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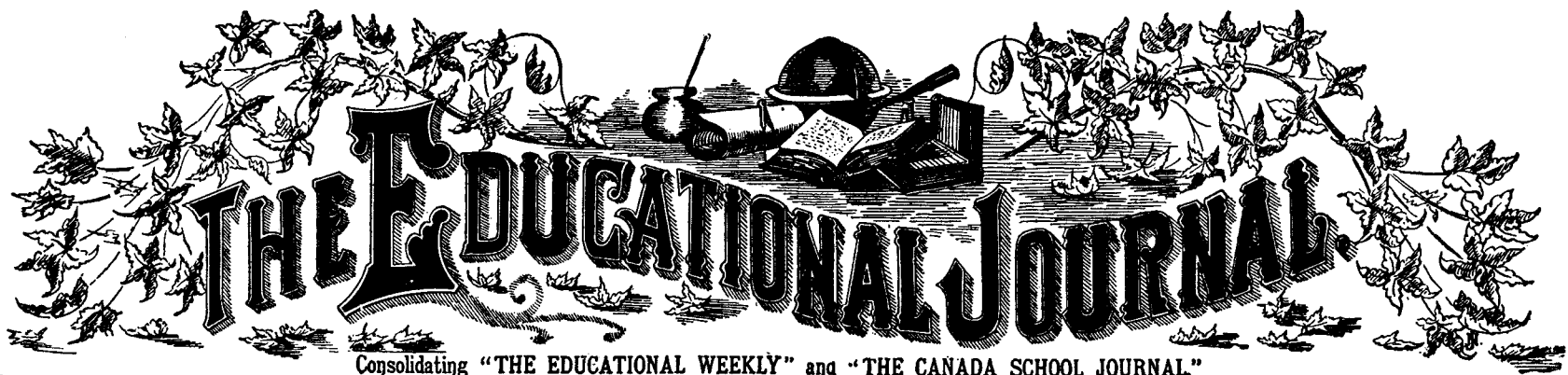
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—OF THE—

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July:

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Legislative grant payable by Provincial Treasurer. [P.S. Act, 122 (2).]
3. Departmental Primary and High School Junior Leaving, University Pass Matriculation and Scholarship Examinations, begin.  
Commercial Specialists' Examinations at Toronto begin.
12. The High School Senior Leaving and University Honor Matriculation Examinations begin.
15. Public School Trustees' Semi-Annual reports to Inspectors, due. [P. S. Act, sec 40 (13).]
20. Reports on the High School Entrance Examinations, to Department, due.  
Reports on the High School Leaving Examinations, to Department, due.

August:

1. Notice by Trustees to Municipal Councils respecting indigent children, due. [P. S. Act, sec. 40(7); S. S. Act, sec. 28(3).]  
Estimates from School Boards to Municipal Councils for assessment for school purposes, due. [H. S. Act, sec. 14(5); P. S. Act, sec. 40(8); sec. 107(10); S. S. Act, sec. 28(9); sec 32(5); sec 55.]  
High School Trustees certify to County Treasurer, the amount collected from county pupils. [H. S. Act, sec. 14(10).]

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TORONTO, JULY 2, 1894.

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No. 6.

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## Editorial Notes.

To each and all our readers we wish a very pleasant vacation.

THIS number is unavoidably two or three days late. We crave indulgence of our patrons.

A NICE bit of semi-professional reading for vacation will be found in the criticism of the Public School Grammar by Mr. Morrison in *The Week*, and the criticism of the critique by our English Editor. The whole will repay critical perusal.

OWING to the amount of space occupied by the time-tables, we are obliged to hold over for next number the special article which we had in type for this issue—a paper by Mr. N. McIntyre, of Ferguson, which was read before the West Middlesex Teachers' Association.

"I AM about giving up teaching and shall not need the JOURNAL any longer." Such is the substance of communications which we are from time to time receiving. A very pleasant and sensible contrast was suggested a few moments ago by a gentleman who called to renew his subscription. In reply to a question, he said, "Oh, I have not been teaching for ten years, but I still keep up my interest in educational matters, and so continue to take educational journals." It would be a grand thing for the country and for future generations if there were a great many more ex-teachers and other citizens of that way of thinking.

WE do not wish to lose a single subscriber to the EDUCATIONAL JOURNAL, but if any of you are about to get married, go into other occupations, etc., and really think you must discontinue it, please let us know by note or postal card, that there may be no mistake. Kindly do not take it for granted that the paper will be discontinued. Do not depend upon the postmaster to notify us. Do not forget all about the matter. A postal card will cost but one cent. All that is necessary may be written in two minutes, and the thing is done in business fashion. Will you not oblige us in this matter. The best plan of all, next to continuing the paper, is to get the teacher who is to succeed to your school to send his or her name to take the place of yours.

IT is to be hoped that the influence and example of all Canadian teachers are strongly opposed to the use of tobacco by the boys. In addition to all the other evil effects of the practice upon body and mind, recent investigations are said to indicate that tobacco is a fruitful cause of the color blindness which is found to be so prevalent. The following from a recent number of *Health* is to the point :

THE investigation of color blindness in various countries has shown that in all civilized countries there are to be found, on an average, four color blind persons in every one hundred men, but only one who is color blind among five hundred women. It thus appears that color blindness is twenty times as frequent among men as among women. No reason has been assigned for this, except the use of tobacco. Tobacco using has been recognized as a common cause of eye defects of various kinds, among the most frequent of which is color blindness. Color blindness is, in fact, the first symptom of tobacco amaurosis. Color blindness is found to exist among the North American Indians in the proportion of less than one per cent. The use of tobacco must be condemned, on every ground of healthy living, as a source of race deterioration.

"A CONSCIENTIOUS TEACHER" writes to tell the *Educational Times*, (English) of the sad state he has got into owing to his recent studies of the scientific aspect of the normal child and his endeavour to apply them. "It appears," says the *Times*, "that Sir Douglas Galton, Dr. Warner, and other authorities tell him that there is something wrong when a boy frowns, or turns his head without moving his eyes, or does not hold his head perfectly erect, or does not keep his fingers all in the same plane when

he stretches out his palm, or grins frequently, or answers slowly. He says he has noticed one or other of these 'nerve signs' in all the boys in his class, and that every one of them at times exhibits the distressing symptom mentioned last on the list. He does not like to think that all his pupils are on the verge of imbecility, and yet he is now convinced that each needs special treatment from a medical man rather than a well-meaning schoolmaster." The *Times* is of opinion that a little psycho-physiology will not go a long way, and well-meaning persons may easily do a vast deal of harm with it. "After all," it adds encouragingly, "a good many people do manage to get through life quite creditably with 'horizontal creases on the forehead,' 'wandering movements of the eyes without fixation,' and a propensity to 'over-smiling.'"

WE are glad to be able, after considerable delay, unexpected but unavoidable under the circumstances, to announce in this number the names of the successful competitors for the prizes in the Time-Table competition. We have, at some expense, had the four winning tables printed in this number in such a form as will, we hope, give teachers every facility for comparing and using them, so far as they may be able to do so to advantage. We advise all who have found difficulty with their time-table arrangements to preserve carefully this paper for future use and reference. Through the kindness of a friend who occupies a position as a practical educator which makes his judgment of great value in such a matter, we expect to be able to publish, either in the next number, or, more probably, in that for September 1st, a table which has been approved by him and his co-adjutors, after prolonged trial, as the best with which they are acquainted for practical purposes. By placing these five tables before the Public School teachers in this shape, THE EDUCATIONAL JOURNAL will have done its best, pending the appearance of the "ideal table," to which the Examiners refer as yet to be constructed, to help them solve the perplexing problem which each school principal will have to face anew at the commencement of another year's work. Meanwhile all will join with us, we are sure, in giving very hearty thanks to the kind friend to whose liberality we are indebted for the four tables which we now publish.

## English.

All articles and communications intended for this department should be addressed to the ENGLISH EDITOR, EDUCATIONAL JOURNAL, Room 20, 11½ Richmond Street West, Toronto.

## A CRITICISM OF THE PUBLIC SCHOOL GRAMMAR.

*The Week* of June 22nd contains a very bitter criticism of the Public School Grammar and its reputed author, Dr. Purslow, by Mr. A. H. Morrison, formerly, if our memory serves us rightly, English master in the Brantford Collegiate Institute. Allowances will, of course, be made for the bitterness of Mr. Morrison's invective, and the hysterical character of his style, when one remembers that the storm-centre of political English is at present over Toronto, and that the temperature of the thermometer is what the doctors call feverish. Altogether the criticism is stimulating this July weather, like curry in India, and we cannot refrain from republishing it, with permission of *The Week*, so that it may be relished by those whose palate is best prepared for it, the very teachers who use the book. Yet—*sartor resartus*—we may be permitted, since several of Mr. Morrison's criticisms have already appeared in these columns, to make a few comments on his criticisms. In this we can scarcely be anticipating Dr. Purslow's reply, which, no doubt, will appear in due time in *The Week*, but probably too late for our use. Following is the article. Our own remarks appear in [ ].

## A GRAMMAR OF GRAMMARS.

In one of those exquisitely humorous conceits by the late James Russell Lowell, whose wit and wisdom render even dialect-verse supportable, occur—we quote from memory—the following lines:

"Ef yew take a sword and dror it,  
And go stick a fellah threw,  
Guv'ment aint ter answer fur it,  
God'l send the bill in ter yew."

Was the inimitable humorist, litterateur, and diplomatist, when he penned these lines, simply poking fun at the Yankees over their little bit of Mexican jingoism; or, was he, with prophetic eye "in a fine frenzy rolling," directing that eagle orb *in prospectu*, towards Canadian borders, and anticipating the time when an alien pen should parody his merry muse, and present it to a humor-loving posterity in a new guise:

"Ef yew take a book and botch it,  
And go cram a fellah threw,  
Is the guv'ment ter answer fur it,  
Or will folk send the bill in ter yew?"

(Dedicated without permission to the maker of the Canadian Public School Grammar, and Elements of Composition. Ed. 1886.)

Deponent stateth not. We leave the question to the Education Department. Possibly some of its satellites may decide the knotty point. If they cannot solve the conundrum, perhaps the "statutes," (*sic*), in the Art Gallery (?) overhead, may make Delphic response to the vexed question, and satisfy our enquiring souls.

At various periods of the world's history from Aristophanes onwards, and before him; for Ham must have been a humorist, and, certainly Kristna, as is proved by his pranks with the *gopis* or cow-girls—we have had intermittent bursts of national laughter. That old set that made the windows of the *Mermaid* shake with its Falstaffian jollity was but a national phase of the ludicrous, represented in other climes by Boccaccio and Cervantes, and, later on, in the New Atlantis by Mark Twain and Josh Billings; Dickens and Lamb in England were but the echoes of Rabelais and Hudibras, and the prototypes of the great author, or builder, of the Canadian Public School Grammar already alluded to.

It is a marvellous work, whether considered as a dead whole—we had almost spelt it *hole*, so great is the vacuum—or in living portions, as the Kaffir prefers his beefsteak.

So great is it, so original is the genius displayed in its construction, so unsophisticatedly

artless are the propositions contained within its perspicuous pages, so guileless are its teachings, as regards anything like grammatical accuracy and conservatism in the rules of right, that it merits more than a passing notice. It is, *par excellence*, a work that should live, as a specimen of inimitable humor; the first, we believe, in the Canadian national literary repertory—and ever occupy the library shelf by the side of such jokes, as, "Gulliver," "Munchausen," "The Innocents Abroad," "Mr. Punch," and "The Pickwick Papers;" perhaps, we should add, but for a different reason, "Young's Night Thoughts," and "The Burial of Sir John Moore."

Let us begin at the beginning, and analyse this "English as she is spoke," and, presumably taught by Canadian experts in Canadian training institutions.

We will not cavil. Let the little fish live; they may grow apace. We will attack only the gudgeons, the main aberrations of a too much, or little, exercised brain.

On p. 19 we read: "5. When words are put into separate classes according to their uses, as we now see that nouns and verbs may be put, the classes are called *parts of speech*; and every word, as belonging to one or another class, and as having a certain kind of use of its own, is called a *part of speech*."

"This name, 'part of speech,' given to a word, plainly shows that it is only a 'part,' and not the whole of speech, and that it must be joined to other 'parts,' that is, to words of other classes in order to make a whole, or in order to be 'speech.'"

"The whole which those parts make up is the sentence."

A little before para. 5, in para. 4, p. 18, we are informed that "all the words of a sentence can, in like manner, be put into one or another of *eight classes*," these classes being the *parts of speech* of para. 5.

Now turn to page 45 of our exquisite little joker and read parts of para. 1 and para. 2, lesson xv.

"1. We have now learned the names of seven (!) classes of words or *parts of speech*."

"2. There yet remains another *class* of words, which, for the sake of convenience, are called *apart of speech*, though they really form no part of the sentence"—notice the grammatical form of the italicized words as an example to aspiring literary youth. . . . "These words, and others like them, are thrown in among the words of the sentence," a sort of verbal Daniel in the lion's den, "and for this reason are called *interjections*."

