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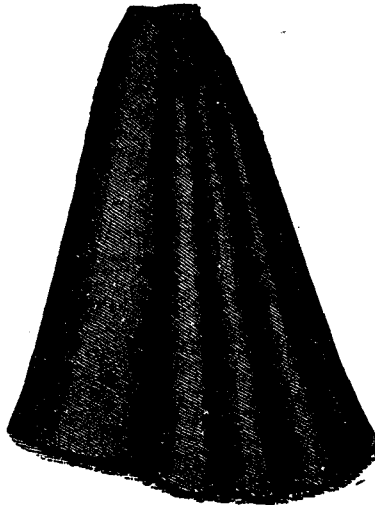
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Table of Contents.

PAGE.	PAGE.
EDITORIAL NOTES..... 35	Questions for Young Observers..... 42
ENGLISH—	Answers to Correspondents..... 43
The Function of English Poetry in the High School..... 36	HINTS AND HELPS—
EDITORIALS—	What I Saw in Schools. 43
Raising the Standard... 38	PRIMARY DEPARTMENT—
CONTRIBUTORS' DEPT—	Spelling..... 44
Are We Moving Upwards?..... 39	First Steps in Reading. 44
SPECIAL PAPERS—	Class Recitations..... 45
The Fundamental Principles of Double Entry Bookkeeping... 40	Stories for Reproduction..... 45
Agriculture in the Public Schools..... 41	CORRESPONDENCE—
SCIENCE—	Raising the Standard. 45
Experimental Science. 42	SCHOOLROOM METHODS—
Primary Physics..... 42	History..... 45
	How Should History be Taught?..... 46
	QUESTION DRAWER..... 47
	LITERARY NOTES..... 47

Editorial Notes.

THE average salary of the 7,963 Public School teachers of Ontario in 1893 was less than \$225.

THE Premier and Attorney-General of Manitoba have come to Ottawa, at the personal request, it is said, of the Governor-General. An attempt is, no doubt, being made to effect a compromise on the Manitoba school question, with what success remains to be seen.

THE number of teachers-in-training at the fifty-nine Model Schools of Ontario in 1894 was 1,750, an increase of 168 over that of the preceding year. Of this number 1,456 passed the examination. The number of students at the Normal Schools was 379, a decrease of thirty-three from that of the preceding year.

THERE were 313 Roman Catholic Separate Schools in Ontario in 1893, with a total attendance of 38,607 pupils, taught by 684 teachers. It is not, perhaps, so generally known that there are also Protestant Separate Schools in the Province. There were, however, only eleven of these in 1893, with an attendance of 548 pupils, taught by twelve teachers.

Two excellent special papers will be found in this number. One is the first instalment of Inspector Dearness' lucid and instructive sketch of the history of the teaching of agriculture in the

Ontario schools. The other is an article in which the elementary principles of single and double entry bookkeeping are unfolded by Mr. Johnson, Principal of the Ontario Business College at Belleville, with a terse clearness which will, we are sure, be appreciated by many teachers who may have found some difficulty in the teaching of this subject. Both papers are worthy of careful reading.

WE have a larger proportion than usual of somewhat lengthy articles in this number. We hope that no young teacher will let that deter him or her from giving each a careful reading, or, if need be, study. Either and all of them will repay it. Miss Lawler's paper on "The Function of English Poetry in the High School" will be found instructive and suggestive, as well as interesting. The two methods proposed for the teaching of history will supply a felt want, we are sure, as we are often asked for hints in aid of the teaching of this subject. The methods given are, we are assured, not mere theoretical schemes, but are the work of practical teachers, and have been and are being used with success in their schoolrooms. We are much gratified to find the amount of original matter in our columns increasing from month to month. We do not mean to permit the proportion of matter of a directly practical and helpful kind to decrease, but the opposite. We are already laying our plans for making THE JOURNAL during the next school year more useful in the actual work of the schoolroom, and better in every way than it has ever been. One improvement we may specially promise. We feel that we owe an apology to many of our patrons that the notes on the Entrance Literature lessons have not been so well kept up as we had intended. Of course the opportunity of obtaining at a small price the excellent little volume of notes which has been in the market has made our shortcoming the less felt, no doubt, but, in response to the requests which have come to us, we have resolved to make notes on these lessons a specialty after the holidays.

VERY much of the success and progress of any work depends upon the right men and women being in the right places. This is especially true of educational work. Whoever becomes the means of bringing together the most efficient teacher available and the board of trustees which especially needs such a teacher is a public benefactor. He renders lasting service to the teacher, to the community which profits by his services, and to every pupil who thereafter is benefited by the school. It is obvious, on a little observation, that the facilities for bringing about such acquaintances and adjustments of trustees and teachers in Ontario, and, in fact, in all Canada, are not at present as great as they should be. It is obvious, too, that an educational paper which has the good fortune to be widely, almost universally, read by the teachers of all grades in a given country has special facilities for serving both teachers and trustees in this way. We have, therefore, not without repeated solicitation, had under consideration for some time past the propriety of establishing, in connection with THE JOURNAL, a bureau for the mutual advantage of teachers and trustees, somewhat on the plan which has been so successfully adopted by many of the leading educational papers in England and the United States. It is the laudable ambition of every good teacher to improve, at the same time, his income and his opportunities for usefulness, by removing from a smaller to a larger field. It is our ambition to help him to do so. We shrink from the responsibility and toil involved in such an undertaking, but we see no reason why, with a sincere and painstaking desire to further the best interests of all concerned, we may not hope to do a good work for those who may become our patrons, and for the cause of education, and at the same time—we do not profess to do the work, which will involve a good deal of outlay, as well as make large demands upon our time and that of others, on purely philanthropic principles, and could not afford to do so—make the business fairly remunerative. We mention the project that those interested may be thinking about it. A fuller announcement may be made in our next number.

English.

All articles and communications intended for this department should be addressed to the ENGLISH EDITOR, EDUCATIONAL JOURNAL, Room 5, 11½ Richmond Street West, Toronto.

THE FUNCTION OF ENGLISH POETRY IN THE HIGH SCHOOL.*

MISS GERTRUDE LAWLER, M.A.

"Poetry is itself a thing of God ;
He made His prophets poets, and the more
We feel of poesie do we become
Like God in love and power—under-makers."

I have followed with considerable interest some of the many learned discussions that have risen, have fallen, and have decayed, concerning the relative educational importance of the various subjects on our High School curriculum. While sympathetically hearing a brother teacher dolefully lament that arithmetical genius was discounted in favor of algebraic talent, or that mathematical studies were cramped, owing to heavy pressure from science and classics; while wonderingly listening to an enthusiastic friend, as he told in winged words of the absolute necessity of instructing the growing youth in the universal truths of nature; while delightfully attending to the artless, artistic, æsthetic admirer of Greek and Latin, as he faultlessly demonstrated the unique mental effects of Homer and of Virgil on the much crammed, but not, therefore, more educated child of this most enlightened age; while admiringly smiling, as I heard the sweet sounds of *der, die, das*, or of *jai, tu as, il a*, lisped by pretty girls and gallant boys; while carefully noting that the art of recording, in a systematic manner, the transactions of merchants, traders, and other persons engaged in pursuits connected with money, and that the art of representing any object by means of lines circumscribing its boundaries, and the art of delineating, on a plane surface near and distant objects as they appear to the eye from any given distance, were attracting a great deal of attention, due, perhaps, to the mercantile spirit of our busy, bustling century, could I help blissfully thinking that while with regard to the various subjects of High School study much might be said on all sides among English-speaking people, among loyal British subjects, among patriotic Canadians, among educated, broad-cultured Torontonians, the study of English poetical literature was still universally recognized as a means of educating the emotional, the intellectual, and the æsthetic side of our nature? Am I not right in concluding that every zealous mathematician, every painstaking natural philosopher, every cultured Greek, every devoted admirer of French and German, every busy commercial master, wishes to have all pupils instructed in English verse? All believe with Coleridge that "Poetry is the blossom and the fragrance of all human knowledge, human thoughts, human passions, emotion, language"; and, with Leigh Hunt, "Poetry is the breath of beauty, flowing around the spiritual world, as the winds that wake up the flowers do about the material."

It is still a fact that a nation's greatness is measured by its literature, and it is readily granted that the chief kind of literature is poetry. Now, if my memory serves me properly, in mathematics a function is defined as a quantity so connected with another that no change can be made in the latter without producing a corresponding change in the former. It follows that poetical literature is the function of every nation. What is true of the nation is, in this case, true of the individual. The function, the power of English poetry in our High Schools, is to make our boys great men, our girls great women, by cheering, by refining, by ennobling. I do not claim that a student's greatness is measured by his love of English classic poetry, but heartily agree with Van Dyke: "I had rather have my children grow up thinking that the earth is flat, and that light is a liquid, than have them grow up without a love for true poetry."

In order to explain this function of English poetry in our High Schools, let me make a four-fold division of High School pupils: First, those below the Primary; second, the Primary Form;

third, the Junior Leaving and Pass Matriculation Form; fourth, the Senior Leaving and Honor Matriculation Form.

The poetry studied by the first division consists of selections from the High School Reader, and of selections chosen by the teacher. As all tastes are not alike it would be difficult, if not impossible, to collect such a number of English classics as would please every teacher and every pupil; for, be it gratefully recorded, every teacher is original enough to be different from all others. What is true of the teacher is, in this case, true of the pupil, for teachers are but pupils of a supposed larger growth; of course, mental growth.

The High School Reader contains a good, suggestive selection that is easily supplemented as taste directs, and as opportunity presents itself; so that it is a pleasure to know that as all such classes are differently constituted, that is, consist of different teachers, the supplemental work is likely not the same.

In this junior form, we find that the boys prefer the poems that have to do with wars; the girls show a marked liking for interesting narratives and picturesque descriptions. Yet, very often these likings are reversed. Indeed, each pupil is like a note of a new musical instrument. You may succeed in striking several notes together; you may strike one at a time; the aim is to strike all at some time, and the oftener the better. Then is heard the echo that will "roll from soul to soul, and grow forever and forever."

We feel sure that when a child is taught to see good actions, good principles, good morals, and whether in the cornfield, the daisied field, or the battlefield; in the cottage, the residence, or the palace; in the ploughman, the esquire, or the lord—he will admire, will applaud, will imitate, in his own scale. You watch him translate the lesson to suit his own circumstances, when he tells you what he thinks, what he would do. You see him become a part of all that he meets.

In a word, you have given the child an intellectual problem to solve, or an intellectual theorem to demonstrate; you have, from the nature of the problem or theorem, aroused his emotions, his human feelings; you have presented the question in an æsthetic form, and have stimulated his sense of the beautiful. What would you more?

You believe that true poets are "God's prophets of the Beautiful." Could we not present to our junior class its specimens of the Beautiful in a more æsthetic form than in homely brown-covered books, dubbed High School Readers—not even Poetic Literatures? Why not have our classic gems printed on good paper, and bound in an attractive cover? Then, with Disraeli, one might say,

"Object of delicious pleasures!
You my eyes rejoicing please,
You my hands in rapture seize."

As it is, when asking for the High School Reader for a Literature lesson, I say, "Let us take our Poetic Literature." Mere sentiment, you may, perhaps, conclude; but then I smile at the well-known French writer as he whispers, "All the reasonings of men are not worth one sentiment of women!"

Yet another sentiment, to which I beg to give expression. Every High School teacher, except the teacher of English Poetical Literature—here he is always excepted—is wont to demand those same brown-covered High School Readers whenever an imposition is to be given. What fate impels the choice of poetic selections? Does the child love the rod that punishes, even if that rod be of gold? If familiarity with a poem ever breeds contempt for it, it must inevitably be when that familiarity is acquired by an hour's irksome, fruitless scribbling while companions are with the tennis-racket or the football. The longer the poem, the greater the contempt. The pupil is not in the humor to help Horatius keep the bridge, or to understand by what right Shylock claims the pound of flesh; he prefers to croak, with the Raven, "Nevermore!" We agree that "the object of punishment is prevention from evil; it can never be made impulsive to good." Here, assuredly, "correction lieth in those hands which made the fault."

Let me conclude with three pleasures known by the teacher of poetical literature in this junior work: the pleasure experienced when told of poems read by pupils outside of school work; the pleasure of always having the memorization of

extracts done voluntarily; the pleasure in examining what the world calls "Spring poetry." If often springs from the heart.

The brown-covered High School Reader contains the selected course for candidates for the Primary Departmental Examination. A pupil sometimes says, "The English Poetical Literature is still the same." There is evinced a feeling of monotony. I have heard more than one teacher say, "I do not blame the pupil." Is it not true that if the teacher does not weary of the poems—verily, weak humanity wearies of even the sweetest songs—the pupils will not weary, whatever the feelings expressed at the beginning of the session? Is not Carlyle right? "If time is precious, no book that will not improve by repeated readings deserves to be read at all." It seems best not to specialize too early in one's course. It is surely better to know a little of the best of several authors than a little more of only one.

