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# The Canada School Journal.

Vol. III.

TORONTO, JUNE, 1878.

No. 18.

## DANIEL WILSON, LL.D., F.R.S.E.

Prominent in the list of Canadian teachers will always stand the honoured name of Professor Wilson, of University College, Toronto, and this not more on account of what he has actually achieved than of the many amiable qualities which have endeared him to all with whom he has come in contact in either academical or social life. Though not a native-born Canadian, no man could take a deeper, more genuine, or more practical interest than he does in all that relates to the country of his adoption, for whose name he has done much to secure honourable mention amongst *litterateurs* and *savants* abroad. He has left his impress deep on the present generation, partly by means of his books and his more ephemeral productions in the shape of scientific papers on a variety of subjects, and partly on account of his abundant sympathy for and active interest in every movement designed to promote the well-being of society.

Dr. Wilson was born in Edinburgh, where he spent a very large part of his life, and where his brother, the late Professor George Wilson, well known as one of the most eminent chemists of his day, lived and died. Dr. Wilson was only twenty-one when he determined to try his fortune in London, and he succeeded in maintaining himself there for several years by assiduous and unremitting literary toil. He continued to depend for years after his return to Edinburgh on his pen for a livelihood, and was a constant contributor to most of the leading literary and scientific periodicals of the day. More ambitious and enduring results of his industry are his "Memorials of Edinburgh in the Olden Time," his "Oliver Cromwell and the Protectorate," and his "Prehistoric Annals of Scotland," all of which were published long before his removal to Canada in 1858, as the result of his appointment to the Chair of History and English Literature in University College.

The *penchant* he has always manifested for archaeological research soon after his arrival in America led him into a series of investigations which were conducted over a wide area, often at great personal inconvenience and expense, and the results of which were embodied in his "Prehistoric Man," first published in 1862, and twice republished since. He has been for many years an active member of the Canadian Institute, and has been several times appointed editor of its organ, the *Canadian Journal*, to the pages of which he was always a voluminous contributor. The other works

published since his translation to Canada are of a purely literary character, the most important being his "Chatterton: a Biographical Study," and "Coliban: the Missing Link," both of which have been favourably noticed by the leading journals of the mother land.

It is on the educational side of Dr. Wilson's life that we are at present most interested, however, and in this connection we can only characterize him as a teacher *par excellence*, not unworthy of a place on the honoured roll of the world's pedagogic celebrities. He has always taken a deep personal interest in the welfare and progress of the successive generations of students who have passed through his hands, and while they have profited by the new and attractive garb in which he presented to them the subjects under his charge, they have also carried away a cherished feeling of regard for one whose high moral worth was not more conspicuous than his unflinching kindness and unaffected affability. His zeal for the welfare of the College has always been proverbial, and his eloquent plea on its behalf before a Committee of the Canadian Parliament will long be remembered as an earnest appeal for non-sectarian higher education. His great services were fittingly recognized by the Ontario Government which appointed him a member of the Senate of the University of Toronto, when that corporation was reconstructed in 1878.

Amongst the teachers of the Province Dr. Wilson has been almost as popular as amongst his students, very many of whom are now in charge of High Schools or departments of High Schools. When the late Council of Public Instruction was remodelled, and the elective element intro-

duced into it, he was chosen by the High School masters as their representative, and re-elected at the close of his first year's service. During his tenure of this position he laboured zealously and effectively to bring about certain changes, some of which were accomplished at once, while others have been carried out since the Council became defunct, and the Education Department was placed under the immediate charge of a Minister of the Crown.

During the earlier years of the existence of the Ontario Teachers' Association, he was several times in succession chosen its President, and at a later period he was similarly honoured by the Young Men's Christian Association, in which he has always taken a deep and active interest. He was practically the founder, and is still the great mainstay of the Newsboys' Home, one of the most



useful philanthropic institutions of the city, and in various other ways has done much for the promotion of benevolent schemes. During the last few years his appearances on the public lecture platform have been fewer than they formerly were, but not very long ago his form was probably more familiar to Canadian audiences generally than that of any other lecturer of the day. In spite of the inroads made on a not very robust constitution by advancing age and unceasing toil, Dr. Wilson has lost little of his energetic activity either mental or physical. That he may long be spared to fill the position he has filled with credit to himself and advantage to others, is an aspiration that will find an echo amongst all who have the pleasure of knowing him, and especially amongst the members of his own noble profession.

### Glennings.

**INDUSTRIAL DRAWING.**—Given a hundred carpenters who have been well taught in the elements of drawing (for which the free public schools are unquestionably equal), and another hundred who have no knowledge of drawing, and the earnings of the first hundred will exceed the earnings of the second by at least fifty dollars a day, or more than fifteen thousand dollars a year. Now what is true of the carpenter is true of the stone mason, the machinist, the tinner, the locomotive builder, the shoemaker, the hinge maker, the carriage maker, the cabinet maker, and, indeed, of every one who constructs objects having length, breadth and thickness. Of the pupils in our public schools, a large majority of the boys at least will enter into some of these pursuits. In the face of these facts, can it be said that drawing is a study of no practical application? What other study has so direct a practical bearing on industry?

It must be apparent that the educational needs of the time demand that industrial drawing should, everywhere, as has been done in Wheeling, be placed side by side with other fundamental studies, and be taught, as in this city, throughout the whole school course, from the lowest primary classes to the most advanced pupils in the grammar schools. Begin at the bottom step of any ladder and the ascent is both easy and natural. Teach children drawing from the beginning of their school course, and they are taught to see intelligently, and thereby are qualified to observe, to compare and to express their knowledge easily, naturally and accurately. Are these requirements of no practical advantage?

That man, whether he be manufacturer or merchant, whether he be mechanic or artizan, no matter what branch of industry he may be engaged in, who can quickly and accurately and intelligently see whatever is placed before him, possesses a decided advantage over the one who does not possess this qualification. Drawing is the proper way to express what the eye sees, indeed the only sure test of what is seen. As the future prosperity of the country will depend largely upon diversified industrial development, as the great majority of the pupils of our public schools must enter into these industrial occupations, in one position or another, it seems only the part of wisdom to recognize this fact, and in our public schools so arrange the instruction that what pupils learn in their school years, will have some practical relation to the occupation of their adult years.—*Dr. Huff, in Virginia School Journal.*

**DANGERS IN THE TEACHING PROFESSION.**—One danger lurks in the habit of exercising authority as teachers do it. The position of supreme umpire, and the habit of commanding obedience to imperative decisions, create and foster feelings of self-importance in teachers which are apt to be fully appreciated only by themselves favorably and by others as blemishes. When once a teacher is so impressed with the importance of his own decisions, that he constantly chafes with irritation under adverse decisions, he is evidently in the line of a deranged subjective mental state. It is a grand aim to grow up overshadowing authority possessed by self, and thus making it serve a wise and generous discipline, but it is a fearful state of demoralization to be wholly under control of false and powerful habits which divert one's eyes from the better way, and which stiffen one's limbs to walk well, even when better ways are seen.

Another danger houses itself in the habit of being authority in matters of scholarship. Teachers unconsciously grow, to feel that what they do not know upon this or that given subject is not worth the trouble of telling—and hence they will listen impatiently to

the recitals of another, and begin an extended elucidation of their own, which is calculated to amaze the unlettered, astonish the half-learned, and disgust the really educated and informed. All of this is done in the same air and tone of bearing which characterize the teacher who is stratified in this danger. The actual society of the world demands good listeners, modest talkers, those who use much learning in so gracious a manner that the hearer falls in love with it at once. This modesty which is so agreeable and pleasant in society should pervade the school-room, from the habits of the teacher. Is it not a fortunate state for the talker when, to him, his auditors are only so many beings to astonish by his very ample information, and when his books are read only as so many milestones upon which he, by his sharp criticism, records that he himself has gone far beyond this! The danger is a serious one, and teachers are aware of it in others!—*J. H. Hoose, Principal State Normal, Cortland.*

—The following is an extract from the message of Governor Rice to the Massachusetts Legislature:—"I desire to commend anew to your favorable attention the subject of industrial art education, feeling that the interests of the Commonwealth, in greater variety than can be easily described, are undoubtedly involved therein. Displaying a degree of inventive talent which places her in the front rank of States in respect to mechanical pursuits, and exhibiting a measure of commercial enterprise of corresponding proportions, our State does not yet command the eminence in the markets of the world which she is destined hereafter to attain, if efforts in the development of her industries be rightly directed. Her manufactures, like those of the country in general, too often bear marks of foreign imitation, or are the product of foreign designers in our own mills; while those of native design too often bear evidence of undisciplined taste and less perfect execution. Before native talent can fully supply the need in this respect, there must be a general advance in mechanical skill and in art-culture. A great poet or scholar is most likely to be matured in a literary atmosphere, and in like manner there must be a general diffusion of artistic principles, taste and practice, before we can hope for that higher outcrop of ability which shall lead the way to pre-eminence in manufacturing success. But apart from the generation of extraordinary leaders, the whole character of our industries will shortly feel the influence of this training in the line of direct and profitable advantages. The higher advancement of art education tends to the multiplication of new forms of industry, to the enlargement of the field of remunerative labor, and to the increase of wages; and thus it benefits alike the capitalists and the working classes in a community where it is encouraged. I pass by, in this place, the discussion of the moral aspects of the case—the elevation of taste and character which comes from contemplation and association with what is most perfect and most beautiful; though that surely is of no small consideration which contributes most largely to our purest enjoyment, while at the same time it is made to contribute to our physical comfort and to the wealth of the community. To secure these results, the normal art-school, now an assured success, is diligently working, and sending annually forth teachers whose influence is already felt, both in the elevation of the public taste and in the improved designs and commercial value of the products of our industries."

