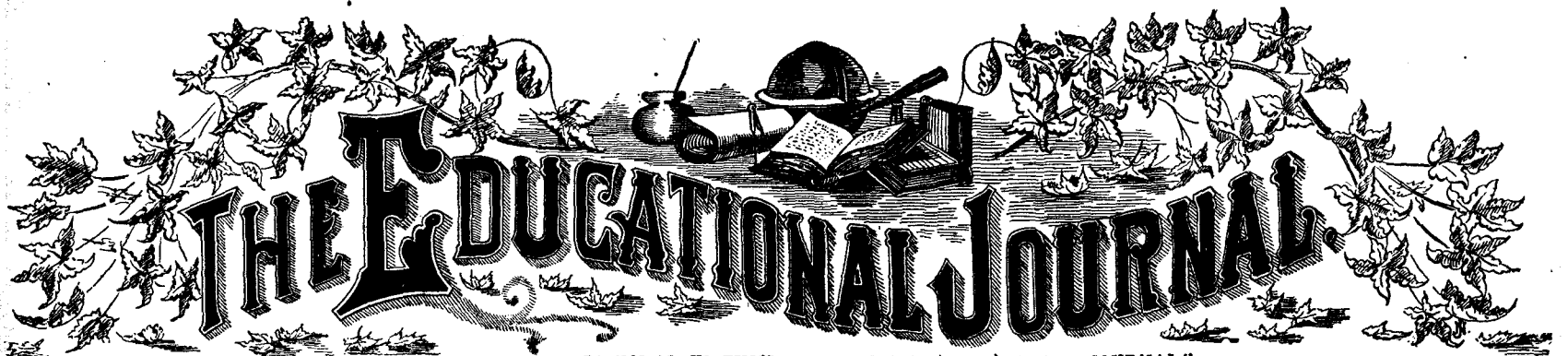


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OFFICIAL CALENDAR

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January:

1. NEW YEAR'S DAY (Monday).

By-laws for establishing and withdrawal of union of municipalities for High School purposes take effect. [H.S. Act, sec. 7 (1) (2).]

Trustees' annual reports to Inspectors, due. P. S. Act, sec. 40 (13).]

By-law establishing Township Boards takes effect. P. S. Act, sec. (54) ]

3. High Schools open, second term. [H. S. Act, sec. 42.] Public and separate schools open. [P. S. Act, 173 (1); (2) [S. S. Act, sec. 79 (1).]

4. Polling day for trustees in Public and Separate Schools. [P. S. Act, sec. 102 (3); S. S. Act, sec. 31 (3).]

5. Trustees' report on truancy to Department due.

9. Clerk of Municipality to be notified by Separate School supporters of their withdrawal. [S. S. Act, sec. 47 (1).]

14. Annual Reports of Boards in cities and towns to Department due. P. S. Act, sec. 107, (12).]

Names and addresses of Separate School Trustees and Teachers to be sent to Department. [S. S. Act, sec. 28 (12).]

Annual Report of High School Boards to Department due. [H. S. Act, sec. 14 (12).]

Names and addresses of Public School Trustees and Teachers to be sent to Township Clerk and Inspector. [P. S. Act, sec. 40 (10).]

15. Application for legislative appointment for inspection of Public Schools in cities and towns separated from the county, to Department due.

Annual Report on Kindergarten attendance to Department due.

Annual Reports of Separate Schools to Department due. [S. S. Act, sec. 28 (18); 32 (9).]

Minutes of R. C. S. S. Trustees' annual meeting to Department due.

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## Editorial Notes.

WILL the Secretaries of the Conventions, and other friends, please not fail to give us timely notice of the dates and places of coming teachers' institutes?

OUR hearty thanks to the many who have so kindly responded to requests made in last number. We are greatly cheered and encouraged by the many expressions and proofs of good-will we are receiving. We still have copies of the Christmas number, which we will gladly send to any one wishing them.

TO OUR readers, one and all, we wish most cordially that the whole New Year may be the happiest, the brightest, the most useful in help to others and growth in themselves, that they have ever seen. Why not? To living, growing human beings, the whole life should be a period of developing strength, unbroken progress, and increasing usefulness.

WE must crave the patience of contributors whose articles are too long delayed. We have had of late more manuscripts of certain kinds than we could find room for as promptly as we could wish. Articles of another kind—we mean practical articles, suitable for our "School-Room Methods," and "Hints and Helps" departments—we never have enough of. We are always glad to receive them.

A MONTREAL mother makes a sensible suggestion in the *Star*. She draws a dark,

but truthful, no doubt, picture of what it costs many a hard-worked mother to get her children off in time to reach school by nine o'clock in the dark winter mornings, and asks why the public schools in the city (we would add "and in the country"), are not opened at half-past nine, instead of at nine, in the winter months. Reason and common-sense echo, "Why?" Some happy day, when we all shall have grown wiser, the schools will open about ten o'clock, and continue with only a short intermission or two, until one or two, when they will close for the day.

IF there is any rule in regard to subjects of study in the elementary school which seems to us more nearly axiomatic than any other it is that good reading and original writing should form regular parts of the school exercises. Intelligent reading not only cultivates the taste and helps to form an invaluable life-habit, but it quickens every faculty, and so becomes the best auxiliary in almost every study. By "original writing" we do not, of course, mean that children of tender years should be set to write elaborate essays on abstract themes, but that, from the time when they are able to form the letters in recognizable shape, they should have daily practice in describing simple objects with which they are familiar, reproducing suitable paragraphs, stories, and so forth, until it becomes almost as easy and natural for them to express in writing what they have to say, as in speech. We doubt if there is any other exercise which does so much for education as this. It forms, too, the very best kind of "busy work." And yet we know of schools which aspire to the very highest grades, in which boys of eight or ten scarcely write or read from one week to another. Their whole time is taking up in spelling by rote, doing "sums," etc. We fear their teachers don't read the educational papers.

A SOMEWHAT violent assault is being made upon the Minister of Education in connection with some changes in the teaching staff at the Normal and Model schools. We have not sufficient knowledge of the facts to warrant us in offering an opinion upon the merits of the case, or cases. Changes are, of course, sometimes necessary, if an institution is to be kept up to the highest grade of efficiency, and the

making of such changes is often the most delicate and painful duty the responsible head has to discharge. This is, in itself, a strong reason why appointments to such positions should not be directly in the hands of a member of a party government. Political motives are sure to be imputed, and believed by a large section of the members of the opposite party. On behalf of the Minister it is affirmed, and the statement seems only reasonable, that all appointments and dismissals in connection with any of the educational institutions under the charge of the Department, while nominally made by him, are invariably made on the recommendation of the principals or other responsible managers of the respective institutions. The suspicions and bad blood engendered by such affairs form one, in addition to many other, strong reasons in favor of having the Education Department under the management of a non-political head, or board.

THE Toronto School Board has decided that henceforth formal examinations for promotion shall be done away with and that the Principal of each school shall select pupils for promotion on the joint basis of the records of the sessional work and the recommendation of the teacher of the grade. While there is a good deal to be said in favor of the regular examination, we are decidedly of the opinion that the change is a move in the right direction. We do not suppose that written examinations are to be done away with in the schools. No doubt the teachers will hold such examinations at frequent intervals. Compelling, as it does, exact thought and expression, the written examination occupies a place in school work which cannot be supplied by anything else. No teacher can doubt that the teacher's record, made up partly from the results of these examinations, partly from his own daily observations and notes, will afford a much more just and trustworthy criterion of the fitness of the pupil to enter an advanced class than the work of any one examination, under the excitement incident to such examinations, can possibly do. A strong argument in favor of the change is that it takes away from the pupil the temptation to take things easy from day to day, relying on his ability to "cram" to make up his deficiencies in time for the final. Daily work is necessary in order to secure a good daily record.

## English.

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

## THE VALUE OF LITERATURE IN MORAL TRAINING.

(Continued from last issue).

BUT even after we are persuaded that literature furnishes a valuable means for moral training, much remains to be determined as to the character of that which is of most value for this purpose. I suppose one may say of all primitive literature, as of primitive life in general, that it emphasizes the principle of requital, of reward for right, and of retribution for wrong action. The Old Testament is a treasure-house of illustrations for this idea. The righteous are preserved even in the fiery furnace and the lions' den, while the wicked are slain, often directly at the hand of Jehovah. Job's friends cannot be persuaded that his afflictions do not spring from faults secretly committed. This doctrine of the return of the deed upon the doer is prominent in most child literature, having its origin in the primitive life of peoples. The same doctrine has received modern recognition in Spencer's system of natural consequences, a popular theory of school government. Prof. Patten, in his monograph on "Economic Causes of Moral Progress," has clearly shown the negative effect of this kind of moral training. So far as the requital of evil is concerned, it seeks rather to reduce the pleasures of evil-doing by showing its ultimate pain than to build up positively a group of much greater pleasures which is made possible through the ejection of the strong, isolated pleasures that may be associated with wrong-doing. It is probable that all will recognize the danger of emphasizing the idea of direct retribution too much with the very young. In the first place, nurses often keep the minds of their charges in a state of terror for years by filling their imaginations with direful pictures of bears and goblins, which will come to devour them if bad. On the other hand, finding that vengeance does not inevitably pursue wrong-doing, they may become skeptical of its reality. A little boy, reproved by his play-fellow for not saying his prayers, said, "I am not going to pray to-night, I did not last night, and I shall not to-morrow night and then if God Almighty does not kill me, I'm never going to pray again."

Yet, notwithstanding these dangers from exaggeration, a limited use of this negative element in literature is allowable, and even useful with children. We live so close to a system of natural rewards and punishments, and the demand for adequate requital for deeds is so spontaneous in our nature that any literature which should wholly ignore the idea of retribution would be defective. We may, therefore, I think, select a somewhat large amount of literature with this negative aspect from fairy tales, myths, fables, and folk-lore for use in the early grades. With judgment in the selection, we can give the child the joy he always feels in drinking at these primitive fountains, yet protect him from any morbid or unethical tendencies. Nor should we forget in this connection, that it is of considerable advantage for a human being to pass through important epochs of human experience in imagination. By so doing he may hit upon ideals toward which to work, that might not otherwise have occurred to him; or seeing a deed in its whole round of consequences what otherwise might have seemed desirable may lose its charm or even become repulsive.

On the other hand, however, I am persuaded that ideals are formed, and the heart warmed for them, much more efficiently through the positive phases of literature. Few children are allured or scared into permanent goodness. Instead, therefore, of laying so much emphasis on the reduction of evil-doing through the threat

of future punishment, it seems to me we should lay more stress upon the possibility of enjoying a much larger group of pleasures by resisting the temptation to enjoy the strong, but isolated ones that may arise temporarily from wrong-doing. Miss Harrison tells us of a little miss who came to the kindergarten dressed in silks and spangles, and whose pride at first kept her from entering into a game with the other children. The boys were to be men out for their day's work, and the girls were to be housekeepers for them, preparing dinner while the boys worked. This little girl exclaimed in some disdain that her mamma did not work in the kitchen and that she should not. The teacher allowed her to remain ignored in her corner, and appointed another child to play the part. The next day, however, she gave up this selfish enjoyment in order to participate in a much larger group of pleasures of a social nature and she no longer objected to cooking a dinner, at least in imagination, for plain Tommie. Such a surrender of an isolated and unworthy satisfaction for a larger group of more wholesome pleasures was worth much more for that child's character than a lecture on the sin of pride would have been.

Not denying, therefore, all moral potency to the great body of classical literature that emphasizes the negative side of conduct so much, I wish to urge the evident fact that a body of literature may be selected for elementary and high school which shall lead the child according to his growing strength to appreciate and to desire more and more a progressive series of groups of social pleasures whose combined attractiveness is so great that the isolated pleasures growing out of sensuousness, selfishness and pride shall be forgotten or easily discarded.

Such a systematic arrangement of literary matter would exhibit all the chief phases of good and evil, beginning with the simplest situations in which a small group of pleasures should outweigh the immediate satisfaction associated with a wrong action, and advancing to larger and larger groups, until all the great phases of organized society were brought in. At the bottom of such a scale I should place the fable, which emphasizes the difference between a long-sighted and a short-sighted selfishness, yet does not go beyond prudential motives. Such maxims as, Honesty is the best policy, spring from the teachings of the fable. This is a purely natural or economic standpoint, in which retribution or reward follow as natural consequents. Do not parade in a lion's skin lest people find out you are an ass. The fable of the Sun and the Wind shows that success comes with gentleness rather than with violence. If a man is prudent, brave, self-reliant, modest, unselfish, he will succeed better than he will if he gives way to the opposite faults. The lesson of the fable seems to be that virtue will pay a larger dividend than vice. An excellent discussion of this topic is found in Felix Adler's "Moral Instruction of Children."