By the Primary Examination, the first official test is given to the pupil's work. This the pupil knows. He has grown a year or two years; his thoughts, his joys, his cares have grown; the poems have grown with him. They are still the same tunes, but with different tones. The teacher sets the tones. It used to be considered necessary to have the same chorus for every poem—"Look out for the examiners!" I have heard, the teachers sang the chorus with might and main. Now our pupils learn their poems; think them, feel them, act them. They memorize just what they like. Their little tastes are pure. Love of the work is our only impetus. At the end of the school year they tell the examiners what is asked, and usually please. I may say plainly, I have never taught one lesson that pandered to an examiner's taste. Teach, and never think of examiners as dreaded monsters. Examiners are merely questioners. Fellow-teachers, the fever of examinations is too often contracted by teachers, and is then caught by pupils.

At Christmas time of 1894 I had a Poetical Examination in a primary form, and asked the question, "Do you like the study of poetry? Tell briefly why or why not." Let me give you a sample of the replies. That I might not select partially, I chose at random, yet I need not conceal the fact that all answered affirmatively. This from a boy: "Yes, I like the study of poetry, because it brings before my mind in a way that neither prose, nor painting, nor music, nor aught I know can, the beauty and grandeur of nature. It tells sweet tales of love, it draws sweet pictures of characters of good men and women, and fills a man with that emotion and strength which says, I will rise and become better and stronger." This from a pupil with less power of expression: "I like the study of poetry because it makes me think. The most of poetry leads me to higher thoughts. Poetry is a fine study; the more you know of it, the more you want to know." Another: "I like the study of poetry because it teaches truth and points out evil; so that, by knowing what and where the evil is, we may avoid it. Also it appeals to the feelings, and affords more food for thought than any other single subject. I think that the study of poetry advances a man farther in wisdom than any other study except history."

In case any of my hearers should agree with the last statement, I leave all to argue it with Plato, who writes: "Poetry comes nearer the vital truth than does history."

I have a good many of such answers, and, with these testimonies, may we not say to the learned critic that writes in THE EDUCATIONAL JOURNAL of March 15, 1895, and who asserts that in the High Schools of the United States, "Literature—I hate it" sums up the judgment of too many boys and girls in this matter, such a hatred is unknown in our Canadian High Schools?

In the Junior Leaving and Pass Matriculation form there is a feeling of importance on the first morning after the summer holidays, when is announced the poet whose work is to be of particular study. There is magic in the name of Scott, Wordsworth, Tennyson. It is as though a renowned personage—and at the same time a friend—was come to spend a year and promised to tell throughout the whole year of glad tidings.

We agree that the teachers and the pupils of Ontario are indebted to those learned annotators that have prepared special editions of particular authors for the Junior Leaving and Pass Matriculation students. I should like to express the wish that future annotators provide as dainty a volume

* A paper read before the Modern Language Association at the Easter session, 1895.

as that 1895 deep-blue, gilt-stamped edition of Tennyson's poems.

There is only one objection that I am obliged to make to our school editions: they do not contain all the poems that I should like to place before the pupil. When the pupil, unaided by the teacher, would read more—our *Olivers* always ask for more—the selected edition is found wanting. I have never yet been accused of extravagance, when, in these days of cheap books, I have asked that each pupil provide himself with a complete edition of the author.

The annotated edition certainly provides valuable material, which the pupils and the teachers appreciate, I hope, proportionately to the annotator's expenditure of time and energy. If a lexicographer, as Dr. Johnson puts it, is a harmless, necessary drudge, much more so is the annotator of school classics, for his is solely a work of love. If he does not love the poet, it is not often that chill penury forces the work.

The teacher's position is not the same: the author is now *a* favorite, now *the* favorite, and now not valued. Well, there is a recognized authority to choose the poet for study. It is inevitable that the works chosen are classic, and just as inevitable that there is much good derivable from a humble, reverent study of any classic poet. Moreover, it is the pleasure, the privilege, the duty of every teacher to make his pupils see mainly only what is best, with the aim of cheering, of refining, of ennobling. Yes, "if you look on the ground you must see dirt." As a rule, take a glance downwards to avoid puddles and mud, but otherwise keep the eyes off the ground. Here is a case of which I know. I quote from a High School pupil's letter to me: "We have a new teacher in Literature, and he has made me feel better; he loves Tennyson, and makes me love *him*, too." [I suppose the "him" is Tennyson.] "Our former master disliked Tennyson, and kept telling us how much better somebody else did the same thing. We did naught but grumble. How much happier we are!"

As I read that letter I asked myself again, "Why can't we all be optimists?"

Of course, a feigned love of a poet on the teacher's part and on the pupil's part must be discounted. We trust that if a sufficient number of intellectual beings see good in an author, good there is in him, even if we cannot detect it. Indeed, it hurts a man's pride to say "I do not know." Yet that man knows that too often a dislike arises from prejudice or from ignorance. The case reminds me of Locke's words: "To be rational is so glorious a thing that two-legged creatures generally content themselves with the title." Alas and alas! some two-legged creatures are teachers. The syllogism is easily completed.

Thinking that the members of this association would like to know from Junior Leaving pupils what is one function of English poetry, at Christmas time, on a Literature paper I asked, "What importance do you attach to the study of English poetry in comparison to your other studies?" I choose citations from a few answers.

A girl wrote:—"Poetry plays a very important part in our studies. After working hard at a mathematical problem, how restful it is to turn to the pleasant subject of poetry!"

A bright boy:—"In comparison with other studies, it may not be of such practical value in most walks of after life, though in oratory, whether in the pulpit or at the bar, or in the House, it must needs be of great value. Then it imparts a tone, a finish to one's conversation. I want to be a good conversationalist. Poetry makes me observant of little things that make life happy. Even in mathematics it helps me, for it teaches me to think, and from one wee, unobtrusive clue, to follow out a whole train of profound reasoning."

Another bright pupil:—"The importance attached to a study depends a great deal upon the use of that study to you in after life. But with regard to poetry, it seems to me different; for, whether one's future life lies in the realm of law, science, theology, or even in a prosaic business life, we can hardly over-estimate the value of poetry to us. On account of its beauties of thought, its refining influences, its great moral truths, it should always hold first place."

Another boy concluded:—"Then, too, I find that the memorizing of a choice passage of my liking helps my powers of memory in a large degree."

A girl reminded me that her aim was to be an

elocutionist and so the study of poetry was her chief delight.

The Senior Leaving and Honor Matriculation form is the pride of every High School and of every High School teacher. True, the pride is occasionally in proportion to the success expected at the coming examinations, but there is a nobler pride founded on the intellect of the pupils. In English Poetical Literature the mind is concerned with Chaucer and with Shakespeare.

Chaucer has paid only a short visit to our High Schools, and next year he is not to be studied by High School pupils. It is not in place to question the wisdom of the withdrawal. It is supposable that those who have the matter in charge are acting wisely. But, since we are considering the function of poetry in the High School, it is relevant to say that Chaucer has done much to inspire. His artless simplicity—as fresh as is the month of May—has won many admirers; his picture gallery has been intensely amusing and suggestively instructive. But my greatest pleasure came from a boy-pupil's translation of the whole of the Prologue into good, modern English, iambic pentameter, rhymed couplets. Others have tried special portions, with more or less success. Singing Chaucer seems to inspire with a longing to turn a verse.

It is in this highest form that a whole play of Shakespeare is minutely studied for the first time. Much special treatment depends on the nature of the play selected, but the love of the special masterpiece means the A B C of future dramatic study. When a pupil has grasped a Shakespearean unit, he is ready to graduate from our schools in English Literature. It is extremely interesting, psychologically, to watch a scholar project himself by turns into each of the persons of the play, and to hear him weigh the why's and wherefore's of different actions. Provided a pupil is taught to believe his own opinions and deductions are to himself more valuable than are then to him valuable the remarks of, it may be, Gervinus, Hazlitt, or Dowden, it is most gratifying to listen to the various translations of persons and circumstances; to note the quick perceptions of what is extravagant or unnatural; to mark the ready appreciation of what is worthy of commendation.

One of the chief functions of this dramatic poetry is to foster originality, to make the pupil conscious of his innate strength, before he mingles with wider, greater life. The imaginary struggle—of course, as it is imaginary, it is less than the real—of different men and women, prepares, in a passive, pleasurable way, for what must be met in active form. There is need only to rouse that inborn strength of character.

At the beginning of a school year, I asked this highest form of pupils to suppose they visited our school, twenty years later, and were allowed to address, for fifteen minutes, the pupils in attendance; to write a synopsis of the address. Thirty out of forty pupils sketched the usual, now almost trite, remarks about log schoolhouses and cold rooms and cross masters. On enquiry, I found that not one of the thirty had ever been in a log schoolhouse, but older persons had been heard to expatiate on the great differences between the now and the then.

Older persons are heard on many other topics that affect younger minds. The law of laziness is easy to obey. Rather than think for himself, the younger often allows the older to obtain results which he finds an indemnity in quoting as the conclusions of the more learned. If the older were the wiser—it ought to follow, too, still the thinking should be done by young and old—there would not be much harm in the quotation of opinions as truths.

One notion I heard amazed me: "I never read Milton with pleasure, because I studied him at school." I asked for the reasons and was then reminded of Falstaff's words, "Give you a reason on compulsion! If reasons were as plenty as blackberries, I would give no man a reason on compulsion." For my own part, every poem I studied at school is thrice endeared—by the poem itself, by my classmates, by my teachers. The associations awakened by a perusal are satisfactory. May such continue to be! But, older pupils, do not continue to say, even in jest, what is not true; for some younger minds in their innocency take it—your fashionable fad—for truth that poems studied in school are spoilt.

Another somewhat antiquated notion, found at times by derivat or by inheritance in our highest class, is that you cannot understand English poetry,

say Shakespeare, familiarly quoted as knowing little Latin and less Greek, or Tennyson, without a knowledge of Latin and Greek. I do not mean to argue. Yet a word. All knowledge is relative, and the more one knows of every other branch of learning, the better he understands and appreciates his special study. Each branch is a perfect part of a perfect whole, and seldom, if ever, does a mortal arrive at a correct solution of one part. Can't I taste perfectly a peach unless I know the taste of a pear? Must I taste all species of apples to know the taste of one species of apple? Enough! To advance the study of our pet branch of learning, we couple it with that which seems best to advance the interests of one or of both. It is fashionable to know this or that and so the infection spreads. However, the student of English poetry knows that by it his mind is broadened in proportion as he studies it and all else.

I cannot conclude this paper without expressing a wish that more adequate facilities may soon be afforded for the study and the official recognition of our own mother tongue. It is not easy to understand how one can excel in dead classics, in live mathematics, and be indifferent to the parent speech; how, knowing little, and caring less, concerning the habits of our language, he wishes to claim the privileges of citizenship in a British community; how, scarcely able correctly to address an envelope and to pen a letter, he can sleep at night.

We send our High School pupils to the universities, when only the elements of our lordly language is theirs; when they have but tasted of the Pierian springs of English letters; and how gladly we should see them able to graduate in their mother tongue! This is no new striving. Listen to DeQuincey: "If there is one thing in this world that, next after the flag of his country and its spotless honor, should be wholly in the eyes of a young poet, it is the language of his country. He should spend the third part of his life in studying this language, and in cultivating its total resources. He should be willing to pluck out his right eye, or to circumnavigate the globe, if by such a sacrifice, if by such an exertion, he could attain to greater purity, precision, compass, or idiomatic energy of diction." Now, a third part of one's life is surely worth an honor degree in our best university.

Once more, the function of English poetry in our High Schools is to cheer, to refine, to ennoble, to make men and women, whether university degrees are acquired, or in whatever path life leads. Assuredly, "sooner or later that which is now life shall be poetry, and every fair and manly trait shall add a richer strain to the song."

THE WASP AND THE BEE.

A wasp met a bee that was just passing by,
And he said, "Little cousin, can you tell me why

You are loved so much better by people than I?"

"My back shines as bright and as yellow as gold,
And my shape is most elegant, too, to behold,
Yet nobody likes me, for that I am told."

"Ah, cousin," the bee said, "'tis all very true,
But if I were half as much mischief to do,
Indeed they would love me no better than you.

"You have a fine shape and a delicate wing,
They own you are handsome, but then there's
one thing
They cannot put up with, and that is—your
sting.

"My coat is quite homely and plain, as you see,
Yet nobody ever is angry with me,
Because I'm a harmless and diligent bee."

From this little lesson let people beware,
Because, like the wasp, if ill-natured they are,
They will never be loved, if they're ever so fair.

A Christian school is made by the atmosphere, the general tone, the surrounding objects, the character of the teacher, the constant endeavor, the loving tact, the gentle skill by which the light and spirit of Christianity—its lessons for the head, for the heart, for the whole character—are made to pervade and animate the whole school life of the child, just as the good parent desires that they should animate his whole future life in all his manifold duties and relations as man and citizen.—*Rev. J. J. Keane.*

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Editorials.

RAISING THE STANDARD.

AFTER full discussion, the Public School Department of the Provincial Association of Teachers adopted, at its recent annual meeting, the following resolutions:

(a) That the Model and Normal School term be extended to at least one year.

(b) That candidates for the Model School hold at least a Junior Leaving certificate.

(c) That the amount given by the townships to each section be \$200, and \$100 additional for each assistant teacher.

(d) That candidates for admission to the profession be not less than twenty-one years of age.