**GRUMBLERS.**—We have grumblers now, and may as well content ourselves, as we shall always have them. They are few when compared with the whole population. Money for the high-school branches, money for normal schools, money for the German language, and money for public free schools of the rural districts! The persons who are continually harping on one or more of these topics do not belong to the high, middle nor lower classes. They are an insignificant minority of conservative rich men.—*Eclectic Teacher.*

**CRAMMING.**—What is it but cramming, if we compel pupils to spell fifteen or twenty thousand words, without heeding the laws of orthography, when there is but little chance that one pupil out of fifty will have occasion, in all his after-life, to write above four thousand of them, and those the most common? What is it but cramming, if we compel pupils to memorize, and that, too, with little reference to generalization, from twenty to forty thousand facts in geography, when it is well known that not more than one-tenth of these facts will be remembered, or would be of any use if

they were? What is it but cramming, if we compe! the pupils to inemorize whole grammars, and repeat them verbatim, while their discriminating powers are not equal to the comprehension of one quarter of what they repeat? Stuffing in its worst form is generally found where the fewest studies are pursued. Enough time is often wasted there in spelling words—abracadabras to the pupils as to significance—to give them, if their enorgies were properly directed, a rational start in book-keeping or industrial drawing.—*J. D. Walters, in the Industrialist.*

**BETTER PAY: BETTER WORK.**—In proportion as our teachers are permanent and well paid, can we expect the best work. In our higher schools the pay is generally fair and good, and the position somewhat permanent; but in the thousands of district schools all over our land the pay is miserable, the work often poor, and the position only for a few months. How can there be much improvement under these circumstances? Our normal schools send out yearly many well-qualified teachers who would gladly give a lifetime to the work of teaching, if only they could be assured of a permanent place and adequate support. Improved methods demand time, and when the time is given free from the vexing trials of constant moving and change from year to year, we cannot expect to make great or sudden advancement.—*Report of N. Y. Committee on Education.*

**MANUAL LABOR FOR LADIES.**—The idea that manual labor is derogatory to a lady's dignity is absurd. It is based upon mere vanity, and leads to idleness and all the evils attendant thereupon. It betrays ignorance of human nature and of the prime factors of human happiness, and is condemned alike by history and common sense. Homer tells us of princesses drawing water from the springs, and washing with their own hands the finest linen of their families.—*M. Anagnos, Director of Institution for the Blind.*

**HERESIES.**—There is a sentiment more prevalent than we should think possible, that those schools are the best which take the pupils at the earliest age, and keep them the greatest number of hours; also, in which the pupils learn the fastest and take in the largest amount of work in the shortest period of time. I need not say that these are heresies fatal to the young, who suffer the consequences in premature decay. We desire an intelligent appreciation of the relations of study and health, and the judicious adaptation of physical strength to the work and the influences of the school-room.—*Dr. Thomas Lathrop, in Electric Teacher.*

—Mr. Dickinson, Secretary of the Education Department for Massachusetts, sums up his opinions of the necessities of a good school system, and says they are—first, an educated supervision of all the schools; second, thoroughly trained teachers; third, an effective law, compelling the attendance of the whole school population upon the schools for the time the schools are required by law to be kept; and fourth, a sufficient amount of funds to enable school authorities to employ the best talent in teaching, and to obtain the best means for the teachers to use.

—“Now, Johnnie, give me a sentence containing a noun and a pronoun relating to it.” Johnnie looked up at the ceiling, and then at the floor, and finally, almost in despair, glanced out of the window. Then his countenance changed, and, pointing to some fowls in the street that could be seen from the school-room, exclaimed: “Them is hens, and they're all shes.”

—It is not virtue, nor is it a mark of a great mind, not to be able to be amused with any sort of game, or anything that is play. Fondness for games is a conservative element in the make up of the brain-worker, and it may be brought out in those who have never cultivated it. One cannot enjoy play—because she wishes to use all her time in other ways. Let such an one consider that to play is to add to her time by lengthening out her years. Another has a conscientious conviction against games—I would not interfere with conscience. But all should be careful to have a “good conscience.”—that is, an enlightened conscience.—*Harriet N. Austin, M.D., in Primary Teacher.*

**SHOP SCHOOLS.**—The simple fact that our public schools every year turn out boys of the age of fifteen or sixteen, who from that time are of no use to themselves or anybody else, because no one has put them in the way of being useful, ought to fix the necessity for just such a system of mechanical instruction as the Ruggle's plan contemplates. If we are to remain a republican people, too, mechanical industry is to be held as a prominent condition of that state. But now a boy blunders into a calling instead of finding his way to it instinctively; and in the lamentable majority of cases boys never find the occupation at all for which they are adapted, but drag on to the end of their days without either aim or enthusiasm. It is a fatal waste of force and freshness for society. By opening the door to an honorable vocation as soon as a lad leaves school, not only is no time lost, but the countless temptations to vice which lurk everywhere in a state of idleness are removed. Man was made to use machinery and tools. They give him a sense of power and dignity. Let him be introduced to a personal knowledge of them in early life, and the value of that whole life to himself and others is increased in the most wonderful manner. There could be no truer charity, as well as far-reaching policy, in making provision for the career of the young in usefulness to themselves and the community. Of the details of Mr. Ruggle's plan we have spoken before, and recur to the subject again only to assist in keeping alive and enforcing what must sooner or later be adopted as the simple duty of a civilized community.—*Boston Post.*

**POOR PAY, POOR TEACHERS.**—The following is from a communication in the *Bradford Reporter*:—

It is self-evident that no school can be successful without a good teacher; and the only way to obtain a good teacher is to offer a reasonable compensation for his services. We will see the reasonableness of this assertion when we consider that a person who is qualified for teaching school is also qualified for almost any kind of business; and the same qualities of mind and character which make him a successful teacher, will secure him success in almost any occupation in life. The successful teacher must be well advanced in the science of learning; he must be able to tell or convey to the minds of others, that which is contained in his own mind; he must have tact, patience and perseverance; he must be a moral character; he must be a person of decision and energy; and he must exercise a lively interest in the success of his efforts. Merit is, and always will be, rewarded; character of genuine stability, and principles of sterling worth are, and always will be, in good demand; and a person possessing such qualifications will never experience any serious difficulty in obtaining employment and a liberal compensation for his labor. The idea that a reduction of salary would lessen the quantity and thereby better the quality of teachers (to use a figurative expression) is absurd in the extreme, while an opposite course would most effectually accomplish the latter, if it did not the former. We cannot help expressing our surprise at the course pursued by those in charge of our school matters; for in our candid opinion a more hurtful and ruinous plan to the cause of education than the one already adopted, could hardly have been thought of. Do we plead hard times? Do we compare the worth of human minds with the size or contents of our pocket-books? Heaven save us from the thought! We believe that if school boards would offer a salary of one hundred per cent. in advance of the present rates, the benefit received from the school would double the extra outlay.

When this is done the position of schoolmaster will be one worth striving for. When the inducements are sufficient, there will be no lack of competent teachers. As the teachers' wages have been reduced, there has been an increased number of applicants for the schools; and this, instead of proving that the course pursued is a judicious one, simply proves the opposite. As the salaries have been reduced, teachers who could command large salaries have left the field, and the vacancies thus made have been supplied with second-class teachers. Consequently, those persons who will never be able to command good positions, whose talents will always be second or third class, come into better demand.

—*The Higher Schools exhibit poor economy.* We have too many colleges, and hence, too many poor ones. Money is fixed in piles of brick and stone, while men are wanting—and professors starve. A strong professor in the recitation room is of more account than tall chimneys and towering domes.—*Pres't H. W. Everest, in American Journal of Education.*

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## The Canada School Journal.

Recommended by the Minister of Education for Ontario.  
 Recommended by the Council of Public Instruction in Quebec.  
 Recommended by the Chief Supt. of Education for New Brunswick.  
 Recommended by the Chief Supt. of Education, British Columbia.

TORONTO, JUNE, 1878.

### VOLUME TWO.

The present number of the JOURNAL is the first of the second year of its existence. At the suggestion of some prominent educators in different parts of Ontario, the publishers decided one year ago to undertake to issue, what was universally acknowledged to be a necessity, a live journal devoted exclusively to educational matters. Believing that one of the Provinces of the Dominion was not sufficient to support such a paper as they desired to publish, the publishers endeavored to make the JOURNAL truly Canadian in its character. They aimed to secure this end in the selection of its name, and by appointing a special editor for each of the Provinces of the Dominion.

The success which has followed their efforts has far exceeded their most sanguine hopes. On the appearance of the first number the *Journal of Education*, and the *Home Companion and Canadian Teacher*, the two educational papers of Ontario, voluntarily retired in favor of the JOURNAL. In every Province of the Dominion it has been warmly commended by the highest educational authorities, and has received large subscription lists. In the city of St. John, N.B., alone, it has over seventy subscribers. Subscriptions have also been received from most of the States of the American Union. The publishers tender their most sincere thanks to the Public School Inspectors, High School Masters, Model School Masters and teachers, who have taken so kindly an interest in extending its circulation. They also desire to acknowledge the many valuable suggestions, which they have received in regard to the method of conducting the JOURNAL so as to render it most useful to teachers, trustees, and others interested in educational matters. It is their intention to spare no pains to secure a continuance of the gradual improvement which has characterized the JOURNAL during the past year. The experience of the year has not been lost, and it is with the fullest confidence that they assert, that in every department they intend to advance. The JOURNAL increased in size from twelve to eighteen pages during the first year of its existence.

The current year begins with a number containing twenty pages of reading matter, and the prospect is that it will be still further enlarged. It is the desire of the publishers to devote a larger amount of space to local news, personals, &c.; and they extend a cordial invitation to all to send them any items of interest in connection with school matters in their various localities.

### PSYCHOLOGY IN NORMAL SCHOOLS.

A man must pass through a long and difficult course of study, and obtain a certain legal standing, before he is allowed to practise medicine. If he attempts to do so without obtaining his degree he is named and treated as a *quack*. In his course he has to take several departments of study which may be summed up under three heads: (1.) The human body, the thing to be dealt with; (2.) The medicines to be given in practice; and (3.) The practice of medicine, or the method of using those substances as medicines, with which his chemistry and botany have made him familiar. He has to study the thing to be cured or kept in a healthy condition, the things with which these ends may be secured, and the method of using these so as to produce the desired effect.

