and German, French and either Physics or Chemistry, and German and either Physics or Chemistry.

Let us now estimate

#### THE EFFECTS ON THE UNIVERSITIES AND THE HIGH SCHOOLS, OF THE DIFFERENCES BETWEEN THESE EXAMINATIONS.

FIRST, AS TO THE STANDARD.

(1) *As a consequence of the low matriculation standard, mere elementary work has been done, and is now being done, in the Universities, in Classics, Mathematics, English and Moderns, not to speak of Science.*

Until 1890 the standard was but twenty-five per

\*Paper read (April 16th) before the University (Mathematical, Modern Languages, and Science Association of Ontario.

cent. in each department. No one who has had experience in examination work needs to be told that, even with the present higher percentage and with equally difficult September and July standards, a candidate may obtain twenty-five per cent. on a paper and practically know nothing of the subject. In this connection we have the testimony of High School masters who have for many years maintained that many of their matriculating students are unfit to take up University work. I have besides the testimony of many members of the University Faculties, that this opinion is correct. They have assured me that their time is largely wasted; they are compelled to do mere elementary school work, and the result is a real lowering and degradation of the whole University standard.

(2) *The preparation of the average matriculant is insufficient to enable him to derive full benefit from the University lectures, and to attain the standard even now prescribed in the undergraduate years.*

On this subject we have the evidence of the Board of Examiners of the University of Toronto for 1890, contained in the report (dated April 13, 1891) of a committee, consisting of the Chancellor, Vice-Chancellor, and President. On page 61 we find that, in the Pass Departments of English, Mathematics, Classics, and French and German, an average of over thirty-two per cent. failed in the first and second years; the rejected candidates obtaining an average of twenty per cent. instead of the required thirty-three and one-third per cent. This significant and extremely unsatisfactory condition of affairs, the Board attributes to "the growing neglect of Pass subjects by candidates and to a lack of sufficient supervision and direction, arising from the inability of the teaching staff to cope with the rapidly increasing numbers of students in the classes of the lower years." Both of these causes operate, no doubt, but many will agree with me that there is at work a far more potent cause of failure—the insufficiency of the average matriculant's knowledge and mental preparation. The result, of course, is a yearly increase in the number of those that need Supplementals, and, what is still more significant, an increase in the number of Supplementals themselves. The Senate and the Board of Examiners are compelled by force of circumstances to pass most of the candidates.

(3) *As a natural consequence of this insufficient preparation, our graduates—both Pass and Honor men—are not so scholarly as they might be.*

This fact is recognized by the men themselves. An increasing number are found each year at Johns Hopkins, Yale, Harvard, Cornell, and European Universities, removing defects in their education which would not exist, to the same extent at least, if the standard for matriculation were as high as is justified by the condition of the Educational system. What our Ontario Universities need is not pretentious post-graduate courses, but thoroughly efficient undergraduate courses. In further proof of my contention, I may add—and I believe my colleagues will bear me out—that, at the Departmental Professional Examinations for High School assistant certificates, University men—both Pass and Honor—are rejected as often for want of sufficient scholarship as for want of professional skill.

So far as concerns most University departments, the qualifications of the graduates are, I believe, yearly becoming better; but the minimum standard, I hold, has not advanced in accordance with the requirements of the higher educational interests of the Province. So inadequate, indeed, has the Second Class Honor standard been found, that the Education Department has been forced to raise the minimum for specialists' certificates to sixty-seven per cent. on the papers prescribed.

Some, however, whose position gives them ample opportunities for forming a reliable opinion, maintain that there has been of late years in Ontario a decline in the accuracy of Classical scholarship. There are now, in fact, pass Matriculants, who appear to be unable to distinguish the different conjugations and the different declensions of ordinary nouns, and the compositions they send in show that, so far as concerns real classical knowledge, they are in a state of almost Cimmerian darkness. Owing to limited opportunities, I cannot say whether or not there really has been a decline in the character of Classical scholarship. I can say, however, that many of the Pass men and too many of the Honor men, are not in possession of that accur-

rate scholarship which is necessary for thoroughly good work in the Classical departments of our High Schools. It is even possible that there is a connection between this fact and the smallness of the numbers that now take Greek. From the nature of the case, however, I think it probable that there has been a decline. Years ago, Classics was the fashionable study. It was then generally supposed, as even now in some localities, that no one could be a gentleman who was not a Classic, and, as some will remember, at one time no pupil could attend a High School without taking Latin. As a consequence, Classics received the lion's share of attention and the Classical honor lists were larger than at present. Of late, however, there have arisen new and powerful claimants on the teachers' attention, and the amount of time now devoted to Classics is just the amount that will insure a Pass. The modern system of examination has pervaded our schools with a business-like spirit. Passing examinations has become one of the exact sciences; and when twenty-five per cent. in Classics will suffice, not to speak of the September supplemental, neither teacher nor pupil considers it to his interest to secure more. The remedy, of course, is to require at Matriculation those attainments which will ensure thorough and satisfactory undergraduate work, not, as some advocate, to give Classics a position it does not deserve in our scheme of Secondary Education. The Ontario Classical Renaissance should be a gradual one, concurrent with the growth of our material and national prosperity. It would only injure the department to force it by any system of protection upon those who have neither the leisure nor the inclination to give it the attention it requires.

In my strictures so far, I have had in view chiefly the University of Toronto. We are better seized of its general condition than we are of that of the other Universities, and we have a better right to discuss it, as it is a Provincial institution. In view, however, of the fact shown above, that of a total attendance of 88 matriculated students in the first years of these Universities, 47 per cent. entered through the easily revolving doors of a September Supplemental, I am putting the case fairly, I think, when I assert that my strictures apply with at least equal force to the standard attained by them.

SECONDLY, AS TO THE SUBJECTS.

(1) *The present differences between the subjects prescribed for Matriculation and for the Junior Leaving Examinations, interfere materially with the organization of our High Schools.*

These differences render impossible in some cases, and difficult in all, a proper economy of educational force. An almost complete unification has now been effected, of the different High School and Teachers' Examinations, and we have secured for one Board of Examiners complete control of all the High School Examinations. Formerly, at the beginning of each half year the Principal was perplexed by the conflicting claims of a dozen different examinations and the construction of his time-table was an ever-failing source of trouble. Now, however, while the difficulties of organization will never wholly disappear, most of those that remain, so far as concerns the examination system, are due chiefly to the still-existing divergencies of the Matriculation and Junior Leaving Examinations.

(2) *There is not that full correlation between the Matriculation subjects and the undergraduate courses, which is justified by the present condition of our High Schools.*

In the University report from which I have already quoted, the following passage occurs on page 74:

"It is proper to observe that the present difficulty (the need for further teaching strength) is intensified by the fact that many students take French and German without any, or with but the slightest, previous knowledge of the subjects. These elements should be acquired in the High Schools, and not in the University. It is to be hoped that they may, in the course of the next few years, be taught universally in the schools. It is suggested that provision should be made by the University to check the practice of students taking up French and German without proof that they have already acquired an elementary knowledge of them." *Mutatis mutandis*, this quotation, I may add, applies to Science also, for the teaching of which there is now satisfactory provision in the schools of the Province.

As to French and German: the High School reports for 1891 show that French is now taught in

all but four schools, and German in all but twenty-two. I know besides that all the staffs are competent to teach French, and about half of the twenty-two are competent to teach German. In most cases, the subject has been omitted by the Principal, simply to reduce the number of his classes. And if not all were competent, experience has shown that the High Schools would respond to any reasonable demand. The blame for the present state of affairs has for years been chargeable to the Universities, which have not constructed their Matriculation schemes in accordance with the capabilities of the Secondary Schools and have shown the Matriculant a consideration which has proved injurious to the interests of Provincial education.

There is, besides, another aspect of this question. Not all the present options for Matriculation have regard to subsequent University courses. The High School programme embraces the departments of Classics, Mathematics, Science, and Modern Languages, with History and Geography. The Matriculation courses recognize all properly, except Science, for which we have now four separate options: French and Chemistry, French and Physics, German and Chemistry, and German and Physics. This provision for Science is not in accordance with any known educational principle. It is simply the solution of a problem in Permutations and Combinations. In fact, the whole system of options is a compromise to meet the views of the partisans of the different subjects; not a reasonable scheme based on the capabilities of the schools and the requirements of the University.