Next above this utilitarian stage of literature I place folk stories and fairy tales. They develop a much richer imaginative life than the fable; and, though containing much of the primitive idea of retribution as an inevitable consequence of evil doing, they yet contain a much larger positive element, for ethical ideas are now presented as moral ends, while complementary groups of pleasures tend to displace the temptation to wrong. As Mr. Adler points out, the Marchen, or fairy tale, is especially adapted to bring children into close sympathetic communion with the world of nature. To the child whose body constitutes the ego, and to whom motion apparently self-impelled is the sign of life, what can be more natural than to regard animals as human beings in disguise? If now the story develops a sympathetic disposition in the child for all animals, there is much less chance of subsequent cruelty and insensibility toward them. The story of Snow-white and Red-rose, who entertain a black bear that afterwards turns out to be a prince in disguise,

begins the same sort of training for the disposition that is contained in a special form in the story entitled "Black Beauty." Who can tell how much this book alone has done in making men mindful of the useless sufferings inflicted upon this, the noblest of their friends among the animals? The worthy fairy tale also engenders sensibility toward many beautiful ideals. If allowed to have its true influence it will often shed a sort of halo over the sorriest physical conditions, giving the strength to endure to many a tortured little soul like Mrs. Burnett's "Sara Crewe."

Leaving the realm of the fairy tales, we have a vast field of imaginative literature having a widely varying content, yet portraying for the most part the relations between people simply as individuals. "Little Lord Fauntleroy" is a case in point. By rejecting selfishness this little fellow enjoys a wide circle of pleasures from which he would otherwise be largely shut off. "Robinson Crusoe" develops the industrial instincts of the child, who is as much interested in the making of pottery as he is in the foot-print on the sand. It takes my boys two or three years to pass through this stage, in which they seek to do all that Robinson did. The "Arabian Nights" have no special ethical content, yet they shadow forth in the Oriental imagination what we may now easily bring to pass. Aladdin rubbed his lamp and the genii appeared and transported him through the air to distant places. There was one Aladdin then, now every man may be an Aladdin. We need but to reach the hand into pocket, take out the modern lamp that we call money, and still more powerful spirits will transport us rapidly across the continent in a palace car. "The Seven Little Sisters," by Jane Andrews, gives the child his primary lesson in cosmopolitanism. Among the books that develop the hero spirit are the Grecian classics, which show up courage as an individual trait, while such books as "Tom Brown at Rugby," "Tom Brown at Oxford," and Farrar's "St. Winnifred," give ample opportunity for the young to come face to face with manliness in every form, and in such a way that the reader's sympathies are almost sure to be on the right side.

When we come to the manifold relations in which the individual stands to the home we have also a wide range of literature. Indian stories of the right kind show the defence of the home against the savage. In Cooper the hero is a white man who has learned all the skill and strategy of the savage, and who enlists the best of the Indians on the right side. In Louisa M. Alcott's "Little Women" we see how the complementary home pleasures far outweigh the satisfaction that comes from any form of selfishness, so that the wise mother helps all her daughters to master their faults that they may live in accordance with the higher thought. In a similar way, stories of the sea picture the individual braving every sort of danger for the good of the ship, the little community in which he lives. It is a primitive form of patriotism, familiarizing the boy with the idea that the noblest thing, after all, is to serve a worthy cause. Such authors as Scott form an easy transition to the highest forms of institutional literature, in which the individual enters into the most manifold relations with the social world, finding its true self in home, church, state, and society. Shakespeare is, of course, our greatest institutional dramatist. In his works we have a picture of all the chief relations, good and bad, in which a man can stand to his fellows in their organized capacity. As a rule, Shakespeare's treatment of the collision between individuals and social or political institutions is ethically sound, though in the tragedies the return of the deed upon the doer often reminds us of ancient doctrines of retribution. In the comedies, however, the principle of grace has full dominion.

Recapitulating now the doctrines of this paper, we find them to be as follows: (1) The



inculcation of maxims and the enforcement of authority constitute but one factor in moral training, the latter having the establishment of right habits as its chief function. (2) It is of especial importance in moral education that a right attitude of mind or permanent right disposition towards moral ideas should be secured, and this can best be done through the presentation of concrete cases of conduct in such a way as to win the sympathetic interest of the child for the right, causing him to pass unbiased moral judgments and to conceive higher moral ideals. (3) Literature is, perhaps, our most potent means of securing these ends, since it presents under imaginative forms and in ethical wholes the entire range of moral situation, and is, moreover, perfectly adapted to every stage of intellect and cast of mind. (4) The negative or retributive side of literature, though granted a place, is not to be emphasized so much as the positive or social side, since it is, in general, better for the mind to renounce evil for the sake of higher ideals and the unalloyed pleasure they bring than to forego it from the fear of punishment. (5) Finally, if literature is to exercise its best influence on the minds and hearts of children, we need to select a large amount of the positive kind which helps the child discard the lower, isolated pleasures connected with a wrong or selfish act, for a higher complement of enjoyments associated with a worthy line of conduct. In this way the heart is warmed for the good rather than terrified at the results of the bad. The works named in this connection are to be regarded merely as types and illustrations. A full course of literature of this kind is still to be arranged by those who believe in the idea, and who have daily access to the children.—CHARLES DEGARMO, in *The New Education*.

## CORRESPONDENCE.

MYRTLE.—In the "Humble Bee" the line  
"Thou animated torrid zone!"

means the bee taken as representing to the poet the living embodiment of the tropical countries which travellers often go thousands of miles to seek. Hence he is content to seek his pleasure near at hand in following and watching the bee.

"A net of shining haze"

means the mist blown by the south wind, which makes the sky near the horizon look in part like a silver wall.

"Hot midsummer's petted crone,"

is the bee; "petted" because the summer spreads all her flowers for it, and "crone" (very unusual use) for "creature," perhaps suggested by the fanciful derivation of "crone" from the mumbling that is thought to be characteristic of old women.

In "The Baby" (Second Reader) "out of the everywhere" is used to signify the mysterious source of the spirit of life, expressed in the vague word "everywhere" to suggest this mystery.

W.E.—From "the standpoint of modern English" [nobody, however, has a right to discuss peculiarities of language without reference to the history of the language] "which has the stronger claim to be regarded as an inflection, gender or comparison?"

Neither gender nor comparison is, strictly speaking, inflection. The essence of inflection is the variation in form because of change in syntactical relations. Now a gender-noun, masculine, and a gender-noun, feminine, are, for purpose of inflection, independent primary words—cf. god, god's, gods; goddess, goddess's, goddesses—as much as man, man's, wife, wife's. The adjective when compared (as high, higher, highest) changes for meaning, not from syntactical causes, and each adjective then gives rise to three (for syntactical purposes) distinct words, each of which in most languages (compare German, Latin, etc.) is capable of a similar series of inflections.

(2) Richard G. White's description of English as a "grammarless tongue," is a clever but superficial remark. The student of Latin is, of course, struck with the tremendous part played by inflections in the grammar of Latin. Modern, as compared with Latin or with early English, shows an almost entire absence of inflections. Instead of inflecting the adjective we use simply one form (except the demonstratives) for all cases and numbers, whereas in early English there were different forms to correspond with (1) the gender of the noun qualified; (2) the number of the noun; (3) the case of the noun; (4) to say nothing of the differences when preceded or not preceded by the definite article, etc. In easting off inflections we have then apparently cast off the formal elements that made up so much of the external trappings of a language. Strictly, we have developed a grammar of a subtler and more intricate character—the feeling for the position of words and for shades of differences in the use of the analytical equivalents of inflections.

(3) "O, make her a grave where the sunbeams rest,  
When they promise a glorious morrow."

Sentence is imperative, complex. Principal clause. "make her a grave," is modified by the subordinate adverbial clause, "where the sunbeams rest." This subordinate clause is itself modified by the adverbial clause "when—morrow." "O" is interjection, not syntactically connected with the sentence. "Ye" (understood) subject; "make," verb; "her," indirect object; "grave," direct object; "where," adverbial conjunction. The other words call for no comment.

(4) In the sentence, "the physician's directions were that the patient should travel," etc., "that" is a conjunction.

(5) The sentence in the long quotation is simple, the long modifications are (2) infinitives used adverbially, and (1) participle used adjectively.

S.M.—"How do you parse 'fall,' in the sentence, 'I saw the man's fall?' Has it not the same force that the adjective 'straight' has in the sentence, 'I made the stick straight? Could 'fall' in the preceding sentence be properly called an adjective, predicate infinitive?" "Fall" in the sentence above does not hold adjectival relation to man, but a verbal relation; just as "I know *him* to be a good man;" "I know *he* is a good man." "Straight," on the other hand, holds an adjectival relation through the predicate "made"; or more properly through the understood infinitive, "to be"—"I made the stick (to be) straight." Parse "fall" then as infinitive, holding verbal relation to "man," which itself is the object of "saw."

"Playing is pleasant sport." "Playing" is here parsed by some as an infinitive, because of certain confusion in forms of the language during the eleventh and twelfth centuries. There is no doubt, I think, that it is properly a verbal noun, the direct descendant of many such nouns in *-ung* in Anglo-Saxon.

J.W.H.—See lesson in last number.

To the request from a subscriber that some suggestions be made as to plans for the coming year, THE JOURNAL can put in a few words that will be a just maxim for his entire life: "Get on a higher plane of thought and action." Last summer while in the Adirondacks a party lost its way in a dense forest; the guide sought out the tallest hemlock tree, and climbed to its utmost top, for a survey of the country. He came down knowing the way to take. The advice then is, "Climb up." There is no teacher that can say, "I have it all;" there is no teacher who has studied the subject of education much but must say, "It seems to have measureless depths." To go on just as he did last year would certainly be a wrong to the pupil and himself.—*N. Y. School Journal*.

## Book Notices, etc.

Any book here reviewed sent post-paid on receipt of price. Address THE EDUCATIONAL JOURNAL, Toronto.

*Geometry in the Grammar School. An essay* by Paul H. Hauss, Assistant Professor of the History and Art of Teaching, Harvard University. D. Heath & Co., Boston, pp. 52; 25 cents.

Every teacher in America would be a better workman if he were to "read, mark, learn and inwardly digest" the contents of this little book. The illustrative exercises are good, and a few of them will appear in the JOURNAL by and by. Every teacher of Geometry should read it; practical, sound, scientific.

*The Projection of Fourfold Figures upon a Three-Flat* by Prof. T. Proctor Hall. Ten page 8vo. pamphlet. Re-printed from the *American Journal of Mathematics*.

An introduction to the French Language, being a Practical Grammar with Exercises, by Professor Van Daell. Boston: Ginn & Co.

This book will be found a useful one to a teacher willing to secure variety in teaching French, and anxious to increase his working material. It is based on the best recommended inductive method. A short treatise on pronunciation begins the instruction. Then follow a few preliminary lessons, short, familiar, conversational and capable of being indefinitely enlarged. Sentences accompanied by questions all in French, lead into extracts from French prose, dealt with in the same manner. These extracts become rapidly more difficult; progress will be necessarily slow, for the teacher must supplement and greatly dilute for junior pupils. The second part consists of a reference grammar without exercises, and a double vocabulary completes the book.

The regulations of the Department do not permit the general use of unauthorized texts in classes. But such a work as this will be found of valuable assistance to the teacher himself. It is suggested that the method adopted might, with advantage, be more freely applied. It would be more acceptable if it contained a greater abundance of elementary exercises on a few of the commoner of French conversational forms. But the excellence of the book consists in outlining and developing a natural method of lingual teaching.

*The Oneness of Arithmetic* by W. Holden, A. M. Lippincott Company, Philadelphia. Pamphlet, 17 pp.

A missionary effort, having for its object the substitution of proportion as the great unitary principle of arithmetic. Of no use to any teacher in Ontario.

*Arithmetic by Grades. Book Number One*, prepared under the direction of John T. Prince. Ginn & Co., Boston, 86 pp.

What a blessing this book would be to thousands of little pupils in our ungraded schools, to whom the time between reading lessons is long and dreary. Many teachers could use it with advantage to give desk exercises to their younger pupils.

*The Elements of Solid Geometry* by Prof. Baker, University of Rochester. Ginn & Co., Boston, 126 pp.

The typography, notation, diagrams, etc., are very attractive. The author claims several improvements over any preceding book.

*Problems in Arithmetic for Public Schools* by C. Clarkson, B. A. Gage & Co., Toronto. Pupils' Edition 104 pp. Teachers' Edition 185 pp.

In this volume besides introductory matter we find the complete series of Entrance, Public School Leaving, and Primary Examination Papers, to which the larger edition gives hints, answers and skeleton solutions. Twenty pages of type solutions.

*The Public School Algebra*. Same author and publishers. Pupils' Edition, 134 pp. Teachers' Edition, 185 pp.

This work is written on the inductive plan as an introductory series of development lessons intended to form a guide to oral teaching and a thorough introduction to larger works. It contains all the Primary and Third Class papers since 1871. The answers and skeleton solutions are found in the larger edition.

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## Editorials.

TORONTO, JANUARY 1, 1894

### ANNOUNCEMENT.

THREE PRIZES FOR BEST TIME-TABLES.

As intimated in last number, THE EDUCATIONAL JOURNAL is authorized to offer three money prizes, of Five, Three, and Two dollars, respectively, for the best three Time-Tables for use in the Public Schools of Ontario. Following are the conditions prescribed:

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

(2) The Time-Table must show clearly

(a) What is desk work?

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

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

All manuscripts for competition must be mailed not later than the first day of March, 1894. Each manuscript must be signed at the top with a motto or *nom de plume*, and accompanied with a sealed envelope bearing on the outside the same motto or pen-name, and containing the true name and address of the author.