In thinking over these resolutions, the only one which seems to us really open to question is the first, and any hesitation we should have in giving that a ready assent arises out of the doubt whether a part of the year in question could not be more profitably spent in a High School or college than in a purely professional school. We venture to raise this query because our observation and reasoning lead us to believe that the chief desideratum of the average young teacher on entering the profession is more culture or education proper, rather than more professional training. The force of this ob-

jection will depend very largely, however, upon the kind of training given in the Model and Normal Schools. We can readily conceive of this being made such as will tend to develop the thinking power and improve the scholarship of the student almost or quite as effectively as any academic or collegiate course. The first requisite in a teacher is a thorough mastery of the subject he is to teach. No teacher who knows no more of a given subject than is contained in the prescribed text-book, or than is required to be taught, can be a competent teacher of that subject. If the lesson to be taught is merely addition or subtraction, the teacher will be greatly helped by a thorough knowledge of the decimal and other arithmetical systems. In fact, he should be deemed incompetent without such knowledge. So, too, every one who has paid any attention to the subject knows how much even a very limited knowledge of algebra or geometry aids in a clear comprehension and treatment of arithmetic. The same principle holds good of the relation of Latin to English, of philosophy and philology to grammar, and so on. An additional year of study of any kind cannot fail to be of immense value to the future teacher. The essential thing is that the time be devoted to such study as will conduce most largely to true mental expansion, not spent in listening to didactic instruction, or in learning mere technical drill in class manipulation, useful though these may be in their place.

The proposal that the candidate for entrance into the Model School shall be required to have the equivalent of, at least, a Junior Leaving, certificate is quite in line with these views, and, if adopted and carried out, cannot fail to tell powerfully upon the future status of the profession. To say nothing of the superior ability in teaching and discipline which is the direct result of increase of intelligence and mental power, it is a well-known fact of observation that the farther the young teacher has advanced in his studies, the more likely is he not only to pass upward from one grade to another until the highest is reached, but to keep up those studies and to become eventually a truly educated man or woman. Nor can any thoughtful and observant person doubt that the status of the profession in every respect, remuneration included, will rise in almost equal ratio with the real culture of the members of the profession. Why should not every young teacher aspire not only to climb to the highest story in the profession, but also to take rank, in the community and

in the Dominion, among the most cultured, respected, and influential citizens?

Several of our correspondents have, from time to time, like one whose letter appears elsewhere in this number, dwelt upon the hardship which will, in their opinion, be inflicted upon poor young students, if the age of eligibility for a certificate be raised to twenty-one years. Such writers seem to forget that the object of our educational system is not and should not be to provide employment for young men and women who may be in need of a little money, to enable them, perhaps, to enter upon the study of law or medicine, or to improve a scanty wardrobe, or even to continue their professional preparation. "Will not," it is asked in all seriousness, "the extension of the Normal and Model School terms, and the raising of the age-limit for certificates, work great hardship to these young men and women? Will such a policy not discriminate against the poor student and in favor of the rich?" Do such reasoners really mean that the trustees, or the Education Department, should be content with lower qualifications than the best procurable, in their teachers, in order to furnish employment to needy aspirants? Surely not. At the same time, we do not hesitate to maintain that the raising of the standards will be positively beneficial in the long run to even these poor students. What if they have not money enough to carry them on until they shall have attained the proper age and qualifications? What shall they do? Why, let them go to work and earn the money they need to carry them forward. Let them betake themselves to the farm or the factory, or the mechanic's bench, or some other useful industry, until they shall have earned what is needed, as thousands of plucky young men and women have done before them, many of whom are now occupying very high positions. Perhaps some such sifting process is just what is needed to discover the right stuff and to make easy the process of selecting the genuine material out of which true teachers are made.

THE next annual meeting of the Manual Training Teachers' Association of America will be held at Armour Institute, Chicago, Ill., July 16th, 17th, and 18th, 1895.

THERE were 129 High Schools (including Collegiate Institutes) open in Ontario in 1893, employing 538 teachers, and attended by 23,055 pupils. The average salary of teachers was about \$930.

Contributors' Dept.

ARE WE MOVING UPWARDS?

BY A CANADIAN TEACHER.

The report of the Minister of Education, recently issued, contains a great many points of interesting information, but to those who have made teaching their calling I suppose the most particularly impressive items are those relating to the teachers themselves. Any signs of the uplifting of the general status of the teachers of the province would certainly be hailed with delight as one of the surest harbingers of general prosperity in educational affairs. I am sure that you would be glad to record in THE JOURNAL all the undoubted facts that would even tend to prove that the position of teachers was gradually becoming better, and especially any facts showing that the body of teachers, on the whole, was steadily advancing to such a standard of professional skill and scholarly attainments as must ultimately *compel* more adequate recognition from public opinion. It would be an immense stimulus to the *esprit de corps* to know that, notwithstanding the miserable salaries, the fraternity, as a whole, was climbing higher each year in scholarship and in all that constitutes a thoroughly qualified artist, able more and more to shape worthily the human marble placed under his care from year to year.

Now, how do the statistics read? How far and how fast is Public School teaching making advancement? What are the facts revealed by the Minister's report, which gives the figures for 1893? Out of 8,647 Public School teachers in Ontario in that year, only 261 held first-class certificates of any grade. There was no increase in the number for the preceding five years. To every sincere friend of popular education this must be a distinctly unwelcome fact, which receives a sharp accentuation of positive pain by comparison with the number of first-class teachers formerly found in our Public Schools. In 1867, out of 4,890 Public School teachers, 1,899 held first-class certificates, and only 386 held third-class. In 1893 the corresponding numbers are 261 first, and 4,259 third-class. What an immense change in the proportion in twenty-six years! But in 1871 the standard of examination was raised, say the optimists. Well, in 1872 we had 5,476 Public School teachers, of whom 1,337 held first-class rank, and 2,084 third-class. Now we have only *one-fifth* as many first-class teachers, and *more than double* the number of third-class. There must be some general cause for this enormous change, for the very remarkable shifting in the proportion has gone on steadily throughout the whole twenty-one years. The extraordinary development of the High School system cannot possibly account for the displacement of 1,638 first-class teachers out of the Public Schools, because the total increase of High School teachers during these twenty-one years amounts only to 299. There is the stubborn fact; and it does not point

with rosy finger to the general elevation of the Public School system. If the lowest grade of teachers has enormously increased, and the highest grade has still more enormously decreased, the plain inference is not so flattering to our national vanity as the speeches on the hustings at election times might lead us to suppose. The status of the schools depends primarily and emphatically on the qualifications of the teachers much more than it does upon good school houses with fine cupolas. And this single fact revealed by the statistics is not very cheering to the young people just entering on the work of teaching, nor to the real masters of democratic statesmanship who desire to see popular education advance hand-in-hand with material prosperity. If the next twenty-one years of our educational history are to obey the law that has prevailed from 1872 to 1893, how many first-class teachers will there be in the schools of Ontario in the year 1914? They will be an extinct species, whose relics may, perhaps, adorn some museum. Certainly, we allow to the optimists that the number of second-class teachers has increased by 1,597, a gratifying fact, to be sure, and one for which we all feel truly thankful, because it shows that the number of second-class has increased from 27 per cent. to 35 per cent. of the whole number employed during the twenty-one years, a gain of 8 per cent., so that at the same rate of progress we may expect that in 263 years all our teachers will hold the second-class rank! What blessings are in store for the pupils of the year 2158! But, dear optimist of the hustings, look at the figures in the report, and you will see that even this small advance has nearly ceased, for during the five years, including 1893, the gain was only 27, while the whole number of teachers employed increased by 167. The number of first-class standing remained exactly stationary, and the number of third-class during the same five years increased by 180. Here, then, is the final result and the ultimate gain achieved during the past five years with two Normal Schools and one School of Pedagogy at work all the time: The number of first-class teachers for the five years has not increased at all; the number of second-class has increased by 27, but has fallen 140 behind the increase in the number employed; the number of third-class has increased by 180, or 23 more than the total increase in the number employed. Does it need supernatural aid to predict "the good time coming, boys," when every child in the Public Schools will have a third-class teacher for his or her instructor?

The curious facts here set out must have a cause, and they are sufficiently important to demand careful study. What becomes of all the teachers who pass year by year? Why do they leave the school-room after struggling through the second-class and the first-class examinations, as they do in large numbers, and often in the face of great difficulties? Instead of striving so vigorously, as we really do, to keep up the supply of new teachers, would it not be far more prudent and economical to devote a good deal more care and

attention to retain those already well trained for the work, and to seek by some means to double or treble their period of service in the Public Schools? This is the great educational problem of the times; and the figures in the report do not indicate that under the present conditions of our system we are on the right road to a satisfactory solution.

From the teacher's standpoint we may naturally ask, Do those skilled teachers who leave the schoolroom really in the end and in the long run save more money than they would have saved by prudence and frugality out of their scanty salaries as teachers? Have they no bad debts, no losing speculations, no assignments? Have they more leisure to follow their favorite amusements, more personal comforts, more solid happiness than the exceptional few who have remained on the teacher's platform? Do they still labor at the work they love best, and the work that is of most benefit to their race and nation? Have they kept up the pace in mental and moral development with which they started in the first few years of their active lives? Have they gone on doing work as imperishable and totally indestructible as that accomplished by their comrades who have remained in the schoolroom and helped to fight out the perennial battle against ignorance, barbarism, and sin? In their new fields of activity have they really brought the reign of peace, purity, and reverence any nearer?

These and such like questions are suggested by a thoughtful consideration of the figures already quoted. What life is best worth living? is a question that comes sooner or later to every teacher who has acquired a good training and a liberal education. Is it better to devote one's life and strength to the training of the coming race to intelligence, noble ideals, worthy ambitions, the higher moral, religious, and intellectual life; or, to embark with the majority of our fellow-citizens on the great American expedition in search of the omnipotent dollar, at whatever sacrifice of the moral sublime?

The statistics show how most of the teachers of Ontario practically answer the question. They show also that the present schemes of national education in America break down and fail to utilize more than a small fraction of the teaching power, the professional skill developed at large annual cost to the national funds. The history of our present educational schemes, when it comes to be impartially written, will resemble the Book of Exodus more than any other book.

Every patriot, and every teacher particularly, has an interest in studying the defects that are manifest, and in assisting to find a sound, practical method of working out an improved system that shall replace the old one, which has had a great mission of usefulness in its day, but has now plainly reached its limit, seeing that it fails totally nowadays to keep pace with this age of electrical machinery.

Man-like is it to fall into sin, fiend-like is it to dwell therein; Christ-like is it for sin to grieve, God-like is it all sin to leave.—*Longfellow.*

Special Papers.

THE FUNDAMENTAL PRINCIPLES OF DOUBLE ENTRY BOOKKEEPING.*

BY J. W. JOHNSON, F.C.A., PRINCIPAL OF THE ONTARIO BUSINESS COLLEGE, BELLEVILLE, ONT.

In view of the steps being taken for the encouragement of young office-men and students of accounts to become associates of the institute by passing the primary examinations, it has occurred to me that discussions upon the fundamental principles of double entry bookkeeping might very profitably occupy the time of monthly meetings at intervals, for their special benefit and instruction. Acting upon this view I shall in this paper inaugurate such a discussion, restricting it to the elementary principles.

I shall begin by stating in brief the single entry method.

It will occur to any sensible man doing business, that he ought at least to keep a record that will show his dealings with the persons who become indebted to him, and with those to whom he becomes indebted. For this purpose, he records such transactions at the time of their occurrence in a day-book or blotter, so clearly and with such attention to detail, as will make the record good evidence in a court of law. At his leisure he will post these transactions to the respective accounts in his ledger. The accounts of those who have obtained value from him without settlement will be debited, and the accounts of those from whom he has received value without settlement will be credited. In addition to the day-book and ledger, he will find it convenient and desirable, also, to keep a cash-book, on the debit side of which he will enter cash when received, and on the credit side enter cash when paid out, naming the source from which it was received, and the object for which it was paid. At short intervals (daily, at least) he should ascertain whether the difference between the two sides (called the balance) of the cash-book agrees with the actual cash on hand. If he gives and receives promissory notes, and draws and accepts drafts, he should keep a record of these in a bill-book, by a glance at which he can see in a moment when these obligations will mature.

At the end of the business year, he can ascertain his financial standing, and the gain or loss he has sustained, by making out a statement of his assets and liabilities. If the sum of the assets is the larger, he subtracts from it the sum of the liabilities, and the difference is his present worth or capital; if the sum of the liabilities is the larger, he subtracts from it the sum of the assets, and the difference is the amount of his insolvency. In an account commonly called stock, he has kept a record of his own personal dealings with his business—the credit side shows his investments, and the debtor side his withdrawals of money or goods. In order to ascertain his gain or loss for the year, he will first find the difference between the two sides of the stock account, which was his net investment for the past year; if he finds that his present worth is greater than his investment of last year, the difference is the year's profit; if he finds that his present worth is less than the investment, the difference is the year's loss.

The system above briefly described is known as single entry bookkeeping, and is confined almost entirely to small retail dealers. It is altogether unsuitable for a wholesale or manufacturing business, or for an extensive retail business. In my opinion it is not desirable for even a small retail business.