(3) *The present arrangement of the Primary Examination options discriminates against Greek.*

The following table, compiled from the reports of the Education Department, gives the number of candidates in the different subjects in 1877 and 1891;

	Total.	Phy'a.	Chem.	B'tny	Latin.	Greek	Frnch	G'm'n
1877....	9,227	2,188	2,547	.....	4,955	871	8,091	442
1891....	21,911	6,485	3,800	6,300	8,477	1,089	9,335	2,320

These statistics show that there has been little increase in the number taking Greek, while a statement given on p. 58 of the University report from which I have already quoted, shows that in Toronto University there has been a steady decrease in the number taking Pass Greek since 1880, 132 taking it in 1880 and only 86 in 1890. It is proper to state, however, that since 1880 there has been an increase of 43 per cent. in the Honor Greek department of the same University. The table also shows that since 1877, there has been a rapid increase in the number taking the other subjects and that the attendance at our High schools has more than doubled. The decrease in the number taking Greek is, I believe, largely due to the practical tendencies of the age, which are making themselves felt all over the world. A moment's consideration however, of the system of organization in our High Schools will show that there has been another influence at work in Ontario. Every pupil who intends to take Greek takes also Latin; and in a well-organized school, he studies first Latin, and then Greek as soon as he has mastered the initial difficulties of Cæsar. When, therefore, such a pupil is at the Primary stage, he has been at Latin for two years and at Greek from six months to a year. If Greek were made an option at the Primary, as was proposed last year, and a two years' course prescribed in it as at present in Latin, no one would take it; all would prefer Latin as being the easier option. If, again, a one year's course were prescribed in Greek, it would be the favorite, because the easiest option. This latter result, I need hardly point out, would not conduce to the general interests of education.

(4) *According to some, the courses prescribed for the Primary and Leaving Examinations discriminate against Latin and favor Modern Languages and Science.*

So far as concerns all the languages except Greek, the advantages are, I believe, about equal. In view of the requirements of the Public Schools, Science is the most suitable option for the teacher who has not a University course immediately in view. Science, again, is the easiest option for those pupils who begin their studies later in life than the ordinary High School entrant; and in the case of young entrants, it has long been customary for most girls to take French or German, and most

boys Latin. As a matter of fact only 10 per cent. of ordinary High School entrants take the Science course. It is taken chiefly in Forms ii., iii. and iv. In this respect, the languages have all the advantage.\* That Science is a favorite examination option is due chiefly to the fact that a large proportion of those attending our High Schools have in view a teacher's certificate and not a University degree. The practical tendencies of the nineteenth century are in favor of French, German and Science; but, in the case of Latin, this is offset by the fact that it must be taken for University matriculation and for the chief professional examinations.

It is also maintained by some that the prescription of Chemistry for all candidates of the Junior Leaving examination is unfair to Classics and gives Science an undue advantage. There may be some force in this contention. About seven years ago, Chemistry was made obligatory for Second Class non-professional certificates. The opinion was then held that it would be contrary to the interests of our Public Schools to confer a permanent and Provincial certificate on teachers wholly untrained in the processes of Modern Science, and to ignore one of the most important developments of nineteenth-century civilization. Chemistry was then preferred to Botany as being of higher educational value, and to Physics, as being more easily taught in the then badly equipped condition of the High Schools. When, two years ago, Leaving examinations were substituted for the non-professional examinations, the argument in favor of Science again prevailed; but, in the condition of the schools and of the Matriculation options, it was considered unwise to substitute Physics for Chemistry. Under these circumstances the rational course for the Universities is to modernize fully their Matriculation scheme by making a science obligatory on all candidates; not to ask the Education Department to make Chemistry an option with Latin or Greek—a change which experience shows would be injurious to education and would not be justified by the example of other modern and progressive Universities.

Under this head it is also objected, that, whereas the Departmental scheme of examinations equates the educational importance of the different options, they are not of equal difficulty nor of equal educational value; that either Latin or Greek—and Greek, in particular—is equal to both French and German, or to an indefinite number of the Sciences. This is a matter on which, owing to the construction of human nature, some of the promoters of the different subjects hold opposite and extreme views. Without classifying myself, I may state my opinion. It is, I believe, far more difficult to reach in Latin or Greek, and especially in Greek, that state of proficiency in which the literary value of the language is fairly available, than it is to reach the same state in either French or German. The educational, not to speak of the literary value of Latin and Greek, when properly taught and given the necessary time, is greater than that of French and German; and, assuming the requisite mental maturity, it is easier to become fairly versed in a science than in a language, either ancient or modern. But for the ordinary High School entrants the Science option, which attaches less importance to mere memorization and more to correct observation and induction, is more difficult than a Language one. The practical value, how-

\*Hitherto the Education Department statistics have not shown the number in each division of the forms doing the work below the Junior Leaving Examination. In thirty-two schools (ten Collegiate Institutes and twenty-two High Schools), so far (April 25th) inspected during the present year, the percentage in each subject, in Forms I. and II. (II. doing the work for the Primary of July next) is as follows:

	Total.	Science Per Cent.	Latin Per Cent.	Greek Per Cent.	French Per Cent.	German Per Cent.
Form I. ....	2,198	10	41	1	43½	10 1/5
Form II. ....	1,367	37½	30	4½	35	12

These statistics may be taken as showing approximately the general tendency in the schools. The increased percentage in Science in Form II. is, of course, due to the fact that most who take this option are pupils of mature years who enter Form II. in preparing for a teacher's certificate. This is further shown by the fact that of 3,743 who wrote at the Primary last July 1,798 took Science; 1,141, French; 706, Latin; and 103, German. The desirability, from the educational point of view, of a large number in the lowest forms taking Science is shown from the fact, that of 17,338 in Form I. (now Forms I. and II.) in 1891, only 3,743 took the Primary; that is, allowing for a two years' course, over 50 per cent. of the pupils in the lowest forms never reach the Primary Examination stage. Surely no educationalist will maintain that for most of such pupils, a smattering of Latin, or French, or German, is more suitable than an elementary course in Science.

ever, of French or German is greater than that of either Latin or Greek. So, too, in the case of a science, the educational value of which, besides, is at least as great for the ordinary purposes of life, as that of a language; having due regard, of course, to the fact that, assuming proper receptivity, the science is more readily acquired. It is usually not difficult to determine the relative values of the subjects that constitute a department, for they are parts of an organized whole; but the determination of the relative values of Classics, Moderns, and Science, with fractional accuracy—for nothing less will satisfy the partisan—is a problem, incapable, I believe, of definite solution. The parties interested cannot agree on the conditions, and the conditions themselves vary from year to year in accordance with the changing requirements of our ever-progressing civilization. But the relative value of the different departments is not, I hold, a matter of prime importance, so far at least as our High Schools are concerned. What one department lacks in purely pedagogical value it makes up in greater and more available practical usefulness; and, so far as the languages are concerned, the real differentiation is more marked in the later than in the earlier stages of their acquisition. Most modern and progressive Universities also, as, for instance, London and Harvard, equate Greek, French, German, and some Science, and even so difficult a language as Arabic or Sanscrit. This course, we have reason to believe has proved advantageous to the Universities and to the general public.

If I have succeeded in expressing the objections to the present examination scheme as strongly as I feel them, it will, I think, be conceded that the subjects for our Matriculation and Junior Leaving Examinations should, if possible, be unified, and that certainly the Matriculation percentage should be raised to that of the Junior Leaving Examination, which is at present the upper limit of our weakest High Schools.

Whether there can be a unification of subjects evidently depends upon the objects of these examinations. The object of our High Schools, or, as they have been well called, 'the people's Colleges,' is, by statute, two fold: to provide for the people a good general education of a better character than can be obtained in the Public Schools, and to prepare pupils for University Matriculation. The object of our universities is to provide that higher culture, which, unfortunately, must always be the privilege of the few. The object of the University and, in one aspect, of the High School, is, therefore, the same—to provide a liberal education for our citizens, the difference being merely one of degree; and, as the Matriculation examination is but the first step in the University course, the possibility of the unification of its subjects with those for the Leaving Examinations, depends simply upon the capabilities of the High Schools and the requirements of the Universities.