"The name given to these words implies what is really the case, that they are not parts of the sentence itself; they are not put together with other parts to make up sentences. Hence, though it is proper enough, because convenient, to call *interjections a part of speech*," and, we presume, to pronounce across, *acrost*; and calm, *cam*; because convenient—"they are not so in the same sense as the others."

Shades of Johnson and Porson! What shall we do with words? Are they then like our politicians, or have they any stable value?

But did not our sapient humorist know that an interjection is not a part, never was a part, and never can be a part of speech; that whether natural or historical, that is, simple or derived, it is a whole speech, and as such is considered by all who pretend to any accurate knowledge of their mother tongue?

As regards one class: Does not "Pshaw!" mean "I am disgusted, or incredulous;" "Hurrah!" "I am pleased or elated;" "Oh!" "I am surprised, hurt, pleased, etc., etc., etc.?" And as regards the other, are not many of them, like "Amen!" and "Hallelujah!" imperatives of Hebrew verbs, and others, like "Hear! Hear!" imperatives or optatives of English verbs, and therefore, as including both subject and verb, complete expressions of thought; that is, wholes, not parts?

[Our critic is right only so far as he points out the weakness of the definition in the Grammar. But both he and it are far from clear in their view of the interjection. In a loose sense the true interjections are a part of the speech of sentient beings. They aid in the expression of feeling, whereby we may know one another's condition. We may, for example, interpret "oh!" to mean "I am surprised, hurt, pleased," etc. But in a strict sense, in a scientific sense, in the language of the grammarian, the true

interjection is not a part of speech, nor "a whole speech," whatever that be. Oh! associates itself with the yelp of the dog, the growl of the tiger—inarticulate language. Its apparent equivalents "I am surprised," etc., are articulate language proceeding from a judgment—not a feeling—of the mind. The interjection is an auxiliary and predecessor of speech, but is not *speech* at all, for it is never an integral part of the sentence and is incapable of entering into relation with genuine words for the articulated expression of judgments.]

To proceed. Turn we to p. 24.

"Definition.—An adjective is a word used to modify a noun."

Fancy this from a teacher and compiler of an English grammar!

"An adjective modifies a noun." Very well, let us take a noun, "man;" attach an adjective, "green." The noun, according to our compiler, is now a "green noun." What inimitable humor, O Figaro, thus to thrust the adjectival function from the real object upon an irresponsible *locum tenens*! Why, an adjective cannot modify a noun, it modifies the thing itself, for which the noun, or name, is a mere representative. Mistaken Ixax, they were but fooling thee!

[The definition is bad, yet it is not the language of the Public School Grammar alone, but is an evil inheritance from the older grammars. Of course every teacher interprets the brief statement. Even Whitney, *Essentials* etc., p. 14, reads: "As the addition of the adjective changes more or less the value of the noun, it is also said to *modify* (that is, 'change somewhat') the noun." But certainly our critic does not hold that "the adjective modifies the thing itself," as he asserts. That were folly greater than the error he belabors. Then would hard words verily break many bones. He really means, of course, that it expresses the modification of the thing itself.]

"On, Stanley, on!" If a grammar is to be anything it should be grammatical. On p. 29 we read:

"Caution.—Several adjectives modifying the same word must be separated from each other by commas."

The italicized words are ours. *One another*. O Grammaticus! each goes with "two," not "several."

This is pedantic, we know; so is "I saw" for "I seen;" "I came" for "I have come," and "I did" for "I done," or "I have did." All pedantry; pedantry, pedantry; "tousjours *pedanterie*, *encore pedanterie!*" But what of the example, O Grammaticus!

[The caution is carelessly worded; the criticism is invalid. The rule does not apply to demonstrative and quantitative adjectives, e.g., "These many happy Autumn days." It does not always hold with qualitative adjectives. The adjectives must be a coordinate series, and even then they are not always so separated in what must be deemed good usage. There is nothing, historically speaking, to define the use of "each other" and "one another." Each is not necessarily restricted to "two," else how "each man," "every (= ever-each) man." Modern usage is, on the whole, in favor of the critic's distinction, but is far from proscribing the use of "each other" with several.]

We shoulder the responsibility, and like the immortal ploughman, onward "plod" our "weary way," till p. 51 brings us up with a round turn, and bids us rub our eyes.

"Since the speaker can only (*sic*) give a command to the person he is speaking to (*sic*). . . ."

Again what incomparable taste in the selection and arrangement of words for the delectation of the neophyte, the young twigs to be bent so that the tree may be inclined!

[The second (*sic*) is uncalled for.]

A little below we read in exercise 56, "Blessed are the merciful." Is this grim humor, mischance, or the prophetic appeal of diffident genius to prospective critics of harsh tendencies; critics perhaps unborn?

Well, we are very much born, and very hard-hearted.

We will in mercy, however, pass p. 53 and its opening lines: "In Part I. we learned etc., etc., etc.," with the simple statement that interjections are never found as parts of a sentence by sane people; but much is allowed, of course, to genius—especially local genius—and lunacy.

P. 56 demands all our attention and all our philosophy. "Child, bird, dog, fish, neighbor"—without the *u*, as though from the Latin, like labor, honor, valor—"parent, are often called neuter nouns, or nouns of the neuter gender."

Spook of the Eunuch of Candace! By whom are they called neuter nouns? Ghost of Hermaproditus! By the inmates of Bedlam, or by colonial specialists?

This is too bad! O Rabelais, Rabelais, the priest will surely detect thee! Pull on thy skin a little closer, O mellifluous and beloved of Silenus and Titania, or thy long ears must surely out, and then what will become of the lion?

But to better the joke, to drive it in, as it were, as though all were Scotchmen, our authority goes on: "(i.e., of neither one sex nor the other.)"

Surely the very nouns themselves are laughing; the covers crack their sides—perhaps 'tis the fault of the Departmental binder,—and the lines dance with merriment. Impudent rogue! Audacious jester! How canst thou? How canst thou? Oh! Oh! Thine arm, "and prithee lead me in!"

Unlaid spirit of a neuter parent! Appear, and lend us thy support. Yea, in the language of the *elite*, hold us up, and we will larff!

Indefinite, common—by such definitives have we heard thee apostrophized, O dog! O parent! but—neuter!

We can no more. We do implore thee, stay thy hand. 'Tis too absurd.

O Laughing Philosopher of Eld! Seek once more thy quiet mould, and revisit not again these glimpses of the moon; for we are weak, frail. Look you, philosopher! We have suffered at the hands of Albert Smith, Trinculo, Artemas Ward, Mrs. Be-done-by-as-you-did, and the little Tomtoddies, and are sore, very sore.

Page 72 is now open before us.

Regard this, O Sapient! as a specimen (or is it *speciment*) of style placed before our young in our bevaunted institutions of learning: Exercise 77, No. 13. "I never before saw such (*sic*) bad writing."

Transpose a little: "I never before saw writing such bad."

Oh, *merveille!* Moliere, thou art not dead; thy avatars are perennial! What is *Le Me'decin to Le Grammarien malgre' lui?* Thou didst but quit thy native soil for awhile, to do the greater West, and, strutting now in the domino of a first-class certificate or some other disguise of Momus, thou biddest us hold our sides again and fraternize with motley, as of yore.

And to add yet another straw to the floundering camel's burden; farther down, in exercise 78, we read: "If you act in such (*sic*) an insolent manner you must take the consequences."

Yea, verily, thy punishment shall be most awful, and meted out to thy temerity in exposing an educational fraud.

[We are ready to hold a brief to prove that "I never before saw such bad writing"; "If you act in such an insolent manner," are and have been good English for at least five centuries (i.e., since "an" was used with "such.")]

But, thank Providence, there be some in Israel neither creatures nor cravens!

We must not deal too harshly with "told," in the model on p. 98, in the parsing of the pronoun "you," though its *raison d'etre* in a carefully revised educational work is not very clear to the logical mind; but will pass on to p. 103, whereon we are informed with the assumed gravity of parti-colour, that in the phrase "of all my hundred pupils," hundred is "a quantifying adjective," "modifying pupils."

No wonder ghosts walk the earth! O Mason, Mason! the Lord deliver us from (Sir) C. P. Mason! Could Stead himself rest when dead in presence of phantoms of the truth, so appalling, so ever abiding? Why "hundred" is a collective noun, and can be nothing else, in the objective case, governed by "of" understood; but we presume our pundit would parse "hundred" in "one hundred pupils," in the same way.

Hundred, a quantifying adjective, modifying pupils.

One, another quantifying adjective, modifying pupils.

One pupils! Tableau!

Yes, and two deers and half-a-dozen sheeps! Moreover *all* is not an adjective but an indefinite pronoun.

[It is either an adjective or a pronoun, according to its use.]

Once upon a time, as the fairy-tale books say, but not a very long time ago, a fair candidate of some thirty summers, a new comer, at a trial examination for certificates, thus compared the adjective "ill:"

Positive, *ill*.

Comparative, *stck (sic)*.

Superlative, *not known*.

We, sympathetic, suggested a befitting superlative, *dead!*

This is not a figment, it is the unvarnished, unadulterated truth. But what can be expected from the patients, when the doctors are so ill!

On p. 110 we are told in the "Model" that *were* (actually *were*, part of *to be*, and no mistake) is a *transitive verb!*

No wonder angels weep!

All of Lesson XXXIII is inaccurate, and therefore misleading. Words in *ing*, from verbal roots, are differentiated as infinitives and participles, an arbitrary, confusing and useless innovation, proving that the inventive bungler at the root of all the evil knows as little of Saxon as of modern English—(We advise him to look up terminations in *an, ian; anne, enne; ende, d, ed, od*, in any good Anglo-Saxon grammar). No notice is taken of the adverbial (gerundial) use of the infinitive, and yet sentences like the following are given to the pupils to parse: "Most people eat *to live*; but some live *to eat*."

Perhaps, however, our Grammaticus would parse the italicized words as nouns or adjectives. The whole lesson is a tissue of incompleteness and error, and is practically worthless. As an instance of inaccuracy regarding the position of words, take the following, on p. 116, exercise 114, No. 9: "When I entered the cemetery, I observed a grave which had newly been dug."

[The two preceding criticisms have already appeared in these columns, but on better foundation than our critic builds. The A.S. verbal noun in *-ung, -ing*, the A.S. present participle in *-ende*, are alone involved in the question. The infinitive in *-an* weakened to *-e, to -*. The gerund in *-enne* weakened to *-e, to -*. The participle in *-ende* changed to *-ing* in Southern English, probably under the influence of the verbal nouns in *-ing*. The participle then influenced the syntax of the verbal noun, so that it assumed the power of governing a noun (His seeing the man is useless), or of being modified by the adverb (His hunting there is in vain), or of assuming a compound form (His having hunted there.) There is not and never has been, in English, an infinitive in *-ing*.]

Let us pass on to the end; for time and space are precious. On p. 177, we are told that *c, g, and x*, are redundant, i.e., unnecessary letters in our alphabet.

We presume *c, g, and x* are meant. How would our oracle deal with "goose" without a *g*? Probably he would classify it as a neuter Christmas turkey, and present it to a charitable Institution!

"Niagara Falls are a wonderful sight," p. 181 informs us in cold blood.

Yes, very—and some landslips as well!

Exercise 154, p. 182, assures us without a qualm that: "I indeed scarcely (*sic*) ever see him now."

Softly! softly! Spirit of sweetness and light! He did but mean "seldom," 'twas but a slip, a *lapsus linguae*, Matthew ours! as is "fly" for "fee" lower down in "Fly, mailed monarch, fly!" and on p. 183, exercise 155, No. 15, "How oft the sight of means to do ill deeds make ill deeds done," is but another way of saying, that the plural objective "deeds" is also *nominative* to the verb "make," and that the word sight, like some Derby and Departmental favorites, is nowhere "in it."

Comment is scarcely (notice the true use of the word, Grammaticus!) needed on the remarkable P.S. to the paradigm letter on p. 187: "My father has just told me that business will call (*sic*) him to Toronto the day after to-morrow, and he has promised to call and (*sic*) see you."

It is too utterly too-too, or to-to? We in charity presume—we are always presuming—that our

exemplar meant *take him to Toronto and call to see, etc., etc., etc.* But why go on?

["Scarcely ever" is justifiable, as are "fly, monarch," "business will call him."]

These be thy grammars, O Canadian youth! O Canadian parents!

How long? How long?

When will ye rise in your righteous indignation, and, like the iconoclasts of old, hurl these effigies of tutorial charlatanism, these images of book-mongering partisanship and parasitism, "headlong, in hideous ruin," to the outer void?

Yet a question remains. Who is the criminal that has perpetrated this gigantic hoax on an unsuspecting, gullible public? Who are the criminals that have allowed it to pass muster and take its place as an authorized, and, therefore, reputable exponent of the English tongue?

Ignorance is the mother of many crimes. Let us suppose that ignorance, and not lucre, is at the root of the present evil. If not, the law of murder should have its way. The murderer of a British subject is hanged. What should be the fate of the murderer of the British language?

What should be the fate of the one, whether ignorant or not, who deliberately authorizes a meretricious and dangerous parody as a genuine article, and foists it upon an ignorant and unsuspecting public?

Again we seem to hear the refrain: "Blessed are the merciful!"