A good druggist understands the last two departments of the work, both theoretically and practically, much better than physicians generally do or are expected to do, yet if the most experienced druggist in Ontario were to advertise himself as a physician he would legally and socially be regarded as a *quack*. If a parent describes the symptoms of his sick child to a druggist, even the best in the country, or if he takes the child to the druggist for examination, and the druggist prescribes for the child, he may be prosecuted for practising without a degree. Children have minds as well as bodies, but while the common sense of society and the law of our country are careful in insisting that he who deals with the body must have a knowledge of the body itself, neither society nor the law in this country have yet demanded a similar acquaintance with his subject from the person who practises on the mind. Up till a recent period the teacher only needed to be acquainted with one of the three departments of study corresponding to those required for a physician's degree. He simply needed to understand what he was going to teach, and was not asked to take any course of training to show him how best to communicate to others the knowledge he had acquired, or to study in the slightest degree the nature of the objects with which he had to deal. The Minister of Education has added another department to the work of the teacher. He has now to study method as well as matter; he must pass his professional as well as his non-professional examination before receiving a certificate of his ability to teach. But even with all that is now required of him he is simply a *druggist*; he understands his medicines and how to use them to a certain extent. The medical student, however, does not study medicines or the practice of medicine until he knows something of anatomy, physiology, &c. He could not do so intelligently. Neither can the teacher intelligently study methods of teaching without some knowledge of the mind and the leading laws

of its development. Pedagogics is dependent on psychology for an understanding of that on which it is to operate.

The leading Normal Schools of the United States have, for some time, made the study of psychology one of the most important of their course. The subject is given to the best educator on the staff. The study of the subject in Normal Schools is regarded as a matter of course, and has produced such good results that it is now proposed to introduce it into the Universities. The proposal originated with Mr. Adams. He says:—

"The most tangible point at which to begin is Harvard College. You should put that grand old institution into direct and immediate communication with the common school system of Massachusetts. How do we unite Harvard with the bar and the pulpit? By post graduate courses; by schools of law and theology. You should secure a post-graduate course, with a professorship of common school education, at Cambridge. Then you will secure your staff, your head minds, to direct your trained line-officers."

Another American educator, referring to the proposal of Mr. Adams, writes as follows:

"The suggestion of Mr. Adams that Harvard University should at once establish a chair of pedagogics was excellent, and would apply to every college in the country. One of the chief hindrances to the growth of correct methods of instruction is the periodical launching of college graduates, utterly untrained in the pedagogic art, into posts of authority as principals of grammar and high schools, to give the law to teachers educated in our best normal seminaries, and qualified by long experience in school work."

There is much force in the above remarks, and we in Ontario are well supplied, in our Provincial University at least, in the matter referred to. The lectures of Professor Young are invaluable to those students who intend being educators of the youth of our country.

It is to be hoped that the Minister of Education may soon be able to introduce into the Normal Schools in Toronto and Ottawa a course of lessons on Psychology for first class students at least. First class men are to become (many, if not all of them) the Inspectors and Model School masters throughout the Province. It is therefore of the highest importance that they should be thoroughly taught the nature of what they have to develop, and the laws that govern its growth.

—We are pleased to be able to give our readers in this number the first of a series of articles by Mr. C. P. Mason, B. A., F. C. P., Fellow of University College, London, author of the English Grammar so well known in Canada. The subject selected by Mr. Mason is a very practical one, and a careful reading of his articles will be sure to do much towards securing greater accuracy in teaching the elementary principles of grammar.

—The Provincial Teachers' Convention for Ontario meets in the Normal School, Toronto, on the 13th of August. A very interesting programme has been prepared, which will be given in the next number of the JOURNAL. All teachers wishing to attend should secure certificates from the Provincial School Inspectors before coming, to enable them to obtain reduced railway fares. These certificates must be presented at the commencement of the journey.

—David Allison, LL.D., enters upon the duties of his new position, as Chief Superintendent of the Schools of Nova Scotia, during the present month. He has our best wishes for his complete success in his new sphere.

## Contributions and Correspondence.

### CURRENT MISTAKES IN TEACHING ENGLISH GRAMMAR

BY G. F. MASON, ESQ., B.A., F.C.P., AUTHOR OF MASON'S ENGLISH GRAMMAR, &C.

#### I.

The subject of the following remarks has, unfortunately, no pretensions to the charm of novelty. Most of you have probably been hammering away at English Grammar for years, and some perhaps will have to do so for several years to come. My humble endeavour will be to help such to make their strokes as telling as possible, by showing them where and how effort is commonly wasted. For several years past I have had a good deal to do with the examination of pupils in schools, and candidates who have not long left school, more particularly in the department of English Grammar, in which subject many thousands of sets of answers have, from first to last, come under my scrutiny; and, considering how important a part examinations play in our modern system, (whether they are to be looked upon as a great good, or as a necessary evil.) I thought that it would not be uninteresting to those who, to a greater or less extent, are engaged in preparing pupils for the ordeal, if I gave them some of the results of my experience, by setting before them the kind of mistakes which candidates most commonly make, and the way in which they come to make them. In doing this I shall not be able to avoid criticising a good deal that is very commonly taught, and showing that the unfortunate bunglers have not merely gone astray, but have been led astray by what they have been made to learn.

I need hardly say that the teaching of English Grammar is something widely different from the teaching of, say, Latin or French Grammar—at least, to Canadian boys. In Latin, and even in French, (as far as the verbs are concerned.) you have to get your pupils to commit to memory a great apparatus of inflections, rules for forming genders, rules for various concords, rules for the cases to be put after prepositions, &c. All this is material of a very concrete character, and, though troublesome to master, does not, in the first instance, call for much beyond observation, comparison, and memory. English Grammar is quite different. We have hardly any inflections; a mistake about the agreement of an adjective with a noun is impossible, as adjectives do not mark gender, number, or case; and, as regards such inflections and concords as we have, the learners know them already. You never really have to *teach* a boy or girl to form the plural of *brother* or *man*, or the past tense of *be* or *go*. In teaching English Grammar you introduce your pupils at once to the most abstract conceptions, the functions of words, the nature of the parts of speech, the import of inflections, the relations of words to one another, and so on. You begin at once a logical training of the most refined character, the main object of which is, or should be, to discipline the faculties in habits of clear and close thinking, and the perception of the relations of ideas one to the other: and so, through the medium of English Grammar, you put, if I may so say, a grammatical soul into that bodily organism of forms and inflections, to which you mainly direct your attention in the grammars of other languages. English Grammar is from the first a system of logical analysis and definition.

Now, I am sure I should be wasting time if I set myself to prove at length that, if work of this kind is not done well, it had better not be attempted at all. It is not merely useless if done ill, it is positively injurious. Nothing but harm can come of slovenly analysis and inexact definitions. The mind gets inured to habits of loose and inaccurate thought, which, when once acquired, are most difficult to eradicate. No doubt it is difficult to be accurate, but it is not impossible. Even young children may be led to grasp the elementary ideas involved in grammar with perfect precision, provided those ideas are presented gradually, simply, and exactly; and I protest most earnestly against the notion that it is fussy and pedantic to strive after this scrupulous accuracy, and that rough-and-ready definitions do well enough to begin with, and will be gradually shaped into what is more accurate as the pupil gets on. You would not expect that to be the result of giving loose and inaccurate rules in arithmetic, or of allowing a beginner in geometry to prove his propositions by means of a pair of compasses. And I assert, as a matter of fact, that the result of letting pupils learn loose and inaccurate definitions betrays itself at every large examination by a plentiful crop of answers from candidates who have been at English Grammar for five, six, or even seven years, which exhibit not merely abject and contemptible ignorance, but (so to speak) a sort of general *stoppiness* of mind, and an utter incapacity for writing English in an intelligible, coherent, and grammatical form.\* On the other hand, I have invariably found that clear and exact answers about grammatical definitions go along with clear and grammatical English composition.

My special purpose at present, however, is to point out some of the commonest errors which vitiate much of the grammar teaching that goes on in our schools, and appear in such ludicrous forms at every examination. I hope no one will think that I am "poking fun" when I say that the greater part of these mistakes would have been obviated, if the writers of the grammars which are most widely used had been able to grasp the not very recondite truth, that *words* are not identical with *what they stand for*—that the noun 'book' (for instance) is not the article made up of printed leaves fastened together, which we buy at the bookseller's; and that when we buy one of these articles, we do not purchase a part of speech. Is any one present disposed to dispute this? If so, I hope no feeling of bashfulness will hold him back from having a tussle about it, as soon as I have finished my paper. It would take much too long to chase this really childish blunder out of all the grammatical nooks and corners in which it lurks. I shall content myself with giving you a few typical instances.

Did any of you, when very little boys and girls, ever learn some rhymes about the parts of speech, written with the view of aiding the budding intelligence of infant minds, and some of which ran somehow thus—(I am not sure about one line):

"First comes the little particle  
Grammarians call an Article,  
And then the mighty Noun.  
A noun, it may be anything,  
A tree, a castle, or a king,  
A person or a town."

Here you see the absurdity above referred to in full force. The ghost of this innocent little effusion still haunts the examination room. I have a dreary presentiment that within the next six months I shall be told hundreds of times, as I have been told during the last, that a common noun is "some thing that belongs to a

\* Here is a specimen of what I see a good deal of:—"Adjectives are words used with nouns to denote some quality or attribute about which the noun stands for, and clearly shows whether we wish to denote its superiority, or deteriorate it above or below the standard of which we are speaking about." I dare say that ingenious youth had been learning grammar for five or six years. Obviously no clear grammatical idea had ever filtered into his mind during the whole time.

class," and that "an abstract noun is some thing that you can't see or hear or feel." This last wonderful absurdity has been rather a favourite of late. When it has been given *vidæ vocæ*, a little colloquy of the following kind has sometimes ensued between myself and the examinees. "Is *goodness* an abstract noun?"—"Yes." "Did you hear the word?"—"Yes." "But you told me just now that an abstract noun was something that you *couldn't* hear." Puzzled silence for a moment or two. Then, from some child a little sharper than the rest, and not impossibly a little sharper than the teacher,—"An abstract noun is the *name* of something that you can't see or hear." "Very well, let us try. Is *brightness* an abstract noun?"—"Yes." "Can you see the brightness of the sun?"—"Yes." "Then how can *brightness* be the name of something that you can't see? But now, did you ever hear of a quality?"—"Yes." "Tell me a quality of sugar."—"Sweetness." "What quality makes me call a man good?"—"Goodness." "Very well, *sweetness* and *goodness* are abstract nouns. What are they names of?"—"Qualities." "Now name to me some action."—"Jumping, motion, flight." "Those too are abstract nouns. What are they names of?"—"Actions." "Now tell me a noun that denotes a state in which a person or a thing may be."—"Sleep, life, death." "Good, those also are abstract nouns. Now put all that together, and tell me what an abstract noun may be the name of." The answer will come promptly from a dozen at once—"An abstract noun is the name of a quality, or an action, or a state." Is not all this within the comprehension of the youngest child who should be learning grammar at all? If so, is there any excuse for cheating the intelligence of a beginner with the rubbish that I quoted before?