I now propose to submit, as my contribution to this important discussion, the following scheme for the unification of these examinations and the harmonization therewith of the Primary—a scheme which, as I shall try to show, meets the objections to the present system as fully as they can be met in the present condition of our Secondary System.

PROPOSED SCHEME OF MATRICULATION AND LEAVING EXAMINATIONS.

Senior Leaving Examination.

HONOR PAPERS.

I. *Obligatory*:—English, History and Geography, Mathematics.

II. *Options*:—(a) Latin and Greek; (b) French and German; (c) Chemistry, Physics, Zoology and Botany.

Junior Leaving Examination.

I. *Obligatory*:—English (3), History and Geography (3), Mathematics (3), Physics (3).

II. *Options*:—(a) Latin (3), Greek (2), and French or German (2); (b) Latin (3), French (2), and German (2); (c) Latin (3), Chemistry (1), French or German (2); (d) Chemistry (1), Botany (2), and Zoology (1).

Of the above options, any one might be taken for a teacher's non-professional certificate, and (a), (b) and (c), for Pass Matriculation.

Primary Examination.

I. *Obligatory*:—English (2), History (2), Geography (2), Mathematics (2); Reading, Drawing, and the Commercial Course.

II. Options:—\*(a) Latin (2) and Greek (1); (b) Latin (2) and French (1); (c) Latin (2) and German (1); (d) Physics (2), and Botany (1).

The number in parenthesis after a subject above indicates the number of years of the course therein. In the case of Science it is assumed that the pupil takes up the subject with greater mental maturity than in the case of a language—not so much time is, therefore, necessary.

#### MODIFICATIONS OF PRESENT COURSES.

I. The courses of study to remain the same as at present with the following modifications:

(1) The courses in Zoology to be outlined irrespectively of any text book, and the animals to be dissected and studied to be named.

(2) The courses in English Grammar and Rhetoric and Arithmetic to be omitted in Form III. and at the Junior Leaving Examination; the examinations in these subjects at the Primary to be about as difficult as they are at the Junior Leaving Examinations; and these subjects to be continued in Form IV. and at the Senior Leaving Examination.

(3) The examinations in Latin, Greek, French and German prose authors to be on sight passages, the poetical authors, when deemed desirable, being prescribed.

(4) A larger amount of English Literature to be prescribed—whole works in every case; there being at each examination one set of authors with which an intimate acquaintance would be required, and another (and the larger portion) with which a general acquaintance would be sufficient; the themes in composition being selected from any of the prescribed authors. This implies also the prescription of authors not of the High School Reader for the Primary Examination.

(5) As now in the Reading, Writing and Physical Education in the High School course, a minimum of two lessons a week in Science to be prescribed for each division of Form I.; Physics in winter, and Botany when flowers are available; and text books not being used; there being, however, no Departmental examination in these subjects except in the case of those who take the Primary Science option and whose special study of the subjects would begin in Form II.

II. The papers and standard for Pass Matriculation to be the same as those for the Junior Leaving Examination, the standard being one-third of the marks for each paper and half of the aggregate marks obtainable.

III. Supplemental Matriculation Examination to be abolished.

#### EXPLANATION AND DEFENCE OF LITERATURE

A brief explanation of some parts of this scheme will not, I am sure, be out of place.

#### FIRST, AS TO THE COURSES.

The scheme, I believe, correlates, as fully as the present conditions of the Secondary System will permit, the High School and University courses. The Senior Leaving Examination covers the ground of all the Blake scholarships but two, Moderns and Classics, and Moderns and Science, which two groups cannot be prescribed for this examination. This defect is due to the fact that, being the test for First Class Public School teachers, it must include the Honor courses in English, Mathematics, and History and Geography. Any further additions to the proposed necessary options would present an examination beyond the capabilities of the average candidate and the average High School. The Junior Leaving Examination with the options (a), (b), and (c), embraces a Classical, a Mathematical, a Modern Languages, and a Science Department with a sub-department of History and Geography. A matriculant, therefore, may select his Honor University course, so far as the High Schools can foreshadow it, before he enters the University, and can secure special preparation therefor. He also enters with a knowledge of at least one modern language and of that science which is the foundation of the other sciences and with which the High Schools are now competent to deal. Before many years, both French and German may fairly be made obligatory; but the condition of the High Schools would not justify this course at present. Not all, as I have shown, are competent to teach both French and German, and

the proposed scheme would make a larger demand on the High School staffs than the scheme which now obtains. If the Universities refuse to do elementary work, as is suggested in the University Report already referred to, the High Schools will soon adapt themselves to the changed circumstances.

The science option (d) for both the Senior and Junior Leaving Examinations is necessary in the interests of the Public School teacher and of the ordinary High School pupil, who has neither the time nor the inclination to take up properly an ancient or a modern language.

The options for the Primary correspond to those for the Junior Leaving Examination, and I think I am justified in claiming that the scheme as a whole harmonizes the courses for the different examinations. Classical men will, no doubt, see that it will remove the present discrimination against Greek, and put it on an equal footing with the other subjects in the High School programme. And, what is more important still, besides a rational matriculation, it provides a system of examinations which can be adapted to the requirements and the tastes of the High School pupil who has in view neither a teacher's certificate nor a University degree,—the pupil, indeed, whose claims should always be paramount in any scheme of secondary education.

It has been proposed by some in the interests of Classics and Moderns, to make Latin or French or German obligatory at the Primary or at least at the Junior Leaving Examination. This proposal could not, I am certain, be entertained. Not all candidates for the Primary are able to attend a High School; many prepare for this examination at the Public Schools; and, consequently, an option suited to the Public School course is indispensable. There is, besides, the other, and, I hold, still graver objection, that the modicum of a language presented at the Primary is neither so practically nor so educationally valuable as the Physics and Botany when taught as they now are taught in most of the High Schools. If, again, Latin or a modern language, or Latin and a modern language were made obligatory at the Junior Leaving Examination, we should have an undesirable interference with the organization of our High Schools; for all candidates who had taken science at the Primary would attempt to acquire the language in six months or a year. I need not, I am sure, characterize the value of a language so acquired, and acquired, too, at the advanced age of most of the candidates. An elastic and harmonious system of options is all that is needed or should be expected. In the sphere of education, protection of any class interests is certainly out of place.

Objections have been taken to Zoology, some to the text-book, and others to the subject itself. As to the book: it is now no longer authorized; the teacher may use whatever book he pleases and the plan I suggest in reference to this subject meets any difficulty on this score in the best way possible. The more we make of the teacher and the less we make of the text-book in every department, the better for the pupil and the better for the public. The subject of Zoology itself is, I find, in the schools where it is properly taught, one of the most popular and interesting on the programme. A Science course, too, which would ignore one of the two manifestations of life would be a lop-sided one, productive of narrow and erroneous views on the part of the ordinary student, besides being an inadequate preparation for a University Science course. We must not forget, either that, from the educational standpoint, Zoology has as much right to a place in a Science course as French or German grammar has in a Modern Languages course. Language teachers will also, no doubt, see that without Zoology, the proposed Science option for the Junior Leaving Examination would not be nearly so difficult as any of the others. On the effects of such an arrangement I need not expatiate.

As to the omission of English Grammar and Arithmetic. Our schools are so organized that no matriculant could enter a University without a fair acquaintance with both of these subjects. I do not undervalue an accurate knowledge of the logical structure of our language or of the principles of numbers, or the mental training given by either; but, I do maintain that they now receive an unnecessary amount of attention. I object to philological discussions beyond the capacity of High School pupils and to mere memorization of unimportant facts, and I object just as strongly to the theory that, to be a good arithmetician, a boy or

girl should have solved in school, every conceivable form of problem. After a course in Forms I. and II., the pupil who reaches Form IV. will attack the higher problems in language and numbers with more zest, greater mental capacity, and a wider range of cognate knowledge. The omission of these subjects will also allow of more thorough work in the others and will lighten the labor of school organization. In educational matters Ontario is a law unto itself; but it will not be amiss to remember that there is no other country in the wide world in which so much time is given as we give, to English Grammar and Arithmetic.