Well, we are averse to the death penalty. Let the sentence be commuted to banishment for life! Yours, etc.

Toronto.

A. H. MORRISON.

In conclusion, Mr. Morrison has scored many points against the Grammar, and has made it manifest that it needs revision badly. Unfortunately, in so doing he has involved himself in so many errors and loose statements that the Department will be excused from putting book and author at once into the hands of the hangman. In a few months Mr. Morrison will look back regretfully at the election heat and dog-day fury of his article, and wonder much at his midsummer madness. After all, Mr. Morrison, is it worth while to excite ourselves over the errors or petty ignorances of mankind, even though they be "authorized?"

CORRESPONDENCE.

H. W. W.—Classifying the sentences forwarded, we have: 1. "The girl is more attentive than her brother, consequently she makes more progress than her brother." The sentence is compound so far as the two statements are concerned—"the girl... attentive," "consequently... progress;" but "than her brother" is an abbreviated dependent clause with "is" understood, like "than her brother (makes)." The sentence is therefore compound-complex.

2. "The captain lost his reckoning, hence the ship ran aground." The statements are co-ordinate, the sentence is compound.

3. "Go indoors, else you will take cold." Treat as 2.

4. "Large herds of buffaloes once roamed over the North-West, whereas now one is seldom seen." These are co-ordinate statements—the two sides of the contrast—the sentence is compound.

5. "We must be diligent, else we shall not learn." As 2.

S. B.—"Neither you or I are going," should be "Neither you nor I am going." The correlative of "neither" is "nor" not "or". The verb with subjects correlated by "either, or," etc., in best usage agrees with the nearest subject. The sentence is an abbreviated one for "Neither are you going nor am I going." "Neither-nor" is therefore a correlative conjunction uniting the two classes, or for short the subjects "you" and "I." "You" is subj. nom. to "are going," understood; "I" is subj. nom. to "am going."

L. V. H.—Parse "seemed" in, "She seemed a creature," as a verb, intransitive, past indic., 3rd sing., in predic. rel. to "she." The reasons for regarding it as intransitive are (1) it is similar in character to "be," "become." One could say, "She was a creature in appearance." (2) No action is expressed by the verb, which affects the object expressed by "creature." "Creature" is rather a predicate noun to "she."

# The Educational Journal

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J. E. WELLS, M.A., EDITOR AND PROPRIETOR.

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## Editorials.

TORONTO, JULY 2, 1894.

### "RESEARCH" IN EDUCATION.

THE very finest expression on the face of a child or infant seems to me to be that of open-eyed and often open-mouthed curiosity and wonder. The objects of nature charm and entrance the soul, which for the moment becomes almost one with the face. This divinest thing in childhood, which only bad school methods can kill, which prompts the primeval experiments of infants in learning to use their senses, limbs, and minds upon nature, is the root of the spirit of research, which explores, pries, inquires so persistently, and often so destructively in older children, and comes to full maturity in the investigator behind the telescope or microscope, in the laboratory, seminary, library, or on exploring expeditions. At its best, this spirit of research has awe and reverence enough in it to give it a high and positive religious character, and the best and most characteristic feature about the new movement in higher education I am trying to describe is that its upward tendencies can best be characterized by the word "research," a word, alas, now more often praised than understood.—President G. Stanley Hall, in the July Forum.

With President Hall and many educators of his way of thinking, the word "Research" is taken as the representative of all that is valuable in educational methods. We are prepared to agree with them provided the word be taken in a sufficiently broad sense, not otherwise. The radical mistake, as it seems to us, of

many of those who attach so great importance to the "new movement" in education, is that their ideas, or at least their methods of describing and pursuing them, tend too much to *objectify* everything. Note, e.g., in the passage above quoted, the references to "telescope," and "microscope," and "laboratory," and "exploring expeditions." It is true that the words "seminary" and "library" are also used, perhaps with the intention of enlarging the scope of the researches, so as to nullify the objection which we have suggested. But one cannot read thoughtfully such articles as that from which we have quoted, without being struck with the emphasis everywhere laid upon the idea of objective research, research into the mysteries of physical form and structure, growth and development. As we have often had occasion to point out, this one-sidedness may be easily explained and in some measure justified by the fact that till within a comparatively short period the tendency was to neglect almost entirely the cultivation of the perceptive faculties which are so marked and so easily stimulated in childhood.

In a broad and comprehensive sense, the word "Research" may well be taken as suggestive of the moving impulse and the natural method in all true educational work. Every teacher worthy of the name knows full well what Dr. Hall means by what he describes as "the very finest expression on the face of a child." The innate desire to know, to investigate, to understand, which begets this expression, is the universal educational impulse. It is the strongest possible condemnation of any so-called teaching, if it tends to repress rather than to stimulate this native, yearning, curiosity. This, unquestionably, much of what passes or has passed for education does. The instinct which impels to original research, to trace effects to causes and learn as far as possible the why and wherefore of things, is the antithesis of all unintelligent rote-work. The new movement is impatient of mere memorizing. It scorns to take its information at second hand, without at least having gained an insight into the ways by which the information which is thus preferred in cut-and-dry bundles, duly ticketed, has been gained, and may be verified. It is, in a word, the coronation of the inductive as contrasted with the didactic method in education.

But the point upon which we desire to lay special stress just now is the fact that this good genius of curiosity in the child-mind is just as active, and may be appealed to to just as good purpose, in other departments of inquiry as in purely physical investigations, though in most others more

skill is, perhaps, required in the teacher. Take mathematics, for instance, in such elementary forms as the properties of numbers, the processes of arithmetic, etc. Nothing can be much drier or more irksome to the active child-mind than these when treated as mere matters of rule and rote. We can well remember our own first efforts in these lines when Walkin-game or some similar manual was put into our hands, and we were told first to commit to memory the rule given for every new process, then to apply that rule in the solution of the problems presented. The only place left for the gratification of curiosity was in connection with turning to the last pages after the completion of the process, to see whether we had happily got the correct answer. But it is provoking even at this distance in time, to think of all the genuine delight of which one was robbed in not being left to think or reason out the processes for himself, and thus experience the joy of effort and the consciousness of achievement. The same line of remark holds good with regard to grammar, history, geography, etc. There is, in fact, scarcely a subject on the school programme which may not be so treated as to afford the pupil a delightful and stimulating trial of his own strength, and at the same time a gratifying indulgence of his own thirst for knowledge of causes and consequences and underlying relations.

In the field of metaphysical and moral questions the application of this general educational principle may be made with the happiest results. The curiosity of the child is no less active in these than in other departments of inquiry. And here it is of special interest and value. All thoughtful educators are agreed that the formation of character is the thing which after all is of prime importance in education. But character is but the sum of the mental and moral habits, viewed in relation to their basis in motive. The tenderness of the unspoiled child conscience is proverbial. The readiness with which it responds to appeal on the grounds of right and wrong shows most clearly that the moral faculty was designed to be the highest, the ruling part of the complex being. But the best results along this line can never be attained by the parent or teacher who is content with simply saying, "This is right and you should do it," or "That is wrong and you should not do it. The inevitable "Why?" will very soon begin to suggest itself. The strength and permanence of the desire and resolve to do the right and shun the wrong will depend upon the conclusion reached as to the nature and sanctions of the law or decree which pronounces this thought or feeling or act right and the other wrong.

The curiosity of the child may be taken hold of with just as good effect in promoting inquiry along such lines, as in the pursuit of physical investigations. May we not go further and say that the results, so far as the satisfaction of the higher intellect by the discovery of real causes is concerned, are as satisfactory in the one case as in the other, seeing that such real causes are equally beyond the ken of the intellect in both cases. Though much is said and written which would seem to presuppose the contrary, it cannot be denied that, as a matter of fact, the sphere of real causation lies as far above the realm exploratory by the intellect in science, as it does in morals. The limitations of the intellect are the same in both spheres. We really can no more discover by scientific investigation what makes grass grow, or particles of matter attract each other, than we can discover by the same means why we are happy when we do what we deem right at cost of self-denial, and unhappy when we gratify inclination by doing what we deem wrong.

The sum of the matter is that we are so formed as to find some of our highest enjoyment in pursuing both classes of inquiries, and that both rightly pursued, take us up into the higher atmosphere of spiritual causation, or as Dr. Hall puts it, induce the "awe and reverence" which give the research "a high and positive religious character."

Meanwhile we see pretty clearly that research in both fields gratifies and at the same time strengthens the intellectual faculty, and so promotes real education. The effect in both cases should be, and in that of research along philosophical and ethical lines especially, must almost necessarily be, to promote that habit of moral thoughtfulness which it was the chief aim of the great Arnold of Rugby to induce—that habit of regarding the moral quality of an action as its first and chief and fundamental quality which is at once the essence and the mark of high and noble character.

#### AN IMPORTANT POINT.

WE have always objected to corporal punishment in schools largely from the point of view of its effects upon the teacher and its relations to the dignity of the profession. In the following from *School Education* will be found combined the opinions of two of our educational exchanges upon this aspect of the question:

"The following from the *Wisconsin Journal of Education* is in accord with our own views, based on considerable observation and experience. Horace Mann says: "It is better to have a big soul than a big fist." To govern well without resort

to any form of brute force, the rod, the ferule or fist, one must hold his own passions in subjection; be loving, cheerful, firm, patient, humble, considerate. He must point to higher worlds and lead the way. The effort the teacher puts forth to make himself good and great enough to rule the school by moral and mental force alone brings growth, character, bigness of soul. Teachers who desire big fists have but to rely on force and fear.

"Flogging in school is usually condemned on the pupil's account. We are more disposed to condemn it on the teacher's account. It stands in the way of the teacher's growth. Proper control rests partly on strength of character, but still more on a rational apprehension of the conditions and an adjustment of them to the characters and needs of the pupils. To acquire strength of character and this habit of correctly appreciating conditions is then the first requisite for a teacher. But every time she resorts to the rod she gives up studying the conditions intelligently, she loses an opportunity of improving her insight and usually also the sense that it needs improvement. She certainly loses in self-control and true dignity of character. It takes a long time to re-establish right relations in the school after a case of flogging. This effect is clear enough in some city schools, but it is much more evident in the country. Here, as a result of false traditions in this matter, teacher and pupils are too often opposing forces, the latter distinctly setting themselves to annoy and defeat the former. Such a warfare springs from an absolutely false conception of the relations of the parties, which is due to the admission of the rod as a means of discipline."

#### TIME-TABLE COMPETITION.

##### REPORT OF THE EXAMINING COMMITTEE.

To the Editor of the EDUCATIONAL JOURNAL:

DEAR SIR: The Committee appointed to decide on the relative values of the time-tables sent to the JOURNAL in the late competition, desires to report as follows:

1. No one of the time-tables sent in is perfect; each has its own peculiar defects, and the Committee believes that the ideal time-table is not among those submitted.

2. Four of the time-tables have been unanimously selected by the Committee as taking the lead of all the others. They are the time-tables by "Gypsy," "Dirego," "Hasten Slowly," and "Attempt the End."

3. A majority of the Committee favor this order of merit: (1) "Gypsy"; (2) "Dirego"; (3) "Hasten Slowly." Honorable mention, "Attempt the End."

Signed,

THOMAS KIRKLAND.  
J. J. TILLEY,  
JOHN A. McCABE.

On opening the envelopes bearing the above mottoes, we find that the names and addresses of the successful competitors are as follows:

1. "GYPSY"—Nellie E. Spurr, Madoc, Ont.
2. "DIREGO"—James A. Ingram. Hensall (S.S. No. 1, Tuckersmith County, Huron.)
3. "HASTEN SLOWLY"—Eliza J. G. McGregor,

Glen Sandfield, Glengarry, Ont. (S.S. No. 8, Lochiel.)

4. "ATTEMPT THE END, ETC."—A. McDonell, St. Andrew's West, Cornwall, Ont. (S.S. No. 16.)

Miss Spurr takes the first prize, five dollars; Mr. Ingram, the second prize, three dollars; Miss McGregor, the third prize, two dollars, and Mr. McDonell, honorable mention.

The four time-tables will be found on pages 88-91.

In regard to the remark of the examiners that, in their opinion, the perfect time-table has not yet appeared, it may not be amiss to point out that the problem is a very hard and complicated one, as will be seen by referring to the published conditions, which were as follows:

(1) The time-tables must be suited for an Ontario Public School of forty or fifty pupils, divided among the following classes: First Book, Part I; First Book, Part II; Second Book class; Third Book class; Fourth Book class; Fifth Book class—all under one teacher.

(2) The time-table must show clearly—

(a) What is desk work?

(b) What is "floor" or "class" work?

(c) The time at which the desk work is to be examined?