While on this point I cannot refrain from pointing out the worthlessness of a definition of abstract nouns which is more frequently given at examinations than any other; namely, that "an abstract noun is the name of anything which we only conceive of in our minds as having a real independent existence." Now, as *only* is not a negative, this definition involves the assumption that we do conceive of that for which the abstract noun is a name as having a real independent existence. But this is palpably absurd. You cannot conceive of *motion*, for example, as having a real independent existence apart from something that moves. You would contradict yourself in the attempt. That which has an independent existence of its own cannot be an *attribute* of something else. We may fix our attention upon the attribute without thinking about that in which it is inherent. But we cannot *abstract* an attribute in the complete manner in which a thief might *abstract* my watch. The definition is lame enough as it stands. But confusion gets worse confounded when examinees leave out the word *only*, or, reproducing that irrepressible blunder about words and things, tell us that an abstract noun is "*something* that we conceive of as having a real independent existence."

Of course this blunder is extended from nouns themselves to their accidents. I suppose most children might be made with a little pains to comprehend that sex (male and female) is a distinction between classes of animals, and that gender (masculine and feminine) is a distinction between classes of words. At present any question on the subject is sure to elicit in abundance such replies as the following, which I quote *verbatim*:—

"Sex is the difference between animals, gender is the difference between things."

"Gender is applied to one individual person, and sex to a collection of persons."

"Sex is applied to living beings, and in a singular sense; gender in a plural sense, and also to inanimate objects."

"Gender is the inflection of a noun as regards things, sex is the inflection of a noun as regards living beings."

"Sex is the distinction between male and female persons, gender between male and female animals."

"Gender is the distinction of sex," or, as I was recently told, "there is no difference between sex and gender, they both mean the same." There is a sort of courage about that answer which greatly commends it to my liking.

With how little reflection the usual lists of masculine and feminine nouns are often committed to memory and repeated, you may judge when I tell you that, along with the orthodox *uncle*, *aunt*; *bachelor*, *spinster*, &c., I have had masculine *hill*, feminine *valley*; masculine *church*, feminine *chapel*,—a view of the relation between Churchmen and Nonconformists which might suggest some curious reflections, and is at any rate worthy of a boy in a well-known suburban college, who in interpreting a certain passage of poetry, explained "music that the meeting soul doth pierce," to mean, "music suitable for a dissenter."

As regards the cases of nouns, I am afraid that many hundreds of unhappy children are still taught that the nominative does something, the possessive owns something, and the objective has something done to it. If, as I fondly hope, I have carried your judgments with me when I insist that when I say, "Tom kicked Harry," I do not mean that the noun or name, Tom, administered the kick, *a priori* you will agree that a mere form of a noun, a case, cannot do that which the "mighty noun" itself is incapable of achieving. Only fancy the form of a noun, a possessive case, being the owner of a house or a dog. No doubt the inventor of this wonderful specimen of definition plumed himself upon having turned out something remarkably neat and telling. He deserved to be turned into an objective case himself, that he might experience, not in word only, what it was to have "something done to him,"

One of the most egregious and exasperating instances of this never-ending confusion between words and what words stand for, is still to be found in one of the most largely used English grammars (I don't wish to mention names, but see p. 81 of the last edition), and in scores of grammars based upon it, especially those little twopenny "dreadfuls" which simplify grammar for small children. It comes up in hundreds and hundreds of answers at examinations. We are told that "adjectives express the qualities of nouns," i.e. of names. So that "a tall man" means that the noun or name "man" is tall; "red rose" means that the word "rose" is red. There is no possibility of wriggling out of this conclusion, absurd as it is, if you accept that precious definition. I can fancy the writer saying, "Oh, you make such a fuss about trifles; of course, I meant that the man was tall, not the noun." I could only reply, "Then, if you meant what is right, why on earth did you say what is wrong? And what but harm can come of setting children to learn what is palpably and ridiculously wrong? It is but a variation of the same confusion when we are told that "an adjective is a word added to a noun in order to mark or distinguish it more accurately." Distinguish the noun? From what? You can only distinguish a word from a word; from what other word is the noun *rose* distinguished by the adjective *red*? Mark the noun? Pray how? Does it give a peculiar shade of meaning to the noun? What logicians know as the connotation of the word *rose* is not affected in the slightest degree; the adjective does not mark the noun, it denotes the quality that marks the thing. In trying to refine upon a definition which is radically bad, Dr. Abbott, in his "How to tell the Parts of Speech," and "How to Parse," makes matters still worse.\* He tells us that an adjective

is a word that can be put before a noun either to distinguish it or to enumerate it—that is, to put out its number or amount." What? the number or amount of the noun—the name? In three men how does *three* enumerate the noun *men*, when there is only one noun? "Why, it tells you how many men there are, doesn't it?"—"Certainly, but I was told that it enumerated the noun." "Well it's the same thing."—"Ah, that's where you make the mistake."

Naturally, this confusion between *word* and *thing* appears in force when definitions of the comparative and superlative degrees of adjectives are attempted. Here are some samples of a good deal that I have seen of late:—

"Comparative is one of two things, and superlative is one of three things."

"Superlative degree is the highest an adjective can go."

"Comparative degree is when the adjective is more so, and superlative most."

"The superlative degree expresses the greatest superiority an adjective can have."

"Superlative degree is the adjective extending the noun to the highest degree of comparison above every degree."

Questions about transitive and intransitive verbs always bring out a plentiful crop of mistakes, based upon this all-pervading confusion between words and that which they denote. The unfortunate examinees have been led astray by their grammars. I fancy no one present will dispute the accuracy of what I am going to say. In the sentence, "John struck the horse," we have a *word*, a transitive verb, which denotes an action; we have a *word* "John," which denotes the doer of the action, and forms the grammatical subject of the verb; and a *word* "horse," which denotes the object of the action, and forms the grammatical object of the verb; the verb is a word, its subject is a word, and its object is a word. Well, then, it must be sheer nonsense to say that the subject of the verb—the word John, mark you—is the doer of the action. It must be nonsense to talk of "the action of the verb." Verbs, words have no action; they do not walk or strike or kick. They denote action, but that is quite another thing—the action is the action of the agent, not of the verb. The blow proceeded from the person John, not from the word "struck." Lastly, the action is directed not to the word *horse*, which is only the grammatical object of the verb, but to the animal denoted by the word *horse*. It is the animal which is the object of the action, not the noun. It is unfortunate that the word *object* is used in this twofold sense—for the thing which is the object of the action, and the word which is the grammatical object of the verb,—but we cannot now help ourselves. Is it possible to dispute the truth of these statements? But how do our common grammars put the matter? One already quoted says,— "When the subject of the verb is the doer of the action, the verb is active; but when the subject of the verb is the object acted upon, the verb is passive." So that a word, a part of a sentence, can be either the giver of a blow, or the receiver of a blow! Now for the same blunder put the other way. "Verbs which take two objects in the active voice, one of the person and the other of the thing, can be put into the passive voice, with the person as the subject, and the thing as the object." Only think of a person—a man or a boy—being part of a sentence, and forming the subject of a verb! Is it not irrational to call this grammar, and what but muddle and confusion can come of learning such stuff? Do you wish to see how the thing works? Take the following, which I quote, not as exceptional blunders, but as typical

names. If I depart from this rule in the present instance, it is only because this author's great reputation might lead many, who do not care to think for themselves, to attach undue importance to what is doubtless simply the result of inadvertence.

\* In this paper I have striven, as much as possible, to avoid mentioning

specimens of answers that I have had by hundreds within these few months:—

"A verb is in the passive voice when the object of the verb is really the subject, and the subject of the verb is really the object."

"Active voice is the agent passing to the object, passive voice is the object passing to the agent."

"A transitive verb is one that passes over to an object."

"A verb is transitive when the subject passes to the object."

"An active verb is a verb which does something; a passive verb is a verb to which something is done."

"A verb is in the passive voice when it acts upon the subject."

"A direct object is that which acts immediately on the object from which the action proceeds."

"All intransitive verbs show that the subject does nothing."

"A verb in the active voice is one in which the subject makes the active verb act upon the object; a verb in the passive voice is one which makes the object act upon the subject."

(To be continued.)

### NOTES ON EDUCATION IN GERMANY.

BY H. A. BAYNE, M.A., PH.D., HALIFAX HIGH SCHOOL.

(Continued.)

The *Realschule* (Real School) is the designation for the second class of higher schools in Germany. These are of comparatively modern origin dating from the second quarter of the present century. Various futile efforts had been made in the two previous centuries to reduce the preponderance of the classics and to make the instruction of the Secondary Schools more directly practical and useful. It was only, however, in the early part of this century that any considerable success attended these efforts. Johann Haecker, a Lutheran clergyman, established at Berlin a school which about 1822 began to work thoroughly well. Shortly after this date the Prussian Government took up the matter, and with the increasing demand for more practical instruction it set about organizing a series of schools on a new basis. These schools were of three grades; Real Schools of the first and second rank, and so called Higher Burgher Schools.

The Real Schools of the first rank still make the study of Latin obligatory, and a considerable portion of time is devoted to it. On the other hand, Mathematics and the Sciences assume a much more prominent place than in the *Gymnasium* curriculum. Although the object of the Real Schools is to give such an education as fits for business rather than for the University, still it is aimed to impart as much as possible a general and not a professional education. This is indeed the ambition of all the German Higher Schools.

The Real Schools of the first rank have, omitting Greek, much the same arrangement of classes as the *Gymnasium*, a rather larger number of hours of school attendance weekly than these, however, and a complete course of nine years. English and French are each compulsory. In the Real Schools of the second rank Latin ceases to be a compulsory study. Modern languages, Mathematics and Science, with Geography and History, divide between them the thirty hours of weekly study. The course in this grade of schools may be, and often is, reduced to seven years. The third class of schools representing this "modern side" of education, called Higher Burgher Schools, differ from the Real Schools, simply, in not possessing the complete system of six forms. In most schools of this grade there is no *prima*, in many no *secunda*.