The limitation of the examination in Latin, Greek, French and German prose authors, while poetical authors may be prescribed, needs no justification. It is as far, I think, as we should go in this direction at present. Such a course would reduce the curse of cram and would do more than anything else to make language study what it may be, and what, in most cases, it certainly is not now, a powerful instrument of intellectual training.

As to the English Literature: The object of a High School course is, I take it, to form in pupils good literary taste and the habit of intelligent and appreciative reading. This habit can be acquired by the minute and careful study of a comparatively limited course; and whether such a course will effect the purpose depends infinitely more on the culture and the zeal of the teacher than it does on school programmes or examination papers. There is no other educational force equal to enthusiasm. But really satisfactory results can be secured only by extended familiarity with our best authors. It is, I believe, generally felt that for the purposes of the cultivation of taste, the amount of English Literature now prescribed is insufficient. This defect many schools remedy by a system of supplementary reading which indeed, should, under any circumstances, be maintained; but, as not all have adopted this system, and as in some quarters an examination is the most powerful incentive, it would be well to adopt the system proposed above, which is indeed, but a reproduction of the very admirable system which obtains in the department of English Literature in the Provincial University.

The course proposed for the Primary would, I am sure, prove defective were no Physics and Botany taken by all pupils no matter what their options might be. As a matter of general education, the suggestion I have made is a proper one; and it has already been adopted in some of our best schools. It would also secure for the pupil one year's study of Science in Form I. and would allow Botany to be, what in the nature of the subject it should be, the first science taken in the school programme.

The general scheme I submit for your consideration ignores the question of the relative values of the different departments. The examiner will simply assume on the part of the pupil such knowledge of the subject as may be fairly expected after a course of the prescribed length of time. The matter of organization may be safely left to the judgment of the High School Principal.

So much for the courses of study;

#### NOW AS TO THE STANDARD.

I take the position that the present capabilities of our High Schools and the evils of a low July percentage for matriculation necessitate the higher percentage I have proposed. These evils are intensified by the existence of supplementals which have no justification, I maintain, either in reason or in expediency. The bad effects on the Universities are made still worse by the vicious system of, in some cases, an apparently unlimited admission of non-matriculated students. The High School master who guards the door of his school with the High School Entrance examination needs no mentor on this subject. A lack of students, as every one knows, does not justify the present laxity of admission into our Universities. Nor can it be justified on any educational ground. Those who defend the maintenance of a supplemental, apparently assume that the candidate who passes in some of the subjects in July and in the rest in September is as well prepared as the candidate who in July passes in all the subjects at once; that, assuming the papers to be as difficult, there is no real lowering of the standard in September. This is on a par with the argument that the man who can lift two hundred weight at once is not stronger than the man who can lift them only one by one. If supplementals were

\* Since writing this paper I have thought it might be found desirable to add another Primary option—French and German—for the sake of those who do not wish to take Latin. Such pupils could, of course, omit the Junior Leaving and take the Senior Leaving Examination, if they remained at school.

maintained, the examiners thereat should, of course, be the same as those at the July examination; but any argument that applies to the matriculant applies also to the Junior Leaving candidate, and it would be unwise, not to say indefensible, to put into motion in September the complicated and expensive machinery of the July examination. Some maintain, and I think rightly maintain, that it is unjust to put back for a whole year on account of a slight failure a young man somewhat older than the average candidate, or to reject any other candidate who has failed a little in one or even two departments; and that, to make provision for such cases, a supplemental is indispensable. To meet this reasonable objection, the Board of Examiners has only to do what the Education Department does at the Entrance Examination: it should take all such extenuating circumstances into consideration when passing judgment upon the results. Better pass a candidate at the July examination, if his age and his general standing justify this course, than put him and the University to the trouble and the expense of a second examination. The amount of knowledge he can cram up during the sultry days of August is worth little as a preparation for University work, while the examination he passes furnishes a plausible pretext for lowering the standard to those who think that the standing and influence of a University depend more on the numbers it has on its roll than on the efficiency of the work done by its faculties.

Before I close, let me examine briefly the other objections I have heard urged against raising the percentage.

The main one is the alleged inability of those who desire a University course to qualify for a higher standard at the age when a University education should begin. Let us see what the statistics say on this point. Of 1,496 who last July obtained Primary certificates, 534, or over one third, were only sixteen years of age or under—one year's additional study would, of course, fit them for the Junior Leaving—and of 1,008 who then obtained Junior Leaving certificates, 304, or nearly forty per cent., were only seventeen years of age or under. When we consider the fact that most of those who take these examinations are teachers or intending teachers, and therefore, older than most matriculants, the significance of the figures cannot be gainsaid. It is surely time enough to begin a University education at the age of seventeen. Those for whom the supplemental is a *deus ex machina* might certainly not pass or might have to work harder; but the theory that a University education is desirable even for the intellectually weak or the intellectually slothful, is not justifiable, I hold, on any reasonable grounds whatever. My own opinion is, that it might be a good thing in many ways for Ontario Universities and the Ontario public, if some did not attempt an education which Nature has not fitted them to receive.

Another objection is that raising the percentage would reduce the attendance at the Universities and exact too much from the High Schools. With the latter objection I need not deal. So far as the Provincial University is concerned, a reduction of the attendance would, for a time at least, be a blessing in disguise. The University Report to which I have already referred shows that every one of its departments is crowded, and consequently inefficiently taught. Raising the standard would for a few years undoubtedly reduce the attendance, but only for a few years; and, in the meantime, that part of the University endowment which is now unproductive of revenue, would become productive, and the Arts Faculty would then be better able to cope with an increased attendance. So far, too, as the other Universities are concerned, there need be no fear. It is well understood that they have put themselves on record as anxious for a higher matriculation standard, and the Principal of one of them has of late been the foremost University advocate of the proposed change. Such a change assumes, of course, the abolition or the re-organization of matriculation Supplementals; for no honorable man or body of men would advocate a high standard for July and surreptitiously maintain a lower one in September.

The last objection I might almost omit. It is urged by some that a higher percentage would shut out from the advantages of a University education, the sons of rich men, who do not take kindly to, or are not mentally well equipped for, the preparatory school-work; and that their exclusion would weaken the influence of the University and deprive such

youths of the educative associations of University life. This objection is an exotic; it is based, I believe, on a misconception of the function of a Canadian University, and is not in sympathy with the trend of sentiment on the American continent. In the last century, as is well known, the great English Universities were, and to a great extent are still, primarily, places for spending three or four pleasant years, only incidentally places of instruction. With late breakfasts, boating, tennis, football, and various other amusements and social engagements, the poll-man (the prototype, in some ways, of our unfortunate pass-man) has little time for study, and unless he is much belied, he feels the want of it just as little. He acts in accordance with the theory, probably shared by his parents, that he entered the University in order to enjoy himself and form useful social connections.\* I do not undervalue the educative influence of University life, and above all, of personal intercourse with a faculty, each member of which has an enthusiasm for learning and a lofty ideal of a professor's duties; but we have not yet an established plutocracy, much less an established aristocracy. It will be time enough, I trust, to deal with this question when it has pleased Providence to afflict us with these blessings. In the meantime, let us work out the solution of our educational problems in the spirit and with the aims of a democratic people.

#### THE BAD BOY.

He is in every Sunday school and every chapel—particularly in the Sunday school. He is not bad in the downright vicious sense. He is in no danger of becoming a street loafer, a music-hall lounge, or a young criminal. His badness is strictly compatible with clean language, industrious habits, some regard for the externals of religion, and a very soft heart beating somewhere—as yet he hardly knows where—under his little waistcoat. But he is a bad boy in the Sunday school and chapel sense. He turns the hair of earnest superintendents and teachers grey before its time. The bad boy is disgustingly healthy, has no more nerves than a wall, and is as restless as a common flea in summer. With a keen sense of the ludicrous he unites an ever-active genius for mischief. Strong school-benches break under him as if by magic, class-room door-handles have a trick of falling off in his hands; and, to the mild consternation of that gentleman, the teacher's chair will go over with a bang just as he rises to engage in prayer.