#### THE TEACHER'S UNCONSCIOUS INFLUENCE.

WE have somewhere seen it remarked that, though it is unreasonable to hold the teacher responsible for the conduct of the pupil out of school, there is, in many cases, no one whose influence is so great in promoting good behaviour on the part of the pupil out of school. If the teacher is of the right kind, he will be looked up to by the children with whom he is brought into daily contact as the model of everything that is becoming and right. It is a serious thing for one to feel that he is being made a model of, even by a child, but it is a responsibility which the true teacher cannot escape. Of course, where the parents are what they ought to be, they will fill a place in the child's admiration which no one else can occupy. But unhappily not every parent is of the kind that the imagination even of a child can enthroned as a model of all that is wise and good. In very many cases, perhaps through no thought of the parents, the child instinctively looks up to the teacher as the one who ought to know best what is right and becoming in behaviour and in character. If the teacher has failed to make such an impression upon his pupils that he is unconsciously made the standard to which those at least who are most desirous of doing what is right and good constantly refer, he has fallen far below the level of his opportunity. If he has not failed, his position is one of very serious responsibility, for it is indeed no light matter to be made a model or standard of conduct by even one small boy or girl. Who is sufficient for such a responsibility?



## TIME TABLE.

BY NELLIE E. SPURR, MADOC, ONT.

TIME.		MONDAY AND WEDNESDAY.				
Classes.	I. Pt. I.	I. Pt. II.	II.	III.	IV.	V.
9:00—9:05	*Opening Exercises.					
9:05—9:15	*B.B. Reading	Reading	Reading	Problems	Problems	Problems
9:15—9:25	Transcribing	*Reading	Reading	Problems	Problems	Problems
9:25—9:35	Transcribing	Transcribing	*Reading	Problems	Problems	Problems
9:35—9:50	Transcribing	Transcribing	Transcribing	*Arithmetic	Problems	Problems
9:50—10:05	Number	Number	Transcribing	Arithmetic Complete	*Arithmetic	Problems
10:05—10:20	Number	Number	Arithmetic Problems	Arithmetic Complete	Arithmetic Complete	Arithmetic
10:20—10:30	*Number	Number	Arithmetic Problems	Hygiene	Arithmetic Complete	Arithmetic
10:30—10:45	*Intermission					
10:45—11:00	Number	*Number	Arithmetic Problems	Hygiene	Hygiene	Exercises in Grammar
11:00—11:15	Slate Writing	Number	*Arithmetic	Hygiene	Hygiene	Exercises in Grammar
11:15—11:30	Slate Writing	Spelling	Arithmetic Complete	*Hygiene	*Hygiene	Exercises in Grammar
11:30—11:45	Writing in Blank Books	Copybook	Copybook	Copybook	Copybook	*Grammar
11:45—12:00	*Writing					
12:00—1:00	Noon					
1:00—1:10	*Phonics	Language Exercises	Hygiene	History	History	History
1:10—1:20	Transcribing	*Composition	Hygiene	History	History	History
1:20—1:35	Transcribing	Composition	*Hygiene	History	History	Euclid
1:35—1:50	Transcribing	Spelling	Hygiene	*History	History	Euclid
1:50—2:10	Recess	Literature	Literature	Literature	*History	*History
2:10—2:30	*Drawing					
2:30—2:45	Intermission					
2:45—2:50	*Reading	Literature	Spelling and Literature	Literature	Literature	Literature
2:50—3:00	Reading	Literature and *Spelling	*Spelling and Literature	Literature	Literature	Literature
3:00—3:15	Transcribing	Transcribing	*Spelling and Literature	Literature	Literature	Literature
3:15—3:30	Transcribing	Transcribing	Transcribing	Literature and *Spelling	Literature	Literature
3:30—3:45	Splints	Transcribing	Transcribing	Transcribing	*Literature	Literature
3:45—4:00	Splints	Transcribing	Transcribing	Transcribing	Transcribing	*Literature
4	*Closing Exercises					

## TUESDAY AND THURSDAY.

	I. Pt. I.	I. Pt. II.	II.	III.	IV.	V.
9:00—9:05	Opening Exercises					
9:05—9:15	*B.B. Reading	Reading	Reading	Problems	Problems	Problems
9:15—9:25	Transcribing	*Reading	Reading	Problems	Problems	Problems
9:25—9:35	Transcribing	Transcribing	*Reading	Problems	Problems	Problems
9:35—9:50	Transcribing	Transcribing	Transcribing	*Arithmetic	Problems	Problems
9:50—10:05	Number	Number	Transcribing	Arithmetic	*Arithmetic	Problems
10:05—10:20	Number	Number	Problems	Arithmetic	Arithmetic	*Algebra
10:20—10:30		Number	Problems	Geography	Arithmetic	Algebra
10:30—10:45	Intermission					
10:45—11:00	Number	*Number	Problems	Geography	Geography	Geography
11:00—11:15	Slate Writing	Number	*Arithmetic	Geography	Geography	Geography
11:15—11:30	Writing	Spelling	Arithmetic	*Geography	Geography	Geography
11:30—11:45	Writing	Copybook	Copybook	Copybook	*Geography	*Geography
11:45—12:00	Writing					
12:00—1:00	Noon					
1:00—1:10	*Phonics	Language	Geography	Grammar	Grammar	Grammar
1:10—1:20	Transcribing	*Language		Grammar	Grammar	Grammar
1:20—1:35	Transcribing	Language	*Geography	Grammar	Grammar	Euclid
1:35—1:50	Transcribing	Spelling	Geography	*Grammar	Grammar	Euclid

## Hints and Helps.

## READING IN THE COUNTRY SCHOOLS.

I RISE to say that in my humble opinion the time of pupils in our country schools should not be frittered away in the striking of attitudes, the rolling of eyes, the shrieking and wailing, the stage whispering, peculiar to the new school of elocution.

It may be that one pupil in each school is capable of becoming an elocutionist; it certainly is true that all who possess common sense and perfect organs of speech may learn to read in a quiet, agreeable manner, and with correct pronunciation and inflection.

Having known several young ladies, teachers or aspirants for the pedagogical chair, who failed most signally to read a newspaper article correctly, and who were incapable of expressing the simple sentiment of a poem, I can but think that a return to the good old-fashioned reading would prove more beneficial to the average child than mere recitative drill.

I would not condemn elocutionary practice altogether, but though the average child may comprehend fully a ringing lyric, he cannot enter into the spirit of the modern impassioned ballad love, or the despair of tragedy. These have never entered into his childish experience. He cannot understand the remorse of the drunkard or the murderer.

It is better that he be trained to an appreciation of the good, the true, and the beautiful. Better let him drill on the reading of "Excelsior," "The Psalm of Life," and even "Thanatopsis," than "Gone with a Handsome Man," or any of the dialect poems, even though a glint of humanity flashes out from the rough provincial shyness.

The English language in its purity is what the schools should teach, and it would be quite as well if there were less of dialect writing for the young.

I would not wholly discard the humorous,—but few children are deficient in a sense of the ludicrous—they need rather to have their innate love of nature strengthened, their moral sense deepened, their veneration for the Supreme Being intensified.

No child can be a thoroughly good reader who never looks inside a book or a paper at home. And inasmuch as a taste for good literature is one of the best safeguards for youth, the teacher should endeavor to foster a love for the best authors.

Never pass over a lesson without reference to the writer of the sketch or poem read. If you have been reading "The Barefoot Boy," talk to the children of Whittier and his poems. Dwell on the beauties of the verse, and by questioning bring out the beautiful pictures to their mental visions. If you have assigned the "Deserted Village," give your class a little sketch of the life of Goldsmith. Show them how kind and generous was his nature; how harassed by poverty and failure.

It is a mistake to think that children cannot be interested in the classic writers. But there are many of the lesser lights which may serve as beacons to childhood. Horace Greeley said the writings of Mrs. Hemans were inspiration to him, and the beauty of expression, with the deep moral sentiment which pervades her poems, render them among the best of productions for the young.

You cannot interest a child in Dicken's novels, but there are bits of humor and pathos which he will appreciate. His History of England, though written down to childhood, possesses the quaint character which is essentially his style.

I would use it as a class book for a time, selecting for reading some of the most striking passages. Children who have read the story of King Alfred, of The Prince in the Tower, of Queen Mary of Scotland, will wish to learn more of the history, and may be induced to read for themselves at home. Books of travel, such as "Zig-zag Journeys," will furnish an agreeable change, to stimulate healthful curiosity to learn more of the world and its people.

If you have not a school library, try to obtain one, and in the meantime with your wellfilled scrap-book and a supply of "sample copies" of good periodicals you can do wonders toward exciting a love for the right kind of reading in your school.

Your classes may be less showy than the Del-sarte trained, but if, instead of a few youthful

stage ranters to pose before "Literaries" at the school-house, you have trained them to think, not to act a part,—to appreciate the beauty of true poetry, not to judge only that which admits of dramatic rendering, you will have a consciousness of having sown seed to spring up in future days and bear not only blossoms but fruit.—*Our Common Schools.*

### STAYING AFTER SCHOOL.

"WHAT are you keeping them for?" said Miss Wiley to Miss Sprague, to whose room she had come at noon.

"Why, to make up their work, of course," was the reply.

"Wasn't there time in school hours?"

"Time for most of the class, but some of these were idle, and some are dull and slow, so they have to stay."

Here a boy came up with a slate, and Miss Sprague looked over his work.

"All right but this last problem. Look that over and find your mistake."

A girl came with sentences "left over" from the language lesson. Her errors were noted, and she was sent back to her seat.

In the lull, Miss Sprague said a little sharply, "I don't see how *you*" pupils all get their work done at exactly the same time, so all can be dismissed."

"They don't all do the same work. There is no set, definite amount that must be done in a given lesson. If John works hard all the time on one problem, while Henry gets seven or eight done, Henry is so much ahead to be sure, but I'm not going to keep John at noon to finish, and so punish myself, and keep him at work more hours than the law allows."

"That must be a nice, easy way to get along, but I can't reconcile it with my conscience," said Miss Sprague, tartly.

Miss Wiley felt herself growing tart, too; and, as another delinquent brought his slate up at that minute, she "took herself off."

Which one was right?

As I am Miss Wiley, of course I think I am. . . Suppose the last lesson of the morning is one in arithmetic. We are in simple interest. I have been at the board for half an hour working with them, "explaining, persuading, expanding;" all have worked with zeal; they've heard so often about reckoning interest, and now they are really doing it, and "it isn't a bit hard." Then I say, "Open your books to page 203, and you'll find a great many of these problems, and I want you to see how many you can do by yourselves before the bell rings."

Then they "buckle to," and, before the bell, two or three have them all done, and some are still staggering about among the first easy ones. The bell rings; I praise their diligent work and tell them how easy it will soon seem to them all, as they clear and put away slates. They all go out into the hall together, happy and content.

Some days when the work is not so new and fascinating, I have to urge lazy or flagging ones, and often assist dull and stupid ones. But when school is out, I want to be out too; and I want no one to stay unless he stays of his own free will, to ask assistance.

If a test or a composition is not finished at bell time, all stay as a matter of course until they have finished. But we try to begin in time, and those who are through first take books from our little library, to read until the bell rings.

Miss Sprague puts in a half-hour's more work in a day, than I do; the same children are there at noon and in the afternoon, languidly or sullenly "finishing up their work;" they expect nothing else; they will be the failures of the class in spite of her, and she might better save her own strength.

Miss Sprague lately admitted that "she didn't know but that I was right after all."—*"Out West" in the Public School Journal.*

### SEARCH QUESTIONS.

ARE you a better teacher than you were one year back or one term back? Are you a better character? If so, rely upon it, your pupils have benefited by contact with you. If you have grown, it has been in their growth. If your moral stamina has increased, it has been by giving.

Are you less interested in your work than formerly—less devoted in spirit? Then you have deteriorated in character, and your pupils have

TIME TABLE (Continued).