The names of the examiners will be announced in a later number.

Every public school teacher in Ontario is interested in this matter. We hope for a very large and vigorous competition. The approved time-tables will be published, with the names of the authors, in THE EDUCATIONAL JOURNAL, for the benefit of all its subscribers.

### STUDY THE CHILDREN.

ONE characteristic of the great educational activity of the present period is the increased attention which is being given to the study of both the bodies and the minds of children. In the December *Forum* Dr. G. Stanley Hall has an article showing what has been done and is being done along this line in different countries and by various classes of observers. The title of the article, "Child-Study; the Basis of Exact Education," suggests the point of view from which the subject is approached. While he finds a vast and rapidly increasing stock of material, the product of the labors of those who have given attention to the subject by very different methods, for purposes quite diverse, and with all degrees of scientific exactness, he also finds that little attempt has been made by the different investigators to co-ordinate their work with that of others. The doctors, the anthropologists, the psychologists, parents, and teachers, have given little attention to each other's work. There is evidently here a wide and inviting field for the future labors of that most useful class of students whose business it is, not so much to make original investigations for themselves as to collate, compare, analyze, and generalize, using the material made ready to their hands by other investigators.

A few examples culled from the many facts adduced in Dr. Hall's article will be found, we think, both interesting and suggestive to those who are desirous of becoming educators indeed.

For scientific purposes it is generally thought necessary to fix upon definite lines and points of inquiry, and to direct special attention to these. This method has its advantages and may often be the only available method, especially if immediate results are to be tabulated and conclusions drawn. But the investigator who sets out in this way is in great danger of coming to his observations with a theory more or less clearly predetermined, and it is usually not difficult to find facts to fall in with and confirm such a theory, when we are looking for them. Moreover, it is but the exceptional few who have either the leisure or the training necessary to the successful use of the more rigidly scientific methods. But there is a mode of observation which is intensely interesting in itself, and which may be pursued to an almost unlimited extent by any observant teacher, which, it seems to us, would in the end yield richer results than can be gained by any specific inquiries along fixed lines. We refer to the method which Dr. Hall tells us was devised by principal E. H. Russell, of Worcester, Mass., eight years ago, but which, it seems to us, must have been fol-

lowed to a greater or less extent by students of children wherever and whenever childhood and human nature have been thought worthy of study. Under this method "any salient act or remark of a child is noted in the most accurate and objective way. These records are filed in groups under convenient headings, like memory, imagination, anger, deceit, egotism, etc. Instead of tabulating them Mr. Russell has begun to publish perhaps 14,000 of them as they stand." Here, for example, is an entry under the head of Imagination:

"Boy, Irish, *æ.* 7. Stood drinking water at a sink with his back to other people. Was making believe to be drinking in a saloon with his feet crossed and remarking on the quality of the drink to the imaginary bar-keeper. Paid imaginary money and received imaginary change."

"The collection of such data," says Dr. Hall, "has had an excellent effect upon teachers. They tend to focus effort upon individual children, rather than upon the 'pedagogic phantom called The Child.'" It is obvious that the single fact above recorded must have revealed to the thoughtful teacher a stream of tendency in the mind of the boy in question, the knowledge of which would be of great value as a guide to the counteracting influence needed, and the best way of getting hold of him for purposes of intellectual as well as moral training.

The limits of our space compel us to pass over a number of interesting facts connected with the physical growth and development of children during various periods of the school life. Some of these discoveries, if confirmed by fuller tests, cannot fail to prove of great value, in their relation to the degree of pressure which can safely be brought to bear upon children at various periods of their school course. The following paragraphs have so direct a bearing upon the work of the teacher, and are so suggestive of the possibilities of injustice and even cruelty to which children with defective sense-organs are exposed at the hands of unobservant or careless teachers or parents, that we cannot refrain from quoting at some length. If these extracts shall have the effect of leading some of our readers to direct their attention to these most important matters, in connection with the children under their own immediate care, our purpose will have been attained, and a service of no small value rendered to both teachers and children. As we said in a previous article with relation to a particular phase of the subject, we have long been persuaded that much of so-called indolence or stupidity ascribed to children in regard to special lines of study is due to physical causes, such as defective

sight or hearing, or lack of nerve-control. If this be so, it readily follows that such children are often the victims of great injustice from which a better knowledge and a more patient observation on the part of teachers and parents should have saved them.

"It is now ten years since Dr. Cohn proved, from tests of 10,000 children in Breslau, that myopia increased from grade to grade. Many such tests since, although they differ very greatly in different countries, show an increase of eye troubles sometimes reaching over forty per cent. in the high school, a good part of which we must ascribe to bad light, type, and overuse of the eye in its monotonous zig-zag along the tread-mill-like lines of the printed page.

"With the ear, on which almost as many studies have been made and are now collected in a monograph by Chrisman, the case is very different and the trouble less serious. The chief result is here the discovery that large numbers of children whose hearing, although never called defective, is so dull as to seriously mar the efficacy of most oral teaching, are called backward when they are simply a little deaf. Reichard found that twenty-two per cent. of the children of Riga could not hear a clock tick more than twenty feet away, while the rest could hear it all the way to sixty feet away. In 1867 Miss Wiltse tested many hundred Boston school children for sound-blindness and found very variable but large proportions who could not hear correctly very many of the elementary sounds in our language. Since then many tests have been made in many places with analogous results, due to defective training quite as much as to original defect. In Berlin aurists report that twenty-five per cent. of children tested had more or less defective hearing, in most cases enough to interfere with their work.

"Although taste and smell have never been fully studied by themselves, there has been a large number of observations since 1868 which show nasal diseases that seem to be strangely associated with weakness of memory and attention, to be more common than had been supposed. The result of the removal of adenoid growths or enlarged tonsils, which Kafemann found in over seven per cent. of boys and ten per cent. of girls was remarkable. Easement of brain and of articulation sometimes causes children thought feeble-minded to show great mental power. Dr. Klausner just reports examinations of the spinal column of 2,124 children in Munich and thinks he found traces of rickets in thirty-six per cent. of the boys and thirty per cent. of the girls of the lower class, so that the disease was not due to school but showed great sensitiveness of the spine; and lateral curvature was more frequent in girls. The hygienic inspectors of Berlin reported ninety per cent. of the girls in higher educational institutions more or less lop-sided. Bystroffs now reports that eleven and six-tenths per cent. out of 7,478 school children of St. Petersburg are subject to headache. Of a large number of school children in London whose teeth have been examined only about twenty-six per cent. were found

without serious defect. Dr. Erismann finds among the school children of Hamburg thirty-two per cent with abnormal nervous systems and these disorders increase up the grades. Kollmann has just surveyed all the studies made in this field and concludes that about thirty per cent. of the school children in Europe have abnormal nervous systems, and that beginning with almost nothing in the lowest class the abnormal percentage reaches nearly sixty-six in the last gymnasium year."

#### EXAMINATIONS AND TEXT-BOOKS.

THE letters of our correspondent "Celo" deal with a matter which is of much greater importance to teachers and students than might at first thought be supposed. Should the official examiners confine their questions strictly and literally within the covers of the authorized text-book, or should they feel at liberty to put such questions, irrespective of its contents, as may seem to them adapted to test fairly the candidate's intelligent mastery of the subject? It is evident that a mere text-book examination is almost necessarily a very poor examination. Its tendency must almost inevitably be to promote the "cramming" which is the great vice of all courses of study governed by the requirements of a prescribed examination, but which it should be the aim of every intelligent examiner to discourage. "Save us from the man of one book," should be the cry of teachers and examiners alike. On the other hand, so long as the Regulations of the Education Department prescribe a single text-book in each subject and forbid, under penalties, the introduction of any other, while the promotion of the student and the reputation of the teacher depend upon the success of the former in passing the prescribed examination, great difficulty and hardship must result from permitting the examiner to rove at his own sweet will. The examiner is usually a specialist in his department. Too often he is without practical experience in teaching the grades of students for whom his papers are intended, and consequently without the best, if not the only reliable, means of judging what may be fairly expected from students at that stage of their progress. Familiarity with this subject has, perhaps, bred contempt for the ignorance and stupidity of those who do not know facts or understand laws which seem to him the veriest commonplaces of the subject, suited to the capacity of any child. Once let it be understood that he is at liberty to examine according to his own ideas of what the pupil ought to know, and the success of the candidate will become largely a question of chance or luck, while despair will brood with her dark wings over the

mind of the average student, whose luck has failed him.

In these few remarks we have, of course, no intention of taking sides in the discussion between "Celo" and Mr. Chant. But in reading "Celo's" letters the question has forced itself upon us whether it must not be that he is mistaken in his interpretation of the Regulations, in respect to the use of unauthorized books. Surely the teacher is at liberty to recommend to his pupil, or put into his hands, any helpful book he may choose, provided he does not *require* its purchase or use it as a text-book in the schoolroom. And yet "Celo," who is in an excellent position to know whereof he affirms, seems to think that to do so would be a violation of the letter or spirit of the declaration which headmasters are required to make. We should like fuller information on this point. We can well understand the reasons which influence the Department in adopting and enforcing so rigidly the "one text-book" system, though we have never been convinced that those reasons are of sufficient weight to counterbalance those which readily suggest themselves to every competent teacher in favor of a larger liberty in the matter. The restriction is mainly, we suppose, in the interests of parents, who would be liable, but for it, to be put to unnecessary expense by the frequent change of text-books, to suit the views of new teachers or the changing opinions of old ones. It may also be considered necessary as a safeguard against the faulty judgment of young and inexperienced teachers, though it is hard to conceive of one who is really competent to teach a given subject, and who yet cannot be trusted to select a suitable text-book for it. But even granting the necessity for some pretty rigid restrictions for the reasons indicated, it is pretty clear that it is scarcely just to the really competent teacher that his liberty should be circumscribed within the very narrow limits suited to the lack of discretion of the most incompetent. There must be a tremendous loss of teaching power as the result of thus fettering the movements of the many who need the greater freedom, in order to do justice to themselves, their pupils, and to all concerned.

WHAT is the truly great in history? It is controlled, ennobled, glorified passion.—*Dröys n*

It is high time that our educators were giving the word citizenship as eminent a position in our vocabulary as the word liberty now occupies.—*Chas. A. Brinley, Phila. etphia.*

THE habit of obedience is one of the fruits of right teaching. Where this habit is formed we cannot say that moral training is omitted. No child is fitted to become a citizen unless he has learned to obey, which is the first step toward learning to rule.—*Sarah L. Arnold, Minneapolis.*



## Special Paper.

## \*CIVICS.

W. TYLER, B.A., PUBLIC SCHOOL INSPECTOR, GUELPH.

I AM well aware that in addressing an assembly of teachers in these days the surest way to popularity and applause is to criticize the present official programme, and to denounce it as encumbered with a superabundance of subjects. "Too many subjects," is a taking cry just now, and I will not deny that it is one with which I largely sympathize.

However reasonable this widespread complaint may be, I do not to-day intend to take this primrose path to your favor. Rather, on the contrary, it is my purpose to say a few words in recommendation of a subject which, formally at least, as yet finds no place on the public school curriculum. But I do not wish to be misunderstood. Were I endowed with absolute authority over the whole school system of Ontario, I should not have the slightest wish to do anything towards stamping the subject of Civics with the official obligatory *shall*, or even the less imperative *should*. I should not insist on an authorized text-book, or require that it should be a compulsory subject for either the Entrance or the Public School Leaving Examinations.

But I do, nevertheless, think it would be well if our Public Schools could be utilized to give our young people some idea of the relations of the citizens to the state in which they live; of the machinery of government; the rights, privileges and duties of citizens, the nature and extent of the powers of the various departments of public and official life, and the thousand and one questions which arise in the mind when we approach this subject.

The State is an organism which touches us all very closely on many sides. In every department of the world's activities we come in contact with its agents and its officers. There is no sphere in which a civilized man can move which will not, at many points, bring him close up to duties and rights and privileges and penalties which it is of the utmost importance that he should very thoroughly comprehend. In most cases this knowledge, so vitally necessary to the well-being of the citizen, and, therefore, so indispensable to the welfare of the community, which is but the aggregation of citizens, is acquired by the slow and painful process of experience. And, in this case, there is not even the cold comfort that knowledge gained by pains and penalties is the best; for, in this department, the best that a man can desire is that he shall know as little as possible of his environment of law. The average citizen may seldom be subjected to the painful experimental process of acquiring this knowledge, and consequently he remains comfortably ignorant of the duties and demands that his position as a citizen impose on him. It is the prevailing ignorance of civic relations, and all that belongs to man as a citizen, that gives mournful emphasis to the Swedish statesman's remark as to the little wisdom with which the world is governed.

When we regard the boys and girls in our class-rooms, we cannot, if we think of the future at all, fail to remember that in a very few years the destinies of the country will be in their hands. I say "girls" as well as "boys," for it must be evident to any one who observes the drift of social movements that many years will not pass before the ballot is no longer the exclusive privilege of male humanity in any sphere of municipal or political activity. Already, to a considerable extent in this province, woman possesses the franchise. Even now she may and she does sit on Boards of Trustees, and in the metropolis of Ontario a

woman presides over the Collegiate Institute Board.