The bad boy asks funny questions in order to set the class laughing, and will, occasionally, introduce a live stag-beetle or a new puzzle just when the interest of the class is at its most solemn height. He has even been known to bring a stray dog with him to the Sunday school (and it is wonderful how the bad boy manages to get the affection of stray dogs, how the dogs look up to him with waggish reverence and delight). School and chapel windows have a way of getting mysteriously broken where the bad boy is; and if there is a high and particularly dangerous iron fence, he prefers climbing over it to going in by the door. He makes furtive grimaces at elderly ladies, and treats even deacons with scant respect. What ridiculously good things he says about the minister I forbear to mention. But the peculiar sport of the bad boy is the chapel-keeper, and he in turn is the chapel-keeper's *bête noire*. He is always in trouble with the chapel-keeper. He gets into her special domain surreptitiously, interferes with the heating apparatus on the sly, and lays traps for her unwary feet in the subterranean depths where she keeps brooms and other paraphernalia. He steals into the chapel on the Sunday morning, and puts the clock an hour forward, or carefully stops it before the service begins. He is always turning up in unexpected corners, and looking so meek and innocent that she feels sure he has been playing some prank. That he is the leading delinquent in all that goes wrong she is positive, though she seldom catches him in the act. Scarcely a Sunday passes but she seeks a solemn interview with the officials to detail some new enormity of the bad boy, generally finishing up her long-visaged complaints by cautiously and conscientiously observing, "Not that I saw him do it, but I feel sure he did it for all that"—which is but one more illustration of the proverbial inconvenience that attaches to a dog or a boy that has a bad

name. The bad boy has one redeeming virtue. He is very regular in his attendance. On the bleakest day in winter or the hottest day in summer he is there. The young scamp seems impervious to cold or fog, and a broiling August afternoon finds him the only cool and wakeful person in the class. Though he is seldom out of semi-disgrace, and is always being lectured on his fate in this world and that which is to come, he not only thrives on it, but actually appears to get a hardened attachment to the place by it. Occasionally, however, he will disappear for a Sunday or two, when his feelings have been more than usually wounded by being roundly charged with something that he has not (worse luck) had even the ghost of a chance of doing. That is too much for him, and so he stays away and wonders how the school and chapel get on without him. But he can't stand it long. He is a genuine Sunday school and chapel boy with all his faults, and is simply miserable away. So by the third he is back again, as buoyant as ever, and magnanimously willing to overlook the past and forgive the wrong done him.

If there is a youths' institute or club in connection with the chapel, the bad boy is one of the most indefatigable members. He fairly wallows in enthusiasm for the meetings, and would be there every night in the week if allowed. But, alas! he is generally sat upon by the committee, and suspended—most unjustly, of course—about once a month. Like an Irish Member of Parliament, however, he is always ready to resume his place as soon as the rules of the "House" allow.

Another redeeming quality of the bad boy is his decided and uncompromising Nonconformity. He comes of chapel folk, and he sticks to his chapel and his Dissent through thick and thin. Most likely he has a Radical father who has dinned into him a sturdy regard for his "own side," or, perhaps, some of the old staunch Puritan blood flows steadily through his stout young body. And he is better acquainted, in some rude fashion, with the rights of the question than is often thought, for he has been known to silence, with keen sarcasm and level-headed argument, the churchwarden's upstart boy who talked of the "one true Church," and of the great uncrowned King Cromwell as a regicide and hypocrite. The bad boy's father, though "in principle" a Nonconformist, seldom comes to chapel, which explains a good deal; but he likes his boy to come, which explains a good deal more. And so the boy, being alone, has a movable sitting. He is invariably in the gallery, and by choice as far removed from the minister's eye as possible. By choice, also, he likes to get near to the choir, which he worries considerably by his sly attentions, especially liking to show his untrained and irresponsible vocalism at difficult parts of the anthem. Sometimes the tenor or the bass will complain in that adjectival and emphatic spoken language that singers are masters of when roused to indignation in defence of their art. And then the bad boy's cup of joy is full. He is as pleased as if he had seen a good boy's basket of eggs all break at once.

Somewhere, I said just now, the bad boy of the Sunday school and chapel has a tender little heart beating with generous throbs. He won't let you see it, if he can help it—he hardly knows it is there. But his mother could tell you how the baby screams with delight when he comes in, and how he sat on the stairs, as still as a mouse, a whole day, when his little brother Jack was dangerously ill, that he might be near, if wanted to run for anything. And when an opportune policeman caught him fighting one day with a boy of the orthodox kind of badness, and asked "the young varmint" what he was doing, he found it was in defence of an ill-used cat. So, on the whole, there is great hope of the bad boy. Said good Miss Betsy Trotwood to David Copperfield: "Never be mean, never be false, never be cruel. Avoid these three vices, Trot, and I can always be hopeful of you." The bad boy is none of these, so there is great hope. He is troublesome, and often a nuisance, but don't turn him out of the Sunday school, and don't let him slip away from the chapel. He has the grit of a stalwart manhood in him, the ingenuity and bold spirit of a valiant soldier of the Cross. Wait patiently for him, and you may yet see him enrolled in the army of the Lord.—H. B. S. K., in the *Christian World*.

\*See Bryce's "The American Commonwealth," Part VI., Chap. CL. These three sentences are adapted from this chapter.

Mathematics.

All communications intended for this department should be sent before the 20th of each month to Chas. Clarkson, B.A., Seaforth, Ont.

BONDS, DEBENTURES, SINKING FUNDS, ETC.

I. WHAT Sinking Fund (S) must be set aside each term to cancel a debenture (D) with the amount accumulated by the fund at r per \$ interest per term?

SOLUTION.—The several amounts of \$1 for 1, 2, 3, etc., n terms are (1+r), (1+r)^2, (1+r)^3, etc. (1+r)^n

or R, R^2, R^3, etc. R^n if we make R=1+r
Hence at the settlement we must have
D=S+SR+SR^2+etc.+SR^{n-1}
∴ DR=SR+SR^2+etc.+SR^{n-1}+SR^n

i.e., DR-D=SR^n-S, or
D(R-1) i.e., Dr=S(R^n-1)
Hence S=Dr÷(R^n-1)
and D=S(R^n-1)÷r

EXAMPLE 1.—Suppose a city owes \$600,000 in debentures due at the end of ten years, what annual sinking fund invested at 6% compound interest will provide for the payment at the end of the period?

Here D=600000, r=.06, R=1.06, and S=(600000×.06)÷(1.06^{10}-1)=\$45550.

EXAMPLE 2.—What amount of debentures may a town issue on the basis of a sinking fund of \$1,000 a year invested at 6% for a term of ten years?

Here S=1000, r=.06, R=1.06 and D=1000(1.06^{10}-1)÷.06=\$13,174.

II. Find the rate of interest realized by purchasing a bond of \$B at a market price \$P, the face of the bond being payable in n years, and in the meantime interest on the face value at r per dollar per annum?

SOLUTION.—Suppose the current rate of interest is a per dollar per annum, and let x=rate of interest per dollar realized by the buyer. Then P(1+x)^n=the amount of the purchase money at the end of the period. The income derived from the bond will=B+Br+Br(1+a)+Br(1+a)^2+etc.+Br(1+a)^{n-1}

=B+Br{ (1+a)^n - 1 } ÷ a = P(1+x)^n
∴ (1+x) = { Ba + Br(1+a)^n - Br } ÷ a (Pa)^{1/n} (3)

EXAMPLE 3.—A \$100 bond bears 4% interest and has 26 years to run. The market price is 114 when money is going at 3 1/2%; what rate does the buyer realize?

Substituting in (3) we get
1+x = (3.5 + 4(1.035)^{26} - 4) ÷ 3.99 = 1.033

Hence the rate is 3 1/3%.
If we wish to know what rate ought to be paid for the bond to realize a given rate per cent. we have from the above

P = { Ba + Br(1+a)^n - Br } ÷ a(1+x)^n

EXAMPLE 4.—To make 5% on the investment in 7%, 12-year bonds, what must be the price paid?

Here B=100, a=.025, r=.035, if we suppose the interest payable half-yearly as is usual, n=24, x=.025. Hence we have by substitution

P = { 2.5 + 3.5(1.025)^{24} - 3.5 } ÷ .025(1.025)^{24} = 118

III. If a loan \$P is to be paid back in n terms by equal instalments \$A, to find the rate of interest per term realized by the creditor.