1:50—2:10	Recess	Literature	Literature	Literature	*Grammar	*Grammar
2:10—2:30			*Drawing			*Euclid
2:30—2:45			Intermission			
2:45—2:50	*Reading	Literature	Spelling and Literature	Literature	Literature	Literature
2:50—3:00	Reading	Literature and *Spelling	Spelling and Literature	Literature	Literature	Literature
3:00—3:15	Transcribing	Transcribing	Literature and *Spelling	Literature	Literature	Literature
3:15—3:30	Transcribing	Transcribing	Transcribing	Literature and *Spelling	Literature	Literature
3:30—3:45	Splints	Transcribing	Transcribing	Transcribing	*Literature	Literature
3:45—4:00	Splints	Transcribing	Transcribing	Transcribing	Transcribing	*Physics
4:00			*Closing Exercises			

### FRIDAY.

	I. Pt. I.	I. Pt. II.	II.	III.	IV.	V.	
9:00—9:05	*Opening Exercises						
1:05—9:15	*B.B. Reading	Reading	Reading	Forms	Forms	Problems	
9:15—9:25	Transcribing	*Reading	Reading	Forms	Forms	Problems	
9:25—9:35	Transcribing	Transcribing	*Reading	Forms	Forms	Problems	
9:35—9:50	Transcribing	Transcribing	Transcribing	*Business Forms	Forms	Problems	
9:50—10:05	Number	Number	Transcribing	Business Forms	*Business Forms	Problems	
10:05—10:20	Number	Number	Problems		Business Forms	*Mensuration	
10:20—10:30	Number	Number		Composition	Book-keeping	Book-keeping	
10:30—10:45	Intermission						
10:45—11:00	Number	*Number		Composition	Book-keeping	Book-keeping	
11:00—11:15	Slate Writing	Number	*Arithmetic	Composition	Book-keeping	Book-keeping	
11:15—11:30	Slate Writing	Spelling	Arithmetic	*Composition	Book-keeping	Book-keeping	
11:30—11:45	Writing	Copybook	Copybook	Copybook	*Book-keeping	*Book-keeping	
11:45—12:00	*Writing						
12:00—1:00	Noon						
1:00—1:10	*Phonics	Language	Composition	Drawing	Agriculture	Rhetoric	
1:10—1:20	Transcribing	*Language		Drawing	Agriculture	Rhetoric	
1:20—1:35	Transcribing	Language	*Composition	Drawing	Agriculture	Rhetoric	
1:35—1:50	Transcribing	Spelling	Composition	*Composition	Agriculture	Rhetoric	
1:50—2:10	Recess	Spelling Literature	Composition Copy	Composition	*Agriculture	Rhetoric	
2:10—2:30			*Drawing				*Rhetoric
2:30—2:45	*Intermission						
2:45—2:50	*Supplementary Reading	*Supplementary Reading					
2:50—3:00	*Supplementary Reading	*Supplementary Reading	?	?	Spelling	History	
3:00—3:15	Transcribing	Transcribing	Supplementary Reading	*Supplementary Reading	Spelling	History	
3:15—3:30	Transcribing	Transcribing	*Supplementary Reading	*Supplementary Reading	Spelling	History	
3:30—3:45	Splints	Transcribing	Transcribing	Supplementary Reading	*Spelling	History	
3:45—4:00	Recess	Transcribing	Transcribing	Supplementary Reading	Spelling	*Canadian History	
4:00	*Closing Exercises						

- (a) All but Busy Work marked with a \*
- (b) IV. and V. Composition to be handed in on Thursdy.
- (c) Busy Work of each class examined when it comes to the floor.
- (d) Calisthenics taken before school work begins.
- (e) Music at intervals during the day.

suffered in your deterioration. How is it? What has discouraged you? Is it foiled ambition? Has some one else succeeded to the position you should have had? Are you teaching for yourself alone?—for honor?—for money? Some say they are and do not blush to say it. There is even a boastfulness in their honesty, but it is not a moral attitude. Teaching is the last work in the world that should be done for money alone.

Is it some private grief that has eaten the core out of your enthusiasm? Has it made you that bane of the classroom, an irritable and nervous teacher? We are all weak mortals, and you may have frowned and scolded when you should have smiled and led, just because your private life contained more suffering than you had strength to bear. *The deeper you*

*plunge into your work, the sooner you will find healing and forgetfulness. If there is any cure-all, it is work.*

Is it some failure of your own most faithful efforts that has weakened your resolve? Know that the greatest leaders of educational thought and practice have made many failures. Then why should you not allow yourself a few? Look to your health, put morbidness behind you, and try, try again.—*The School Journal.*

THOSE teachers who are looking for some profitable occupation during the summer will do well to get agent's terms from the Equitable Savings, Loan and Building Association, whose advertisement appears in another column. A post-card will get the desired information.

BY JAMES A. INGRAM, HENSALL, ONT.

TIME TABLE.

CLOCK TIME.	CLASS TIME.	FIRST PART CLASS.	SECOND PART CLASS.	SECOND CLASS.	THIRD CLASS.	FOURTH CLASS.	FIFTH CLASS.
9.00—9.10	10	Opening School and Assigning Work.	Prep. Reading.	Opening School and Assigning Work.	Working Arithmetic Problems from B. B. or Arithmetic.	Opening School and Assigning Work.	Working Arithmetic or Algebra or Euclid.
9.10—9.20	10	Reading in Class.	Prep. Reading.	Prep. Reading.	Working Arithmetic Problems from B. B. or Arithmetic.	Working Arithmetic or Algebra or Euclid.	Working Arithmetic or Algebra or Euclid.
9.20—9.30	10	Writing from Blackboard.	Writing out Lesson from Book	Prep. Reading.	Working Arithmetic Problems from B. B. or Arithmetic.	Working Arithmetic or Algebra or Euclid.	Working Arithmetic or Algebra or Euclid.
9.30—9.40	10	Writing from Blackboard.	and	Lesson and	Prep. Geography or Prep. Grammar.	Working Arithmetic or Algebra or Euclid.	Working Arithmetic or Algebra or Euclid.
9.40—10.00	20	Writing from Blackboard.	Prep. Tables. Lesson from Book and Prep. Tables.	Prep. Tables or Geography.	Prep. Geography or Prep. Grammar.	Prep. Br. or Can. History.	Class work in A. A. E. Prep. Br. or Can. History.
10.00—10.20	20	Writing from Blackboard.	and	Lesson and	Prep. Geography or Prep. Grammar.	Working Arithmetic or Algebra or Euclid.	Working Arithmetic or Algebra or Euclid.
10.20—10.40	20	Writing from Blackboard.	Prep. Tables. Lesson from Book and Prep. Tables.	Prep. Tables or Geography.	Prep. Geography or Prep. Grammar.	Prep. Br. or Can. History.	Class work in A. A. E. Prep. Br. or Can. History.
10.40—10.50	10	Counting in Class.	Prep. Tables.	Prep. Tables or Geography.	Prep. Geography or Prep. Grammar.	Prep. Br. or Can. History.	Class work in A. A. E. Prep. Br. or Can. History.
10.50—11.00	10						
<b>RECESS.</b>							
11.00—11.10	10	Making Figures.	Tables in Class.	Tables or Prep. Grammar.	Prep. Br. or Can. History.	Prep. Br. or Can. History.	Prep. Br. or Can. History.
11.10—11.25	15	from Blackboard.	Working Questions in Arithmetic from Blackboard.	Geography with Geography or Grammar.	Prep. Br. or Can. History.	Prep. Br. or Can. History.	Prep. Br. or Can. History.
11.25—11.45	20	Phonics in Class.		Working Arithmetic. B. B.	Prep. Reading.	Br. or Can. History with V in Class.	
11.45—12.00	15						
12.00—1.00	60						
<b>NOON.</b>							
1.00—1.10	10	Reading in Class.	Working Arithmetic.	Arithmetic in Class.	Prep. Reading.	Prep. Reading or Literature.	Prep. Reading Literature.
1.10—1.25	15	Writing from Blackboard	Arithmetic in Class with Prep. Reading Lesson	Prep. Dictation. from Reading Lesson.	Reading in Class.	Literature.	Prep. Reading Literature.
1.25—1.40	15	or Drawing.	Lesson	Prep. Dictation. from Reading Lesson.	Prep. Dictation.	Reading or Lit in Class.	Reading or Lit in Class.
1.40—1.55	15	Writing from Blackboard	Prep. Reading Lesson	Prep. Reading Lesson.	Prep. Dictation.	Prep. Grammar.	Reading or Lit in Class.
1.55—2.10	15	or Drawing.	Prep. Reading Lesson.	Writing Dictation.	Writing Dictation.	Prep. Grammar.	Reading or Lit in Class.
2.10—2.20	10	Writing from Blackboard.	Prep. Reading Lesson.	Writing Dictation.	Writing Dictation.	Prep. Grammar.	Prep. Grammar.
2.20—2.30	10	or Drawing.	Language and Object Lesson in Class.	Correcting Dictation.	Correcting Dictation.	or (Composition on Lit. Lessons.) IV and V Class in Grammar.	Prep. Grammar.
2.30—2.50	20	Writing or Prep. Reading.	Writing or Prep. Reading.	Correcting Dictation.	Correcting Dictation.	Prep. Grammar.	Prep. Grammar.
2.50—3.00	10						
<b>RECESS.</b>							
3.00—3.10	10	Drawing or Writing.	Reading in Class.	Prep. Reading.	Writing English Exercise.	Prep. Physiology or Geo.	Prep. Physiology or Geo.
3.10—3.20	10		Drawing	Reading in Class.	Composition Lesson.	or (Dictation on Friday.)	Prep. Physiology or Geo.
3.20—3.40	20		or Writing.	Drawing or Writing.	Drawing or Writing.	IV and V Physiology or Geography Class.	Prep. Physiology or Geo.
3.40—4.00	20					Writing or Drawing.	Prep. Physiology or Geo.

N.B.—2nd Part and 2nd Class together in Tables, Arithmetic.  
 2nd Class and 3rd Class together in Geography.  
 4th Class and 5th Class together in Br. and Can. History, Grammar, Physiology and Geography.  
 Dictation read by teacher, then monitor changes slates and pupils correct from Reading Lesson; slates returned and mistakes written out and shown at recess. Slate work corrected in class as part of class work, except written Compositions which are corrected by teacher at leisure.  
 When 5th Class do not take Geography with 4th, they will have Botany or Physics—1 or 2 lessons a week.

## TIME TABLE.

ELIZA J. G. MCGREGOR, GLEN SANFIELD, ONT.

TIME.—A.M.	PART I.	PART II.	SECOND CLASS.	THIRD CLASS.	FOURTH CLASS.	FIFTH CLASS.
9.00—9.10	*Opening Exercises for Whole School.					
9.10—9.20	*Read.	Study Reading Lesson	Prepare Reading Lesson.	Arithmetic Questions from Blackboard.	Arithmetic from Book.	Arithmetic from Book.
9.20—9.30	Write Words or Letters.	*Read.	Prepare Reading Lesson.	Arithmetic Questions from Blackboard.	Arithmetic from Book.	Arithmetic from Book.
9.30—9.45	Write Words or Letters.	Write Lesson.	*Reading and Literature.	Prepare Reading Lesson.	Arithmetic from Book.	Arithmetic from Book.
9.45—9.50	‡Examine Slates.			Read Answers while Pupils Correct Slates.	† Change Work.	
9.50—10.10	Busy Work with Shoe Pegs or Kindergarten Blocks.		Write Lesson.	*Reading and Literature. *Dictation on Friday.	Prepare Literature.	Drawing Books.
10.10—10.30	Busy Work with Shoe Pegs or Kindergarten Blocks.		Write Lessons	Write Difficult Words in Reading Lesson for Spelling Exercise.	*Reading and Literature on Alternate Days. *Dictation—Friday.	Drawing Books.
10.30—10.50	Word Building.	Word Building.	Draw on Slates or Scribbling Books Objects or Pictures Supplied by Teacher.			Mon. & Wed.—*Arithmetic. Tues. & Thurs.—*Algebra. Friday.—*Book-keeping.
10.50—10.55	Look Over Work.		Examine Drawing and Spelling Exercise.		Examine Drawing.	
10.55—11.05	RECESS.					
11.05—11.10	*Read.	Copy Words for Spelling from B. B.	Arithmetic Questions from Blackboard.	Work Arithmetic or Prepare Geography On Alternate Days.	Composition or Grammar Exercises in Scribbling Book.	Book-keeping or Algebra on Alternate Days.
11.10—11.25	Write Lesson.	Copying Words for Spelling from Blackboard.	Arithmetic Questions from Blackboard.	Mon. & Thurs.—*Arithmetic. Tues. & Friday—*Geography Wednesday—*Dictation.	Composition or Grammar Exercises in Scribbling Book.	Book-keeping or Algebra on Alternate Days.
11.25—11.40	Write Lesson.	Draw.	Arithmetic Questions from Blackboard.	Arithmetic from Books, Map Drawing or Correcting Mis-spelled Words in Dictation.	*Arithmetic or History (Canadian) on Alternate Days.	Book-keeping or Algebra on Alternate Days.
11.40—11.45	Examining.		Read Answers while Pupils Compare Slates.	Examine Work.	Collect Composition Exercises to be Examined at Home by Teacher.	Change Work.
11.45—12.00	*Writing. *Drawing to be substituted for Writing on Wednesday.					
P.M. 1.00—1.15	Singing and Drill Alternate Days.					
1.15—1.30	*Read.	Prepare Lesson.	Prepare Lesson.	Arithmetic from Book.	Arithmetic from Book.	Arithmetic from Book.
1.30—1.30	Write Words.	*Read.	Prepare Lesson.	Arithmetic from Book.	Arithmetic from Book.	Arithmetic from Book.
1.30—1.45	Write Words.	Write Words.	Mon. & Wed.—*Read. Tues. & Thurs.—*Dictation. Friday—*Geography.	Spelling Exercise on Slate at seats to be corrected by pupils.	Arithmetic from Book.	Arithmetic from Book.
1.45—2.05	Draw.	Draw.	Write Lesson or Correct Mis-spelled Words in Dictation.	Easy Exercises in Composition, to be corrected in Grammar or Composition Class.	Drawing Book.	Mon. & Wed.—*Literature. Tues. & Thurs.—*Euclid. Friday.—*Reading.
2.05—2.10	Examine Writing and Drawing.		Glance over Work.			
2.10—2.25	Make Designs with Kindergarten Blocks.			Mon. Wed. & Thurs. *Grammar and Composition. Tues. & Fri.—*History.	Prepare History.	
2.25—2.40	Copy Designs on Slate.			Correct Mistakes Marked on Slates in Composition Exercise.	*British History, Both Classes Together, on Wednesday Substitute Dictation.	
2.40—2.45	Examine Work.			Examine.		
2.45—2.55	RECESS.					
2.55—3.00	*Figures or Simple Addition Questions.		Composition or Language Exercise to be Corrected in Class.	Drawing Books.		Geography or Grammar Exercises on Slates to be Corrected in Class by Pupils.
3.00—3.05		*Short Drill on Words and Sight Reading.	Composition or Language Exercise to be Corrected in Class.	Drawing Books.		
3.05—3.20	Dismiss Parts I. and II. for the Day.		Composition or Language Exercises to be Corrected in Class.	Write Memory Verses to be Corrected at Seats by Pupils Themselves (self-reporting).		*Temperance or Composition, Alternate Days.
3.20—3.35			Mon. & Thurs.—*Arithmetic. Tues. & Fri.—*Language. Wed.—*Geography.	Write Memory Verses to be Corrected at Seats by Pupils Themselves (self-reporting.)		Continue Geography or Grammar exercises above.
3.35—3.55			Rewrite Correctly any Errors Marked in Composition Exercise.	Write Memory Verses to be Corrected at Seats by Pupils Themselves. (Self-reporting.)		*First five minutes Correct Slates. Grammar and Geography on Alternate Days. Both classes together.
3.55—4.00	Closing Exercises.					