It is, therefore, quite unnecessary to waste words in proving the importance of some preparation for the weighty duties that will ere long be laid upon those who are now pupils in our schools. There is no magic in the age of twenty-one that will convert an ignorant and thoughtless boy into a wise and prudent man. What he knows when he attains his majority, and with it the right to vote, he must learn by some means, and if he is then ignorant of his his duties, and of the social and political machinery by which his rights are conserved and by which the weight of his influence can be made to tell on the side of freedom and uprightness and public honesty, it is to be feared that in most cases he will remain ignorant all his life.

It is only when we carefully consider the subject that we really understand how little is known by the people at large of the working of the constitution and the machinery of government in practical life. The public functionary is, of course, more or less familiar with the routine of the circle, narrow or extended, within which his duties are confined, although, even here, the knowledge is merely empirical, and there is no connected understanding of the systematic whole. But how few there are of even those most truly educated who have any intelligent conception of the complex and ordered constitution under which we live, and which, every day of our lives, influences us in a hundred various ways. If you will carefully examine yourselves on this point I think you will be constrained to confess with me that we are more deplorably ignorant of this than of anything else that so closely concerns our interests.

This being so, it does not to me seem altogether absurd to suggest that, while our children are being trained in the various subjects which are intended to make them useful members of the community, this important department of their future life should not be altogether overlooked. The State, recognizing that an ignorant community is a menace to the public safety, has wisely provided that no child shall be deprived of some rudiments of training in literature and art. Should this state not also provide for the instruction of the future citizens of the nation in the important duties that every one of them will have to discharge?

Nowhere could we be better situated than in our own province for opportunities for thus training our youth in the rudiments of practical civics. Our municipal system, in its close relation to the people and its prompt and effective response to the popular will, is unsurpassed by that of any other country. This is especially true of our rural districts, our townships, villages, and smaller towns. It is doubtless true that, when we consider the local government of our cities, we find the results less satisfactory. But with this, so far as our present subject goes, we need not much concern ourselves. For all our schools there lies at our doors an extensive and convenient field for exploration and study.

Take the case of a rural school. Many of the pupils receive within its walls all the scholastic training that they are ever to receive. Is it not within the bounds of reasonable expectation that, before they leave school, they should learn some little about their school section and its government, the duties and privileges of the tax-payers, the official powers and duties of the trustees, the manner in which they come to occupy their position, the method of raising the funds necessary to carry on the work, and many other points on which it is extremely desirable that those who control the machine and supply the motive power should have extensive and accurate information? For we must not forget that in a few short years those who are now pupils in the class-room will be the rate-payers, the electors, the trustees of this or some other section.

As I have already said, I should not recommend that this study of Civics be made a formal and compulsory part of the school course, or that there should be an authorized text-book and all the other official appliances for its development. Rather, I believe, the rudiments should be imparted by informal and friendly talks between teachers and pupils as opportunity occurs. Is it heresy to hint that, in many schools, a good deal of the time devoted to the study of history, both British and Canadian, is worse than wasted? Instead of being a subject of engrossing interest it is, by wearisome reiteration of lifeless text-books, rendered utterly repugnant to the average pupil. Could not some of this time be better employed than it is? Friday afternoon, too, might furnish now and then a brief period for some such talks as I have indicated.

It is hardly necessary to describe the manner in which such preliminary instruction as I have mentioned should be given. Appropriate methods will readily suggest themselves to every teacher. Even with the youngest or all but the youngest pupils, I believe real and living interest might be aroused in such questions. For example, the teacher might, with reference to the school and its surroundings and machinery, ask such questions as the following: "Who owns this building?" "By whom was it built?" "Who paid for the school-house and lot?" "Where was the money obtained?" "Who pays me for teaching you?" "Who gave the trustees authority to take money from the people for school purposes?" "From what people did they get this money?" "Why did they stop at such a concession and such a side-road?" "Did everyone in the section contribute an equal amount, or as much or as little as he pleased?" "How was the amount that each should pay determined, and who determined it?" "What right had they to do that?" And so on to any extent, every answer forming the basis for a further question.

You can easily see that, even in the few queries I have given, we have opened up the large and all-important topics of representative government, assessment, taxation, and many others.

From the school section we are at once and with very direct steps led to consider the township organization and other municipal units, as well as our relations to the general government of the province through the Department of Education. Hundreds of questions arise at every step of our progress, questions in which it is hardly conceivable that pupils should not take a lively interest, for they most intimately concern themselves and their fathers and brothers and neighbors, men in public positions whom they personally know.

And so we might proceed to the County, with its representative council and its various officials with their respective functions. By each successive step we are led up to the Provincial Government and its legislature as the fountain from which flows authority to collect taxes for schools and roads and bridges, and other local purposes. Here we come directly in contact with the great ruling principle of our constitution, for which so many bitter battles were fought in the early history of our country—Responsible Government. The legislature itself, with all its ancient forms and ceremonies, with its members drawn from all sections of the province; the cabinet, with its various departments, each with its ministerial head; the civil service with its large and varied staff; in regard to all these I think it is quite possible to awaken the interest of the boys and girls in our schools, and to convey to them most valuable information. And surely, in view of the fact that the great majority of these pupils will all their lives be influenced very directly by all this apparatus of government, and will, through it, influence others for good or evil, it is at least as important that they should have some notion of the complicated machine, as that they should know the precise dates of the battles of the

\*Read before South Wellington and City of Guelph Teachers' Association Oct. 6th, 1893.

This address was read some time previous to the publication of the Minister of Education's "Patriotic Recitations and Arbor Day Exercises."

Wars of the Roses, or the names of the tributaries of the Amazon.

In connection with the Provincial Parliament will arise the question of how laws are made, and the whole machinery and process of legislation. Another large subject that will crop up here is the revenue of the Province, its sources, and the manner in which it is expended; and there will be an opportunity of emphasizing the vital principle of all British constitutions—that no money can be expended without the approval of the people of the country expressed by the voice of their chosen representatives.

But laws, however good and wise, are of little avail if they are not enforced. Who is to see that the laws passed by parliament are obeyed, and in cases of doubt as to their true meaning, who is to decide? Here the executive and judicial functions of government come into view, and new and interesting fields are opened for investigation—the chief executive of the province, the Lieutenant-Governor, with all the subordinate officials, sheriffs, constables, policemen, bailiffs, etc., and the judiciary—the higher judges, the county judges, magistrates, and others. I need not weary you with details, but it must be acknowledged that here there is no lack of material for interesting and instructive lessons.

Proceeding on the same lines we come still higher, to the Dominion Government, with its special powers in various departments of the national life, and its various functionaries, legislative, judicial and executive. The question very naturally arises: "Whence all this power?" "On what foundation does all this authority rest?" And these questions lead us to the great central authority of the empire—the Imperial Parliament. By a time-honored conventionality it is the sovereign who is the source of power and authority, but, as we all know, it is the British Parliament, we might almost say the British House of Commons, that rules. And what is the House of Commons but the collective opinion of the electors of Great Britain. We thus, in the ultimate analysis, after examining link by link all the lengthened chain of delegated authority, arrive at the true democratic principle which is now more or less generally recognized throughout the civilized world, that the voice of the people, if not the voice of God, is at least the prevailing voice in the affairs of government, and even Queen Victoria herself is a public official who holds her position by an act of parliament.

You will readily agree that in this sketch of the lines on which some instruction in the science of government might be given to Public School pupils there is an ample field for even the most advanced classes to spend far more time than they can possibly spare. No teacher, amidst the manifold engrossments of his daily labors could be expected to find time for the topics I have indicated. But my aim has been rather to awaken some interest in the subject itself, and to endeavor, if possible, to induce the teachers of this Association to turn their thoughts to this interesting and important department.

I do not require to be told that the interest that pupils would take in it would depend very largely on the teacher and the manner in which he might present it to his class. This is true of all subjects, but it is also true that certain topics are, of themselves, better fitted than others to attract and sustain the attention and interest of the young, and I cannot but think that the study of Civics will prove to be one of these. Unfortunately, except in advanced classes, rather in university and college class-rooms than in Public Schools, the experiment has but seldom been tried, and it may be easily understood that, in the present congested state of the programme, there is a most reasonable reluctance to enter on new and untried paths. I believe, however, that some instruction in this subject could be given without entailing any additional burden on either teacher or

pupils, but rather with the happy effect of somewhat lightening the load that now oppresses both.

Let me, in conclusion, briefly summarize the benefits that might fairly be expected to result from the intelligent teaching of Civics in our schools:

1. **BENEFIT TO THE PUPILS.**—This would be two-fold. The educational mental training derived from the rational study of a vital and interesting subject could not fail to be great. In addition to this, the pupils trained in this department could not fail to become more intelligent and useful citizens, with a fuller understanding of those safeguards and guaranties which secure to the people the right to life, liberty, and all constitutional privileges.

2. **BENEFIT TO THE TEACHER.**—I have already spoken of the prevailing ignorance of civic machinery and methods, and I fear that it cannot truthfully be said that our teachers, as a body, are an exception to the general rule. Even of the department of government that is specially concerned with education, I know that few teachers have extensive or accurate knowledge. And I have no doubt that we must all confess that, with respect to the relations that the citizen bears to the State, there are many vitally important points on which our ideas are extremely hazy. If a teacher is to lead his pupils along the path of knowledge, he must first travel that way himself; and it is certain that his studies and observations in this subject would awaken a thousand questions in his mind, and give him a new and fascinating interest in his surroundings.

It has often been lamented that in our cities and towns and rural districts our teachers have by no means the weight and influence in the community that their position demands. There are many causes for this—the youthful age at which many of them begin their work, the frequency with which they change their schools, the tendency of the public to grind down their salaries to the lowest figure—these are partial explanations of the unfortunate state of things. Some of these causes are beyond the teacher's power to remove. But it certainly seems reasonable to believe that, if he were to make for himself a serious study of civic questions he would infallibly be led to take a livelier interest in the administration of civic government in his own community, and, as opportunity offered, to share in the duties and responsibilities of citizenship to a far larger extent than he now does. If this were the case, he would most certainly come to be regarded with something more nearly approaching the respect and confidence which his important duties so evidently demand.

3. **BENEFIT IN THE STUDY OF HISTORY.**—It is now the almost universal practice to teach geography by beginning with the pupils' immediate surroundings, and gradually widening the circle from this centre. "From the known to the unknown," is an expression so threadbare that one feels tempted to apologize for using it, but I think I am right in saying that it has not as yet materially affected the teaching of history. For all that, it must be evident that the method which is applicable to geography must be equally so to history. The one concerns the individual's position in space, the other his position in time. The school-room may be taken as a starting point for both, and, in some such way as I have indicated above, the thoughts of the pupil may be guided from the organized life of his own section or township, to the widest view of the constitutional and national history of his own country and all the other nations of the world.

4. **BENEFIT TO THE NATION.**—Many of the evils which afflict the body politic, evils which every thoughtful friend of his country cannot but acknowledge and deplore, arise largely from the general ignorance of public matters. Doubtless, in recent years, things have improved, but how great the room for improve-

ment still! When one calmly considers the methods of party politics, and the code of morality which seems to be sufficient for many of those who make politics their profession, he is amazed that men, honest and upright in other relations of life, should be able to humbug their consciences with the soothing belief that all is fair in politics as in military warfare. If those who provide the funds for government expenditure were but better instructed in the nature and methods of representative institutions, is it likely that we should so frequently hear of communities clamoring to be bribed with their own money, and of offices held out, with more or less openness, as the reward of party services? For these and other evils which, like noisome and poisonous reptiles, lurk in congenial darkness, light is the only remedy. When those who supply the money, and elect the men who spend it, have their eyes once thoroughly opened to the mighty truth that "public service is a public trust," and that those who fill public offices, be they ever so exalted, are the servants of the nation and not its masters, there will be a happy change in many matters, and the country will be governed more economically and no less efficiently than it has been in the past.

## School-Room Methods.

### ABUSES OF THE DECIMAL SYSTEM.

BY SYDENHAM.

PERHAPS one of the most difficult parts of second-class arithmetic is the trouble with dollars and cents. How often we find pupils of that class dividing a number representing dollars by a number representing cents, and *vice versa*? Most of this trouble may be traced to the introduction of decimals at this early stage. For instance, they are told that \$248.25 is 248 dollars and 25 cents, while it is really 248 decimal 25 dollars. They are also told that in order to find out how many cents there are in a certain number of dollars they have but to add two zeros.

The decimal point should never be used in the second class. They should not be told any of these shortened forms. If they find them out by their own observation, then let them use them, because they will know how. Although requiring a little more time and space, it will pay to write them thus: \$248 and 25 cents, or \$248 + 25 cents. Then they will recognize them as two different numbers and not as one. It is surprising to see how soon they will learn to add, subtract, &c., such quotations as  $\frac{\$4 \text{ and } 40 \text{ cts.}}{37 \text{ " } 62 \text{ "}}$ . Then you will hardly ever find them adding dollars to cents, etc., which is just as absurd as adding horses to cattle. To reduce a certain number of dollars and cents to cents they should be made to go through the whole process of multiplying the number of dollars by 100, then afterwards add in the cents. At the same time they get the principle on which all compound work is done, and reduction as well.