The double entry system should be universally pursued, because it alone records, throughout the year, the transactions with such accuracy and detail as are necessary to determine in the ledger, not only the standing of personal accounts, but the condition of all assets and liabilities, as well as to exhibit all the sources of gain and loss, and thus make it possible to present the financial standing, and the results of the business in an analytical form.

"It is the great notebook of the experiments of every hour."

Let us suppose now, that the books of a business have been kept by single entry, and it is desired to change to the double entry system. This can only be done at the annual stock-taking time; as the

basis of the double entry system is a complete statement of the assets and liabilities, which we will suppose is the following:

STATEMENT OF ASSETS AND LIABILITIES OF JONES AND BROWN.

(Date.)

	Assets.	Liabilities
Merchandise, on hand, as per inventory.....	\$1050 00	
Bills receivable, not against others.....	700 00	
Office and store furniture, as per inventory.....	300 00	
Cash, amount of money on hand.....	260 00	
Personal accounts owing us.. (Show each one on a line by itself here, or make out a separate list of them if they are numerous.)	1500 00	
Bills payable, our notes unpaid.....		\$1600 00
Personal accounts owing by us..... (Show each one on a line by itself here, or make out a separate list of them if they are numerous.)		720 00
John Jones invested.....	\$4000 00	
John Jones withdrew.....	700 00	
John Jones net investment.....	\$3300 00	
John Jones gain ..	1620 00	
" " present capital or worth.....		4920 00
Robert Brown invested.....	\$4000 00	
Robert Brown withdrew.....	600 00	
Robert Brown net investment.....	\$3400 00	
Robert Brown gain.....	\$1620 00	
" " present worth or capital.....		5020 00
	\$12260 00	\$12260 00

From the above it will be seen that the assets amount to..... \$12260 00 and the liabilities to..... 2320 00

The difference being the present capital. \$ 9940 00
The present net investment of both partners is..... \$ 9700 00

so a gain has been made amounting to.. \$ 3240 00 or \$1620 00 for each partner.

Go now to the ledger and credit each partner with his gain, then balance each one's account, and bring down the balance on the credit side. The partner's accounts will now be as follows, and will agree with the exhibit of their accounts made in the above statement:

Dr.		John Jones, Capital Account.		Cr.	
To Withdrawals	\$ 700 00	By Investment	\$4000 00		
" Balance.....	4920 00	" Gain.....	1620 00		
	\$5620 00	By Balance	\$5620 00		
		(Present worth)	\$4920 00		
Robert Brown, Capital Account.					
To Withdrawals	\$ 600 00	By Investment	\$4000 00		
" Balance.....	5020 00	" Gain.....	1620 00		
	5620 00	By Balance	\$5620 00		
		(Present worth)	\$5020 00		

You will next balance and close the other accounts in the ledger, and bring down the balances as above; then open the additional accounts that

are necessary to bring the ledger into perfect accord with the statement of assets and liabilities, which, as you observe, is in balance. You will open accounts with Merchandise, Bills Receivable, Office and Store Furniture, and Cash, *debit* these accounts with the respective amounts and open an account with Bills Payable *crediting* it with the sum of the outstanding notes. Assets must always appear on the debit side of the ledger, and liabilities on the credit side. Check the ledger now with the statement, and, if the old and the new accounts together agree with the statement, your ledger is converted into double entry.

The ledger in the single entry system has accounts with persons only; you will observe that in the double entry system there are accounts, not only with persons, but with all the assets and liabilities; and you will observe, further, that the sum at the credit of the proprietors' accounts is just the difference between the assets and liabilities, or the actual capital they now possess. That is to say, the sum of the assets equals the sum of the liabilities and the capital.

The equilibrium or balance which now exists in the ledger must be maintained—for every debit there must be a corresponding credit—hence the term Double Entry.

When values are exchanged, the account representing the thing received is debited, and the account representing the thing parted with is credited. For example, if cash is paid for goods, merchandise account is debited and cash account is credited. So far as it goes, the rule which says "debit what is received and credit what is parted with" is correct; but business transactions are much more complicated than that simple rule would imply.

Up to this point we have no accounts opened in the ledger except with the assets and liabilities, which are, as yet, few in number. As business proceeds and extends, there will be great diversity in these; new forms of assets and new forms of liabilities will be created, for each of which there will be a ledger account. For example, if land be purchased, an account will be opened with Real Estate, which will be debited; if a mortgage debt were assumed, an account would be opened with Mortgage Payable, which would be credited. The aim would be to keep constantly exhibited on the ledger the condition of the various assets and liabilities, the accounts which exhibit them being properly called the *real* accounts.

In addition to the real accounts (those that exhibit the assets and liabilities), it is necessary that there should be accounts to show the sources of losses and gains. Every gain that is made in business is practically an addition to the capital, and every loss that is made is practically a loss of capital; but it would not be practicable to credit the gains as they are made, or debit the losses as they are made, to the proprietor's or capital account. A record, therefore, throughout the year is kept, under various ledger titles, of the channels through which losses and gains accrue. These accounts, as they represent temporarily the changes constantly affecting the capital, we may with propriety term the *Representative* accounts. At the end of the business year, in order to arrive at the result of the year's business, after taking the inventory of Merchandise on hand, and placing the amount on the credit side of Merchandise account (which will be brought down on the debit side after the account has been closed), we close these representative accounts over into the Loss and Gain account. If the credit side of a representative account is the larger it shows a gain; the difference between the two sides is the profit from the source that account represents, and it is closed "To Loss and Gain" for the difference, which is carried to the *credit* side of the Loss and Gain account. If the debit side of a representative account is the larger, it shows a loss; the difference between the two sides is the loss from the source that account represents, and it is closed "By Loss and Gain" for the difference, which is carried to the debit side of Loss and Gain account.

When the transfers have been made, or, in other words, when the representative accounts have all been closed into Loss and Gain account, the credit side of this account will exhibit in detail the amounts and sources of the profits, and the debit side will exhibit in detail the amounts and sources of the losses. If the credit side is the larger, the difference is the net profit for the year, and the amount is carried to the credit side of the pro-

*A paper read before the Institute of Chartered Accountants at Toronto, April 23rd, 1895.

prietor's or capital account as an addition to the capital. If the debit side is the larger, the difference is the net loss for the year, and the amount is carried to the debit side of the proprietor's or capital account as a loss of capital.

Having closed the representative accounts (which have served their temporary purpose) into Loss and Gain account, and Loss and Gain account into the capital account, your ledger is again in the condition in which it was started; that is to say, the open accounts are those which show the assets and liabilities, and the capital account, which maintains the balance between them. In order to show at a glance the condition of each asset and liability and the capital, as well as to mark a period in the business, we balance each of the real accounts and bring down the balance in readiness to proceed with the next year's record in the same accounts.

The double entry system, as you will now see, has recorded throughout the year all the changes that affected the assets and liabilities; and the condition of each asset and liability at the close of the business year is exhibited in the respective balances brought down in the ledger. It has also recorded in the representative accounts the working of the business in detail, and now exhibits in the loss and gain account the financial result. The double entry system of bookkeeping is the chart and compass and the pilot of the business man; it tells him not only where he is, but also reveals the paths through which his present position has been reached. If any of these have been dangerous and unprofitable, he can avoid them in the future.

The advantages of the system of double entry bookkeeping will, doubtless, be apparent, even to the most inexperienced reader. There is another feature of the system which renders it invaluable; I refer to the constant check upon errors which exists in maintaining the equilibrium produced by an equal debit and credit for every transaction recorded. Two accounts, at least, are affected by every record, one of which is debited with a certain amount and the other credited with an equal sum; or one account may be debited and several accounts credited; or several accounts may be debited and one account credited; or several accounts may be debited and several accounts credited. Whatever way it may be, the sum or sums debited must invariably equal the sum or sums credited. In order to ascertain whether the bookkeeping in this respect is correct, a trial balance is taken off at stated intervals, usually once a month. In debit and credit columns of the trial balance, opposite the names of the respective accounts, the total of each side is recorded; if the final additions of these columns agree, it is proof that the bookkeeping is, at least mechanically, correct. It will be apparent, of course, that if an equal debit and credit was made in the ledger for each transaction recorded, then the sum total of all the debits and credits should be equal, hence the name, trial balance.

What is termed a balance sheet is an abstract from the ledger taken at the end of the business year on a sheet of paper suitably ruled, which may or may not include the trial balance (better, I think, that it should); it exhibits the assets and liabilities and the state of the capital and also the sources of loss and gain, so that the condition of the business may be gathered at a glance or in detail. The asset and liability columns of the balance sheet should agree with the balances brought down in the ledger for the new year, and the loss and gain columns of the balance sheet should agree with the Loss and Gain account in the ledger.

The meaning of the term double entry will now be apparent to most of my readers, but it is possible that a word further may be necessary for some. An equal debit and credit (or double entry) is necessary because a business transaction invariably affects at least two things, (alters assets or liabilities or both, or changes the condition of the capital). For example, if you receive cash for a note, two asset accounts are affected, viz.: Cash and Bills Receivable; if you pay a note, a liability account and an asset account are affected, viz.: Bills Payable and Cash; if you pay a note and interest upon it, a liability account, an asset account, and the capital are affected, viz.: Bills Payable, Interest (representative of capital) and Cash. Thinking along this line of illustration for a brief period will enable anyone to grasp at least the elementary principles of double entry bookkeeping, to elucidate which was the task I undertook in this paper.

* AGRICULTURE IN THE PUBLIC SCHOOLS.

BY INSPECTOR DEARNESS, LONDON.

On two occasions able papers on the teaching of agriculture in the schools have been delivered at provincial conventions in Ontario, one by Mr. J. E. Bryant, M.A., before the Educational Association of Ontario in 1890, and the other by Mr. C. C. James, M.A., before the Trustees' Convention in 1892. Both dealt with the exceeding importance of agriculture as a pursuit in this country, in view of the value of our agricultural products, the amount of capital invested in agriculture, and the number of persons engaged in it. It is unnecessary here to magnify the importance of agriculture, so we proceed at once to the consideration of what the school system may do to promote its interests.

Mr. Bryant pointed to France as a country where scientific agriculture has had for thirty years a place in the course of study in the schools, and concurrently the average wheat yield per acre has greatly increased. He tells us that, thirty years ago, twenty-two bushels to the acre was considered a good average, now thirty-three is considered but fair, from forty to fifty is expected, and that even as high as eighty bushels per acre has been obtained.

Mr. James quotes a writer in the *Contemporary Review*, the Rev. W. Tuckwell, who attempts to show the relation of cause and effect between the school-garden and agricultural college of France and the fact that 75 per cent. of its population is rural as against 33 per cent. in England. Doubtless, many other causes contribute strongly to these results, so many and so strong that if England had done everything and France nothing towards the teaching of scientific agriculture, the latter country would still have a far larger percentage of rural population and much smaller one of emigration. Yet it is significant that Mr. Tuckwell and others accord so much credit to the school-garden and agricultural college for making the French peasantry prosperous and contented.

But it may be taken for granted that it is unnecessary, before the Central Farmers' Institute, to enter into a series of arguments to show that our schools can do something, and should do all in their power, to advance the status of agriculture.

Is the subject taught now? If so, how efficiently? In attempting to answer the question, permit me to review briefly the history of the subject, for it has a history that dates back to 1871, and one of which I find that, prior to the placing of the subject on the curriculum for the High School Entrance Examinations in 1888, many well-informed farmers are quite ignorant.

HISTORY OF "AGRICULTURE" IN THE SCHOOLS OF ONTARIO.

The 13th section of the School Act of 1871 made it obligatory that certain scientific subjects should be taught in the Public Schools, and, in defending the "new studies," the late Dr. Ryerson said, through the official *Journal of Education*, that "these subjects are such, and are prescribed to such an extent only, as is absolutely necessary for the advancement of the country in agriculture, the mechanical arts and manufactures . . . and, when the cheap and excellent text-books prescribed are examined in connection with the subjects specified, it will be found that nothing has been introduced which is impracticable or for mere show, but everything for practical use and that which admits of easy accomplishment." The text-books referred to included Dr. Ryerson's *First Lessons in Agriculture*, which contained the course in Chemistry, Botany, and Agriculture for the Public Schools and for the junior forms of the High School. Further, he made provision for special certificates for the teaching of agriculture in the Public Schools. A course of instruction was laid down, an examination established, and first and second-class teachers who passed this special examination and taught the subjects were led to expect their schools would receive a special Government grant, an expectation I have reason to remember, for it prompted me to qualify for and pass the said special examination. An inflexible course of study was prescribed and, whether the teacher had studied agriculture and science or not, they were directed to use the "First Lessons in Agriculture" in the highest three classes.

* A Paper read before the Central Farmers' Institute, Toronto, February, 1895.