‡Folio examined.

†Indefinite.

N.B.—All class work is marked with an asterisk. All not so marked is seat work. After recess on Friday the exercises may be varied at pleasure of teacher.

## TIME TABLE.

A. McDONELL, St. Andrew's West, Ont.

TIME.	PART FIRST.	PART SECOND.	SECOND CLASS.	THIRD CLASS.	FOURTH CLASS.	FIFTH CLASS.
9.00—9.05	Opening Exercises.	Opening Exercises.	Opening Exercises.	Opening Exercises.	Opening Exercises.	Opening Exercises.
9.05—9.15	Reading	Prepare Reading.	Write Hard Words.	Desk Arithmetic	Desk Arithmetic.	Desk Arithmetic or
9.15—9.25	Writing from	Reading.	and Phrases.	from B. B. or Books.	do.	Algebra.
9.25—9.40	Blackboard	Writing Hard	Reading and Drill	do.	do.	do.
9.40—9.55	or Tablets on Slates.	Words, Story of	in Spelling.	Cl. Arithmetic.	do.	do.
9.55—10.10	do.	Lesson, etc., or	Desk Work in Same.		Cl Arith.	do.
10.10—10.25	do.	Recess.	do.			Cl. Arith. or Cl. Algebra.
10.25—10.30	or Recess.	Writing Prose.	Examination of Work.	Examination of Work.		
10.30—10.40	Recess.					
10.40—10.50	Cl. Arithmetic.	Cl. Arithmetic.	Desk Arithmetic.	Desk Grammar or	Desk Grammar or	Desk Grammar or
10.50—11.00	Desk do.	Desk do.	do.	Composition.	Composition.	Composition.
11.00—11.15	Writing Nos. etc.	do. do.	do.	Cl. Gram. or Comp.	Cl. Gram. or Comp.	Cl. Gram. or Comp.
11.15—11.30	do.	do. do.	Cl. Arithmetic.	or Desk do. (on alternate	Desk do. (every day)	Desk do. on alternate
11.30—11.45	do.	do. do.	Desk do.	days) Reading.		days.
11.45—11.55	do.		Desk do.	Dictation (alternate)	Dictation (every day)	Dictation (alternate day).
11.55—12.00	do.		Examination of Work.	Examination of Work.		
12.00—1.00	Noon.					
1.00—1.15	Correction of Homework and Assigning New Work.	Correction of Homework and Assigning New Work.	Correction of Homework and Assigning New Work.	Correction of Homework and Assigning New Work.	Correction of Homework and Assigning New Work.	Correction of Homework and Assigning New Work.
1.15—1.45	Reading	Reading	Writing.	Writing.	Writing or Book-keeping.	Book-keeping.
1.45—2.00	from slips of	from slips of Paper, etc.	Prepare Dictation.	Desk Work in Literature	Reading or Literature.	Prep. Read or Literature.
2.00—2.10	paper, etc.		do.	or Language.	Desk do.	Reading or Literature.
2.10—2.25	Desk Writing.	Desk Writing.		do.		Desk do.
2.25—2.30			Examination of desk work	Examination of desk work.		
2.30—2.40	Recess.					
2.40—2.55	Drawing.	Drawing.	Drawing or Desk	Prepare Geography,	Geo. or History.	Geo. or History.
2.55—3.10	do.	do.	Geography.	Cl. Geo. or Oral History.	Desk do. or Temperance.	Desk do. or Euclid.
3.10—3.25	Object Drawing or Geography Lesson.	Object Drawing or Geography Lesson.	Object Drawing or Geography Lesson.	Desk do.	do.	do.
3.25—3.40	Drawing or Dismissal.	Drawing or Dismissal.	Prepare Read or Desks.	do.	Temperance or	Temperance or Euclid.
3.40—3.55			Reading and Spelling.	do.	Desk Temperance.	do.
3.55—4.00			Examination of Desk Work and Dismissal.		Dismissal.	

FRIDAY MORNING.—Written Examinations in two subjects for 2nd, 3rd, 4th and 5th classes, extra Board Drill in Arithmetic, Reading and Object Lesson for Junior Classes. Spelling Matches, Mental Arithmetic, etc., for all classes.  
 FRIDAY AFTERNOON.—Drawing for all classes, lessons in Etiquette or Singing and Callisthenics till recess. After recess, Familiar Talks for Junior Classes, Book-keeping and Business Transactions for Senior, Recitations and Drill in Pronunciation, Correct Use of Language, etc.

## Mathematics.

All communications intended for this department should be written on one side of the sheet only and should be addressed to the Editor, C. Clarkson, B.A., Seaforth, Ont.

### CORRESPONDENCE.

- E. KESNER, Fairplay, Colorado, sent solution of No. 10.
- H. W. WATSON, New Lowell, Ont., sent solutions of 37, 38, 40.
- J. D. N., Keewatin, asks for an explanation of the test known as "casting out nines."
- A. M. M., Ont., asks the same question.
- F. F. CAMPBELL, Halton, sends three problems.
- J. M. W., no address, sends two.
- A SUBSCRIBER, no address, sends one problem.
- N. MC., no address, sends one problem.
- SUBSCRIBER, Balderson, sends one problem.
- J. C. BLACK, Chatham, sends two problems.
- JAS. P. TAYLOR, Lindsay, sends two methods of solving a quadratic.
- S. CLARE, 444 Queen St. West, Toronto, sends an interesting discussion of the apparent paradox of dividing a card 8 inches square into four

parts, which are reformed into a pretended rectangle 13 by 5. A similar question was discussed in the Question Drawer a few weeks ago. "Y." sent solutions of 32, 36, 37, 38, 39, 41 and the difficult No. 10. Modesty, ability, generosity, *thanks!*

### SOLUTIONS.

No. 10.—We repeat the problem from the issue of Jan. 1st.  
 In a field where the grass grows uniformly 31 oxen can graze  $8\frac{1}{2}$  acres in  $\frac{1}{3}$  of the time in which 15 oxen would consume the grass on  $5\frac{1}{2}$  acres; and 22 oxen would require 3 days longer to finish up  $7\frac{1}{2}$  acres than 20 oxen would require for  $6\frac{1}{2}$  acres. In what time may 31 oxen be expected to eat up  $8\frac{1}{2}$  acres of grass?  
 SOLUTION I, by E. KESNER.  
 Suppose 31 oxen can graze  $8\frac{1}{2}$  ac. in  $\frac{1}{3}x$  days. (1)  
 Then 15 " " "  $5\frac{1}{2}$  " "  $x$  " (2)  
 Also suppose  
 22 oxen can graze  $7\frac{1}{2}$  ac. in  $(y+3)$  days. (3)  
 Then 20 " " "  $6\frac{1}{2}$  " "  $y$  " (4)  
 Let 0 = original amount of grass on 1 ac. and  $g$  = growth on 1 acre in 1 day.  
 From (1) 1 ox in 1 day can graze  
 $\frac{1}{\frac{1}{3}x}$  of  $8\frac{1}{2} + \frac{1}{3}g = 35 + \frac{35}{3}g$ .  
 From (2) 1 ox in 1 day can graze

$\frac{1}{x}$  of  $5\frac{1}{2} + \frac{1}{15}g = \frac{7}{20} + \frac{7}{20}g$ .  
 Hence  $\frac{35}{93x} + \frac{35}{124}g = \frac{7}{20x} + \frac{7}{20}g$  or  $g = \frac{7}{18x} - \frac{7}{18x} = 0$ .  
 Therefore 1 ox in 1 day grazes  
 $\frac{7}{20x} + \frac{7}{20}$  of  $\frac{7}{18x} = \frac{35}{72x}$  and 1 ox in  $(y+3)$  days grazes  $\frac{35(y+3)}{72x}$ .  
 Grass to be grazed on  $7\frac{1}{2}$  ac. in  $(y+3)$  days =  
 $7\frac{1}{2} + \frac{7}{18x} \times 7\frac{1}{2} \times (y+3) = \frac{270x + 105(y+3)}{36x}$   
 No. of oxen required =  $\frac{270x + 105(y+3)}{36x} \times 0 = \frac{35(y+3)}{72x} - 0 = 22$ ,  
 or  $27x - 28y = 84$ . (5)  
 Again, 1 ox in  $y$  days eats  $\frac{35y}{90}$ .  
 Grass to be grazed on  $6\frac{1}{2}$  ac. in  $y$  days =  
 $6\frac{1}{2} + \frac{7}{18x} \times 6\frac{1}{2} \times y = \frac{450x + 175y}{72x}$   
 No. of oxen required =  $\frac{450x + 175y}{72x} \times \frac{35y}{90} = 20$   
 or  $6x - 7y = 0$ . (6)  
 From (5) and (6)  $\frac{1}{3}x = 21$  days. *Ans.*

SOLUTION II. by "Y".

Part 1.—Let  $t$  = time 15 oxen require to graze  $5\frac{1}{4}$  acres.

31 oxen eat grass on  $8\frac{3}{4}$  ac. + growth for  $\frac{3}{4}t$  in  $\frac{3}{4}t$  days.

15 oxen eat grass on  $5\frac{1}{4}$  ac. + growth for  $t$  in  $t$  days.

$15 \times 31$  oxen eat grass on 175 ac. + growth on 175 for  $\frac{3}{4}t$  in  $t$  days.

$15 \times 31$  oxen eat grass on 175 ac. + growth on 131 $\frac{1}{4}$  for  $t$  in  $t$  days.

$31 \times 15$  oxen eat grass on 162 $\frac{3}{4}$  ac. + growth on 162 $\frac{3}{4}$  for  $t$  in  $t$  days.

As number of oxen is the same and time employed is the same, the differences must be equal, i. e. grass on 12 $\frac{1}{4}$  ac. = growth on 31 $\frac{1}{4}$  acres for  $t$  days.

Then  $15 \times 31$  oxen eat grass on 175 ac. +  $51\frac{1}{4}$  ac. = 226 $\frac{1}{4}$  ac. or eat growth on 131 $\frac{1}{4}$  ac. for  $t$  + 450 ac. for  $t$  = growth on 581 $\frac{1}{4}$  ac. for  $t$ ; in  $t$  days growth on 581 $\frac{1}{4}$  ac. for  $t$  days is eaten in  $t$  days by  $15 \times 31$  oxen.

Then growth on 581 $\frac{1}{4}$  ac. is kept eaten by  $15 \times 31$  oxen.

Then growth on  $8\frac{3}{4}$  ac. is kept eaten by

$$\frac{35}{4} \times \frac{4}{2325} \times 15 \times 31 = 7 \text{ oxen.}$$

Then growth on  $7\frac{1}{2}$  ac. is kept eaten by

$$\frac{15}{2} \times \frac{4}{2325} \times 15 \times 31 = 6 \text{ oxen.}$$

Then growth on  $6\frac{1}{4}$  ac. is kept eaten by

$$\frac{25}{4} \times \frac{4}{2325} \times 15 \times 31 = 5 \text{ oxen.}$$

Part 2.—Let  $T$  = time 20 oxen require to graze  $6\frac{1}{4}$  ac.

Grass on  $6\frac{1}{4}$  acres was kept eaten by 5 oxen.

$\therefore$  15 oxen eat grass on  $6\frac{1}{4}$  ac. in  $T$  days.

Similarly 16 " " "  $7\frac{1}{2}$  ac. in  $T+3$  "

$16 \times 15$  oxen eat grass on 100 ac. in  $T$  days.

$15 \times 16$  " " " 112 $\frac{1}{2}$  ac. in  $T+3$  "

$15 \times 16$  oxen eat grass on 12 $\frac{1}{2}$  ac. in 3 days.

31 oxen grazed  $8\frac{3}{4}$  ac. and 7 oxen kept grass eaten, then 24 oxen ate grass then on  $8\frac{3}{4}$  ac.

$15 \times 16$  oxen eat grass on 12 $\frac{1}{2}$  acres in 3 days.

24 oxen eat grass on  $8\frac{3}{4}$  acres in

$$\frac{15 \times 16}{24} \times \frac{35}{4} \times \frac{2}{25} \times 3 = 21 \text{ days.}$$

As 7 oxen did not eat more or less grass than grew they would be able to stop as soon as others were through and thus time taken by all was = 21 days.