Some such problems as the following will serve to test their ability to deal with such problems:—

Suppose there are 108 cents in a dollar, and a man buys 12 sheep at \$6 and 50 cents each, and sells them at \$9 each, how much will he gain? Answer: \$30 and 48 cents, but not \$30.48.

Test some of your senior classes in this way, and see what success they will have in solving it.

WITH all the elements of progress the fact remains that the school is and must ever be, as it has always been, what the teacher is. With all the improvement in text-books, advance in methods, multiplication of devices, the school cannot be better than the teacher. There are many conditions and circumstances, relations and forces that may make or mar the teacher's work, but there is nothing that can make the school a success without a successful teacher. It is clear, then, that the mission of all educational forces, of all bookmakers and professional writers, of all school officials and public-spirited citizens, is to secure good teachers in the place of the poor, and make all conditions such as to make all teachers and all teaching better.—*Journal of Education.*

Mathematics.

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

JUNIOR LEAVING AND UNIVERSITY PASS MATRICULATION.—1893.

ALGEBRA.

1. Solve the equations :

- (a)  $50x^2 - 151x + 3 = 0$
- (b)  $(2x+7)^2 - 6(2x+7) = 55$ .

2. Solve the equations :

- (a)  $\begin{cases} \frac{2x}{3} + \frac{y}{12} = 6 \\ 5x - 3y = -4 \end{cases}$
- (b)  $\begin{cases} x^2 + 2xy + 2y^2 = 13 \\ 2x^2 + 3xy + 3y^2 = 20 \end{cases}$

3. (a) A man bought a number of acres of land for \$300; if he had paid \$5 more per acre, the number of acres bought for the same sum would have been 2 less. Find the number of acres bought.

(b) What is the price of eggs per dozen when six less, in a quarter's (25c.) worth increases the price  $2\frac{1}{2}$  cents per dozen ?

4. (a) Factor  $x^2 - 36x - 1440$ .  
(b) If  $a+b+c = 0$ , prove  $a^3+b^3+c^3 = 3abc$ .

(c) Prove that the product of four consecutive odd integers, increased by 16, gives a square integer.

5. (a) Show that 4 is a root of the equation  $(3x-8)^2 = \frac{328}{105}(3x-8) + \frac{1}{25}$ ; and find another root.

(b) Form the quadratic equation whose roots are the reciprocals of the roots of the equation  $x^2 - 1218x + 370817 = 0$ .

6. (a) Show that  $(x+y)^3 + 3(x+y)^2(z+w) + 3(x+y)(z+w)^2 + (z+w)^3$  is identically equal to  $(x+z)^3 + 3(x+z)^2(y+w) + 3(x+z)(y+w)^2 + (y+w)^3$ .

(b) Divide  $(x+y+z)^3 - x^3 - y^3 - z^3$  by  $x(y^2+z^2) + y(z^2+x^2) + z(x^2+y^2) + 2xyz$ .

7. Solve the simultaneous equations :

$$\begin{cases} 2x + y + 3z = 21. \\ x + 3y + z = 13. \\ 6x - 5y + 4z = 22. \end{cases}$$

8. (a) Find the square root of  $14 + \sqrt{180}$ .

(b) Divide  $a^{\frac{2}{3}} + a^{-\frac{2}{3}} + 1$  by  $a^{\frac{1}{3}} + a^{-\frac{1}{3}} + 1$ .

9. Solve the equations :

$$\begin{cases} 2x^2 + 3xy + 4y^2 = 62. \\ 3x^2 + 4xy + 5y^2 = 81. \end{cases}$$

$$(b) \frac{2x-1}{2x+1} - \frac{2x+1}{2x-1} = -\frac{11}{30}$$

10. (a) Simplify

$$\frac{a^3}{(a-b)(a-c)} + \frac{b^3}{(b-c)(b-a)} + \frac{c^3}{(c-a)(c-b)}$$

(b) Show that the difference between the square of a number, consisting of two digits, and the square of the number formed by interchanging the digits, is divisible by 99.

SOLUTIONS BY H. M. LITTLE, OWEN SOUND.

- 1. (a)  $(50x-1)(x-3) = 0$ ;  $x = \frac{1}{50}$  or 3.
- (b)  $(2x+7-11)(2x+7+5) = 0$ ;  $x = 2$  or  $x = -6$ .

2. (a) Multiply through by 12 and 24 respectively; then  $9(1)+(2)$  gives  $92x = 552$ ;  $x = 6$ ,  $y = 24$  from (1).

(b) Subtract  $2x^2 + 2xy + 2y^2 = 14$ ;  $\therefore$  from (1)  $x^2 = 1$ ,  $x = \pm 1$ .

Substitute this in  $x^2 + 2xy + y^2 = 7$  and  $1 \pm y + y^2 = 7$  and we get four values for  $y$ .

3. (a) Let  $x$  and  $y =$  No. acres, and price per acre.

$$\therefore 300 = xy = (x-2)(y+5); \therefore 5x = 2y+10, \text{ or } 5xy = 2y^2 + 10y = 1500; y^2 + 5y - 750 = 0;$$

whence  $y = 30$  or  $-25$ ; the latter value being inapplicable to the problem;  $\therefore x = 10$ .

(b) Let  $x =$  price per doz.; 6 less in 25c. worth, i.e. 1 doz. less in 50c. worth increases the price  $2\frac{1}{2}$ c. per doz.

$$\therefore \frac{50}{x} - 1 = \frac{50}{x+2\frac{1}{2}}, \text{ whence } x = 10c.$$

- 4. (a)  $(x+24)(x-60)$
- (b)  $a^3 + b^3 + c^3 - 3abc = (a+b+c)(a^2+b^2+c^2 - ab - bc - ca) = 0$ .

(c) Let  $x-3, x-1, x+1, x+3$  be the four odd numbers;  $(x^2-9)(x^2-1) + 16 = (x^2-5)^2$ , a perfect square.

5. (a) For  $3x-8$  write  $a$ ;  
 $\therefore 100a^2 - 399a - 4 = 0$ ;  
 $(a-4)(100a+1) = 0$ ;  $a = 4$  or  $-\frac{1}{100}$ ;  
 $x = 4$  or  $\frac{38}{100}$ .

(b)  $(x-601)(x-617) = 0$ ;  $x = 601$  or 617.  
The equation is  $(x-\frac{301}{2})(x-\frac{617}{2}) = 0$ ;  
 $370817x^2 - 1218x + 1 = 0$ .

6. (a)  $[(x+y) + (z+w)]^3 = [(x+z) + (y+w)]^3$   
(b)  $(x+y+z)^3 - x^3 - y^3 - z^3 = 3(x+y)(y+z)(z+x) = 3(x+y)(y+z)(z+x)$ . Ans. 3.

$x$	$y$	$z$	
2	1	3	= 21 (a)
1	3	1	= 13 (b)
6	-5	4	= 22 (c)
6	3	9	= 63 (3a)
	8	5	= 41 (3a-c) = (d)
2	1	3	= 21 (a)
2	6	2	= 26 (2b)
	5	-1	= 5 (2b-a) = (e)
25	-5	25	(5c)
8	5	41	
33y			= 66; $y = 2$ .
			$\therefore x = 2$ ; $z = 5$

8 (a) Let  $14 + \sqrt{180} = (\sqrt{a} + \sqrt{b})^2$ ;  $a+b=14$ ,  $4ab = 180$ .

$$\therefore a = 9; b = 5; \sqrt{a} + \sqrt{b} = 3 + \sqrt{5}.$$

$$(b) \begin{vmatrix} 1 & 1 & 0 & 1 & 0 & 1 \\ -1 & -1 & 1 & -1 & -1 & -1 \\ -1 & -1 & -1 & 1 & -1 & -1 \end{vmatrix}$$

$$\begin{vmatrix} 1 & -1 & 1 & 0 & 0 \end{vmatrix} \text{ Ans. } a^{\frac{1}{3}} - 1 + a^{-\frac{1}{3}}$$

9. (a) Cross multiply

$$162x^2 + 243xy + 324y^2 + 324y^2 = 186x^2 + 248xy + 310y^2;$$

$$\text{i.e. } 24x^2 + 5xy - 14y^2 = 0 = (3x-2y)(8x+7y)$$

$\therefore x = \frac{2}{3}y$  or  $-\frac{7}{8}y$ . Substitute these values in (1) and  $y = \pm 3, x = \pm 2$ ;

$$\text{or } y = \sqrt{21.3}, x = \frac{1}{3}\sqrt{44}.$$

(b) Put  $2x-1 = a, 2x+1 = b$   
 $\therefore 30a^2 + 11ab - 30b^2 = 0 = (6a-5b)(5a-6b)$ ;  
 $\therefore a = \frac{5}{6}b$  or  $-\frac{6}{5}b$ .

Substitute and we get  $x = 5\frac{1}{2}$  or  $-\frac{1}{2}$ .

10. (a) Numerator of sum  $= -a^3(b-c) - b^3(c-a) - c^3(a-b) = (a+b+c)(a-b)(b-c)(c-a)$   
Denominator  $= (a-b)(b-c)(c-a)$ .  
Ans.  $a+b+c$ .

(b) If  $x$  and  $y$  are the digits,  $10x+y$  is the number.

$$\therefore (10x+y)^2 - (10y+x)^2 = 99(x^2 - y^2), \text{ which is exactly divisible by } 99.$$

PROBLEMS FOR SOLUTION.

The following problems have been selected from English and Canadian examination papers and we invite our readers to solve as many as they can and send in clear, well-written, concise solutions in time for the issue of April 1st. We will give credit for all solutions and select the best for publication. We hope they will be found interesting, that the answers given will be thoroughly tested and that our friends will vie with each other in finding neat and concise solutions. No limit is made with regard to arithmetical or algebraic methods; the shortest and clearest method is always superior to all others.

1. Find to two places of decimals the length of the diagonal on the face of a cube containing 95443.993 cubic inches. Ans. 64.437 nearly.

2. Find in American currency the value of a sterling bill for £500 14s. 6d. when gold is

quoted at  $15\frac{1}{2}$  and the course of exchange \$4.89. Ans. \$2828.06976375.

3. A dry goods merchant marks the yard on his counter accurately, but by the opening of a joint the measure becomes 36.35 inches long. How much per cent. does he lose by the defect in his counter? Ans.  $\frac{1}{99}$  per cent.

4. A grocer buys tea and sells  $\frac{3}{4}$  of the amount in the invoice at 82 cts. a pound, thus clearing \$190. He now thinks that if he advances the price to 85 cts. he will make 30 per cent. on his outlay. But there is a waste of 2 per cent. in handling the tea which he does not observe. How much less cash will he receive than he expects?

NOTE.— $\frac{3}{4}$  tea @ 82 = whole @  $82\frac{1}{3}$  =  $\frac{3}{4}$  tea @ 85  $\frac{1}{3}$  (tea  $\times$  cost).  
 $\therefore 82\frac{1}{3} = \frac{1}{3}$  cost; i.e. cost per lb. =  $63\frac{2}{3}$  cts. gain on the whole @ 82 would have been \$228.

1 lb. =  $82 - 63\frac{2}{3} = 18\frac{1}{3}$ .  
No. pounds bought =  $\$228 \div 18\frac{1}{3} =$  etc.

5. The Scotch ell = 37.069 inches; 24 Scotch ells = 1 Scotch acre. Find the difference in square feet between 42 Scotch acres and 55 English acres.

NOTE.—42 Scotch ac. =  $42 \times 741.38 \times 741.38$  sq. ft.

55 Eng. ac =  $55 \times 4840 \times 9$  sq. ft. etc.

6. Each member of a club contributes as many books as there are members in the club, and the total value of the club library is \$121.67. Find the average value of a book. Ans. 23 cts.

7. Tea at 42c., 48c. and 72c. are formed into a mixture worth 60c. per pound. What is the least integral number of pounds the mixture can contain? Ans. 7 lbs.

8. A man has 1000 apples and sells them at first so as to gain at the rate of 50 per cent. on the cost. He sells the remainder for what he can get, losing at the rate of 10 per cent. on the cost price, but on the whole he gained 29 per cent. on the cost. How many did he sell at each rate? Ans. 650 and 350.

9. If the numbers 1, 2, 3, . . . . . 10, 11, 12, . . . . . 100, 101, 102, etc., are written down without separating the figures what would be the 750th figure of the row? Ans. 6.

10. In a field where the grass grows uniformly 31 oxen can graze  $8\frac{1}{2}$  acres in  $\frac{1}{3}$  of the time in which 15 oxen would consume the grass on  $5\frac{1}{2}$  acres; and 22 oxen would require 3 days longer to finish up  $7\frac{1}{2}$  acres than 20 oxen would require for  $6\frac{1}{2}$  acres. In what time may 31 oxen be expected to eat up  $8\frac{1}{2}$  acres of grass? Ans. 21 days.

11. A cube is formed out of a certain number of pounds avoirdupois of a substance and the same number of pounds troy of the same substance. What proportion will a side of this cube bear to the side of a second cube of the same substance and containing the same number of pounds but all avoirdupois? Ans.  $6.832771 : 7.047298$ .