SOLUTION.—Proceeding as in case I, we see that PR^n = A(R^n - 1) ÷ r
i.e., P(1+r)^n = { A(1+r)^n - A } ÷ r. from which we require to find r. With n a small number we can approximate the value of r in special cases. See H. Smith's Arithmetic, page 342, No. 2. But in general the solution of this equation is not practicable on account of the labor involved in applying Horner's method or Newton's method of finding the roots. Several attempts have been made to

find simpler formulas that would give approximations, but none are considered satisfactory. See Cherriman and Loudon's Loan Tables, p. 47, where Halley's formula and Bailey's formula are given with criticism. In the April number of THE JOURNAL for 1889 we published an investigation by B. F. Burleson, of New York State, in which he obtains an equation similar to the above, and gives the following rule deduced from the formula:—

RULE.—Divide the interest on the premium six months at the rate per cent. received on the sinking fund deposits, by the compound interest on one dollar, compounded semi-annually, at the rate per cent. received on the sinking fund deposits for the time it takes the bond to mature; subtract the quotient from the value of a coupon, and divide the remainder by the price paid for the bond, and the quotient is the rate per cent. of semi-annual compound interest received for the investment.

He thinks that if B = bond, n = time in years, r = rate of interest on bond, P = premium over face value paid for bond, A = the amount of each sinking fund deposit, R = the rate per cent. received semi-annually on each sinking fund deposit, then [(1+R)^n - 1]A = PR, and states that the required rate per cent. of compound interest received semi-annually

= [ (BR/2) - (PR/(1+R)^{2n}-1) ] ÷ (B+P)

But we have to confess that we do not perceive how the formula is derived, and would be glad to receive enlightenment. Perhaps some of our readers can make it clear and show that Mr. B.'s rule is or is not a correct expression of the facts of the case.

However, we have here given sufficient evidence to satisfy the many persons who have during the past five years sent us this problem in various forms, that it is much easier to propose than to solve it, and that our space could not prudently have been devoted to problems of a practically insoluble type. Nevertheless, if any one can give new light on the question we will make way for the illumination.

THE following problem and solution, clipped from a contemporary since the above was written, will show how an approximation may be obtained by logarithms when the number of instalments is not too large:—

On April 1st a man borrows £57, and agrees to repay the lender £60 by ten equal instalments on the 1st of each month following; find what rate of interest per cent. per annum the borrower is paying.

SOLUTION.—Supposing the interest due every month, or every instant; then, if R = amount of £1 for one month, we have

19R^{10} = 2{ R^9 + R^8 + ... + 1 } (1)

If we attempt to solve this equation by Horner's method, the work is very long. Using logarithms, we have

E = log (R^{10}(R-1)/(R^{10}-1)) = log (2/19) = -1.0222764;

when R=1.009, E=-1.0212538; when R=1.01, E=-1.0235865. These values give R=1.0094384 as a first approximation to the value of R in (1). On trying 1.009438, 1.009437, 1.009436, we see that a very close approximation is R=1.00943626. Using this value R^{12}=1.1193005; therefore rate of interest is 11.93005.

CORRESPONDENCE.

41. By H.G.M. Find the least sum of money that can be paid both by a whole number of farthings and by a whole number of mills.

SOLUTION.—5 cents = 3 pence or 60 mills = 12 far. or 25 " = 6 " i.e., 2 1/2c. = 1 1/2d., but as we have no coins of these denominations we must take the three-penny piece and the five-cent piece, or else the six-penny piece and the ten-cent coin, if the three-penny piece is considered obsolete.

42. Miss J. K. sends the following for solution: Given a^3 + 8c = 4ab (1) and a^2d = c^2, prove that (2) 4bcd = 8ad^2 + c^3.

SOLUTION.—We see that a^4d^2 = c^4, by squaring (2); also that a^2dc^2 = c^4

Hence c^4 = a^4d^2 = a^2c^2d
But a^3 + 8c = 4ab. Multiply this term by term and we get

a^3c^4 + 8a^4cd^2 = 4a^3bc^2d
i.e., c^3 + 8a^3d^2 = 4bcd, by dividing through by a^3c, the common factor.

43. (Problem III., November, 1891.) A father divides his property among his children as follows:—The first gets \$a and one n^th of the remainder; the second gets \$2a and one n^th of the remainder; the third gets \$3a and one n^th of the remainder; and so on for the x children. It turns out that all have received equal shares. Find the number of children, the share of each and the value of the whole property.

SOLUTION.—Let P = property. Then the last child gets xa since there is no remainder to add; but since the property is equally divided, each gets P ÷ x

∴ P = ax^2 Also the first share is equal to the last share, ∴ a + (P-a)/n = xa. In this write ax^2

for P, x^2 - nx + (n-1)a = 0, of which the only admissible root is x = n-1. Hence P = a(n-1)^2, one share = a(n-1).

44. Alfred, Edward and Herbert come each with his pail to a spring well, and a question arises about the quantity of water in the well; but none of them knowing how much his pail will hold, they cannot settle the dispute. Luckily Mary comes with a pint pitcher, and by its aid they discover that Alfred's pail holds half a gallon more than Edward's and a gallon more than Herbert's: but before any further progress is made the pitcher falls from Mary's hand and is reduced to fragments. They find, however, that the water in the well fills each pail an exact number of times; that it fills Herbert's pail eight times oftener than it fills Edward's, and Herbert's forty times oftener than Alfred's. How many gallons does the well contain? Ans.—15.

45. Two glasses of equal size contain different mixtures of wine and water; 7/8ths of the stronger mixture is added to 2/3ths of the weaker; the two remaining portions are also mixed together. Of these two new mixtures the stronger is a certain number of times stronger than the weaker, and the stronger of the two original glasses was twice the same number of times as strong as the weaker. Compare the strengths of the two original glasses. Ans.—4:1.

46. Three cubical vessels, A, B, C, whose capacities are as 1, 8, and 27, are each partially filled with water, the quantities of water in them being as 1, 2 and 3 respectively. From A water is poured into B, and from B into C, so as to make the depth in each vessel the same. After this 128 1/4 cubic feet of water is poured back from C into B, and then from B into A so much as to leave the depth in A twice as great as the depth of the water now in B. A now holds 100 cubic feet of water less than at first. How much did the vessels contain originally? Ans.—500, 1000, 1500.

N.B.—Several correspondents have received by mail solutions to questions that have previously been solved in this department, or that were otherwise unsuitable for publication. We trust that they have proved satisfactory helps to our friends, and that in return they will not neglect THE JOURNAL at the Conventions.

In the course of our reading we should lay up in our minds a store of goodly thoughts in well wrought words which shall be a living treasure of knowledge always with us and upon which, at various times, and amidst all the shifting of circumstances, we might be sure of drawing some comfort, guidance and sympathy.—Arthur Helps.

New times demand new measures and new men; The world advances and in time outgrows The laws that in our father's day were best; And doubtless after us some purer scheme Will be shaped out by wiser men than we, Made wiser by the steady growth of truth.

—Lowell. No good book or good thing of any sort shows face at first.—Carlyle.

# Primary Department.

## METHODS IN ARITHMETIC.

(Continued from last week).

ARNOLD ALCOTT.

In my last paper Long Division was outlined as it would be introduced to beginners in technical Division. Now, let none of my readers mistake the assertion which was made, viz., that Long Division was introduced as preparatory to Short Division. It is not the intention to perfect pupils in Long Division at once, so that they may be able to use any divisor, but merely to introduce them to the different processes in a more gradual way than is afforded by Short Division. Practice with such divisors as 102536, 1034 down to 105, 102 etc., will be quite sufficient preparation for Short Division.

### SHORT DIVISION—SLATE WORK.

1.—Divide first by 2 and give only even numbers, so as to have no remainder. The teacher puts a row of figures across the board thus,

246, 486, 624, 688, 246

and pupils divide as fast as possible. This is followed by slate problems of a similar character.

Get pupils perfected in *working fast*. All processes in arithmetic may be divided into two parts, *thought* and *work*.

It is obvious that many of us can think ahead of our power to work; for, we can solve many abstruse problems, but how many of us teachers can add, subtract, multiply and divide "faster than lightning," as the boys say.

Let us spur on our work processes, and get our pupils to travel fast with their fingers, in such work as the four simple rules.