As has already been stated, Germany, like western Europe, did not possess, until the beginning of this century, this series of schools. She knew only of Primary and Latin schools, the former

affording an elementary instruction more or less extensive, the latter fitting young men for University study, and being frequented almost exclusively by the children of the better class of society, the class in possession of the wealth and influence of the period. The instruction provided was adapted to a state of civilization in which the middle class had not yet attained the importance which, by degrees, the progress of commerce and industry has secured for it. In a course of study almost exclusively occupied with the ancient languages and literature, this rising class did not find an adequate preparatory training for the different professional careers of life to which it destined its sons. The substitution for the study of Greek and Latin of something more suited to practical life, a course more scientific than literary, found very general acceptance, and to-day the number of Real Schools in operation in Germany is about equal to that of the *Gymnasias*, and the attendance upon the two is about equally divided.

These three, then, the *Gymnasias*, the Real Schools and the Higher Burgher, form the Secondary Schools of Germany. With but little difference the same class of schools is found in South Germany, in Austria and in Prussia; they number in all about 1,100 (600 *Gymnasias* and 500 Real Schools) are attended by about 200,000 students, and are equipped with a staff of 18,000 teachers. The population of Germany and German Austria combined is about fifty millions. There is thus on an average one out of every 250, or 0.4 per cent. of the population, enjoying the advantages of a secondary education in these countries, a larger per centage than any other country can boast of.

### GRAMMAR.

BY J. A. M'CAH, M.A., PRINCIPAL NORMAL SCHOOL, OTTAWA.

(Introductory.)

What grammarian or philologist has not heard of John Horne Tooke? Has not heard of his "Diversions of Purley?" It is safe to say that in his time he caused as much trouble in the grammatical world as he did in the political world. Indeed his theories on certain points of grammar still trouble authors and editors of works on this subject.

One episode of his life is particularly interesting in this connection. He was indicted for writing and publishing "a certain false, wicked and seditious libel, of and concerning his Majesty's Government." On the trial a verdict of guilty was returned; and a question was raised by Tooke—first, on motion in arrest of judgment, and afterwards on a writ of error in the House of Lords, whether the writing contained in the information, in point of law, was sufficiently charged to be a libel upon his Majesty's Government. The decision was in favor of the Crown in both cases. And in a letter which Tooke wrote from the King's Bench Prison, he tells us that he was "the miserable victim of two prepositions and a conjunction."

I wonder how much this event had to do in bringing a statement of his which has since passed into a proverb: "though grammar be usually amongst the first things taught, it is always one of the last things understood." Not very long ago examples of the truth of this observation were but too common. How is it to-day? A marked improvement on "old times" is seen; but there is room for more. And as a modern writer, criticising Tooke's statement, says, "this arises, not so much from the difficulty of grammar, as from the injudicious methods generally employed in teaching it." Want of proper method has been



To the Editor of the Canada School Journal.

SIR,—In their daily work as educators of the young, teachers often meet with difficulties in the way of obtaining clear ideas on obscure points of the works of authors that come up for consideration. Works of reference, no matter how plenty, will often fail to give the real help wanted on the subject. These works of reference often remind me of an edition of "Euclid" which I studied. After receiving from the text-book certain explanations regarding a proposition or a deduction, I sometimes found what to my mind was a much more obscure deduction than any preceding, dealt with in the following way—"From the foregoing it is manifest that, &c., &c." The matter was settled thus; and I often wished that the editor did take into consideration that beginners in the subject might not be able to work out the conclusion sought, by being told it was "manifest."

Among the many useful purposes which the CANADA SCHOOL JOURNAL serves and will serve, there is an important one in connection with the ideas put forth above. It will be in such cases a live work of reference; and will not put us teachers off with the announcement that the matter is so "manifest" it needs no explanation.

Presuming this, I desire to ask the aid of its editors, or of its many learned contributors, in unravelling what seems to me a yet unexplained mystery in a few lines from "Macbeth." They are these:—

*Macb.*—Prithee, peace:  
I dare do all that may become a man;  
Who dares do more is none.

*Lady M.*—What beast was't then  
That made you break this enterprise to me?  
When you didn't do it, then you were a man;  
And to be more than what you were, you would  
Be so much more the man.

The words requiring explanation are in italics. Another reading substitutes *no* for *do*, and *boast* for *beast*; but that given above is the usual text, and one which is now almost universally accepted. The idea of the majority of critics on this extract is seen in the following:—"The folio has 'no more,' Mr. Hunter would retain 'no more,' and make Macbeth say 'Who dares no more is none.' (By the way, Mr. Hunter has since changed his opinion.) *Beast* is of course used in opposition to 'man,' spoken of by Macbeth. Mr. Collier's MS. corrector's '*boast*,' is utterly inadmissible." This commentary is from Clarke & Wright. Again, we find another critic say:—"It has been confidently proposed to substitute *boast* for *beast* here, which may well put us upon wondering what would become of Shakespeare, if ambitious correctors could have their way. *Beast* is just the right word for the place; there is no other in the language that would do at all. It conveys a stinging allusion to what Macbeth had just said:—"If you dare do all that may become a man, then what *beast* was it that put this enterprise into your head?" The very marrow of the passage lies in the sharp antithesis thus suggested."

Even at the risk of being dubbed an "ambitious corrector," I am in favor of *boast*: and I do not think the real difficulty is touched in either of the above comments.

The real difficulty, or what appears to me as the real difficulty, I will now attend to, "who dares do more than may become a man is no man." Then what is he? A *beast*, according to Lady Macbeth's commentators. Hunter writes thus: "Then what *beast* were you, when you broached this enterprise to me?" In what sense, or in what way, can a *beast* dare more than a man? As I take it, the object, about which both Macbeth and Lady Macbeth wished the former to "dare more," was the murder of Duncan. In what way would the characteristics of the *beast* have made him dare more? Is it by the increased physical strength? It was not so much physical strength he wanted as what we might call strength of will. "But screw your courage to the sticking place," says Lady M.

Now for an "ambitious corrector." When Macbeth said "who dares do more than may become a man is no man," did he not mean that such a being would be higher than either man or *beast*—would be in fact a *super-natural* agent? With this view is not *boast* a more correct reading than *beast*? *Boast* won't give just the very idea of the higher power than that of man.

The reading "dare no more" would make matters worse, because there would be an evident inconsistency in the statement under that form, "who dares no more than may become a man is no man"—how can man dare more than man?

Altogether the passage is one presenting a fine field for inquiry; and I hope the next JOURNAL will have an interesting continuation of the subject.

20th May, 1878.

M.

To the Editor of the Canada School Journal.

SIR,—To say I am delighted is but a weak expression of the true state of my feelings when I read the proposal of your correspondent "S. H. M." I am desirous, therefore, of offering the readers of your invaluable JOURNAL a few hints, based upon experience in England and elsewhere.

As "S. H. M." and people generally may not be fully aware of the difference between the constitution of an Assurance Company and a Friendly Society, I may be permitted to explain it by reason of "S. H. M.'s" advocacy of a "company." The great difference is this: the one is supported by and carried on for the benefit of members only, the other is carried on for the benefit of the shareholders. Thus, if any profits be made in a Life Assurance Company they are not invested for the benefit of members as in Friendly Societies, but are divided amongst a body of men who have never devoted an hour to the interest of the members, and many of whom never subscribed a cent to the funds. In a Friendly Society every member has a right to a Balance Sheet yearly, showing the income and expenditure for the year, the amount of income over expenditure, and where the capital is invested. It would be impossible to know what capital a company may have. In a Friendly Society every member has a voice and vote at every Annual Meeting of the Society, so that, if its affairs be not conducted satisfactorily, he has power to arrest any mismanagement therein. In a Company the members have no power whatever, but are entirely in the hands of the Directors. Should a dispute arise in a Friendly Society the members can have arbitration to decide the question, and thus cause very little expense and less labor. On the other hand, the contractor (the members of an Assurance Company are only contractor) has no redress in case of dispute only by bringing an action in one of the Superior Courts of law, the expense of which would be, in many cases, far in excess of the amount claimed.

Having endeavored to show the great advantages to be got from a Society over a Company, I will strive to explain what may be performed by a well-conducted Friendly Society. But, in doing so, I do not purpose entering into full details till I am justified in so doing, by further communication from "S. H. M.," or receive encouragement from others of the teaching fraternity. It is sufficient here to say, that if conducted on the industrial principle—that is, if the sums assured be of such amounts as to bring them within the compass of all classes of teachers—we may hope for very high success. Three or more tables may be arranged, in which the various sums payable as monthly, quarterly, half-yearly, and annual premiums on policies of \$100, \$200 and \$300, or even \$1,000 and \$2,000, may be stated, and by a liberal treatment of the assurers, I can safely say from experience that the society will prove a permanent boon.

In addition to the ordinary Life Branch we may have, for the benefit of the married who may wish to subscribe to it, an Accouchment Branch, together with a Sickness, Annuity and Life Branch, of which I may be permitted to give a specimen.

SICKNESS ASSURANCE, WITH LIFE ANNUITY, &c.

TABLE I.

Showing payments to procure the following Benefits. Contributions to cease and Annuity to commence at 60 years of age.

ENTRANCE FEES.				
	\$2.50	\$4.00	\$6.00	\$8.00
Age at entrance	Class I. \$5.00 a week in sickness	Class II. \$10.00 a week in sickness	Class III. \$15.00 a week in sickness	Class IV. \$20.00 a week in sickness.
	\$2.50 a week Annuity, and \$75.00 at Death.	\$5.00 a week Annuity, and \$150.00 at Death.	\$7.50 a week Annuity, and \$225.00 at Death.	\$10.00 a week Annuity, and \$300.00 at Death.

SUBSCRIPTIONS.								
	Monthly	Yearly	Monthly	Yearly	Monthly	Yearly	Monthly	Yearly
16	\$1.50	\$16.00	\$3.00	\$32.00	\$4.50	\$48.00	\$6.00	\$64.00
20	\$1.60	\$17.00	\$3.20	\$34.00	\$4.80	\$51.00	\$6.40	\$68.00

The Table may be continued up to any age—say 60 years—in proportion to the above scale.