12. When the temperature of a metal cube is raised from 32° F. to 212° F. each dimension is increased .3 per cent. Find the percentage of increase in the bulk. Ans. .9027027 per cent.

13. A bicyclist ran  $4\frac{1}{4}$  miles in 17 minutes. The distance made in the last minute was  $\frac{1}{3}$  of that made in the first minute; and the distance in each successive minute was less than that in each preceding minute by the same quantity. Find the average and the uniform decrease per minute. Ans. average rate =  $\frac{1}{4}$  mile per minute; decrease =  $13\frac{1}{4}$  yds. per minute.

14. A messenger times himself to go 20 miles in a given time, but after walking 8 miles at this rate he is delayed for an hour at a swing bridge and is consequently obliged to walk 2 miles an hour faster to reach his destination on time. Find his rates of walking. Ans. 4 miles and 6 miles per hour.

15. If cloth 42 inches wide weighing  $6\frac{1}{2}$  ounces to the yard and made of wool worth 45 cents a pound be sold for 98 cents a yard, how many ounces per yard will there be in cloth 27 inches wide and made of wool worth 77 cents a pound and worth 66 cents per yard? Ans.  $3\frac{1}{2}$  ounces.

16. On a year's credit a merchant sells his goods at an advance of 35 per cent. on cost; on six months' credit he gives a discount of 6 per cent. off the former price; and for cash he allows 10 per cent. off the long credit price. He abolishes the plan of giving a year's credit and marks his goods on the basis of six months' credit. How should he mark an article that he has been in the habit of selling for \$12 cash? Ans. \$14.65 $\frac{5}{8}$ .

17. A man walks at a regular speed on a road which crosses a bridge 21 miles from the point he had reached at noon. If his rate were half a mile an hour faster he would cross the bridge an hour sooner than he does. Find his speed and the time at which he crosses the bridge. Ans. 3 $\frac{1}{2}$  miles, 6 o'clock.

18. The external dimensions of a rectangular iron chest are 27, 20 and 14 $\frac{1}{2}$  inches respectively and the sides, lid and bottom are all one inch thick. Of how many cubic inches of iron is it formed? Ans. 2205 cub. in.

19. A rectangular solid 54 inches long, 42 inches broad and 16 inches thick has its thickness increased by 11 inches and its breadth so diminished that the solidity remains the same as at first. Find the decrease in the breadth. Ans. 17 $\frac{1}{2}$  inches.

20. A man bought 200 meters of cloth in France, at 16 $\frac{1}{2}$  francs per meter; he paid 12 $\frac{1}{2}$  cents a yard for duty and sold it in Boston at \$4.62 $\frac{1}{2}$  per yard. What was his gain?

N. B.—1 meter = 39.37043 inches; 1 franc = 19 $\frac{1}{2}$  cents. Ans. \$357.0106.

21. If 8000 meters be equal to 5 miles, and if a cubic fathom of water weigh 13440 lbs. and a cubic meter of water weigh 1000 kilogrammes, find the ratio of a kilogramme to a pound avoirdupois. Ans. 1 lb. : 1 kil. = 27951 : 125000.

CORRESPONDENCE.

J. E. HOLT, Newton Robison, solved 92, 94, 95, 96.

E. J. REID, Marlbank, solved 68 and 92.

SOLUTION No. 94, by J. E. HOLT.—

Note No. 1 of \$187.25 due 15th Feb., 1887.

∴ it has 39 days from Jan. 7 to run before due and the discount (bank) for this time =  $\frac{187.25}{100} \times \frac{39}{365} = \$1.40$

Note No. 2 of \$382.75 due April 1st, 1887 has 84 days to run.

∴ the disc. =  $\frac{382.75}{100} \times \frac{84}{365} = \$6.17$

Note No. 1 of \$187.25 - disc. of \$1.40 = \$185.85

“ 2 of \$382.75 - disc. of \$6.17 = \$376.58

Total present worth = \$562.43

Mr. GARDINER sends correction of his solution of No. 68, page 187, so that it now reads:

Average selling price of 50 yds. = 15 $\frac{1}{2}$ c.

∴ on the 13c. cloth he gains 2 $\frac{1}{2}$ c. or 1c. on  $\frac{50}{13}$  yd.

On the 18c. cloth he loses 2 $\frac{3}{8}$ c. or 1c. on  $\frac{50}{13}$  yd. Hence he must have sold  $\frac{50}{11}$  yd. at 13c. when he sold  $\frac{50}{13}$  yd. at 18c.

Or 188 yds. at 13c. for every 112 yds. at 18c.

[N.B.—This is the line to be scrutinized. EDITOR.]

Using this proportion we get 27 $\frac{1}{2}$  yds. at 13c., 22 $\frac{1}{2}$  at 18c.

REMARK 1.—The word “or” will be incomprehensible to most readers. Mr. G. should have given some reason for taking the yards and the prices crosswise. He objected to the solution published because he thought it was done “by rule, not reason.” By what rule or for what reason does he connect the quantities and the prices as here shown?

Mr. Reid proceeds by the same steps to the word “or” as in Mr. Gardiner's work. Mr. R. then proceeds:—

He loses 2 $\frac{1}{2}$ c. on 1 yd. at 13c. and gains 2 $\frac{3}{8}$ c. on 1 yd. at 18c. To make his loss and gain equal he would have to sell ( $\frac{2\frac{1}{2}}{2\frac{3}{8}} \div \frac{2\frac{1}{2}}{2\frac{3}{8}}$ ) yds. more at 13c. =  $\frac{1}{2}$  yd. If he sells one yd. at 18c. he would have to sell 1 $\frac{1}{2}$  yds. at 13c. to balance the gain.

∴  $1 \div (1 + 1\frac{1}{2})$  is the fraction of 50 yds. sold at 18c. = 22 $\frac{1}{2}$  yds.

$1\frac{1}{2} \div (1 + 1\frac{1}{2})$  is the fraction of 50 yds. sold at 13c. = 27 $\frac{1}{2}$  yds.

REMARK 2.—We fail to see in what respect this excels the solution of T. F. L. of Oct. 1st. Certainly not in brevity and clearness. The question is No. 26, p. 146, Public School Arithmetic. T. F. L., Phelps, gave this solution: 50 yds at 13c. = \$6.50; selling price = \$7.62. At 13c the price would be \$1.12 less; 18 - 15 = 5c less on each yard sold at 13c;  $112 \div 5 = 22$  2-5 yds at 18c; remd. = 27 3-5 yds at 13c.

REMARK 3.—The meaning is perhaps obscured slightly by condensation, but we suppose T. F. L. meant the argument to be when written in full: If all the cloth were sold at 13c there would be a difference in the price of 112c; now this difference has to be cancelled by taking some at 18c; and if we take one yard at 18c instead of 1 yard at 13c the cost will be increased by 5c; hence when the cost is increased by 112c we must take  $(112 \div 5)$  yards at 18c, instead of the same number at 13c. If this was not what T. F. L. meant will he kindly state in full his reason for  $112 \div 5$  so as to satisfy the several correspondents who have asked for explanation.

REMARK 4.—Friendly discussion and kindly criticism of methods are likely to do good on all sides; and we hope none of our correspondents will be afraid to give their views and methods frankly and fully. There have been notable instances of great mathematicians making stupendous mistakes, instances of correct conclusions from false premises, instances of apparently correct results that would not bear some easy test of accuracy, and where older and wiser people have sometimes gone astray we need not be too much surprised or hurt to find that we have made mistakes. The probability is that we shall learn a good deal by observing our mistakes with extreme care. The solutions under discussion are probably all sound at bottom; as far as the Editor can make them out they are; but they lack articulation, definite clearness, and logical precision. A pupil of 14 to 16 would fail to apprehend the logical nexus between the steps, and the teacher's explanation would seem mysterious and vague. The perfectly lucid explanation demands forethought, presence of mind, a clear knowledge of the question, and perfect articulation, leaving out important and necessary reasons, and therefore they are all chargeable with obscurity. Now let the readers of this column watch the Editor, and when he attempts to put the matter of 10 columns into 5, as he is constantly trying to do, the opportunity for the back stroke will have arrived! Put no poison on your arrow; but hit the target fairly in the centre and you will have done a useful thing for the cause of education, i. e., for humanity at large.

REMARK 5.—We sincerely hope that every reader will try to write at least once to the JOURNAL during 1894 on some question of practical importance to the everyday work of the school-room. The teachers can secure just the kind of help that they need in their professional paper by taking the trouble to write often about their difficulties. Do not trust to a scraggy, hurried letter or post card; do not mix your topics; think out your difficulty until you know what it is, then state it as clearly as you can. It is highly probable that some one connected with the JOURNAL can and will give you assistance, more or less. Help the JOURNAL in all the honorable ways you can and the JOURNAL will help you. The field is large and promising; let us stand together; let us stand together and reap the golden harvest with joy.

P. S.—H. M. LITTLE, Owen Sound, sent solutions to problems 89, 90; P. GARDINER, Cromarty sent correction of his solution to 68, which contained an error in copying out; and E. J. REID, Marlbank sent his solution of 68 and also of 93. Several correspondents request a further explanation of the solution given in this column to No. 68. They fail to see why  $112 \div 5 =$  No. of yds. at 18c. These letters were received just too late to receive attention this month. But the explanation will no doubt be forthcoming. We invite our friends to see

what can be done to illuminate the point and make it if possible incandescent to all our readers. We value these letters very highly.

Question Drawer.

A. H. N.—1. In Governor Simcoe's Proclamation dated July 16, 1792, electoral districts are defined for the election of members of the First Parliament of Upper Canada. The sixteenth district in the list is Norfolk, the seventeenth is Suffolk, the eighteenth is Essex, and the nineteenth is Kent. At that time Norfolk and Suffolk had the river LaTrauche (now the Thames) for their northern boundary, and Kent included all north of that river “extending northward to the boundary line of Hudson's Bay” that was not Indian territory and was not included in districts further east. The district of “Suffolk” extended from the Orwell creek on the east to the Rondeau on the west, and thus included the greater part of the present county of Elgin and a portion of the present county of Kent, the rest of the latter being in the then district of Essex. In 1851 an Act was passed by the Legislature of Canada increasing the number of members in the Legislative Assembly from 84 to 130, and one clause of that Act (14 and 15 Vict., cap. 5, sec. 4) provides that with respect to the new counties of Elgin, Waterloo, Ontario, Brant, Grey, Lambton, and Welland, the Governor might issue a proclamation naming a place in each for a county town, and erecting the reeves and deputy-reeves of the townships in each county into a “Provincial Municipal Council” for the county. We have not the precise date at which the municipal organization of the county of Elgin was effected under this statute. The name was a compliment to the then Governor-General.

2. Some of the functions now discharged by County Councils in relation to township affairs were formerly discharged by magistrates in their “sessions.” The only township law-giving body was the annual “town meeting,” which elected township officers for the year, including clerk, treasurer, path-masters, pound-keepers, etc., and which passed resolutions of a business kind for the guidance of the officials. This system was imported from New England, where it has survived till the present time. It is in point of historic fact a survival of the village community organization which was at one time general throughout all European nations, and is still to be found in almost primitive simplicity among the Slavs of Bulgaria and of some parts of Russia. In Teutonic England it preceded the feudal system, and traces of it are still abundant in the organization of the British body politic. The village pound-keeper is a more valuable, if not a more distinguished office than that of the Lord Chancellor.

3. All deputy-reeves should be elected in the same way, the procedure being as prescribed in the Revised Statutes of Ontario, 1887, chap. 184, sec. 71.

4. The section cited in the last preceding answer declares that each township shall have only one reeve until there are on the assessment roll the names of 500 “freeholders and householders possessing the same property qualification as voters,” and then a deputy-reeve must be chosen instead of one of the four councillors. When the assessment roll has on it 1,000 names of persons so qualified a second deputy-reeve is substituted for another of the councillors, and so on for each additional 500 names. It is not necessary that these names should be on the last voters' list; all that is necessary is that they should be on the last revised assessment roll.

J. D.—1. There is no general law for the minimum population of cities. Each city applying for incorporation as such is dealt with on the merits of its own case. So far no city has been incorporated with a population less than 10,000.

J. D.—2. The Regulations of the Education Department respecting the study of Physiology and Temperance will be found on page 194 of the new text-book. From those it appears that the questions for Entrance Examination will be based upon the chapters on Digestion, Respiration, the Circulation of the Blood, and the Nervous System.

P. S.—The best book to aid you in appreciating rhythm, musical effect, etc., of poetry, is probably one on the structure of verse, by Sydney Lanier, the southern American poet.



## Primary Department.

## ANOTHER YEAR.

RHODA LEE.

A HAPPY new year! A happy school-year! One full of good earnest work in the best interests of your pupils. Honest effort to do one's best always brings a certain amount of joy. Your best, my reader, should be better this year than last. Make a resolve in your heart this term to know your children better: to seize the many little opportunities that arise for making the acquaintance of your pupils. It is possible, as you probably know, to teach a child for six months and still know next to nothing about him. But if you would be successful in the highest aims of teaching you must understand the individuals with whom you have to deal.