Beginning with 1871, the annual provincial reports showed that there were put in the study of agriculture according to the lines laid down in Ryerson's *First Lessons*,

In 1871.....	5,723 pupils.
" 1872.....	11,773 "
" 1873.....	22,617 "
" 1874.....	15,045 "

An elective Council of Public Instruction was called into existence by the School Act of 1874, and although the same Act directed the Council to provide for the teaching of Natural History, Agricultural Chemistry, Mechanics, and Agriculture, yet it must have taken cognizance of the adverse criticism of the text-book and possibly, too, of the facts that many teachers were not trained to teach these subjects and but few schools equipped for teaching them in a practical manner, for the rigidity of the course of study was relaxed, and the teachers practised a limited discretion in following it. Accordingly, we find the number reported in Chemistry and Agriculture in 1875, 1,989 pupils. The year 1876 saw the control of the Education Department pass into the hands of a responsible Minister. A revised course of study was published in 1877, providing for the optional teaching of experimental Chemistry, with application to agriculture, in the highest class in the Public Schools. Succeeding annual statements reported the number in Chemistry and Agriculture,

In 1877.....	3,965 pupils.
" 1878.....	1,902 "
" 1879.....	1,665 "
" 1880.....	1,574 "
" 1884.....	849 "

In the last named year the present Minister of Education took office and in the first School Manual issued under his authority—the School Act and Regulations of 1885—we find the following direction:

Agriculture.—In rural schools the subject of agriculture should occupy a prominent place, such points being considered as the nature of the soil, how plants grow and what they feed upon, how farms are beautified and cultivated, the value of shade trees, what trees to plant and when to plant them, the relation of agriculture to other pursuits, the effects of climate upon the pursuits of the people. Poetical selections on rural pursuits, and talks on botany and natural history, should form part of the instruction every Friday afternoon. In the new series of Readers, prepared under his direction, there were lessons on the leaf, the flower, the fruit, and the seed in both the Second and Third, two on Canadian trees in the latter, and a capital one on agriculture in the Fourth.

In the subsequent reports the numbers of pupils reported as studying Agriculture were:

In 1886.....	1,558
" 1887.....	1,602

In the School Manual of 1887 the above direction is repeated, prefaced with the statement that the authorized text-book on this subject (*Public School Agriculture*, by Messrs. Mills and Shaw) should be introduced into every rural school.

In July, 1888, the subject was given an optional place as an alternative with Hygiene on the High School Entrance Examination; then we find the numbers:

In 1888.....	2,064
" 1889.....	2,549
" 1890.....	4,393

In 1891 candidates were permitted to take both Agriculture and Hygiene as optional and bonus subjects at the Entrance Examinations; then there were reported as studying Agriculture:

In 1891.....	15,787
" 1892.....	18,401

In 1893 both subjects ceased, in the interest of thoroughness, to be bonus subjects, the candidates taking them being required to make, as in Grammar, Arithmetic, etc., at least one-third of the possible marks. The statistics are not yet published, but, judging from what I know of a few counties, I expect to find for 1893 a greatly decreased number studying Agriculture, and for 1894, when it was not on the High School Entrance curriculum, the number will probably fall back to two or three thousand. Just think of these tens of thousands of children studying Agriculture, evidently not for the benefit it would some time be to them on their farms, but to get into the High School, or to have the name of passing the examination therefor.

This review of nearly a quarter century's teaching of Agriculture in the schools shows two high-water marks—once, about 1873, when the chief superintendent said to the teachers, "You should and you must teach this subject in the three highest classes from the text-book, 'First Lessons in Agriculture,'" and again, when the present Minister said, "You should, and if you do along the lines of the first seven chapters of the new text-book, your pupils will be rewarded by a bonus at the High School Entrance Examinations." The "should" has been in the regulations ever since 1871. When the compulsion was relieved by the more flexible course of study of the elective council, and, again, when the stimulation of a bonus at the High School Entrance Examination was withdrawn, the sequels show that a sentiment had not grown up which made trustees insist on the continuance of instruction in Agriculture in their respective schools. The authorities have tried both compulsion and persuasion by turn, with admonition all along, and yet in the face of these facts I have heard people blame the "system" or the Education Department for its absence from the schools. Indeed, so far as the Regulations are concerned, there is to-day the same obligation to teach Agriculture as to teach Reading, Writing, or Arithmetic.

Perhaps not any one here is more anxious than I to see the principles of scientific agriculture taught in the schools, and yet I do not regret to see the attempts made to teach it by rote from text-books, with written examinations, fail. Arithmetic, Grammar, and Literature may be taught in such a way, in fact, usually are so taught, as to discipline the intellectual faculties and prepare the learner to some extent to grapple with the complex problems that confront the farmer. Some of you may not agree with me, but I have no doubt that a rational course in parsing, analysis, fractions, mensuration, etc., will, up to the age of fourteen years, better prepare a boy for success on the farm than the rote learning of any or all of the text-books I have yet seen on Agriculture.

It may be useful here to examine what other countries have done in respect to teaching Agriculture in their Public Schools. The opportunities afforded by the great educational exhibit at the World's Fair rendered it easy to get much literature on the subject. Suffice it to say that, of European countries, so far as I know, France has done most, and to the reports of her methods and results I will ask your attention for a moment.

AGRICULTURE IN THE SCHOOLS OF FRANCE.

The French Minister of Agriculture addressed a circular to the prefects on 15th August, 1887, from which I extract the following paragraph:

"M. le Prefet: The importance, every day greater, which Agriculture is taking in the economic position of nations has attracted to it much attention from the various governments.

"In France the least improvement in working and the smallest invention in machinery bring an augment of production which means for the country an increase of its hundreds of millions of agricultural wealth.

"Parliament has not neglected ought to further private initiative; exhibitions, agricultural societies, publications, etc., and everything has been done to maintain French agriculture in the position it has ever held. Agricultural education, the surest and most powerful means of giving to improvement a new impulse, has been specially considered in France."

The circular refers to the agricultural colleges and National Institutes, and proceeds to speak of the "practical schools" established in 1873, open to the sons of the peasantry, whom they receive from the Public Schools and maintain more cheaply than the colleges. In 1887 there were nineteen of these schools, one in each of nineteen out of the eighty-six Departments forming the Republic. These seem to bear the same relation to the Agricultural College that our county Model Schools bear to the Normal School. The children who enter these must have a certain preparation; and it is necessary in agricultural districts to direct the courses of study in the High Schools towards Agriculture.

Hence, the circular continues, we must organize in the Public Schools a course of instruction in the first ideas and the principal applications of science in reference to agricultural instruction, over which the teachers must carefully watch, as it is the basis.

After lamenting the lack of skilled teachers, the circular points to what the Haute Saone Department has done by way of public scholarships, and concludes by directing each prefect to learn what his Conseil-general will do towards founding scholarships, organizing experiment stations, and establishing Agricultural courses in the colleges and High Schools.

Mr. C. C. James, in the paper referred to above, related the status the subject had reached at the beginning of the present decade. The law of 1879 was going into effect as rapidly as trained teachers could be obtained. It was planned to have a special professor in every Normal School by 1885, and to require the Public Schools to have Agriculture taught in every one of them by 1888. This scheme would set eighty-six Professors of Agriculture at work, their salaries being borne equally by the district and by the government. These were appointed to instruct the teachers-in-training, to assist at farmers' institutes, and to supervise investigations when so directed by the government. Many of the Public Schools have gardens attached, and all the Normal Schools were supposed to be provided with gardens. Work with agricultural bearing was presented for the different classes in the Public Schools; even the first class had something to do. Much emphasis was placed on the value of the school garden and the museum, and the teachers were recommended to take their pupils on visits to good farms and dairies.

At the last Educational Congress held at Paris, M. Martel presented the report of the section devoted to agricultural, industrial, and commercial education. Of the teaching of Agriculture the report stated:

In primary education it was evidently impossible to make agriculturists in the true sense of the word; to children from six to thirteen years of age it is necessary, through a scientific method, to give a taste for things agricultural, to accustom them to habits of observation and to make them capable of understanding what has been written for them in books. In the High School, however, the teaching of Agriculture, while preserving a scientific character, might be largely developed; a special course in Agriculture would be in place there, theoretical explanations being complemented by practical work either in a garden or a field for experiments. The General Congress adopted the following three resolutions based on the report:

(1) The teaching of Agriculture in the Public School, often helped by lessons, exercises, and, above all, by the museum, the garden, and school expeditions, should be based primarily on simple experiments relating to the growth of vegetables.

(2) At the High School the special course of Agriculture and the demonstrations in the field for experiments should be adapted to local needs.

(3) At the Model and Normal Schools the teachers-in-training should be made competent to teach Agriculture under the conditions enunciated in the two preceding resolutions.

In the foregoing sketch the names used are not those of the French schools, but those of our own schools of the most nearly corresponding grade.

(To be continued.)

Science.

Edited by W. H. Jenkins, B.A., Principal Owen Sound Collegiate Institute.

EXPERIMENTAL SCIENCE.

The two sciences on the High School curriculum which lend themselves specially to experimental work are chemistry and physics. Botany and zoology are yet taught mainly as observational sciences. Here and there a little work of an experimental nature is being done on plants and animals, but the amount is so small that, in a discussion of experimental science work, the two former subjects will be mainly considered. There are two views held by teachers of physics and chemistry as to the meaning of "experimental" work, as applied to these studies. Not a few teachers hold that the teachers should, alone (with occasional mechanical assistance from his pupils), illustrate with suitable apparatus the various phenomena of the subject under consideration, that the students should be passive observers and recorders of facts, the explanation of which should then be required of the pupils, assisted by the skilful questioning of

the teacher. It is to be noted that the teachers who hold this view are inclined to modify it in favor of the second plan (to be mentioned) in the case of chemistry. Some teachers of physics go so far as to assert that experiments should be carried out only to confirm the principles previously taught, *i.e.*, presumably by the method of telling. A second view held by science teachers, the number of whom, both in Ontario and in the United States, is rapidly increasing, is that the student himself should conduct the experimental work, receiving merely the necessary instructions in regard to manipulation of the required apparatus.

Those who hold the former view say that the pupil must be instructed as to what he should see in order that he may see it; the upholders of the second view maintain that if a boy is to be taught the power of observation he must be given an opportunity for self-development. Thoughtful students of these two methods are rapidly coming to the conclusion that the first plan is mechanical, the second plan educative. Hence the greater stress that is being laid on individual work by the student. Leaders in this work become convinced, after varied experiences, that the student should do his own experimenting, his own observing, and his own thinking, and not have manufactured for him glib phrases which do not enter into his experience. There are many factors, however, which have to be considered in order to carry out individual experimental work successfully. Proper laboratories and a good equipment may not count for much if a course is unsuitable, the time too limited, or the teacher incompetent. A good teacher may be hampered by want of time assigned on the school programme, or by an unsuitable course of study. These are often more difficult to overcome than lack of apparatus. The longer he teaches, the less elaborate equipment he requires. It is only young teachers who want brass-mounted fixtures of elaborate and costly workmanship. The most progressive teachers are now seeking to make their pupils manufacturers of their own apparatus, with a consequent enormous gain in precision and definiteness in knowledge. The day of text-book science is gradually disappearing—let us hope forever; and with it is disappearing, although more slowly, the idea that time is not an essential element in experimental work in science.

PRIMARY PHYSICS.

1. A beam of light is admitted through an aperture two inches in diameter, into a darkened room. Explain by diagrams what takes place in the following cases:

(a) A pane of glass is held so as to cut the beam of light obliquely.

(b) A piece of glass having its surface ground is held so as to cut the beam obliquely.

(c) The ground glass is held so that its surface receives the light at right angles, and about two feet from a white wall.

(d) The pane of glass is treated as in (c).

(e) The beam of light is received upon a concave reflector.

2. Show the following cells arranged in series delivering a current to an incandescent lamp and an electric bell in parallel; all parts must be shown and named: Lechancé, Daniell, Bunsen.

3. (a) A compass is placed on one pole of a flat bar magnet and gradually moved to the other end. State what occurs.

(b) What is polarization? State and explain its effects, and state how it may be prevented.

4. (a) How would you ascertain how much chalk it would take to write your name on the blackboard?

(b) A crayon is placed in colored water one-half inch deep. Explain what occurs.

5. (a) Bells and whistles may often be heard very distinctly before a rain. Explain.

(b) Why do aeronauts find it difficult to make themselves heard when high in air?

QUESTIONS FOR YOUNG OBSERVERS.

BIRDS.

What were the first three spring birds that returned?

If you wished to find them, where would you go?

What do these birds live on? Where do they stay at night?

Do they stay with us all summer?

Name a bird that comes in the spring, stays a few days, and disappears again until fall, when we again see him for a few days before he goes away for the winter.

In what month do the swallows come?

PLANTS.

What was the first tree out in leaf this spring?

How long does it take them to grow to full size?

Compare their color when they first burst from the bud with their color in a month from that time.

In what kind of places do lilies grow? Violets? Does sap stop flowing before the leaves come out?

Where does grass grow tall?

GENERAL.

When do the frogs sing, and for how long?

Why are fish easily caught in spring?

Where were the fishworms all winter?

In what month are butterflies plentiful?

How can you tell now whether an apple tree is likely to have a good crop of apples next fall?

ANSWERS TO CORRESPONDENTS.

T.H.B., Campbellville.—*Ques.*—1. Why does the magnetic needle point always nearly north and south, and not exactly north and south?

2. Why is more than one image formed when a lighted candle is held in front of a plate-glass mirror?

3. Will the bottom of a vessel containing water burn the hand more readily when its contents are at 70° than when it is at boiling point?