I need scarcely remark that when a member enters for a Life Policy only, the premiums will be very much less.

Yours, &c.,

A. W.

Glen Sandfield, 18th May, 1878.

To the Editor of the Canada School Journal.

DEAR SIR,—Will you have the kindness to give, through the columns of your valuable JOURNAL, the most practical plan of conducting writing classes in ungraded public schools, in order that as much individual instruction as possible may be saved, and all pupils of about the same attainments write the same copy at the same time. Every competent teacher knows the necessity of explaining to his pupils, with chalk and black-board, the proper formation of all letters of a copy, illustrating the errors they are apt to run into, and pointing out the way to avoid them. A great difficulty, however, presents itself in an ungraded school, where only one teacher is employed, and has pupils ranging from the PRIMER class up to candidates for teachers' certificates. On account of the number of subjects that must be attended to, only about half an hour each day can be devoted to writing. How may general black board instruction, &c., be given to best advantage under such circumstances?

RURAL TEACHER.

This important question will be fully answered in Mr. Robinson's article, to appear in the next number of the JOURNAL.

THE HIRELING SCHOOLMASTER.

I have just finished reading an article under the above caption in the May number of the JOURNAL, and must allow that the writer would deal with the hireling very summarily and very safely. That there is such a class it would be needless to deny, and it is certainly in the interest of all concerned that they should turn over a new leaf with as little delay as possible. The plan recommended, however, would, I think, be liable to great abuse, and would be unnecessarily harsh if not abused. But there is another sufficient objection to bringing into use new machinery which does not seem to have been anticipated by Mr. May. The power to deal with hirelings is already in the hands of trustees and inspectors. Let them at the close of the teachers' term of office, give testimonials of efficiency only to those who merit them, and let trustees exact such from applicants for situations, and the thing is done with existing power. And if trustees and inspectors have not sufficient firmness and honesty to apply this mild but effectual remedy, it would scarcely be safe to invest them with the questionable one proposed.

Yours, etc., etc.,

JOHN CUSHNET, S. S. No. 6, Downie.

LIABILITY OF TEACHERS.—At the Division Court at Bobcaygeon, May 14, Miss Esther Davis sued the Trustees of School Section No. 3, Verulam, for \$42, the amount of municipal grant which the Inspector had kept back from said section on account of the teacher neglecting to keep the Daily Register properly and make out the Annual Report, and which amount the Trustees had deducted from her salary. Judgment was given for the defendants on the ground that the teacher had not fulfilled her contract. The case was held before Judge Dennistown, of Peterborough; Mr. Barrow, of Fenelon Falls, appeared for the plaintiff.

J. H. KNIGHT, P. S. Inspector.

Lindsay, May 16, 1878.

Mathematical Department.

Communications intended for this part of the JOURNAL should be on separate sheets, written on only one side, and properly paged to prevent mistakes. ALFRED BAKER, B.A., EDITOR.

PROBLEMS PROPOSED IN APRIL NUMBER.

1. For this we refer our readers to the Philosophical Magazine for 1874, where will be found Mr. Glashan's own solution.
2. From the first two equations, if  $m$  be the common root, elimin-

inating the first two terms, we have  $m = \frac{a_1c_1 - a_1c_2}{a_1b_1 - a_1b_2}$ . Eliminating the second two terms, we have  $m^2 = \frac{b_1c_1 - b_1c_2}{a_1b_1 - a_1b_2}$ ; whence

$$\frac{b_1c_1 - b_1c_2}{a_1b_1 - a_1b_2} = \left( \frac{a_1c_1 - a_1c_2}{a_1b_1 - a_1b_2} \right)^2$$

the condition that the first two equations may have a common root. This root is  $\frac{a_1c_1 - a_1c_2}{a_1b_1 - a_1b_2}$ ; and substituting this for  $m$  in the third equation we obtain the condition that this root may be common to the third equation also. Hence conditions required are:

$$\frac{b_1c_1 - b_1c_2}{a_1b_1 - a_1b_2} = \left( \frac{a_1c_1 - a_1c_2}{a_1b_1 - a_1b_2} \right)^2 = \dots = \frac{b_2}{a_2} \cdot \frac{a_2c_1 - a_2c_2}{a_1b_1 - a_1b_2} - \frac{c_2}{a_2}$$

No satisfactory solution was given. J. A. C.—You will find that your second condition may be derived from the previous one by multiplying both numerator and denominator of the first fraction by  $a_2$ , and of the second fraction by  $a_2$ , and subtracting numerators, and also denominators.

A. H.—You will find that your method would give two conditions in order that two quadratics might have a common root,—only one is necessary.

Mr. Andrew Hay, Kingston, gives the following answer to problem 3:

$$\text{Let } \frac{f(x)}{x-a} = Q + \frac{R}{x-a}; \therefore f(x) = Q(x-a) + R.$$

If the remainder do not contain any function of  $x$ , the value of  $R$  will be independent of  $x$ ; and in the above equation we may put  $x = a$ , then  $R = f(a) = 0$ . But if  $f(x)$  be of such a form as  $x^2 + x^2 + x^2$ , for instance, it is plain that the remainder will contain some function of  $x$ , and  $\therefore$  we may not assume that  $x = a$ , as  $R$  will not be independent of  $x$ . In such an example, the theorem does not hold true.

Mr. Andrew Hay gives the following solution of problem 4: To show that

$$\tan^{-1} \frac{1}{1^2} + \tan^{-1} \frac{1}{2^2} + \tan^{-1} \frac{1}{3^2} + \dots = \frac{3\pi}{4}.$$

$$\text{We have } \tan^{-1} \frac{1}{1^2} + \tan^{-1} \frac{1}{2^2} = \tan^{-1} \frac{1 + \frac{1}{2}}{1 - \frac{1}{2}} = \tan^{-1} 3 = \frac{\pi}{2}.$$

$$\tan^{-1} \frac{1}{3^2} + \tan^{-1} \frac{1}{4^2} = \tan^{-1} \frac{1 + \frac{1}{4}}{1 - \frac{1}{4}} = \tan^{-1} \frac{5}{3} = \frac{\pi}{2}.$$

$$\tan^{-1} \frac{1}{14} + \tan^{-1} \frac{1}{5^2} = \tan^{-1} \frac{19}{20}.$$

$$\tan^{-1} \frac{1}{20} + \tan^{-1} \frac{1}{6^2} = \tan^{-1} \frac{14}{27}.$$

$$\tan^{-1} \frac{1}{27} + \tan^{-1} \frac{1}{7^2} = \tan^{-1} \frac{20}{35}.$$

We observe that 5, 9, 14, 20, 27, and 14, 20, 27, 35, are two series of the 3rd order of figurate numbers, of which the  $n$ th terms are:

$$\frac{1}{2}(n+2)(n+3) - 1, \text{ and } \frac{1}{2}(n+4)(n+5) - 1, \text{ respectively.}$$

Therefore the  $n$ th term of the series  $\tan^{-1} \frac{1}{14}, \tan^{-1} \frac{1}{20}, \&c.$ , is  $\tan^{-1} \frac{(n+2)(n+3) - 2}{(n+4)(n+5) - 2}$ . This may be rigidly established by the method of induction. For, assume the law true for the  $n$ th term. The  $(n+1)$ th will be

$$\tan^{-1} \frac{(n+2)(n+3) - 2}{(n+4)(n+5) - 2} + \frac{2}{(n+4)^2}$$

$$1 - \frac{(n+2)(n+3) - 2}{(n+4)(n+5) - 2} \frac{2}{(n+4)^2}$$

or  $\tan^{-1} \frac{(n+3)(n+4) - 2}{(n+5)(n+6) - 2}$

Hence, since the law has been shewn to be true for five terms, it is true for six, and therefore for seven, and thence generally.

Therefore sum of series  $\tan^{-1} \frac{2}{3^2} + \tan^{-1} \frac{2}{4^2} + \dots$  to  $n$  terms is  $\tan^{-1} \frac{(n+2)(n+3) - 2}{(n+4)(n+5) - 2}$ ; and as  $n$  approaches infinity, this approaches  $\tan^{-1} 1 = \frac{\pi}{2}$ . The first two terms being  $\frac{\pi}{2}$ , the total sum is  $\frac{3\pi}{4}$ .

With respect to problem 5, Mr. Hay thinks the solution can be effected, and offers the following, which undoubtedly is correct:

Let  $C$  be the point from which the streets branch;  $D$  the point where the sewer meets the river;  $F$  the point in  $AC$  from which the drain is constructed.

Then angles  $ACD, BCD$  are equal, also angles  $ADF, CDF$ .

Let  $CD = x, AC = y. AD = 6, AF = 4, DB = x - 11$ ;

$AC : CB :: AD : DB$  (Euc. VI. 3);

$\therefore y : CB :: 6 : x - 11$ , or  $CB = \frac{1}{3}y(x - 11)$ .

Also  $AD : DC :: AF : FC$  (Euc. VI. 3),

$6 : x :: 4 : y - 4$ , or  $y = \frac{1}{3}(2x + 12)$ .

Again,  $9\{y + \frac{1}{3}y(x - 11)\} = \text{cost of drains down both } CA \text{ and } CB = £54 \text{ more than cost of sewer} = xy + 54$ . From this  $xy - 15y = 108$ ;  $\therefore$  substituting above value of  $y, \frac{x}{3}(2x + 12) - \frac{1}{3}(2x + 12) = 108, x^2 - 9x = 252, x = 21 = CD$ . Also,  $AC = y = \frac{1}{3}(2x + 12) = 18$ ;  $CB = \frac{1}{3}y(x - 11) = 30$ .

J. A. C.—You have not read this problem correctly, taking cost of sewer as many £'s per chain as there were chains in both  $CA$  and  $CB$ , instead of  $CA$  alone.

The following solution of problem 6 has been given with slight alterations by J. A. Clark, Picton; R. Coates, Lowville; A. W. D. Knapp, St. John Cy., New Brunswick; J. E. Dean, Millidgeville, N. B.; A. Hay, Kingston; U. Sharpe, Trenton:

4 ac. with growth for 6 weeks keep 12 oxen for 6 weeks.					
Also 5	"	2	"	35	" 2 "
$\therefore$ 1	"	6	"	3	" 6 "
And 1	"	2	"	7	" 2 "
$\therefore$ 1	"	6	"	18	" 1 "
And 1	"	2	"	14	" 1 "

Hence growth of 1 ac. for 4 weeks keeps 4 oxen for 1 week; or growth of 1 ac. for 1 week keeps 1 ox for 1 week.