Let this year see more happiness in the school-room. Instead of a place where tears and frowns are frequent and fear the ruling element, make it the cheeriest, brightest place possible, and let sympathy, co-operation and love fill every corner. There are many happy school-rooms, but there are still some unhappy ones, where the teacher is so far away from her pupils, walled in so impenetrably by dignity and reserve, as to make any other and more congenial atmosphere impossible.

One of the greatest aids in making the school-room machinery run smoothly is the frequent relaxation. It need not last long. Five or ten minutes is generally sufficient. Time is never lost that we spend in a "quick march" round the room, calisthenic exercise, or a brisk motion-song. There is a constant danger of crowding out the physical training. Guard against this and never sacrifice the health of your scholars to work. And just here let me say that I think there is sometimes undue pressure brought to bear on the pupils of the primary grades. Only the other day an Inspector of Public Schools was telling me of the beautiful *home-work* done by pupils in a first-book class. I felt and thought I looked scandalized, but he evidently did not so understand me, for he went on to inquire what method I had of marking the home-work, etc. Think of it! Home-work, reward marks for work done after school in a first-book class! After five hours' school to expect a six or seven-year-old child to spend another hour or even half-hour working in the house, when he ought to be enjoying a good game in the open air, is positively wrong. Beware of the pressure. There are so many sensitive, nervously organized children in our classes, who put their whole souls into their work with an immense amount of concentration, that it is indeed necessary to avoid anything of this kind if we would not do them a positive injury.

I have one other suggestion to make for this new year and it is that of a class "motto." If possible let it be the choice of the children. Give them a week or more in which to find suitable verses or maxims from these, and choose the most helpful and inspiring one to be the motto for the term. I have found this idea to be a good one and of great interest to the children.

## READING.

III.

RHODA LEE.

THE transition from script to print is a step that has received unnecessary attention and discussion. It has been looked upon as a difficulty but it is purely imaginary. There need be no transition. If the reading be taught properly there is instead a gradual and unconscious acquaintance made with both the written and printed representation of the sound, and with no confusion the child is able at the end of the regular phonic teaching to take up his book and read without overstepping any boundary line.

As we wish to avoid any possibility of confusing the letters, we do not put printed matter into the child's hands until he has had at least six weeks' use of the script. As a first exercise show how "a" is made in the book. After noting any slight differences and impressing the form, ask the children to find all the words containing this letter and write them (in script) on their slates. The searching for words is very interesting busy work. As every new sound and letter is taught we turn to the book, see how it is printed and give some such exercise as the above to fix it. In this way the forms become familiar and from merely finding words the children begin to read at home, school, whenever and wherever they can. Then when we begin to drill on work-recognition in printed matter we find the way already paved and presenting few if any obstacles.

There are a few unphonetic words that we require very soon in giving and writing sentences. These are introduced one at a time and placed on an unused part of the blackboard or on the reading-chart so as to be convenient for the frequent drill that they require. Such are *you, was, some, who, would, there, does, goes*, etc. These can be taught only by the word method.

At first we wrote the sentences for sight-reading on the blackboard, every child having the same eye-problem. This plan is preferable in beginning, but as soon as possible prepare sets of cards (old concert tickets or invitation cards when cut up answer the purpose perfectly) on which to write sentences, each containing a different thought. Suppose the new combination to be "ou." The sound may be impressed by comparing it to the exclamation made by the two little girls who burned their fingers while making taffy. After ear-exercises have been given—teacher dictating words and class-writing—the cards for sight-reading may be distributed. Each child in turn reads his story to the teacher and receives a new one to be mastered. As a class at the board should not exceed in number twenty-four or five, about thirty cards will be sufficient.

The following are among the sentences of my "ou" set:

1. *I found a plum on the ground.*
2. *Our cat has a mouse in the house.*
3. *The stout boy wore a round felt hat.*
4. *He shouted out and I found him.*
5. *Do you see that cloud south of the house?*

6. *Our house has a lot of ground around it.*

7. *That apple I found on the ground was sour.*

8. *Tom is very proud of his deer-hound. Its name is Bounce.*

9. *Fred ran into the house with a loud shout.*

10. *The milk in the round pan is sour.*

These are only a few of the many sentences that can be made with words containing this sound, but they will serve as samples.

BUSY-WORK following the above lesson:

1. Find in the book all the words containing "ou" and write them on the slate.

2. Write all the words you can think of containing the sound "ou."

3. Write sentences, using the following words:

<i>mouse,</i>	<i>ground,</i>	<i>shout,</i>
<i>house,</i>	<i>found,</i>	<i>proud,</i>
<i>flour,</i>	<i>pound,</i>	<i>louder.</i>

## A STORY FOR LITTLE PEOPLE.

THE following is a story that may be used as supplementary reading for First Reader pupils. The facts used are scientifically correct, and they are put in such a way that even a child will enjoy them. There should be some simple illustrations of the facts preceding or accompanying the story. These, of course, should be given by the teacher.

## THE SNOWFLAKE'S STORY.

I.

"Dear little snowflake, how pretty you are! I am so glad to see you. You are so white and clean. Are you a winter flower? Did you grow up in the sky? Where did you come from? May I take you into the house?"

"If you do, little girl, I will not be a snowflake. I take off my white fur cloak in a warm place. Don't you? It is my winter dress. I only wear it when it is cold. I have other dresses. If I put them on, you do not call me a snowflake. I will tell you where I came from some time."

II.

My home was in the big sea. I was a waterdrop then. One day I thought I would like to take a journey. I asked some of my friends to go with me. Very many were glad to go. We put on our thin vapor dresses. The sun helped us up into a cloud. The cloud was our cars. The wind was our engine. What a good time we had! We rode over many cities and towns. We saw hills and mountains. We looked down into rivers and lakes. It was very beautiful.

III.

One day we met another engine. It was a cold wind. It made us very cold. So we all put on our white dresses. Then, you know, we were snowflakes. But these dresses made us heavy. We broke through our cars. Down we fell to the ground. O how glad the children were to see us! They ran and jumped and said, "O it is snowing! I am so glad." So you see we



have done one good thing. We have made the little people happy.

IV.

I have told you where I came from. Now I will tell you about my dresses. My common dress is called water-drop. You know how I look then. I wear that dress most of the time. If it is cold I put on my snow or sleet dress. Or sometimes I put on my hailstone dress. If I get very hot I put on my vapor dress. And I have a still thinner dress when I am hottest. You can not see it at all. When I have it on I am called steam.

V.

Now I will tell you some things I can do. You think I am so little I can not do much. But I help do very many good things. Can you? When I am a snowflake, I help cover up the flowers. When I am a raindrop, I help plants to grow. I run down the hills into the brooks and rivers. I carry rich dirt with me. I leave it in the valley. But I go on home to the sea. But when I am steam, I am very strong. I can help pull the cars you ride in. I can do many more things. Will you try to find out some of them?

M.F.B. in *Indiana School Journal*.

A FINGER EXERCISE FOR THE LITTLE FOLKS.



THE BEE-HIVE.

"Here is the bee hive,  
Where are the bees?  
Hidden away where nobody sees.  
Soon they come creeping  
One, two, three, four, five"

THE ANT-HILL.

"Once I saw an ant-hill,  
With no ants about,  
So I said "Dear little ants,  
Won't you please come out?"  
Then as if the little ants  
Had heard my call,  
One, two, three, four, five came out  
And that was all."

—Primary Ed.

"Do all the good you can,  
By all the means you can,  
In all the ways you can,  
In all the places you can,  
At all the times you can,  
To all the people you can,  
As long as ever you can."

THE nineteenth century makes large demands of us, and nowhere greater than in the demand for superior character. *Wm. A. Mowry, Salem, Mass.*

THE important question when a pupil leaves school is not how much he knows, but how much he is, how much he can bring to pass.—*Supt. Emerson, Buffalo.*

A GOOD plan. Go out into the hall and close your school-room door behind you. Then play you are a visitor and walk in. Try to see just how the room and the pupils look to a stranger. Examine the whole effect critically; give attention to details of floor, windows, curtains, condition of teacher's desk, pupils, general appearance—hair, faces, clothing, manner of sitting, etc. My word for it, you will discover some things that ought to be changed, and you will say mentally, "Why did I never notice that before?"—*Intelligence.*

For Friday Afternoon.

THE SONG OF THE SNOWSPRITE.

TO MY LITTLE COUSINS.

FROM high in the sky softly downward I fly,  
My steeds on their wings swiftly going;  
O ho! so ho! how the North wind doth blow,  
And the children all say: "It is snowing!"  
'Tis snowing—'tis snowing—  
See how the flakes fly!  
They'll soon make a snowdrift  
From out of the sky."

They are wrong—quite wrong—I must sing them  
my song,  
I really thought them more knowing;  
'Tis but a snowsprite who's out on a flight,  
And the flakes are the feathers I'm sowing.  
I'm a sprite on a flight—  
See how my steeds fly!  
I'll soon reach my home again  
Up 'neath the north sky.

From a blustering hole close by the North pole  
On a gray day in winter I sally;  
I harness my steeds after feeding them seeds—  
They are snowbirds who never long dally;  
But swift o'er the drifts  
Like arrows they fly,  
They'll soon bear me down to you  
From out of the sky.

Then nightly I sail on a nor-western gale—  
My snow birds their best pace are showing;  
The white feathers fly from my steeds in the sky,  
And the people all say: "It is snowing!"  
'Tis snowing—'tis snowing—  
See how the flakes fly!  
They whiten the landscape  
And darken the sky."

I mantle the plains as I shake out my reins,  
I powder the hill and the valley;  
I cover the trees with fluffy white leaves  
As my steeds to my call quickly rally,  
As they rally—ne'er dally,  
But speedily fly,  
Their wings shaking snow-drifts  
From out of the sky.

The doorways I fill from top down to sill;  
The roofs with my white plumes I cover;  
I bury the streets 'neath my downy white sheets,  
As over the city I hover,  
As I hover to cover  
All out-of-door people,  
And feather the church,  
Both its roof and tall steeple.

Then my day's work is done—I have made a good  
run;  
To my home in the North I'm soon going;  
And the good people cry as homeward I fly,  
"Oh see! it has surely stopped snowing—  
Stopped snowing—stopped blowing—  
And look at the sky!  
'Tis clear and the snowflakes  
No longer they fly."

—GEORGE W. TRIPP.

THE LITTLE BOY WHO RAN AWAY.

"I going now to run away,"  
Said little Sammie Greer, one day,  
Then I can do just what I choose;  
I'll never have to black my shoes,  
Or wash my face, or comb my hair,  
I'll find a place, I know, somewhere,  
And never have again to fill  
That old chip-basket—so I will.

"Good-bye, mamma," he said, "good-bye!"  
He thought his mother then would cry.  
She only said, "You going, dear?"  
And didn't shed one single tear.  
"There, now, said Sammie Greer, I know  
She does not care if I do go,  
But Bridget does; she'll have to fill  
That old chip-basket—so she will."

But Bridget only said, "Well, boy,  
You off for sure? I wish you joy."  
And Sammie's little sister Kate,  
Who swung upon the garden gate,  
Said anxiously, as he passed through:  
"To-night whatever will you do  
When you can't get no 'lasses spread  
At supper-time on top of bread?"

One block from home, and Sammie Greer's  
Weak little heart was full of fears;  
He thought about "Red Riding Hood,"  
The wolf that met her in the wood,  
The beam-stalk boy who kept so mum,  
When he heard the giant's "Fee, fo, fum,"  
Of the dark night and the policeman,  
And then poor Sammie homeward ran.

Quick through the alley-way he sped,  
And crawled in through the old wood-shed.  
The big chip-basket he did fill;  
He blacked his shoes up with a will;  
He washed his face and combed his hair;  
He went up to his mother's chair;  
And kissed her twice, and then he said,  
I'd like some 'lasses top of bread."

—MRS. SUSAN T. FERRY.

THE LITTLE GIRL WITH A COMPANY FACE.

Once on a time, in a far-away place,  
Lived a queer little girl with a company face,  
And no one outside of the family knew  
Of her everyday face, or supposed she had two.  
The change she could make with wondrous celerity,  
For practice had lent her surprising dexterity.  
But at last it chanced, on an unlucky day  
(Or lucky, perhaps, I would much better say),  
To her dismal dismay and complete consternation,  
She failed to effect the desired transformation;  
And a caller, her teacher, Miss Agatha Mason,  
Surprised her with half of her company face on,  
And half of her everyday face peeping out,  
Showing one grimy tear track and half of a pout,  
Contrasting amazingly with the sweet smile  
That shone on her "company" side all the while.  
The caller no sooner had hurried away  
Than up to her room the girl flew in dismay,  
And, after a night spent in solemn reflection  
On the folly of features that can't bear inspection,  
She came down to breakfast and walked to her  
place,  
Calm, sweet, and serene, with her company face.  
Thenceforth she wore it, day out and day in,  
'Till you really might think 'twould be worn very  
thin;  
But, strange to relate, it grew more bright and  
gay,  
And her relatives think 'twas a red letter day  
When the greatly astonished Miss Agatha Mason  
Surprised her with half of her company face on.

—November St. Nicholas.

BE TRUE TO THY BROTHER.