No 32.—SOLUTION by "Y".

Let  $m$  = sum Moss invested at first.

Then  $m + \$5000$  = sum Stuart " "

Moss	{	$m$ for 5 mos. gives same gain as $5m$ for 1 month.
		$m$ for 2 mos. gives same gain as $2m$ for 1 month.
		$m + 2500$ for 5 mos. gives same gain as $5m + 12500$ for 1 month.
		Investment during year gives same gain as $12m + \$12500$ for 1 month.
Stuart	{	$m + \$5000$ for 5 mos. gives same gain as $5m + 25000$ for 1 month.
		$m + \$2500$ for 2 mos. gives same gain as $2m + 5000$ for 1 month.
		$m + \$2500$ for 5 mos. gives same gain as $5m + 12500$ for 1 month.
		Investment during year gives same gain as $12m + \$42500$ for 1 month.

Amount at end of year would be  $(m + 2500) + (m + 2500) + \text{gain} = \$24800$ .

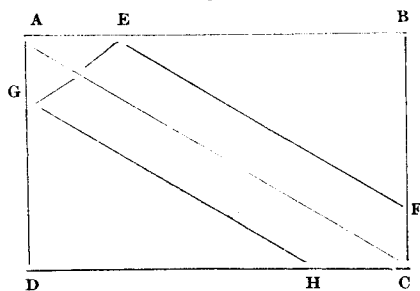
Gain on both investments during the year would be equal to gain on  $(12m + \$12500) + (12m + 42500) = 24m + \$55000$  for 1 month.

Gain on Stuart's investment exceeded gain on Moss's by gain on  $\$30000$  for 1 month, which equalled  $\$461.54$

$\$30000$	"	"	"	"	gives gain of $\$461.54$ .
$\$55000$	"	"	"	"	$\$846.16$ .
$30000m$	"	"	"	"	$\$461.54m$ .
$24m$	"	"	"	"	$.369232m$ .

$$\begin{aligned} \text{Amount at end of year} &= (m + \$2500) + (m + 2500) + .369232m + \$846.16 \text{ which equals} \\ &2.369232m + \$5846.16 = \$24,800. \\ &2.369232m = \$18953.74 \\ &m = \$8000 \\ &m + 5000 = \$13,000. \text{ Ans.} \end{aligned}$$

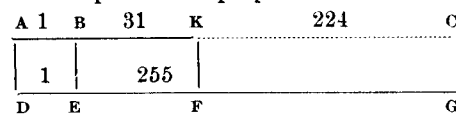
No. 41.—SOLUTION by "Y."



$AB = 12$ ;  $\therefore$  area of  $BD = 144$  sq. ft.; and area of  $GDH$  or  $EBF = 48$  sq. feet. Also  $DG = DH$ .  $\therefore DG^2 = 48$ ; i. e.,  $DG = \sqrt{96}$ ; and therefore  $GA = 12 - \sqrt{96} = AE$ . Thus  $GE = \sqrt{(GA^2 + AE^2)} = \sqrt{288 - 192} = 3.1141562$  ft.

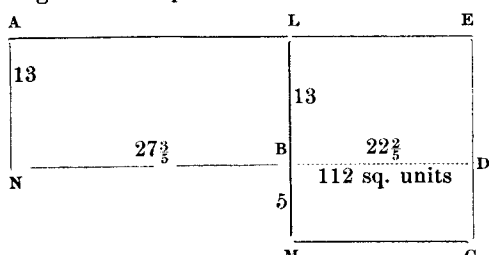
N. 61.—To one pound of salt 31 pounds of pure water are added. How much more water must be added so that 32 pounds of the mixture may contain 2 ounces of salt?—Public School Algebra, page 63.

SOLUTION by the EDITOR.—2 oz. in 32 lbs. = 1 lb. in 256 lbs. of mixture. Draw a diagram to represent the proportions thus:



If  $AB$  represent 1 lb.,  $BK$  31 lbs.;  $DE$  1 lb.,  $EG$  255 lbs., it is plain that  $KC = FG = 255 - 31 = 224$  lbs.

No. 62.—Bought 50 yds. cloth for  $\$7.62$ , part at 13c., part at 18c. per yd. Find the number of yards at each price. See No. 68, Sep. 1893. SOLUTION by the EDITOR.—Represent the quantities and the prices by lines and construct a diagram of the problem thus:



Take  $AE = 50$  units, to represent the 50 yards of cloth; take  $AN = 13$  units to represent 13c. per yard; complete the rectangle  $AD = 650$  sq. units, which represent the price of 50 yds. at 13c. The total area should be 762 to represent the price actually paid; deficiency = 112 sq. units. Take a point,  $L$ , at random in  $AE$ ; draw  $LM = 18$  units; complete  $LC$ . Then  $BC$  represents the deficiency;  $BM = 5$ ; therefore  $BD = 112 \div 5 = 22\frac{2}{5} = LE$ , which represents the number at 18c.;  $NB = 27\frac{3}{5} = AL$ , which represents the number at 13c.

PROBLEMS FOR SOLUTION.

No. 63.—Henry Simpson sold A. Thomson & Co. merchandise as follows: Sept. 1, 225 bbls. Flour at  $\$6$  on 30 days' credit; Sept. 9, 180 bbls. of Pork averaging 208 lbs., at 11 $\frac{1}{2}$ c. on 60 days' credit; Sept. 17, 150 doz. eggs at 16c. per doz. on 2 months' credit; Oct. 7, 572 lbs. Bacon at 13 $\frac{1}{2}$ c. on 3 months' credit; Nov. 10, 460 lbs., Butter at 21 $\frac{1}{2}$ c. on 90 days' credit. Find the equated date for the payment of the sum total of the several bills.

No. 64.—A holds three promissory notes made by B; one is for  $\$245.60$ , payable in 3 months from Feb. 13, 1889; another is for  $\$425$  payable 60 days after date of Mar. 5, 1889; and the third is for  $\$186.25$  and is dated April 3,

1889, and payable 90 days after date. On April 17, 1889, B offers to pay  $\$500$  on the notes and give in exchange for them a single note for the balance on them unpaid. When should the single note be payable?

No. 65.—A capitalist had  $\$20,000$  to invest. He purchased  $\$8,700$  par value of Canadian 4 per cent. bonds at 103, and  $\$7300$  par value of Canadian 3 $\frac{1}{2}$  per cent. bonds at 93 $\frac{1}{2}$ , and invested the balance as far as he could in bank stock (shares  $\$100$ ) at 149 $\frac{1}{2}$ , paying half-yearly dividends of 4 per cent. each. What was the gross amount of his investment, he paying  $\frac{1}{2}$  per cent. brokerage for buying each class of securities? What was his annual income from these investments? What average rate per cent. per annum did he receive on these investments?

No. 66.—A person lends  $\$150$  for a term of five years, to be paid in 5 equal annual instalments. How much should he receive annually, money being worth 7 per cent. per annum?

No. 67.—A gave his marbles to B and then B had 2 $\frac{1}{2}$  times what C had. If he had given them to C, C would have had 1 $\frac{1}{2}$  times what B had. All have 130 marbles. How many have each?

No. 68.—A and B fire at targets, having 55 cartridges each. A fires twice in 3 minutes, and B fires 3 times in 5 minutes. How many times will B have to fire after A has finished?

No. 69.—Purchased 749 sheep and sold 700 of them for the price he paid for whole, and afterwards sold remaining sheep at same price per head as the others. Find gain per cent.?

No. 70.—If money be worth 5 per cent. what should be the price of six per cent. bonds which are paid off at par 3 years after the date of purchase, the interest on the bonds being payable half-yearly?

No. 71.—What is the capacity of the smallest tank that can be filled in an exact number of seconds by any one, any two, or all three of three pipes the first of which runs 25 gal. per sec., the second 35 gal. and the third 30 gal. per second?

No. 72.—Find by "casting out nines" whether the following is correct:  $349751 \times 28637 = 10015819397$ .

No. 73.—A rectangular field whose length is 3 times its breadth, contains 40 ac, 80 sq. yds. Find its length and breadth.

No. 74.—A starts from Kingston to walk to Belleville, a distance of 45 miles, at 3 $\frac{1}{2}$  miles an hour. B starts from Belleville 3 hours earlier at 2 $\frac{1}{2}$  miles an hour. Where do they meet and how far will B be from Kingston when A arrives at Belleville?

REMARK.—There is still some correspondence on hand received too late for acknowledgment in this issue; we shall keep it in a refrigerator through the hot weather.

We sincerely wish our numerous and widely scattered correspondents a very pleasant and refreshing holiday. Their cordial support of the JOURNAL is very gratifying and they will not forget to utter a word fitly spoken on its behalf as opportunity occurs during the long vacation. Help the JOURNAL and the JOURNAL will be better able to help you. If its circulation could be doubled, its usefulness and attractiveness could be quadrupled easily. In this time of depression it needs the active assistance of every friend. Will you secure two new subscribers before Sept. 1st? Will every Principal endeavor to put the JOURNAL in the hands of every one of his Assistants? Will all who find this paper helpful remember to mention the fact to their friends and fellow-workers in the great educational field?

EDUCATION must lay stress on the truth that nothing in the world has any absolute value except will guided by the right.—Rosenkranz.

## Primary Department.

## HOLIDAYS.

RHODA LEE.

"What is to be done with holidays," is the question uppermost in the minds of most teachers at the present time. There are many ways of spending a vacation and great difference, in the degrees of enjoyment. After the rush of examinations and the excitement of closing exercises, even the hottest of summer days brings with it a delightful sense of freedom and rest. However, given time and even a very modest amount of money, the question referred to becomes easily answerable. We hope every teacher will endeavor to rest in the true sense of the word. By rest we do not mean idleness, as that is generally synonymous with unrest and discontent. Nor in any two minds is the term rest similarly defined. "Work for one is play for another." "Holidays," says a little friend of mine, "and an opportunity of wading into the books I have been hoarding for the last three months. Think of it!" For many teachers it means going home, for others a summer trip, and for some merely a change of occupation.

I remember being one summer, very weary when the end of June came, and I determined to put all thought of school from my mind. "I will not give it a thought," I said. But September came and I found I had unconsciously stored up an immense amount of material for the session. On looking back over the vacation weeks I was surprised to find how much, in spite of my resolution, I had been planning for school. Stories, incidents in travel, scenery, botanical collections and curiosities of all kinds were among the stores I had gathered.

"Rest is not quitting the busy career  
Rest is the fitting of self to its sphere."

The unconscious fitting that goes on all the time, when we have the interest of our school and our children deep down in our hearts is the best preparation we can possibly have.

A great many additions to the school museum may be made in the course of the summer; grasses, grains, flowers, shells, minerals, insects, etc. I hope every primary teacher in her closing talk urged her pupils to make of the holidays discovery-days, finding out everything they could of the flowers, birds, animals or whatever may interest them most. If we could only train our children to depend less on their books and elders and more on themselves we should be giving them the best lesson it is possible for them to learn. It is for this training that we urge the collecting of specimens and curiosities that they may be used in object and observation lessons.

Make the most and best of summer. In all your plans leave a wide margin for your reading and a still wider one for thinking.

Now is the high tide of the year,  
And whatever of life hath ebbed away  
Comes flooding back with a riply cheer,  
Into every bare inlet and creek and bay;  
Now the heart is so full that a drop over fills it,  
We are happy now because God wills it;  
No matter how barren the past may have been,  
'Tis enough for us now that the leaves are green.

## BARBARA S——.

FROM ESSAYS OF ELIA, BY CHARLES LAMB.

BARBARA S—— was a little maid of eleven, but her behavior and air of womanhood made her appear at least five years older. She was the mainstay of the family, having two sisters younger than herself. Her Saturday's pittance was the only chance of a Sunday's (generally their only) meal of meat. \* \* \*

"Barbara S—— stood, on a November day, just as the clock struck one, before Ravenscroft, the treasurer of the Old Bath Theatre, where Barbara first assisted in the choruses, and later she was entrusted to the performance of whole parts. She stood waiting for her weekly earnings—a half guinea. By mistake the treasurer dropped a whole guinea into her hand and Barbara tripped away entirely unconscious of the difference. The treasurer would never have known it; he had no head for accounts; paid money at random; kept scarce any books; summing up at the week's end, if he found himself a pound or so deficient, blest himself that it was no worse.

When Barbara got down to the first landing place, she became sensible of an unusual weight of metal pressing her little hand. Now mark the dilemma!

She was by nature a good child. From her parents and those about her, she had imbibed no contrary influences. But they had taught her nothing. \* \* \* This little maid had no instinct to evil, but then she might be said to have no fixed principle. She had heard honesty commended, but never dreamed of its application to herself. She thought it was something which concerned grown-up people, men and women. \* \* \* Her first impulse was to go back to the old treasurer, and explain to him the blunder. He was already so confused with age, besides a natural want of punctuality, that she would have some difficulty in making him understand it. She saw that in an instant. And then it was such a bit of money! and then the image of a larger allowance at the next day's dinner, came across her until her eyes glistened and her mouth moistened.