4. Why when a stove is smoking does it cease if you open the door of the room, and why when not smoking will it sometimes smoke if the door is opened?

Ans.—1. The earth is assumed, from its behavior towards magnetic needles, to be a magnet. Its *magnetic* poles do not correspond in position to its *geographical* poles, but lie east of the north geographical pole and west of the south geographical pole, hence a compass needle (which is a magnetic), in obeying the law of magnets, takes up a position parallel with the magnetic poles of the earth.

2. This question will have to be answered by correspondence, as it requires a diagram for explanation.

3. At 100° water is converted to steam, which rises from the bottom, thus creating momentarily a vacuum, which is filled by the cooler surface or upper water coming to this point.

4. In the first case, the outer air, being cooler and heavier than the warmer air of the room, forces the air and smoke down the chimney. If a door be opened, the inequality of pressure is set up in the opposite direction. In the second case reverse the conditions which led to the smoking in the first case, and you must reverse the remedy.

BIRD LOVER.—*Ques.*—Please give a description of the Baltimore oriole? Are they found in Ontario?

Ans.—Male: head, neck, and back, black; rump, upper tail coverts, lesser wing coverts, most of tail, and all under parts, a rich red-orange; middle tail feathers black; middle and greater coverts and inner quills edged or tipped with white; length, seven to eight inches; tail, three inches. Female, smaller and much paler, the black obscured by olive. It occurs pretty generally throughout Ontario; arrives in May and retires in September.

L.E.A. writes a very encouraging letter, and enquires about "Nature Study," which is attracting and receiving so much notice in the United States. A future issue will contain a short account of some work done by American teachers along this line, and the results attained.

PRIVATE STUDENT, Simcoe.—*Ques.*—Why does holding a wire net in a flame nearly extinguish it?

Ans.—Gases require to be heated to a certain temperature (called the ignition point) before they take fire. When the net is placed in the flame the metal conducts the heat away so rapidly that it cools the gas below its ignition point.

Hints and Helps.

WHAT I SAW IN SCHOOLS.

A LIVE SCHOOL.

II.

BY VISITOR.

"As is the teacher so is the school." This old saw is true. Its truth came home to your Visitor with added significance in some schools recently visited. It is but a recognition, in a special sphere, of the law of action and re-action, which obtains in all the activities of life as well as in the physical relations of things. This law is of universal application. The effects of its operation are clearly obvious in the school-room. It has found expression in various pithy proverbs, among which are, "A noisy teacher makes a noisy school," "The teacher and his school are sixes and sevens," and the Scotch adage, "Sic maister, sic scholars." Since, then, it is commonly accepted that a school is a reflection of the teacher, it follows that a live school must of necessity have a live teacher. That is the first and, perhaps, the only necessary condition. And, as we may reason from effects to causes, an enumeration of some of the "effects" or facts which impress a visitor as characteristic of a live school will surely determine whether the teacher is a live one or not.

The first thing that strikes the visitor in such a school is the neatness and cleanliness of the school-room. Even if the floor and walls have not received, from the trustees or caretaker, the attention which proper sanitation would demand, there is an air of refinement and orderliness around that is exceedingly pleasant. The sweeping and dusting were well done. No cobwebs lurk in the corners or stretch in tangled and dusty fretwork across the room. The children's clothing and hats are not scattered on the floor, as often seen, but are hung on hooks or nails provided for the purpose. (Many rural schools are not yet furnished with cloak-rooms). "A place for everything and everything in its place" seems to be the law of the school. Trustees are often slow to attend to these small matters, but a live teacher has ways and means of getting things done that never occur to the dead or indifferent teacher. Usually trustees are much more ready to assist in keeping the building and premises in good order when they find a teacher anxious to have a tidy, well-ordered school.

The next thing that strikes the visitor is the spirit of work pervading the school. The pupils take one good look at the visitors (it would be cruel to deny them that lean privilege), then go on with their various exercises as if unconscious of the presence of strangers. There is no show of authority on the part of the teacher. After a few words of greeting, he resumes his work. The conversation between himself and his pupils is carried on in a natural, easy tone. There is none of that shrill harshness one too often hears in the teacher's voice—that voice of command which startles and pains those who are unaccustomed to its imperious ring, and causes a distressful feeling of unrest in pupils of sensitive, nervous organizations. The energy of the teacher is shown, not in loud manifestations of sound or action, but in that quiet, permeating influence which secures rapidity of action in the pupils without noise or shuffling. The teacher who is continually calling out, "Too much noise in the room!" "Stop that noise now!" "Order! order!" and so on, is the teacher who never has good order. It is not secured in that way. Without good order, it is hardly necessary to say, there cannot be good work. At least, such appears to be the teaching of experience.

A third characteristic of a live school is the conduct of the pupils during the recesses. There is no boisterous shouting, or running through the room, no wrestling or upsetting of benches and desks, no noisy bedlam of discordant sounds. The boys do not lounge around with hats or caps on, showing want of respect to teacher and visitors. These things are yet tolerated in many rural schools. It goes without saying that the recesses afford the live teacher some of the very rarest opportunities for true culture. He can direct the harmless natural buoyancy of youth and childhood into more refined channels, and impress upon his pupils a feeling of respect for the rights of others which can not be enforced so well by any direct teaching. There are teachers who will shrug their shoulders when restraint during school recesses is even mildly hinted at. They are like a pedagogue who, after hearing an admirable address on the unity of the Ontario system of education, shook himself, to see if he were really *free*, so "straight" he thought the system was. Doubtless he believed in the utmost liberty of speech and action, even license, in his own school. Anything like restriction was repugnant to him, hence his melancholy shrug. Let such teachers consider well which system is best for the pupils—whether the lax, go-as-you-please discipline produces the highest type of character or makes the best citizens. Is it not a matter beyond peradventure that those pupils who are subject to mild restraint and firm discipline are more mannerly in their deportment, have finer feelings, are better students, and are better equipped every way for the duties of life?

Another feature of the live school is the mutual interchange of confidence between teacher and pupils. On the one side there is sympathy, on the other trust and respect. At the recitations the pupils are eagerly attentive. The teacher is allowed to *teach*—for governing is so regulated as to take care of itself. There is absolutely no interference or annoyance from the desks while the recitation is in progress, hence there is no distraction, not disturbance, no wasted energies or loss of time.

The influence of such a teacher is far-reaching. Not on the present generation alone are its effects seen, but far into the future its circumference widens.

"Its echoes roll from soul to soul,
And grow forever and forever."

How often in after life we think of our old teachers as of those who have influenced us most! Do we not remember the *person* long after his wise counsel and teaching have been forgotten? We influence most, after all, by what we *are*, not by what we *teach*. If all teachers were possessed of this fineness of spirit, this quiet, all-determining forcefulness, yet without gentleness, this kindness of heart, this sympathy with child-life in its entirety, how soon would every school be a *live* school in the highest and best sense of that term! The effect would, indeed, be the intellectual, not to say the moral, regeneration of the world.

FOR THE EDUCATIONAL JOURNAL.
LADY LUNA.

Lady Luna shines serene,
Stars around her, bright, are seen,
Comets fly on swiftest wing.
Planets, too, beside her swing.

Meteors, bright-winged, flying fast,
Soon to earth, in darkness, cast;
Shining star-eyes gem the sky,
Brightly blazing—then they die.

Still shines Luna, calm and fair,
Luna, queen of sky and air,
Sailing high in silvery light,
Lady Luna, queen of night.

Primary Department.

SPELLING.

RHODA LEE.

How often one hears complaints of trouble in teaching spelling! It is not, however, in the lesson proper that the difficulty lies, as the average pupil can readily learn a list of eight or ten words, and know them perfectly on the day required; it is when the children have occasion to use the words in story or letter writing and language work of all kinds that we find the mistake, proving the uselessness of mere isolated word-teaching. Lists of words may be given, and with advantage; but, if this be the only means of teaching spelling, it is bound to prove a failure. The thing needful is to be able to use the words correctly, and to acquire this it is necessary to teach words connected with others.

Without doubt, the best way of impressing the spelling of words is through the sight-medium. Let me again give the old quotation:

That which strikes the eye
Lives long upon the mind; the faithful sight
Engraves the knowledge with a beam of light.

I once visited a class in which the children impressed me as being very much above the average in the subject of spelling. Indeed, so efficient were they in this branch that I made enquiries of the teacher as to the method employed. She told me that first of all she *determined* to make good spellers, and in the next place she used any and every opportunity and lawful means of reaching the desired end. The idea which she found most helpful to the little ones, she said, was that of the *camera*. All children are interested in picture taking. The picture idea is not new, but it is certainly very useful. A curtain of some kind is, of course, necessary.

But, before giving further details of the device, I must say that I think that in some classes a great deal of time is spent upon words that do not require teaching. In selecting words for spelling from a lesson in the reader, the difficult ones should first be selected; and those in regard to which we are doubtful dictated to the class, that we may discover whether or not any teaching is required. The simple, purely phonetic ones may be entirely omitted.

Now, as to the system to which Miss B. attributed her success. Each word is in turn written on the blackboard in a short sentence, the one she wishes to impress being in colored chalk, or underlined heavily. Children read the sentence, spell the word, and are given time to take the "photograph." The other words of the sentence, to deepen the impression, are erased, and the curtain is then drawn. The word is now dictated, either alone, or, as is preferable, in a short sentence. The curtain is then drawn back, and any corrections necessary are made. When the whole lesson has been gone over in this way the words are written in note books, and studied at home. Before

dictating the lesson on the following morning at 11.40 the class is asked to write, as busy work, each word six times. The words are then dictated in short sentences, and left on the desks to be examined during the noon recess.

Opening a cupboard door, Miss B. showed me several bundles of paper cut about four inches square. These were spelling-slips, and were frequently used in place of slates. When the work was done on paper, those that were perfect and displayed greatest care and neatness were preserved and a record of them kept.

Frequent reviews are necessary to making good spellers. Contests between the girls and boys, conducted either as an old-fashioned oral spelling-match, or on paper, are good.

Words containing especial difficulties should be kept in a list on the blackboard and "photographed" as often as possible.

Supplementary spelling is just as necessary as supplementary reading. Words connected in thought, such as those suggested by the following list, may be taken for spelling lessons:

1. Trees.
2. Flowers.
3. Vegetables.
4. Birds.
5. Colors.
6. Domestic animals.
7. Days of the week.
8. Months.
9. Parts of the body.
10. Household furnishings.
11. Farm implements.
12. Occupations.
13. Articles sold in various stores.
14. Geographical terms.

Sets of words alike in formation:

1. Silent *e* final—
 - (a) affecting internal sound,—
hate, came, spade, bone, store, rode, fire, line, kite, mete, pure, tune, mule.
 - (b) without affecting previous vowel,—
gone, love, live, above, have, give, move.
2. Silent *l*, as in,—
half, talk, chalk, calm, palm, walk, calf, yolk, stalk.
3. Silent *gh*, as in,—
right, light, might, fight, sight, straight, fright, slight, nigh, sigh.
4. Peculiarities of *ough*:
Bought, rough, through, hiccough, fought, tough, though, thought, cough, wrought, nought.
5. Silent initial *w*:
write, wrote, written, wrong, wrist, wrench, wring, wrung, wretched.

Above all things else, however, let me urge practice, usage, copying selections, etc. That is the way to familiarize children with words. There is a good deal of drudgery in connection with spelling; there is no easy road to the goal of good

spelling; it is simply repeat, repeat, and repeat; but there may be in the above some suggestion that may help some struggler in the race.

FIRST STEPS IN READING.

RHODA LEE.

The first steps in reading have become somewhat of an old story to the Primary Department, but, a request having just reached us for suggestions in the work of beginning, we will endeavor to give a brief outline of the methods employed in phonic teaching.

Begin with the continuous voice-consonant *m* and the vowel *a*. As a means of interesting the little ones we call the consonants boys and the vowels girls. Besides giving the sounds of the letters, teach the children to write them. Script should, of course, be used entirely at first. *Reading* print is all we do in general, and the transition from script to print presents no difficulty.

After introducing and teaching the sounds of these two letters the next step is to combine them to form a word. The children at first give the sounds some distance apart, but gradually bring them closer until the word *ma* is recognized.

As but two words, *am* and *ma*, are possible with these sounds we pass as quickly as possible to *t*. This we call the "boy who stutters." If the letters be made very simply the children will have no trouble in copying them.

Following *t* introduce *s*, the goose sound; then *p*, the old man who panted with the weight of the bundle on his back when going up hill.

The teaching of these first five letters may occupy about two weeks, as it is desirable that the children should be able to do a great deal with them before proceeding to anything new. About thirty words can be made with *m, a, t, s,* and *p*.

The best exercise in sound coalescence consists in the teacher giving the separate sounds, the class recognizing and naming the word. A great many exercises of this kind may be given in a short time.

There are numberless little devices for introducing new letters. One is to draw a row of houses, each containing a letter. A new house goes up at the end of the row, and in it is the new letter. Two or three strokes of the crayon will do all the drawing necessary without any waste of time. Another plan represents all the letters playing in a garden. The newcomer appears, the others speak to him, and he in turn says what he can.