2.—*Rapidity* having been gained, we can proceed in a similar way with 3 as divisor, using only the figures 3, 6, 9 in the dividend.

3.—Time-tests with about eighteen figures across the slate are good for developing rapidity.

4.—Of course the next difficulty will be when the divisor is not contained an exact number of times in any digit of the dividend, as  $2 \overline{)32}$ . Explain this by the bundle idea with which you first taught notation and numeration. Pupils know that 2 goes into 3 once, and the bundle idea shows them that one over is one bundle, or ten of the next lower denomination

$2 \overline{)32}$      $2 \overline{)111}$

5.—As was said in previous numbers on Methods in Arithmetic, so again, do not allow the carrying figures, the divisor or the multiplier to be put down.

6.—While watching my class working time-tests the other day, I noticed one nervous little fellow who was working tolerably fast for so young a boy, putting his pencil in his mouth quite frequently. By the way, have you ever done it yourself?

Of course we showed him that he lost time and that it was of no use to him to wet his pencil. Do not allow any of your pupils to do like this little one of mine.

7.—Get your pupils to do their work in

numbers with the brain, and not with the lips and fingers. The latter should be a machine for registering the results, but should not assist in obtaining results. Lastly, and I think I have said it several times in previous articles, do not forget that *time-tests are the best means of developing rapidity in the work processes in arithmetic*.

Time-tests may be of two kinds:—

(a) We limit the time and give our pupils a certain amount of work, which must be finished in that time. Time limited and work limited.

(b) We limit the time but give our pupils a chance to do as much as they possibly can do in that time. Time limited, work unlimited.

The latter it seems to me is the better, from an ethical point of view.

Let me illustrate:—

The former (a) includes in Addition a question of say 60 figures, 5 across, and 12 lines down, time one minute, or one and a half minutes according to grade of class.

It also includes what might be called Continuous Division. Thus, divide by 2

846973  
423486—1  
211743  
105871—1

And so on to zero. Do not have lines drawn between, or the divisor put down. Subtraction tests may be given by taking a number such as, 846986, and telling pupils to subtract 2 every time. Thus:

846986  
624764  
402542  
380320  
158098  
35876

We may leave the digit on the left hand side when it is smaller, as in the last case, and go on as before.

The latter (b) includes Continuous Multiplication of which we have already spoken in previous articles. In Addition, work may be unlimited, but time limited by telling pupils to start with a number say 3 and add 4 continuously thus,

3  
7  
11  
15  
19, etc.

This may be taken orally as well, and it is a panacea for sluggishness, dullness, etc., in a class. It is one of the best of cures. Five minutes of this work is sufficient to enliven a class to your satisfaction.

Let me show how to apply the terms divisor, dividend, etc., etc.

These have been learned incidentally of course, and may be reviewed thus,

Pupils have worked this question.  
102635 ) 5569936874 ( 54321 times  
512680

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

78,818 over.

Now write a statement as follows:—  
This is a question in Long Division.

102,536 is the Divisor.  
..... is the Dividend.  
54,321 is the Quotient, and  
78,818 is the remainder.

I shall conclude my articles for the present on Methods in Arithmetic, unless some one wishes further papers on other parts of our number work, or wishes to ask pertinent questions bearing on the information already given.

### SINGING SOFTLY.

RHODA LEE.

SINGING is not always music. The experienced teacher, will, I presume, agree to this statement. The word music suggests at once a sweet, soft, melodious harmony that is not at all times found in the public schools of our land. Music and nothing but real music is found in a great many of our schools we can thankfully say, and yet on the whole there is room for improvement. Thinking over the subject of primary singing I felt that there was no feature of it that required more attention than the quality of softness in tone. An eminent teacher of music stated once that, although she had little or no knowledge of music as a science, yet she was confident that she had never spoilt a voice. On being questioned as to her methods, she replied that she had one ever-present rule which was, "*Sing easily and softly*." That seems to me to supply the key to the successful teaching of music.

Of course the only rational way of teaching music to children is by the method now so well-known and tried—the Tonic-Sol-fa—which, through the manuals prepared by Mr. Cringan and others, is at this time within reach of every one.

We cannot give any great amount of voice-training in our schools, but we can prevent voice destruction and that by means of soft singing. How wonderfully those harsh voices and rasping tones can be softened and sweetened! Yes, until they produce nothing but the most perfect harmony. Some of the sweetest class singing I ever heard was from thirty or forty rough, poorly-clad boys, who loved singing with all the intensity of their natures and had the advantage of training from a skilled teacher of music. Their power of imitation was of considerable assistance, I imagine. The voices of little children properly trained and with good home surroundings are naturally gentle and sweet, and it is only when they hear harsh, loud, and disagreeable tones on the street and elsewhere that we find that element creeping into their voices also. This is what we try to overcome in the school life, and we can best do it by imitative exercises in both speaking and singing voice. Call it the mocking-bird game or anything else you please; it will delight your scholars and work wonders in their speech.

A great deal of our training for singing is given in connection with that of the speaking voice. The training is embraced in the following seven points; 1. Proper position of the body. (*Hands resting easily*

in the lap; at times a standing position.) 2. Right management of the breath. (For this give definite breathing exercises.) 3. Good quality of voice. 4. Correct sounds of vowels. 5. Good articulation and pronunciation. 6. Intelligence. 7. Expression. With a foundation such as this would make, who could be sceptical as to results. There is no part of this training that should be attempted without softness of tone, where tone is possible, and acting reflexively it all produces the quality of softness so desirable.

"But," it is said, "does not this kind of singing take away all life and expression from singing?" No, it does not. It certainly banishes all the shouting and screaming we have heard in by-gone days, but far from destroying expression, it is just in this way we get it. We get life and spirit by quick singing, and we can make the songs far more bright and lively in this way than in any other.

Before leaving the subject of singing a word as to the suitability of songs. It is necessary that we should select songs within the scope of the child-mind, the subject being one with which he is familiar. It is important in the highest degree that the children should understand the thought of the song. It should be made the subject of more than one conversation with the class, careful attention being paid to articulation of words and correct vowel sounds also. A child cannot give proper expression to what he does not thoroughly understand. We do not want the parrot-like repetition of mere notes or words. We want thought produced through the medium of MUSIC.

## \* Hints and Helps. \*

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

DESIGNED FOR PUPILS, TEACHERS, AND WRITERS.

BY JAMES P. TAYLOR, LINDSAY.  
(Continued).

60. And he did so, good man, in a strain, and on a subject, and with a manner, little eloquent.—*Peep O'Day*.

61. It is found in all parts of the world—on tropical islands, in America, and on the bleak coasts of Alaska and Siberia.—*Third Reader*.

62. We have an English proverb that says: "He that would thrive must ask his wife."—*Franklin*.

63. Mrs. Squeers has been his mother, grandmother, aunt—Ah! and I may say uncle too, all in one.—*Mr. Squeers*.

64. He wished to please everybody; and, having little to give, he gave expectations.—*Franklin*.

65. This was Lord Clifford, who, with a chosen body of eight hundred horse, had been despatched to relieve the castle.—*Fourth Reader*.

66.—No man is born without the sense of touch, but many are born without the sense of hearing; and, wherever this is the case, we are entitled to look for habits of sight.—*Upham's Mental Philosophy*.

67. Wolfe, convinced that retreat would be impossible were he beaten, passed along the ranks of the army, animating his men to fight well.—*Garneau*.

68. But, as we floated on, we left the glorious sea behind.—*Second Reader*.

69. Ah, dear me—I'm very—I beg pardon—I really—pray who is it I have the pleasure of speaking to?—*Leigh Hunt*.

70. Reward this gentleman; for in my mind you are much indebted to him.—*Fourth Reader*.

71. The lion belongs to the cat kind; that is, he

is similar in form and structure to the cat.—*Second Reader*.

72. Apuleius says, that Venus herself, if she were bald, would not be Venus.—*Leigh Hunt*.

73. They do not become brown till they are roasted, and, after they are roasted, they have to be ground to a powder.—*Second Reader*.

74. The huge hogsheads are turned right side up and cleaned out, to receive the sap that is gathered.—*Fourth Reader*.

75. Yes, the oil is made from the inside or true skin of the whale—the skin which keeps the whale warm.—*Second Reader*.

76. This mode of reasoning by enthymeme is frequently employed, for the sake of brevity; and it is often needful to supply the omitted premise, in order to detect a latent fallacy.—*Murray's Logic*.