But then Mr. Ravenscroft had always been so good natured, had stood her friend behind the scenes, and even recommended her promotion to some of her little parts. But again the old man was reputed to be worth a world of money. He was supposed to have fifty pounds a year clear of the theatre. And then came staring upon her the figures of her little stockingless and shoeless sisters. And when she looked at her own neat white stockings, which her situation at the theatre had made it indispensable for her mother to provide for her, with hard straining and pinching from the family stock, and thought how glad she would be to cover their poor feet with the same—and how then they could accompany her to rehearsals, which hitherto they had not been able to do for the want of proper clothing—in these thoughts she reached the second landing place from the top—there was still left another to traverse.

Now Virtue support Barbara! And that never-failing friend did step in—for at that moment a strength not her own, I have heard her say, was revealed to her—a

reason above reasoning—and without her own agency, as it seemed (for she never felt her feet to move) she found herself transported back to the individual desk she had just quitted, and her hand in the hand of Ravenscroft, who in silence took back the refunded treasure, and who had been sitting (good man) insensible to the lapse of minutes, which to her were anxious ages; and from that moment a deep peace fell upon her heart, and she knew the quality of honesty.

A year or two's unrepining application to her profession brightened up the feet, and the prospects of her little sisters, set the whole family upon their legs again, and relieved her from the difficulty of discussing moral dogmas upon a landing-place.

She afterwards said that it was a surprise, not much short of mortification to her, to see the coolness with which the old man pocketed the difference, which had caused her such mortal throes.—*Indiana School Journal*.

## QUESTIONS IN NATURAL SCIENCE.

By R. O. JOHNSON, Hinsboro, Ill.

What name do we give to the call of the horse? the cow? the donkey? the cricket? the dog? the hen? the duck? the cat? the pig? the mouse? the turkey? the panther? the sheep? the crow?

How do these animals defend themselves against their enemies: The horse? the cow? the hen? the turkey? the dog? the sheep?

Examine and describe the feet of the horse, the cow, the chicken, the hog, the turkey, the dog, the cat, the duck, the mouse, the rat.

Make a list of names of things eaten by the above named animals and others.

Make a list of names of animals covered with hair or fur. With feathers. Without either hair or feathers.

Make a list of the names of animals which eat other animals. Of animals which do not eat other animals.

Make a list of the names of things which grow in the garden; in the field; which must be dug from the ground; which grow on stalks or bushes above the ground?

## TEACHER'S TEST QUESTIONS.

1. Are the pupils all quietly busy at work?
2. Is the noise in my room the noise of confusion or the hum of business?
3. Am I interrupted by questions during recitation?
4. Am I sure that the annoyance which that boy causes me is solely his fault; am I not partly to blame?
5. Am I as polite to my pupils as I require them to be to me?
6. Do I scold?
7. Is the floor clean?
8. Am I orderly—  
In personal habits?  
In habits of work?
9. Am I doing better work to-day than I did yesterday?
10. Am I making myself useless to the pupils as rapidly as possible by teaching them habits of self-reliance?—*School Supplement*.

A HOLE IN THE POCKET.

A hole in the pocket's a very bad thing,  
 And brings a boy trouble faster  
 Than anything under the sun, I think;  
 My mother, she calls it disaster;  
 For all in one day  
 I lost, I may say,  
 Through a hole not as big as a dollar,  
 A number of things,  
 Including some rings  
 From a chain Fido wore as a collar.

My knife, a steel pen, a nice little note  
 That my dear cousin Annie had sent me;  
 The boy who found that pinned it on to his hat,  
 And tries all the time to torment me.  
 I'd lost a new dime  
 That very same time,  
 But it lodged in the heel of my stocking;  
 And one thing beside,  
 Which to you I confide,  
 Though I fear you may think it quite shocking:

The doctor had made some nice little pills  
 For me to take home to the baby;  
 But when I reached there I was quite in despair,  
 They had slipped through my pocket, it may be.  
 Aunt Sallie, she,  
 As cool as can be,  
 Said, "A hole in a boy's reputation  
 Is harder to cure,  
 And worse to endure,  
 Than all pockets unsound in the nation."

Still, a hole in the pocket's a very bad thing,  
 And I am sure a real cause of disaster;  
 But baby is well, so you must never tell,  
 Perhaps he got well all the faster.

—New York Independent.

*The Contemporary French Writers, Selections,*  
 by Mlle. Rosine Melle'. Boston: Ginn & Co.

It is interesting to pick up a school book that pretends and fulfils its pretensions to give a taste of the French writers of the day. Not Hugo or De Musset, but Bourget, Loti, France, Barris and other such—men who to-day walk the boulevards of Paris and represent the wonderfully diverse Parisian literary life. The selections represent twenty-five writers of all schools. They are usually fragments with some sort of unity and independent interest. Short literary notices are prefixed to the selections. So that the little volume gives an interesting and useful introduction and intercourse with many clever people. It is much to be regretted that Mlle. Melle' has not acknowledged that she is indebted for her general introduction to the articles of Theodore Child in *Harper's Magazine* of 1892, to which she owes every page of her sketch.

\*\*

*Selections from the Poetry and Prose of Thomas Gray,* edited with Introduction and Notes by W. L. Phelps. Boston: Ginn & Co.

The Athenæum Press, series under the general editorship of Professors Kittredge and Winchester, promises most useful and convenient editions of English texts from Chaucer to Tennyson. The present volume contains whatever poetry of value Gray wrote, together with his *Journal in the Lakes* and extracts from his letters. Mr. Phelps' introduction is bald in style but interesting in matter, presenting Gray's progress from classicism to romanticism, a subject in which the editor's recent studies make his words of value. He accounts wisely for the poet's sterility in his scholarly temperament, his bad health, his dignified reserve. Professor Kittredge adds an appendix proving that Gosse's contention that Gray knew Old Norse is erroneous. The notes are scholarly and good. The bibliography in the volume has evidently been put to good use by the editor. On the whole we have a useful and well-edited volume.

THE *Popular Science Monthly* presents a varied table of contents in its July number. Among its articles are several which suggest subjects for observation during summer outings. Prof. Byron D. Halsted has an illustrated paper under the title *Sunshine through the Woods*, describing the rings and veining of several important woods. Alexander McAdie describes a Colonial Weather Service, from the records of which we learn the temperature on July 4, 1776. Two full-page pictures illustrate modern meteorological methods. Prof. James Sully contributes the first of half-a-dozen papers on Studies of Childhood, the subject of imagination being first treated. Some curious structures are described and illustrated by L. N. Badenock, under the title, Homes of Social Insects. In Latitude and Vertebrae, Prof. David Starr Jordan presents a study in the evolution of fishes. Dr. Louis Robinson discusses Acquired Facial Expression, bringing out some very interesting facts. Under the title Savagery and Survivals, Prof. J. W. Black shows that many of our ceremonies, fashions, habits, and notions have come down to us from savage forebears. New York: D. Appleton & Company. Fifty cents a number, \$5 a year.

In the July *Forum* Mr. Frederic R. Coudert, a distinguished New York lawyer, writes on "The American Protective Association," (the prototype of the Canadian P.P.A.), characterizing it as an un-American, un-Christian, and unmanly venture, and expresses the opinion that the good sense of the American people will not long tolerate it. Prof. J. B. McMaster, the historian, in an article which he calls "The Riotous Career of the Know-Nothings," traces the causes which led to the formation of this organization, of its ultimate inglorious end, and compares it to the American Protective Association. Frederic Harrison, the English Essayist, begins the first of a series of studies of the great writers of the Victorian age with an essay on "Carlyle's Place in Literature," in which he criticises his works one by one, and attempts definitely to fix Carlyle's place in literature. Theodore Roosevelt writes on "The Manly Virtues and Practical Politics," urging every citizen to do his full share in the work of self-government. Next comes a remarkable group of articles under the general heading of "Efforts Toward Clear Aims in Education." The first of these, by President G. Stanley Hall, of Clark University, makes a strong plea for the habit of independent research as the best means of freeing the mind from error and superstition; Thomas Davidson, the eminent essayist and philologist, follows with an article on "The Ideal Training of an American Boy," and Professor Martha F. Crow, of the Chicago University, "Will the Co-Educated Co-Educate Their Children?" The testimony she adduces from those who have co-educated their children answers this question in the affirmative.

Book Notices, etc.

*The Sir Roger De Coverley Papers.* Boston: Houghton, Mifflin & Co.

Pts. 60, 61 of the *Riverside Series* contain the *Spectator* essays touching on the immortal Sir Roger. A brief introduction and notes supply necessary help to the pupil. We note a slight mistake of the editor: the *Grand Cyrus* was by Mlle. not Madame Scuderi, as the note (p. 40), says. A reduced fac-simile of a number of the *Spectator* forms an interesting frontispiece to Pt. I.

*Soll und Haben,* by Gustav Freytag, adapted by Hanby Crump. London: Whittaker & Co.

We do not like adaptations, but in this special case Mr. Crump has succeeded in presenting Freytag's long novel within the comfortable space of a school-book, and that without destroying the interest of the classic and fascinating story. Brief notes follow the text. The book is a welcome auxiliary to German teaching, and the noble spirit of its pages will make for sound character in its readers.

*Popular Science,* edited by Jules Luquiens. pp. 252. Boston: Ginn & Co.

Under this somewhat misleading title Dr. Luquiens offers a series of extracts in French prose, which, while valuable as specimens of style, familiarize the student, in a measure, with the vocabulary of French Science. The extracts are from Lévy, Flammariion, Reclus, Milne-Edwards, Toussanel, Du Camp, Muller, and are provided with ample notes. The book is wisely compiled and will find favor with all teachers who feel that "the prolonged diet" we have had of French fiction impairs the working powers of a student.

*Chronique du Règne de Charles IX,* par Prosper Mérimé, edited by P. Desages. pp. 116, price 25 cents. Boston: Heath & Co.

Mérimé's work, under its title of *Chronique*, hides a fascinating historical romance, in which the fortunes of the young hero, Mergy, carry us through the bloody scenes of the massacre of St. Bartholomew's Day, and the siege of La Rochelle. A judicious abridgement brings it within the compass of a schoolbook, and brief notes explain unusual expressions. The author's style is so thoroughly classic—clear, strong in its laconic brevity, polished, restrained—that we welcome this addition to Heath's Modern Language Series.

Literary Notes.

*Scribner's Magazine* for July opens with a descriptive article on the social aspects of that region along the Massachusetts Coast known as "The North Shore." The first of what bids fair to be a very interesting series of papers by Dr. Carl Lumholtz, appears in this number under the title "Among the Tarahumaris." These people are fundamentally different from the cliff-dwellers of the Southwest; they are cave-dwellers, and among them many strange customs, Christian and pagan ceremonies, survive side by side. The whole group will be fully illustrated from photographs made by the author, who has been for the past three years making explorations in the almost unknown regions of the Sierra Madre in Mexico. Articles by Octave Thanet on "The Working Man" (American), on "The New York Tenement House Evil," by Ernest Flagg, a dramatic instalment of "John March, Southener," are among the others which complete the number.

The complete novel in the July number of Lippincott's is "Captain Close," by Captain Charles King. It deals with the Reconstruction period, and relates the experiences of a newly-fledged lieutenant in camp near Tugaloo, and of his very curious commanding officer. Louise Stockton begins a strong story, "A Mess of Pottage," to be concluded in the August issue. Other tales are "At Marrini's," a lively character sketch by Richard Hamilton Potts, and "A Case of Hoodoo," an amusing dialect tale from a Virginia police-court. Ellen Olney Kirk depicts "A Roman Nurse" in her habit as she lives, with the pampered pride which marks her above her congeners in any land but Italy. Elizabeth Morris writes of "Mill-Girls" here at home. Francis Leon Chrisman tells the history of "The Conscience Fund" of the U. S. Government, and gives some recent examples of the contributions to it. Under the heading "A Scattered Sect," H. V. Brown describes a queer organization which flourished not long ago in England, and called itself "The Army of the Lord." In "Talks with the Trade," "More Rudiments" are considered. The poetry of the number is by Celia A. Hayward, Zoe D. Underhill, and William S. Lord.

For Friday Afternoon.

LITTLE BY LITTLE.

ONE step and then another,  
 And the longest walk is ended;  
 One stitch and then another,  
 And the largest rent is mended;  
 One brick upon another  
 And the highest wall is made;  
 One flake upon another,  
 And the deepest snow is laid.

Then do not look disheartened  
 O'er the work you have to do,  
 And say that such a mighty task  
 You never can get through;  
 But just endeavor day by day  
 Another point to gain,  
 And soon the mountain which you feared  
 Will prove to be a plain.

THE University of John S. Hopkins, Baltimore, conferred the degree of doctor of philosophy at their last commencement on two Canadians, graduates of the University of Toronto, Mr. A. P. Saunders, B.A., of Ottawa, and Mr. F. H. Sykes, M.A., of Toronto. Both gentlemen had won the highest honors in the University, as scholars and fellows in their respective subjects of Chemistry and English. Mr. A. W. Stratton, B.A., formerly of Hamilton C. I., has had the unusual honor of having the fellowship in Sanskrit renewed for the following year.



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