Let us suppose *s* to be the new letter. Its sound has been given, and the children can write the letter after a fashion. There are now two ways in which we may give work: 1st, as an ear problem; 2nd, as an eye problem. As illustrative of the first method the teacher *says* the word *sam*. Children write it on their slates. In the second process the teacher *writes* a word such as *sat*. The children sound and whisper the word to her. At first the sounding, of necessity, is audible, but as soon as possible suppress it.

Suitable desk work should be planned and assigned. Exercises such as writing all the words containing the sound of *a*, making words by prefixing letters to *at*, *ap*, *am*, etc.

Boxes or packages of letters may be given to the children, with which they make words. As each word is made it is written on the slate.

In conducting a lesson at the black-board it is always advisable to give a few minutes extra to the slower pupils. The method adopted for discovering the needy ones is to give a rather difficult test at the end of the lesson. All who succeed in getting it go to their seats, work being provided for them. Those remaining at the board receive a little more drill and another test is given, those who get it going likewise to their desks. In this way the slower pupils are kept up with the rest of the class.

These few suggestions may serve as a beginning, but will, if possible, be supplemented from time to time by methods in the more advanced stages of the work. We would, however, refer our readers to recent back numbers of THE JOURNAL for a more complete outline of the system.

CLASS RECITATIONS.

I

Five little rabbits went out to walk,
They liked to boast as well as to talk.
The first one says, "I hear a gun,"
The second one says, "I will not run,"
The little one cried, "Let's stay in the shade,"
The big one said, "I'm not afraid."
Bang, bang, went the gun,
And they ran every one.

II.

Five little mice on the pantry floor,
Seeking for breadcrumbs or something more;
Five little mice on the shelf up high,
Feasting so daintily on a pie.
But the big round eyes of the wise old cat
See what the five little mice are at;
Quickly she jumps, and the mice run away,
And hide in their snug little holes all day.
"Feasting in pantries may be very nice,
But home is the best," said the five little mice.

—Anon.

NOTE.—Let the fingers of the left hand represent both rabbits and mice, and point to each one as mentioned. At the words "Bang, bang," strike the desk with closed fists.

STORIES FOR REPRODUCTION.

THE SHEPHERD BOY AND THE WOLF.

A shepherd boy who watched a flock of sheep near a village brought out the villagers three or four times a day by crying out "Wolf! wolf!" and when his neighbors came to help him, laughed at their pains. The wolf, however, did truly come at last. The shepherd boy, now really alarmed, shouted in an agony of terror: "Pray do come and help me, the wolf is killing the sheep." But no one paid any heed to his cries, nor rendered any assistance. The wolf, having no cause for fear, took it easy, and lacerated or destroyed the whole flock. There is no believing a liar even when he speaks the truth.

Correspondence.

To the Editor of THE EDUCATIONAL JOURNAL:

SIR,—At a convention of teachers, I heard a man say that we should always strive to go from the "known to the unknown." Of course, the expression is common enough; but I frankly confess that I do not understand it. Will some one, who holds it, be good enough to describe the process, and say in what conditions it is possible.

BENJAMIN BISHFAG.

RAISING THE STANDARD.

To the Editor of THE EDUCATIONAL JOURNAL:

SIR,—The appearance of numerous letters in recent numbers of THE JOURNAL shows that teachers are awakening to the fact that something must be done to improve the condition of teachers before teaching ceases to be a profession.

I fail to see how the raising of the age standard will be fair to those who have the ability to secure non-professional certificates at the age of seventeen or eighteen, but who have not sufficient means to enable them to prosecute their studies until old enough to teach.

I also think that the extension of the Model School and Normal School terms will increase the students' pecuniary troubles, and will not do away with the present grievances without being very unfair to the poor. When I attended the Model School there were students there who had barely sufficient means to enable them to finish the term. If the term were lengthened these would be forced to give up the notion of teaching. No doubt the number of teachers would be diminished by this plan, but it would be an unjust discrimination in favor of the rich. It would also debar those who, from circumstances, are accustomed to persistent effort, a class from which the greatest men in all ages have been produced.

The increasing of the teacher's work by the addition of the higher grades is perhaps as fair to the poor as to the rich, but I contend it is unfair to all teachers, especially to those in rural sections. Will those who were the means of bringing about this change consider the duties of a rural school teacher? Even the shrewdest has from forty to fifty lessons to teach in a day, an average of from six to eight minutes for each lesson. Now, this work, which is taught in High Schools in lessons of forty minutes, is crowded into Public School lessons of five or six minutes' duration. Surely this plan is most absurd. The idea that it will increase the salaries of teachers is deceptive. It has a directly opposite effect, as it secures the approval of those ratepayers only who are directly benefited, and incurs the displeasure of the others, who consider the higher education to be at the expense of the lower. I have ample proof that this is the case.

Of all the schemes brought forward, I think the raising of the standard of knowledge at the teachers' examinations comes nearest the mark. Not an increase in the number or extent of the subjects for examination, but rather a decrease. Students manage to get into High School work with a meagre knowledge of Public School work. They hurry through Algebra, Euclid, Botany, etc., and get certificates with a very superficial knowledge of these. By this time they have forgotten a large amount of the knowledge gained at the Public School. They are, however, polished up at the Model School and sent out to—*keep* school. From this I deduce that the whole system of examinations is wrong. To remedy it, require each pupil to have a profound knowledge of the work studied. Decrease the number of subjects for examination, and raise the standard of marks to 66% per cent. on each subject and 75 per cent. on the whole, or even make it higher. Make a choice of questions, but require each answer to be full and exhaustive. This, at least, will be somewhat fair to the student in poor circumstances, as he can succeed through ability and extra work. It will cut off those deficient in ability. It will ennoble the profession and elevate education in the minds of the people.

Yours sincerely,

LACHLAN GILCHRIST.

Hoath Head, April 4th, 1895.

School-Room Methods

HISTORY.

W. S. DANIELS, SOUTHCOTE, ONT.

How to make the vague and far-off past real and interesting to the average scholar is a question that many teachers are led to ask before dealing long with the subject of History. In so far as the details of war are concerned, most boys take delight in the subject, but any teacher who makes the teaching of wars the end, or even the most important factor in historical research, misses the goal. In dealing with Canadian History, at least, an account of the development of our present system of Government ought to be aimed at, coupled with a glowing desire to inspire the children with a reverence and love for the efforts of our forefathers as they heroically sought to establish the principles and lay the foundations of a constitution that every Canadian boy and girl ought to consider a noble heritage. The dislike which many teachers have for the subject is owing to the way in which they studied it. According to the old system of teaching history, pupils in Public Schools started with the authorized text-book, began at the beginning and ended at the end, studying each event in order of time, and by all means striving not to forget the date of any event, however trivial. As a result, history was dry mental food. At the close of his school-term, the average pupil could be said to possess only a jumbled collection of ideas, illogically arranged, and hence soon forgotten. Why burden the mind with so much unimportant material? Better lay aside the text-book and, using it for reference only, lead the pupil to build a conception of history as the carpenter builds a house: framework first, siding, roofing, shingles, and paint afterwards.

The artist beholds a lovely tree standing out in grandeur and symmetry of form against the golden sunset, and proceeds to depict it upon canvas. Does he begin at one extremity and proceed to the other, portraying branch, leaf, trunk, in order of their proximity to him? Far otherwise. He must follow the logic of nature, trunk, branches, twigs, leaves. So with that other artist, the teacher, if he would produce, in indelible colors of harmonious blending, a symmetrical picture of past events upon the mental canvas.

The following is an outline method which, though defective in some ways, has served the writer a good turn, and may help some one who is at a loss how to interest the boys in history.

After a few questions based upon what the pupils knew of the Indians and their modes of living, a slight knowledge of what is meant by the term history was obtained. This done, a rude sketch of an old oak tree was drawn upon the board with the term "Canadian History" written upon its trunk. This tree, the children were told, sprouted into life about four hundred years ago and still lives. During all these years it has developed seven large branches, which were then added to the picture, each having written upon it an important event in history, with its date and the name of that man who was most prominently connected with it.

The following is a summary of these events and attached are all the dates required to be remembered:

1. Discovery of America, 1492, Christopher Columbus.
2. Discovery of Canada, 1534, Jacques Cartier.
3. Conquest of Canada, 1759, Gen. Wolfe.
4. Constitutional Act, 1791, John Russell.
5. War of 1812-13-14, Sir Isaac Brock.

- 6. Act of Union, 1840, John Poulett Thompson.
- 7. British North America Act, 1867, Sir J. A. Macdonald.

No questions were asked, the pupils simply being told to memorize these seven (really twenty-one) facts, and afterwards thoroughly drilled. When the size and proportions of each were learned, and not until then, other smaller branches might be added to the tree. A lesson was then taken on each event in the following manner: Without any preparation on the part of the pupils, all such preparation being reserved for the teacher, the class were told plainly and carefully the story of the lesson, and then required to write out what they remembered. This done, the exercises were corrected somewhat as a composition exercise might be taken up, the pupils having access to their text-books in order to discover mistakes. This method, we believe, has three strong arguments in its favor. I. It is decidedly analytical. II. By the association of each event with its proper date and the name of its chief promoter, memory is greatly aided. III. The pupils being told the story of an event and then required to write it out are thus afforded one of the finest and most bracing of mental exercises. We believe these are *the* seven most important events in our Canadian history, and, though others of importance might be added, still any child in a Public School who has thoroughly mastered each event in the above list, as to cause, conditions, and effect, will have laid a good foundation for future instruction in the subject. If circumstances require it, all events of importance lying between any two of the above might be mentioned as such, and their connection with the same briefly dwelt upon until the original framework is embellished and concealed.

Southcote, March 27th.

HOW SHOULD HISTORY BE TAUGHT?*

JAMES P. TAYLOR, LINDSAY.

How should history be taught to give the best knowledge of the subject? Perhaps the best knowledge of history is given by the method or methods of teaching it which are in vogue to-day; also, perhaps not. What is the general method of teaching history? I am not able to say positively; but, so far as I can gather from hearsay, from educational papers, and from examination papers, history is still taught by the analytic method. If it is, the best knowledge of history is not given. What is the process? We take the history of the Dominion (I restrict myself to the history of our own country), and break it into parts; we then break the parts into fragments; and, if we wish to be exceptionally thorough, we pulverize the fragments. What is the result?—a knowledge of particulars, a knowledge in detail. And this is the best knowledge, the only knowledge, obtainable by analysis. The more we analyze, remember, the more we multiply particulars. Let me not be misunderstood here. I am not decrying the method, nor am I despising a knowledge of particulars. I simply say that by the analytic teaching of history we cannot impart the best, the highest, knowledge of the subject.

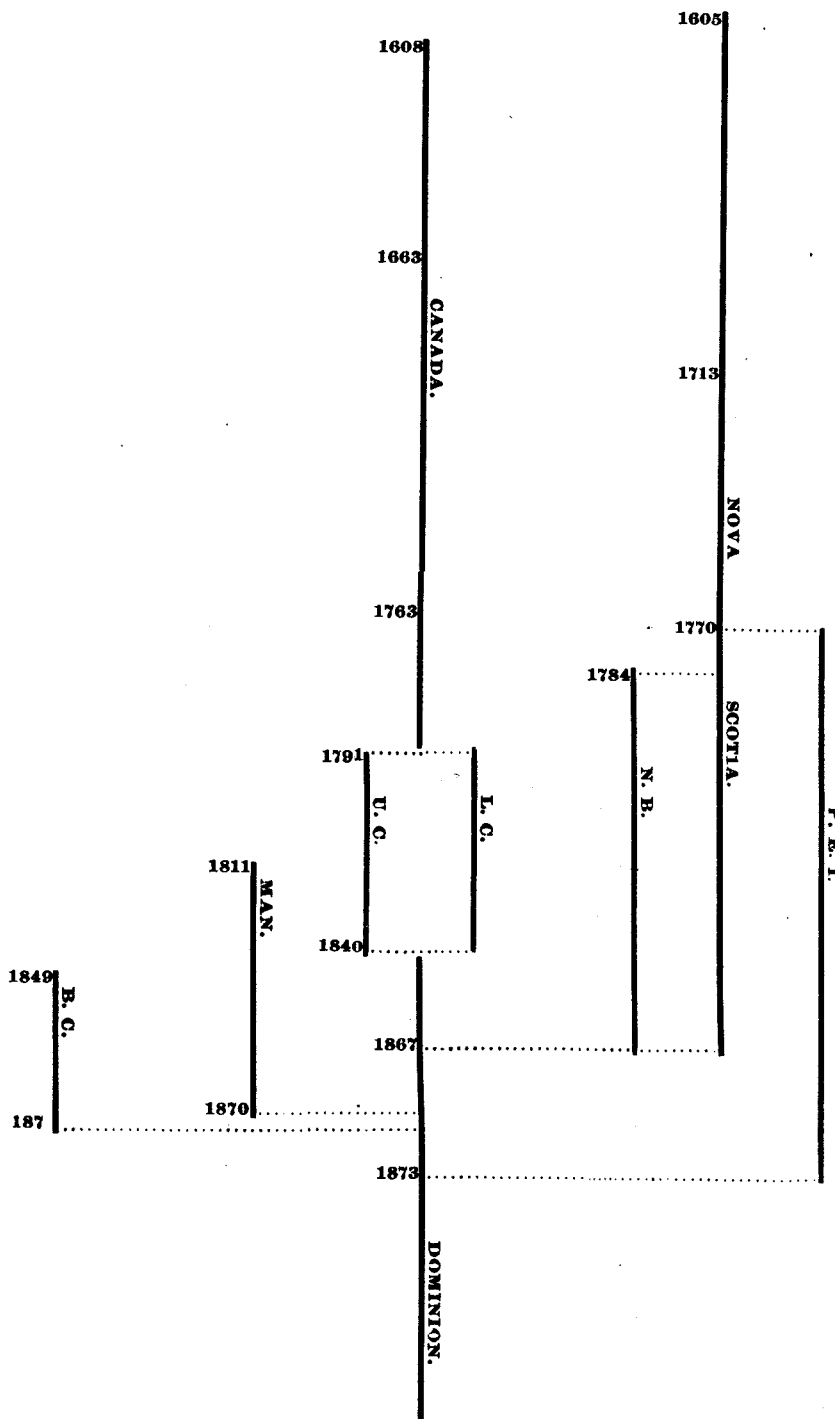
What must we do, then, to give a better knowledge? First of all, by analysis, we must give a detailed knowledge, a knowledge of particulars; how many or how few I will not venture to say. When this is done, face the pupils about, and direct them to integrate these particulars, work them into a coherent whole. Then the pupils will

have the superior knowledge—a clear, comprehensive knowledge of the whole history. They will see the particulars in their order, in their connections, and in their relations. They'll have a knowledge altogether above a mere knowledge of promiscuous particulars.