THOU must be true thyself,  
If thou the truth would'st teach.  
Thy soul must overflow, if thou  
Another soul would'st reach.  
It needs the overflow of heart  
To give the lips full speech.

Think truly, and thy thoughts  
Shall the world's famine feed.  
Speak truly, and each word of thine  
Shall be a fruitful seed;  
Live truly, and thy life shall be  
A great and noble creed.

HORATIUS BONAR.

ONE AT A TIME.

ONE step at a time, and that well placed,  
We reach the grandest height;  
One stroke at a time, earth's hidden stores  
Will slowly come to light;  
One seed at a time, and the forest grows;  
One drop at a time, and the river flows  
Into the boundless sea.  
One word at a time, and the greatest book  
Is written, and is read;  
One stone at a time, a palace rears  
Aloft its stately head;  
One blow at a time, and the tree's cleft through,  
And a city will stand where the forest grew  
A few short years before.  
"One thing at a time, and that done well,"  
Is wisdom's proven rule.

In many cases all that we can do, or should aim to do, is to make the best of what Nature has given. Every one's natural genius should be carried as far as it can be; to attempt the putting another upon him will be but labor in vain.—*L. cke.*

## Hints and Helps.

## OPEN LETTER.

NO. 2.

MY DEAR JOHN,—I understand you are to take charge of your new school on Tuesday and that you would like me to give you a few hints, suggestions, remarks, etc., that may be of assistance to you in your new duties. The first piece of philosophy that I have to communicate to you is taken from an old Greek book which contains several letters written in a decidedly original vein, two or three of them addressed to young people of your own age. In this book I remember meeting with the following remarkable expression:—“Neither give place to the Devil,” and I have often wished that I could have these half-dozen words painted in bright crimson letters at the back part of every classroom in the world, directly in front of the teacher's eyes. Satan will enter in and take his place in your school every day—especially on dull, stormy, rainy days, and particularly in the afternoons—unless you actually crowd him out by keeping every one busy and interested in the work of the class to which he or she belongs. You need to be in your place very early that morning, not later than forty minutes before school time. Take with you a few sheets of foolscap and tear one or two of them up into small pieces, about three inches by two and a half, having the ruled lines lengthwise. Write on two or three dozen of these slips along the margin, Parent's name, Pupil's name, Age, Class, Why do you come to school? What do you wish to become? Have these ready, if possible, before the arrival of the first pupil, and after a cordial greeting ask him or her to fill up the form. Do the same with every other pupil immediately after his entrance into the schoolroom. The last two questions will help you to talk to your pupils about their past studies and their future plans, and at nine o'clock you will know every one by name and have some insight into the motives that bring them together. Precisely at nine o'clock ask all the pupils to seat themselves at their desks, but say nothing about the location or position. Do not talk too much; allow the class to choose their own seats. As soon as all are in their places, read the fourth chapter of Proverbs and open the school with the Lord's Prayer. Ask the pupils to look at their readers and prepare a reading lesson, anyone they choose to select, each one for himself. In the meantime, classify the names on your slips in alphabetical order if you have not already done so, and swiftly copy them out on a sheet of your foolscap. Check over the list and place a figure opposite each name to indicate the class to which each pupil nominally belongs, and put a pin to hold this sheet on your desk before you. Quickly make another copy of this list, which as you perceive is to be a temporary register for a day or two, but in the second copy put down the names by classes, still in alphabetical order. All this will take from ten to fifteen minutes, and by this time you are ready to begin your work. If any other pupils arrive late, hand them slips and quietly ask to have them filled up properly. Write these names on your sheets opposite their proper places. Now call on some senior pupil to come forward and read a page—not less than a page—of the lesson he or she has selected. Do not criticise the reader, but if necessary render what help may be needed to assist the pupil over the hard places. Next call up another pupil by name from a different class, following the same uncritical method and doing your best to assist the reader when necessary. It would be better not to correct mistakes at all so long as the pupil does not come to a dead pause. Take another pupil from a lower class, then one from the highest class, and so on, so that no pupil can have any hint as to his turn. This uncertainty and the novelty of the exercise will be sufficient to keep the attention of the school for an hour if you choose to prolong the lesson to that length. While this reading is going on use your eyes to observe the general demeanor of your class, and you will, no doubt, discover that in taking their seats the birds of a feather have flocked together. Study them carefully as the reading proceeds, and the moment you observe a careless or noisy pupil select that person as the next to be called up. By way of surprise call on this same pupil to come forward and read again if the whispering or restlessness recurs. Do not talk too much; leave a certain

part of your plans to be revealed by what you do rather than by what you say. When you are satisfied with your general examination of the reading, write on the blackboard a few questions in Arithmetic, of several different degrees of difficulty. These should be carefully prepared beforehand and should include some work for every class. Let the pupils proceed to do these questions at their desks, while you take your place behind the pupils and observe how they set to work, using all your perceptive faculties to note the individual character and foibles of each pupil. Study your pupils till you know them as thoroughly as possible. A few minutes before recess time, take your class sheet and assign to each class a definite piece of work to be done immediately after the ten minutes' intermission, in accordance with the time-table you prepared before coming to school. The first period of school is then over without any awkward pause, without any long address, without any enunciation of rules and penalties, and you can now proceed with confidence along the systematic track you have laid out for the rest of the day. Dismiss at three o'clock on the first day after you have carefully assigned very short home lessons. Next morning as soon as prayers are over, seat the whole school in the alphabetic order of your register list, taking all the care you can to separate as far as possible all the pupils who shew special anxiety to sit together. You will thus very effectually isolate the worst talkers and the most restless scholars and place them under better conditions for steady attention and diligent work. Bring your school diary or note book on this day, and keep a minute and accurate record of all you do and of every incident that recurs in your work on every day. Write to the JOURNAL and state your difficulties if any should arise.

Yours truly

C. C.

## Correspondence.

To the Editor of the EDUCATIONAL JOURNAL:

Sir,—In your issue of Dec. 1, I ventured to suggest that in criticising the erroneous answers of the students who wrote on *Physics* last July, Mr. Chant had laid himself open to a counter-stroke on the part of the candidates in one small particular. In his letter of Dec. 15 I am very sorry to observe that there is a marked increase in the temperature of the writer which I take as an indication that my remarks have been understood in an offensive sense. I hasten to say that nothing personal or offensive was intended, and that I fully believe that Mr. Chant is “working honestly in the best interests of scientific education.” But the most honest people are sometimes honestly mistaken; and I think the learned gentleman is a good example. He says that the phrase to which I called attention “appeared on a senior leaving paper (not a junior paper as CELO insinuates.)” I think those are his exact words. Well, there lies before me a paper headed: *Annual Examinations, 1893. The High School Junior Leaving and University Pass Matriculation. Physics, etc. Question 1. A body, etc., . . . . . has a uniform acceleration, etc., . . . . . of 10 centimetres a second per second*; so that I imagine Mr. C. will give up the statement in his second paragraph and the inference drawn from it that “surely candidates of that grade should understand, etc.” These candidates and their teachers were forbidden under penalty to use any text-book except the authorized High School *Physics*. Mr. C. has quoted the only sentence in which the phrase occurs, viz: on page 116, problem 22. Now it happens that there are two editions of the High School *Physics*; and I believe it is true that this problem does not occur in the first edition at all, being one of the additions made to the second edition. I am sorry I cannot verify this statement at the moment of writing; but if it should be inaccurate the fact remains that there is only one line in the book containing the phrase, and this is not in the text but in a problem which gives no explanation whatever.

In his third paragraph Mr. C. asks me “to describe an acceleration without using the double time phrase.” I can easily do so without using the peculiar phrase which, to use the

words of a competent presiding examiner, “struck the candidates cold at the first question”—I mean the phrase “a second per second,” or “per second per second.” Mr. C. has himself quoted such an expression from the text-book—article 79, page 115. Thompson and Tait manage to describe it thus: “If we choose as the unit of acceleration that which adds a unit of velocity per unit of time to the velocity of a point, an acceleration measured by  $a$  will add  $a$  units of velocity in unit of time—and, therefore,  $at$  units of velocity in  $t$  units of time.” And if necessary I think I can name standard works in which the phrase under consideration is never used in the text or in the problems. I am well aware that it does not occur in most recent works, such as Locke's, Robinson's, etc., but I also submit that junior leaving candidates are prohibited from using these books; and my purpose is not to call attention to the shortcomings of the Examiner—he is all right—but to the absurd, cast-iron rule of the Education Department which prevents teachers from placing in the hands of their pupils the most helpful books to assist them in preparing their subjects. If my purpose is not clear I would respectfully ask Mr. Chant if he would recommend any candidate to read the High School *Physics* and that book alone in preparation for the paper that Mr. Chant will probably set next July. I know he would not think of using the book in his own classes for such a purpose. But I wish him and other examiners not “to draw up their questions from a lofty ideal of what ought to be rather than from the practical view of what actually is.

To a university lecturer all that I have said, I doubt not, “seems to indicate a desire rather for criticism than (for) information.” The inference is not correct, however. It only indicates a harsh collision between the cast-iron rules of the department and the examination papers set from year to year by men who are actually keeping pace with their subjects and whose papers are constructed on the false assumption that the candidates have free access to the best and most recent text-books. This insignificant item on the *Physics* paper is only a little straw that shows how the winds blow. If Mr. C. wishes to investigate the matter in a scientific spirit, let him begin with the High School *Chemistry* and compare it with the papers set in that subject since the book was made the sole source of information for Junior Leaving Candidates; let him look at the curriculum and at the available text-books and compare the last set of questions on *Philology* in the senior leaving examination; let him examine any subject he wishes to select from the programme, and the result will come out the same, viz: the *reductio ad absurdum* of the present system of setting examinations and of prescribing an invariable list of text-books.

As regards my name and address, “I fail to see their relevancy to the question.” The fact of this harsh collision does not depend in any way upon them; and I have no intention, as Mr. C. seems to suspect, for using a *nom de plume* for the purpose of hyper-criticism, and I have substantial reasons for signing myself

Yours truly, CELO.

## THE SELF-REPORTING SYSTEM.

To the Editor of the EDUCATIONAL JOURNAL:

SIR,—The writer has had experience in several schools, and has made use of this system as follows: Each pupil receives a mark for each good recitation, and forfeits one each time he makes any disturbance which hinders his own or others' work. At the close of last lesson, he enumerates the day's marks for teacher to place to his credit, it being taken for granted that he does not wish to name any he has not fairly earned. If, however, he makes a mistake, some member of the class, or the teacher, kindly reminds him of it, and the matter is set right. I believe that the teacher may safely trust the children in these matters if the children thoroughly trust the teacher.

B. S.

AN honest effort on the part of the child is always to be commended, even though it appears to result in failure.—Henry D. Sablin, Iowa.

THE effect of a teacher's voice alone, cannot be over-estimated; it will cause either harmony or discord, maintain order or destroy it.—Alida McAllister.

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**COMMERCIAL SPECIALISTS.**

We copy the following from the *Toronto Globe* of the 11th inst: On a recent afternoon Mr. J. W. Johnson, F. C.A., one of the principals of the Ontario Business College, Belleville, and one of the authors of "The Canadian Accountant," lectured by invitation at the Normal School before the students in the commercial specialists' course at the School of Pedagogy. He dealt with the subject of "Promissory Notes and Bills of Exchange," and conveyed to the students a large amount of practical and valuable knowledge. Beginning with the origin of the law pertaining to notes and bills, namely the custom among merchants, or the law merchant (lex mercatoria), he pointed out how the decisions of the courts became the common law relating to these matters, and then referred to the Canadian bills of exchange act of 1890. The essentials of a note and bill, and the nature of the contract which they imply were clearly stated. The various forms of these instruments and of the endorsements upon them, the parties to them and their relative positions were presented systematically and thoroughly. The mechanism of foreign exchange was the last point touched upon. The accountant's work in connection with each subject was dealt with as the lecture proceeded. At the conclusion the desire was expressed by the students that they would again, before their examinations, have the pleasure and benefit of hearing a lecturer who is such a thorough master of his subject. The Canadian Accountant, the tenth edition of which, we understand, will be published in January, 1894, has been adopted for the commercial specialists' course at the School of Pedagogy, and is now in use by the students.

**A MINIATURE ELECTION.**

My scholars filled me with despair as morning after morning I gazed into their unemotional faces, which remained stolid and unchanged as plaster casts, in spite of my frantic efforts to brighten them by a pleasing thought.

To arouse them I have resorted to many new plans, one of which I give herein, hoping it will aid some other teacher who is similarly afflicted.

Before opening one day's session I placed on the front board this list of mottoes:

1. I will,
2. Try, try again,
3. Never say fail.
4. Onward and upward,
5. Dare to do right,
6. Perseverance Conquers;

and told my pupils they were to vote for a school motto in regular public election style, using the mottoes for candidates and allowing the ladies to vote; no canvassing for favorites would be allowed. A short explanation of election terms and usages was then necessary before proceeding. Three of the older pupils were appointed to serve as clerks of the election. These distributed the slips for ballots, collected, counted and recorded the votes and brought in the election returns.

In this case "Never say fail" carried the election by a large majority, and

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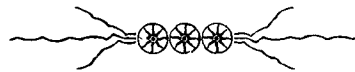
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