Now 4 acres with growth for 6 weeks keeps 12 oxen for 6 weeks; and from above the growth alone on these 4 acres must maintain 4 of the oxen; hence the grass that was on 4 acres at the beginning maintained 8 oxen for 6 weeks, or 48 oxen for 1 week. Therefore the grass standing on 1 acre at the beginning maintained 12 oxen for 1 week.

Again, since growth of 1 acre for 1 week keeps 1 ox for 1 week, and since  $B$  is entitled to the growth, he may keep 12 oxen for the 8 weeks, there being 12 acres.

Also, since grass standing on 1 acre at beginning will maintain 12 oxen for one week, and since  $A$  is entitled to this, he may keep 144 oxen for 1 week, (there being 12 acres) or 18 oxen for 8 weeks.

$A$  maintaining 18 oxen and  $B$  12 for the same time, the rent, \$120, must be divided into parts, \$72 and \$48.

J. A., of Mimico, and U. S., of Trenton, gave algebraic solutions. It would have been well, in stating what  $x$  and  $y$  represented, had they said that the unit was the amount required to keep one ox for one week.

Mr. Anderson, Mimico, obtains a correct result for problem 7.

1. W. J. Brice, Watford, asks whether the following can be solved by means of the First Book alone:  $AB, AC$  are two given straight lines;  $B$  and  $C$  given points in the same.  $BD$  and  $DE$  are drawn perpendicular to  $AC$  and  $AB$ ; and  $CF$  and  $FG$  perpendicular to  $AB$  and  $AC$ . Prove that  $EG$  and  $BC$  are parallel.

2. Bisect a trapezium by a line drawn from one of its angles.

J. E. DEAN, Portland.

3. Sold lumber on commission at  $6\frac{1}{2}$  per cent. Invested net proceeds in salt at 4 per cent. commission. My whole commission was \$186.50. What were the values of the lumber and salt?

4. I bought a quantity of tea at \$1.15 per lb. Allowing that the tea will fall short 7 per cent. in weighing it out, that duty, carriage, &c., will be 19 per cent., and that 12 per cent. of sales will be in bad debts, for how much per lb. must I sell it to make a clear gain of 25 per cent.?

SUBSCRIBER, Lansdowne.—The most lucid is the usual solution, — in effect, an algebraic one. Your second is too easy.

MECHANIC, London.—Your problem is too easy, being merely a question of accuracy in the simple rules.

### Practical Department.

#### CONVERSATIONAL COLUMN.

1. *What errors in pen holding would you correct most carefully?*

All errors should be corrected carefully, and when the pupil first begins to write. Teach pen holding while the pupils are using the tracing books, so that they may be able to give the subject their undivided attention. The errors most frequently made in holding the pen, and which lead to the most serious results, are:

1. Resting the hand on the side.
2. Resting the wrist on the paper.
3. Writing with the side of the pen or with only one of its points.
4. Holding the pen too near the point.
5. Bending the first and second fingers so as to leave a space between the first finger and the holder.
6. Holding the pen too tightly.

2. *How can pupils be made to understand and remember the proper position for pen holding most easily?*

By a careful explanation of a picture of the hand with the pen in proper position. Such a picture is usually printed on the cover of a good series of copybooks. It will not be sufficient, however, to explain the proper position. The teacher will require to watch constantly to prevent relapsing into erroneous positions. He should stand during the writing hour occasionally, where he could see the hands of the whole class, and correct every mistake made. He should do it quietly. It will be merely necessary, as a rule, to say, so as not to attract the attention of any but the pupil meant, "Smith, hand off side;" "Jones, knuckles toward ceiling;" "Brown, too close to point," &c.

Some pupils have much difficulty in taking hold of the pen properly. It is a good plan to have special holders for such with indentations at the points of contact of the holder with the thumb and fingers.

Mr. Adam Morrison, Principal of Niagara St. School, Toronto, adopts a method of securing good pen holding which is eminently successful. He makes pen holding a home exercise in drawing. The pupils have the picture referred to above explained, and the teacher draws it on the black-board as he proceeds with his explanation. The pupils then draw the hand on their slates; and have their errors pointed out until they can draw the hand with the pen in proper position from memory.

In this way every point must be definitely, and very soon in-

deliberly impressed upon the mind. The slightest error causes the repetition of the exercise.

3. Should a teacher break in upon a recitation to attend to matters of discipline?

Not if he can avoid it. A teacher with tact will be able to quell the ordinary little attempts at mischief-making by a look or a simple movement of the head or hand. Even a pupil's name may be spoken between the sentences of an explanation without attracting the attention of a single pupil but the one addressed, if the name be uttered in the natural tone of voice. Idleness or wrongdoing should always be checked, if possible, without any scholars but the offender knowing anything about the matter. It is often advisable, when the teacher cannot catch the eye of the little culprit, to allow the matter to pass until recess, or some other time, when the pupil can be spoken to quietly and alone. Nothing gives a boy a surer conviction of the superiority of his teacher than the knowledge that his teacher saw him engaged at something which he fancied he was doing so cleverly and slyly as to avoid detection. It is a good rule not to interrupt a recitation to quell disorder, if the teacher's interruption will cause more loss of time and distraction of attention than the pupil's disorder would have done.

4. Should a teacher explain the principles of "carrying" and "borrowing," in addition and subtraction?

Yes. It is a pity that any child should ever learn any part of arithmetic by symbols before it has performed the operation with real things. If children were allowed to do their arithmetic with objects of some kind before they were required to perform operations with mere marks, they would not require much explanation in order to make them understand the subject..

METHOD.

BY J. B. CALKIN, M.A., PRINCIPAL NORMAL SCHOOL, TRURO, N. S.

II.

We endeavored to show in a previous article that children should be taught through objects and individual examples. Young children are not accustomed to the higher processes of thought, and hence they cannot understand that knowledge which has been thus elaborated and which is expressed in general terms. They may indeed commit to memory the verbal expression of principles and recite it glibly enough; but they have gained words only, and the recitation is mere sound—*vox et preterea nihil*. The exercise is often worse than useless, as the children acquire the habit of getting words without looking for ideas.

We propose by means of two or three illustrations to show how arithmetic may be taught to beginners in accordance with the principles enunciated.

NOTATION.—We should assume that the children can count—that they understand what is meant by the words *eight, fifteen, twenty-four, &c., &c.* They have learned the meaning of these words in the natural way, from objects, getting the idea first and then the term. We wish to teach them notation—how to write numbers.

For each number under ten we have a distinct character; hence the decimal system of notation does not appear in the writing of these numbers. Each figure must be learned independently. In teaching to write numbers under ten we may place on the black-board lines, words, and figures as below:

1	11	111	1111	11111	111111	1111111	11111111	111111111	1111111111
one	two	three	four	five	six	seven	eight	nine	
1	2	3	4	5	6	7	8	9	

The children become familiar with these figures by writing them on their slates.

As we have no new significant characters for higher numbers, we must show how the value of a figure is affected by its position. As a preparatory step we shall lead the children to think numbers above ten as combinations of ten with other numbers. The words used to designate the numbers above ten will aid us in developing this idea. Take a number of objects, as pencils—count, say to four-ten. Separate them into two parcels, four and ten. Bring from the children the statement of the numbers, *four, ten*. Tell them that *teen* is another form for ten, and hence we say *fourteen*. Proceed in like manner with *fifteen, sixteen, &c.*

Returning now to the fourteen, tie up the parcel of ten into a bundle, so as to give the idea of unity. It is *one bundle* which we call *ten, one ten*. Holding up the four loose pencils, ask how many, and call upon some child to place the figure 4 on the black-board. Then, as the ten pencils form a bundle, *one bundle*, have the figure 1 placed on the board. A difficulty now appears. How shall it be known whether this figure means *one pencil* or *one bundle of ten*? Draw vertical lines on the board, making two columns, and write at the top the headings, *units, tens*. Now write the figures 4 and 1 in their appropriate places, thus:

tens.	units.
1	4

State to the children that the right hand column is for the *units*, or united pencils, and the second column for the bundles or *tens*. They then read the number written, *four-ten—fourteen*.

In the same manner teach to write the other numbers between ten and twenty. In writing ten show that we have one bundle and nothing over, and give the character 0 to indicate the absence of units. Finally remove the vertical lines and the headings, leaving the children to determine the value of the figures from their position.

The method thus briefly indicated can easily be extended to higher numbers. Twenty-five, for instance, can be shown to contain two tens and five units. Make two bundles of ten each, place the figure 5 in the place of units and the figure 2 in the place of tens.

HOW TO TEACH MENSURATION.

BY W. J. CARSON, H.M., MODEL SCHOOL, LONDON.

SUPERFICIES.—The Square, Rectangle, Parallelogram, Right-angled triangle, Triangle, Trapezoid, Circle, Sector of a Circle, Segment of a Circle.

SOLIDS.—Cube, Prism, Pyramid, Cone, Frustum of Cone, Cylinder, Sphere, Spherical Sector of Sphere, and Segment of Sphere.

In order that Mensuration may be studied at all a knowledge of Arithmetic is required, and if studied to any extent, a knowledge of at least Euclid and Algebra are indispensable.

There are five methods of teaching the subject. (1.) By mechanical proofs. (2.) By geometrical proofs. (3.) By mechanical and geometrical proofs combined. (4.) By the worst of all, and one too frequently used, that of teaching by rule without giving any reason whatever for the process. (5.) By rule and mechanical proofs.

The fifth method I would recommend for pupils who have never studied Euclid, and the third for those who have studied it.

There are three units of measurement (1.) The lineal unit for measuring distance. (2.) The square unit for measuring the area of a surface. (3.) The cubic unit for measuring the volume of solids. Each of these should be thoroughly explained by the teacher and understood by the pupils as soon as it is required.