Who has such a knowledge? The man that wrote the history. How did he come by it? From us, perhaps, he got many of his particulars; what more he needed he gathered from other sources. When he had enough matter, particu-

I am now prepared to answer the question that I proposed at first, How should history be taught in order to give the best knowledge of the subject? I answer, By the breaking-down process and by the building-up process—by analysis and by synthesis. Analysis is of the first importance; synthesis is of the last importance.

Do I mean, then, that every pupil should write out for himself the history of his country? Well, I mean it, but I know it would be useless to say it. We could find no time for such work.



lars, he turned about and began to make the history. He first laid down the foundation lines, and upon these lines he placed his particulars in order, giving to each particular a space proportionate to its importance. When he had done this, he had made the history, and, when he had made the history, he knew it. He knew it in and out, forth and back, up and down, through and through; he knew it in detail, and he could see it as a living organic whole. *He knew the history.*

But let me outline what we can do. We can do what we have been doing; we can make the pupils familiar with particulars; when this is done, we can draw on the board the foundation lines of the history, placing upon them, as we draw them, the first set of important events. Then go over them, and lay down the next set of important events, and so on, filling up to any degree of fullness. Then, if we have not time to write it out, we can talk it out.

* A paper presented before the East Victoria Teachers' Institute, at Lindsay, April, 1895.

Question Drawer.

All questions for this department, like all communications for any other department of THE JOURNAL, must be authenticated with the name and address of the writer, and must be written on one side of the paper only. Questions should also be classified according to the subject, i.e., questions for the English, the Mathematical, the Scientific, and the general information departments should be written on separate slips, so that each set may be forwarded to the Editor of the particular department. If you wish prompt answers to questions, please observe these rules.

HARRISTON STUDENT.—See Science Department in June.

S.A.C.—Ascertain the number of days she teaches before leaving at midsummer. Divide the yearly salary agreed on by the total number of teaching days in the year, and multiply the quotient by the first number (days of actual teaching). The product will be the amount of salary due.

T.P.K.—(1) Pronounced rāb'la, mon-tān', as-kam, ra-tik'-i-us, re-nas'-cence, com-ēn'yus, bās'dō.

(2) Write to Education Department for information about requirements for admission to Normal Schools.

(3) See Official Calendar of Education Department on advertising page.

(4) Write to Department.

(5) Referred to Mathematical Department, to which it should have been sent.

ANDE.—We know no better book for one studying grammar without a teacher than a good text-book on grammar. It is desirable, though, to have two or three. We see nothing to prevent a moderately clever and industrious student from getting a tolerable knowledge of the rudiments and essential principles of English grammar in a few months from the study of, say, the Public and the High School grammars of Ontario. The point is to study intelligently. Do not depend on memorizing, but be sure to understand everything as you proceed, and apply all definitions and rules to practice till their meanings are perfectly clear.

G.L.—(1) The battles in the China-Japanese war have been so one-sided, and the resistance of the Chinese so feeble, that, with one or two exceptions, it is doubtful if the names of any engagements will go down to history as memorable engagements. The war has been rather a triumphal procession for the Japanese army. Probably the most important engagement was the naval battle fought off the coast of Corea soon after the beginning of the war.

(2) Seoul (Sa-ool), a city of Corea. The Strait of Menai is in Wales. Manchuria is a part of the Chinese Empire, north of Corea and the Yellow Sea. Port Elizabeth is a town on Algoa Bay, in Cape Colony, South Africa. The other name we cannot make out.

Literary Notes.

The subject of "Fear" is taken up by Prof. James Sully in his "Studies of Childhood," in the May *Popular Science Monthly*. His investigations show that while some children are afraid of heavy, rumbling sounds, like peals of thunder, others are pleased by them, but are greatly disturbed by much smaller sharp sounds. Opposite effects are produced in small children by the first sight of the sea.

St. Nicholas for May contains an unusually large number of pretty and clever verses, which are always such a feature of this magazine. "A Model Child" is the name of a little poem by Helen Hopkins. The little ones will be pleased to learn that "she's the daughter of Mr. Nobody and lives in Nowhereland." Other con-

tributions are "The Jonquil Maid," by Arthur Macy, which is unique for its metre and rhythm; "A Rain Song," by Evelyn Stein; "A Bird Call," by Sara M. Chatfield; "Long, Long Ago," by Tudor Jenks; "A Tender-Hearted-Arab," by Frederick B. Opper; "Women's Rights in the Nursery," by L. E. Chittenden; and "An Unfortunate Family," by Felix Leigh.

The May *Century* has a wide range of interest. In the life of Napoleon, Prof. Sloane narrates the conclusion of the campaign in Northern Italy; a new illustrated novelette, "The Princess Sonia," by Julia Magruder, is begun, and a sketch of Rubinstein by Alexander McArthur appears. Mrs. Burton Harrison's "Errant Wooing" comes to a happy ending, the scene of which is laid in Granada, with attractive descriptions of the Alhambra and its surroundings. Mr. Marion Crawford's "Casa Braccio" contains some striking scenes, which in intensity of action probably surpass anything that Mr. Crawford has heretofore done. Other fiction, in various keys, is contributed by Langdon E. Mitchell, Richard M. Johnston, and Kate Chopin.

"The Teacher's Outfit in French," by Professor A. H. Edgren, of the University of Nebraska, in *The School Review* for May, contains many practical suggestions for teachers of this subject. "The Curriculum of the Small High School," by Principal E. J. Goodwin, of Newton, Mass., discusses the question with due consideration to the welfare of the teacher, and takes positions for which every teacher will be grateful. "The Moral Problem in our Public Schools," by H. Buchanan Ryley, is a vigorous answer to a paper that appeared in the *Atlantic* a short time ago. The Book Reviews treat of several important educational works, while Notes and Current Educational Literature present the latest and best thought in the field of education. The classified list of new books at the end is by no means the least valuable feature of this high-class educational magazine. \$1.50 a year. Hamilton, N.Y.

The four weekly issues of *Littell's Living Age* for April are, as usual, overflowing with the best things that current foreign literature affords, as may be seen by the partial table of contents given below: "Some Recollections of Robert Louis Stevenson," by H. Bellyse Baildon; "The Method of Teaching Languages," by John Stuart Blackie; "John Lyly and his 'Euphues,'" by H. Lacey; "The Referendum in Switzerland," by Numa Droz; "Lord Randolph Churchill," by Sir Herbert Maxwell; "A Visit to the Buddhist and Taoist Monasteries on the Lo Fau San," by E. A. Irving; "Robert Southey," by George Saintsbury; "The Crisis in Newfoundland," by William Greswell; "Women of the French Revolution, The Great Citoyenne (Madame Roland)," by M. Dale; "The Romance of a Stuart Princess," by Mrs. W. E. H. Lecky; "The Sancho Panza of Madagascar," by Julian Corbett; "Two Modern Poets," by H. D. Traill; "Up the Yangtze," by Lise Boehm, with many other papers of nearly equal value, besides poetry and fiction. Published by Littell & Co., Boston.

In his department of "The Progress of the World," for May, the editor of the *Review of Reviews* sums up the significant events of the month preceding. Prominent topics thus treated are the income tax decision, the Chicago election, and the triumph of civil service reform, the Cuban revolt, the Venezuelan boundary issue, and the British claim in Nicaragua. In "The Progress of the World," foreign affairs receive considerable attention. The Japanese treaty, the British cam-

paign in Chitral, French aggression in Africa, the peace outlook in Europe, the attitude of the powers in reference to the Armenian atrocities, the change in the Speakership of the British House of Commons, the question of Welsh disestablishment, and the great boot and shoe strike in England, are among the subjects discussed. The editor gives his testimony, based on personal observation, to the success of the South Carolina liquor system. "Drunkness and disorder," he says, "have decreased to a remarkable extent; and whereas the negro laborer was formerly accustomed to spend his week's earnings in carousing on Saturday night and Sunday, he is now spending more upon his family, or else saving his money to buy land."

The *Arena* for May is an excellent number. The place of honor is given to a scholarly but scathing criticism of Renan's "Life of Jesus," by John D. McPherson, of the United States Supreme Court. It is written from the orthodox point of view, and will be widely read and discussed. James Realf, jr., in a paper called "A Poet of the Northwest" introduces a new American poet, Jonah LeRoy Robinson, to American readers. C. J. Buell gives his views on "A Partial Solution of the Railway Problem." Adeline Knapp paints a strong picture in a short story called "The Whaler: A Story of the Times." Rev. T. E. Allen, a leading member of the Boston Society of Psychical Research, writes an analysis of the strange case of Mollie Fanher, of Brooklyn, which he believes establishes the fact of clairvoyance. B. O. Flower, the editor of the review, continues the series of papers discussing the legal and

social aspects of the traffic in girls and kindred immoralities. E. P. Powell considers the question, "Should War be Abolished?" Henry Wood contributes "Human Evolution and the Fall." Robert Stein writes a strong but temperate paper on the Armenian question from the point of view of an Armenian. There are several other papers of interest.

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NOTICE.

TEACHERS will please note that the edition of "Notes on Entrance Literature," edited by F. H. Sykes, M.A., and published by the Canada Publishing Company, is now exhausted, and, as no further edition is to be published, we can no longer fill any orders for this book.

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June 1895

OFFICIAL CALENDAR

OF THE

Educational Department

May:

24 QUEEN'S BIRTHDAY (Friday).

June:

1. Public and Separate School Boards to appoint representatives on the High School Entrance Examination Board of Examiners. [H.S. Act, sec. 38 (2).] (On or before 1st June.)
11. University Commencement. (Subject to appointment.)
28. High Schools close, third term. [H.S. Act, sec. 42.] (End on 30th June.)
Public and Separate Schools close. [P.S. Act, sec. 173 (1) (2).] (End 30th June.) S.S. Act, 79 (1) (2).] (End 1st July.)
29. Semi-Annual Reports of High Schools to Department, due. [H.S. Act, sec. 14 (12).] (Close of half year.)
Rural Public School Trustees to report average attendance of pupils to Inspector. [P.S. Act, sec. 206.] (On or before 30th June.)
Protestant Separate Schools to transmit to County Inspectors names and attendance during the last preceding six months. [S.S. Act, sec. 12.] (On or before 30th June.)
Semi-Annual Reports of Separate Schools to Department, due. [S.S. Act, sec. 28 (18); sec. 62.] (On or before 30th June.)
Trustees' Report to Truant Officer, due. [Truancy Act, sec. 12.] (Last week in June.)
Assessors to settle basis of taxation in Union School Sections. [P.S. Act, sec. 95 (1).] (Before 1st July.)

ANNUAL EXAMINATIONS, 1895.

NOTICES.

- May 24.—Applications for the High School, Primary, Junior, and Senior Leaving Examinations and University Pass and Honor Matriculation Examinations to Inspectors, due.
- May 25.—Inspectors to report to Department number of candidates for same.
- June 1.—Notice by candidates for Kindergarten examinations to Department, due.

EXAMINATIONS.

- May 27.—Examinations at Provincial School of Pedagogy at Toronto begin.
- June 4.—Practical Examinations at Normal Schools begin.
- June 12.—Written Examinations at Normal Schools begin.
- June 26.—Examinations in Oral Reading, Drawing, and the Commercial Course in High, Public, and Separate Schools begin.
- June 27.—High School Entrance and Public School Leaving Examinations begin.
Kindergarten Examinations begin.
- July 2.—High School Junior Leaving, University Pass, Matriculation, and Scholarship Examinations begin.
Commercial Specialists' Examination at Toronto begin.
- July 4.—High School Primary Examinations begin.
- July 11.—High School Senior Leaving and University Honor Matriculations Examination begin.