77. But, as he could not climb the tree, he puzzled himself for some time to find a way to get at it.—*Second Reader*.

78. Our words are too often signs for crude and hasty, for indefinite and indefinable, generalizations.—*Whitney*.

79. I wish society was not so arbitrary, I wish it was not so exacting—Bird, be quiet!—*Little Dorrit*.

80. Gebir, my old free-mason, and prince of plasterers at Babel, bring in your trowel, most Ancient Grand!—*Chas. Lamb*.

81. And observe, two distinct ends were to be accomplished in doing this.—*Ruskin*.

82. They bound themselves by oath to accept no quarter; and, having gained Maisonneuve's consent, they made their wills, confessed, and received the sacraments.—*Fourth Reader*.

83. If, as some contend, man has been a denizen of this world for some ten or twelve thousand years, what, I would ask, was he doing the first five or six thousand?—*Hugh Miller*.

84. In 1843, Livingstone, the celebrated traveller, settled as a missionary at Mabotosa, a beautiful valley in South Africa.—*Third Reader*.

85. It is a peculiarity about eating warm maple-sugar, that, though you may eat so much of it one day as to be sick and loathe the thought of it, you will want it the next day more than ever.—*Fourth Reader*.

86. We are not the converts of Rousseau; we are not the disciples of Voltaire; Helvetius has made no progress amongst us.—*Burke*.

87. Since then, I have worked hard and constantly as a lumberman; and, thanks to God, we are safe, sound, and happy!—*Audubon*.

88. Operations of copying take place, by printing, by casting, by moulding, by stamping, by punching, with elongation, with altered dimensions.—*Old Advanced Reader*.

89. But now echoing cheer on cheer, redoubling volley on volley, trampling the dying and the dead, and driving the fugitives in crowds, the British troops advanced, and swept the field before them.—*Parkman*.

90. Now, as in those early days, his heart was pure; no anger remained in it; no guile tainted it; only peace and good will dwelt in it.—*Thackeray*.

91. But, although the Cortes, thus reduced in numbers, necessarily lost much of its weight, it still maintained a bold front against the usurpations of the crown.—*Prescott*.

92. The earlier portion of his career was devoted to fiction; the later portion to his numerous historical and biographical sketches.—*Spalding's Literature*.

93. A gentle murmur seemed to say, that, in one of Mr. Lillyvick's station, the objection was not only natural, but highly praiseworthy.—*Nicholas Nickleby*.

94. We believe, that all which they know of the matter is, that it will not be brought about by themselves.—*Leigh Hunt*.

95. Thompson's style becomes occasionally inflated and wordy; but, as to the ring of his blank verse, it has been well said, that, with all its faults, it is his own—not the echo of another poet's song.—*Collier's Literature*.

96. Besides, it is worthy of remark, that, by habituating to the practice of pointing, their attention will naturally be directed to clearness of thought and accuracy of expression.—*Wilson's Punctuation*.

97. In that year he had already lost the use of one eye, and was warned by the physicians, that, if he persisted in his task of replying to Salmasius, he would probably lose the other.—*De Quincey*.

98. Do I advance a paradox when I say, that,

skipping over the intervention of forty years, a man may have leave to love himself, without the imputation of self-love.—*Chas. Lamb*.

99. When we go to war, do any white men join us? No: they look on contentedly, and see us weaken ourselves by mutual slaughters; ever ready to step forward, the battle once finished, and enter upon lands bedewed with our bloodshed.—*Garneau*.

100. The mischief is, that the poet, theorizing and poetizing by turns, loses his hold of his readers more than other writers whose topics are less abstract.—*Spalding's Literature*.

101. Colonel Bougainville, who was at Cape Rouge, did not receive, till 8 o'clock a.m., an order to march towards the Plains of Abraham.—*Garneau*.

102. The comprehensive feature, or plan, may usually be given first; and, if there be danger of its dropping out of view, it should be repeated.—*Bain's Rhetoric*.

103. But let us go to the Lodge, that we may go about our business there before the sun sets.—*Woodstock*.

104. The daughter of his master fell in love with him; and when he had made his escape, eloped to follow him.—*Spalding's Literature*.

105. It may also be seen that, as exposition is not the chief end in view, the practical writer does not confine himself to following out any single principle, but introduces allusions to every doctrine that he thinks has any bearing on his subject.—*Bain's Rhetoric*.

106. But that which gave the brightest lustre, not only to the eloquence of Chatham, but to his character, was his loftiness and nobleness of soul.—*Lord Mahon*.

## Book Notices, etc.

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

*Scott's Lady of the Lake*. Edited by W. J. Rolph, Litt. D. Houghton, Mifflin, & Co.

Mr. Rolph has displayed in his many editions of modern English texts the same scholarly accuracy and taste that mark his editions of the Shaksperian plays. In the volume before us (No. 53 of the *Riverside Literature Series*) we have a text, accurate from laborious collation of the earlier editions of the poem, and "nearer right than in any edition since 1821." In the hundred pages of notes following the text, the editor has gathered a copious harvest of comments, not only from Scott's own notes and Lockhart's, but from English literature of all periods. A most commendable feature is the free employment of passages from other works of the poet in illustration of beauties or difficulties of the text, thereby defining—as definition is best made—by example. A abundant illustrations lend grace and interest to the text; one after another we see Benvenue, St. Fillan's Hill, the Brigg of Turk, Loch Katrine, Lomond, Acray, Stirling, and the many other picturesque scenes of Scott-land, rising from the pages. One omission alone we note—the absence of a biography of the poet and a sketch of the condition of English Literature at the time Scott's poetry appeared. Some little trace of historical setting would surely be in place in any edition of this nature.

We trust that such a tasteful and accurate edition with the scholarly notes from Dr. Rolph's able pen will find its way rapidly into school libraries. As the poem is prescribed for 1894, we trust that this edition, the best school edition that has yet appeared, will be generally used. The price (30 cts.) at which the volume is issued would be a welcome change from the prices at present ruling Literature texts here.—F. W. S.

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.

THE Ontario College of Oratory, Toronto, announce a Summer Session at Grimsby Park, commencing July 5th, and continuing until August 15th. A very full course of instruction has been arranged and students who take advantage of it will have an opportunity of developing themselves both mentally and physically. The secretary, Mr. A. C. Mounteer, B.E., will gladly furnish further information to all desirous of taking advantage of the course.

THE *Ottawa Evening Journal* in a recent issue says: "The Canada Business College of Hamilton, Ont., (R. E. Gallagher, Principal), is considered to be the best Business College in the west." This seems to be the general opinion regarding this old established popular school. It claims to have now in business over a thousand graduates who are daily carrying into practice its teaching.

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And take a cup of tea,  
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"Now, Jack, have one with me!"

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THE demand for practical business education is steadily increasing, and in response to this demand we are pleased to learn that Mr. W. H. Shaw, principal and proprietor of the Central Business College, of Stratford, Ont., will organize a counterpart of his excellent institution in our city at an early date. This new college will be ready for the reception of students on Sept. 1st next, and will occupy elegant and commodious premises in the Arcade building, corner of Gerrard and Yonge streets. We welcome all worthy institutions of this kind, as they tend to strengthen our city in her position as the educational centre of our country, and from what we have learned of Mr. Shaw's Stratford College, and of his ability as a thorough teacher, we are sure his Toronto school will meet with much success.

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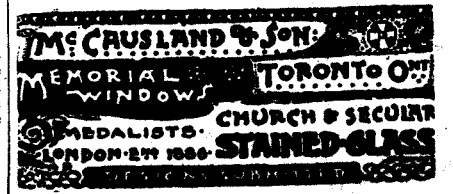
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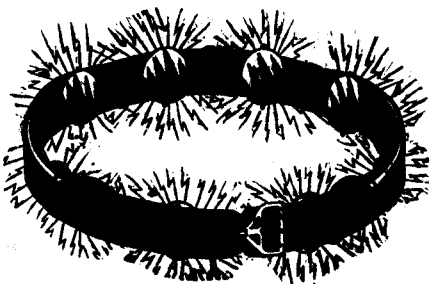
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