Commence by explaining the lineal unit, (inch, foot, yard, rod or

perch, &c.) and by measuring distances. Bring the inch, foot, yard, and perch measure into the class-room before the pupils in order that they may examine them, and form a correct idea of the length of an inch, foot, &c. A yard measure divided into feet and inches will not do to teach the inch and foot by; as each would require to be seen separately so that no incorrect impressions may be made. After the measures have been examined make a pupil take the inch rule and measure any number of inches on the black-board, say 7, 9 or 11 inches &c., placing a mark at the end of every inch, and go through the same process with the foot rule and yard stick. The yard stick and rod-pole should be used for measuring in the play-ground or other suitable place.

It is surprising what a vague idea the majority of boys and girls (especially girls) have of the distance of say 35 feet, 45 yards or 11 rods, &c. Pupils must be made to understand that 7 inches means 7 lengths of the inch measure, and 13 feet, thirteen lengths of the foot rule, &c.

After the lineal unit is understood, take up the square unit (square inch, square foot, square yard, &c.) in connection with the area of surfaces. Cut the square inch, foot, and yard, out of paper or pasteboard and bring them before the class. Show that they are necessary for the measurement of surfaces, (e.g.) if you were to say that a wall was large or small, we would have a very imperfect idea of its size, but if on the other hand you were to say that its area was a certain number of yards we could form an idea of its exact size. The square rod and square acre should be measured in some field or other suitable place.

The square and oblong should be the first figures taught. Send a pupil to the black-board with the inch measure and have say 7 inches measured off in a horizontal line, with a small point at the end of every inch, and through each point draw a perpendicular line. Show that whenever you measure across these lines that they are one inch apart. Next have 5 or 7 inches measured off on a perpendicular drawn from one extremity of the horizontal line, and through each point draw horizontal lines. Now ascertain from the class the number of squares in the top line, Ans. 7. How many in the second line? Ans. 7. How many in the two lines? Ans. 14, &c.

You can now get the rule from them that the length multiplied by the breadth gives the area. Show that the area is the product of two factors, one of them the length and the other the breadth. By their arithmetic, when one factor is given and the product of the two, the other may be found by division. When both factors are equal, as in the square, and neither given, a knowledge of square root will be required. The length of a floor and the width being given to find the number of yards of carpet of a certain width that will cover it. It may be shown how to find the area of the floor, and the area of the floor being known, the area of the carpet is known, and the width, one of the factors being given the other may be found.

Examples.—(1.) How many acres in a field 32 rods wide and 40 rods long?

(2.) Find the number of square feet in a wall 10½ feet high and 42 feet long?

(3.) Find the number of square yards in the walls of a room 9 feet high, 14 feet wide and 18 feet long?

(4.) How many inches would you require to cut off a board 14 inches wide to have 3½ square feet?

(5.) A city lot is 144 feet in depth, how many feet front must it have to contain a quarter of an acre?

(6.) A farmer wants to run a fence across a field 30 rods wide so as to enclose 2½ acres, how far from the end of the field must he put the fence?

In the 4th, 5th and 6th questions the area or product of two factors is given, and the one factor to find the other.

#### THE PARALLELOGRAM.

Geometrical proof (i. 86.) Euclid.

The area of a parallelogram is the same as the area of a rectangle which is the same length as the parallelogram, and having the same perpendicular width.

Mechanical proof:—

Cut the parallelogram ABCD out of a piece of paper, then cut off ABH so that AH will be per-

pendicular to HC, and make it occupy the position of DCM. Now the pupils can very easily see that you have the same piece of paper, and that it must contain the same area as before, as it is neither smaller nor larger, and it is now in the form of a rectangle, having the same length and perpendicular width as the parallelogram.

Ques.—Find the area of a parallelogram whose base is 22 feet and perpendicular 9 feet 6 in.

The area of a parallelogram varies according to its perpendicular width.

Mechanical proof:—

Take four pieces of lath or stick and lay down one piece as AD, two other pieces as AH and DM, with the ends on A and D; then lay the fourth piece on the ends of AH and DM as HM, and drive only one tack through each corner. Take hold of two opposite corners, as A and M, and draw them apart so that there will be no space enclosed; then push them in opposite directions until no space is enclosed.

Pupils can now see that the area varies with the perpendicular distance, and is the greatest when the figure is right-angled.

Right-angled triangle.

Geometrical proof: (i. 47) Euclid.

Mechanical proof:—

Draw a right-angled triangle so that the sides will be in the proportion of 3, 4 and 5, or 5, 12 and 13, and describe squares on it as in the figure. Now show that the area or number of squares in the large square is equal to the area of the two small ones, and that the

difference between the area of the large square and the area of one of the small ones is equal to the area of the other small one. Now it can be easily seen that when the perpendicular and base are given, we can find the area of the square described on each, and add them together to find the area of the square on the hypotenuse; find the side of this square and we have the length of KE the hypotenuse.

In a right-angled triangle if a perpendicular be drawn from the right angle on the hypotenuse, the segments may be found.

Euclid (i. 47) or (vi. 8).

(i. 47.) Find the area of the square on AE, and that is the area of the rectangle BCDE, and one factor ED or KE is given to find the other.

Mechanical proof:—

Take a piece of paper the size of the square AEHG and cut it so that one piece of it will be the width of the rectangle, and lay

the piece down upon it, then take the remaining piece and cut it so that the rest of the rectangle may be covered.

(1.) A black-board is 5 feet wide and 12 feet long; what distance are the opposite corners apart?

(2.) The opposite corners of a class-room are 35 feet apart, the length of the room is 28 feet; find its width.

(3.) A farmer going from his work to the house passes 35 rods east along the end of a field, then north 84 rods to the house; how much less walking would he have to do if he had taken the nearest way across the field?

(4.) The distance from the ridge to the eaves of a building is 15 feet, and the perpendicular height of the gable end 9 feet; what is the breadth of the building?

(5.) The base of a right-angled triangle is 20 feet, the perpendicular 15 feet, and a perpendicular is drawn from the right-angle upon the hypotenuse; find the length of the segments.

### PENMANSHIP IN PUBLIC SCHOOLS.

#### III.

By W. B. ROBINSON, ONTARIO BUSINESS COLLEGE, BELLEVILLE.

As soon as pupils have been taught the formation of letters, in accordance with the instructions previously given, and can combine them into words, pen and paper should be substituted for pencil and slate.

#### MATERIALS.

**Writing Materials** should always be the best that can be procured. They should be of uniform quality throughout the class, that all pupils may have equal advantages, and should be selected in accordance with the teacher's directions.

**Paper.**—Paper should be of good quality, smooth and firm, and always bound in the form of books. A well graded series of headline copy-books is decidedly the best. Teachers have no time for writing headlines, and but few write sufficiently well that their copies may be taken as perfect models for imitation.

**Practice Exercise-book**—Besides the copy-book, each pupil should be provided with half a quire of large-sized letter-paper or a spare blank-book, ruled without copies, in which to practise exercises designed to train the hand in acquiring facility of execution for those movements which the actual forms of writing require. These exercises should be practised five or ten minutes before the regular lesson, and should be written with the same care as those in the copy-book. A good plan of obtaining regularity of movement is to have these exercises practised in concert at first. Well graded movement exercises develop and strengthen the powers of the fingers, hand and arm, and so train the muscles that they become completely under the control of the will.

**Pens.**—A pen with smooth, even points, making a uniform and clear mark at all times, not too sharp, but fine enough to make the delicate hair lines, and sufficiently elastic to make the shades even and clear, should be selected, and the teacher should insist upon every pupil in the class using the same kind of pen. A good pen costs no more than a bad one, and the teacher should be a better judge in making the selection than a pupil. If this is not done, some pupils will bring pens altogether too fine and sharp, and others large, coarse ones, designed only for writing on rough wrapping paper. Gillott's 292 will be found to possess the required qualities, and can be procured from any stationer. In Cities and Towns it is better for the Boards to provide the pens.

New pens being more or less oily, should be wet and wiped dry before using, that the ink may flow from them freely.

**Pen Holders.**—Plain, light, wooden holders, about six inches in length, are the best. Avoid those made of ivory, or any heavy material. They should be simple in construction, clasp the pen firmly, holding it immovable while writing, yet be capable of being easily removed when worn out or broken. About one-third of a pen such as Gillott's 292, should be inserted in the holder.

**Ink.**—Black Ink is best for school purposes. It is of various shades and qualities, but only that which is sufficiently dark when first used to show a pupil how his work will appear, flows freely, and will not change its color or spread under the surface of the paper, should be used. The rapid evaporation of the watery part of ink soon causes it to thicken. It should then be diluted with clean, soft water. Ink-wells should be covered when not in use, thoroughly cleaned as soon as any sediment accumulates, and replenished at least once a week. In taking ink the pupil should be cautioned to dip the pen only to its shoulder, and slowly remove it, not allowing it to touch the inkstand. If it is removed too rapidly the attraction of the fluid will leave too much ink on the pen. This rule, carefully observed, will save blots and inky fingers.

**Pen Wipers.**—The teacher should see that every pupil is provided with a suitable pen wiper. They may be conveniently made of two or three circular pieces of dark cloth, stitched together in the centre. The pen should be wiped between the folds, so that if the pen wiper should happen to fall upon the copy-book, there may be no blot. After the pen is used it should be wiped dry.

**Black-boards.**—It is unnecessary to give hints on making black-boards, as we trust every school-room in the country is well provided with such a necessity to successful teaching. They are as essential in teaching penmanship as arithmetic, and should be freely used in connection with every writing lesson. Success in the management of writing classes depends almost entirely upon a proper use of chalk and black-board. The intelligent teacher who understands criticising and explaining penmanship, even though he be not a good penman himself, and keeps up an interest and enthusiasm in his pupils by a proper use of black-board illustrations, will be able to show more improvement in three weeks' time than those adopting the plan of allowing pupils to imitate and practise according to individual fancy, can in as many months.

### Notes and News.

#### ONTARIO.

The *Beacon* says the Kindergarten is to be introduced in Stratford.

The Trustees of Toronto Public Schools are arranging to have Sewing and Drill Classes organized and conducted by experts.

Brant County Institute has founded a Teachers' Professional library.

Dr. Phillips read a most excellent paper at the last meeting of the Brant Association on Hygiene. He strongly urged the necessity for good ventilation, pure water, proper drainage, &c.

Brantford Teachers' Association did wisely in arranging the topics for their next meeting, six months ahead. Each teacher will have time to prepare himself on any of the subjects he chooses. The following topics were proposed for discussion at the next meeting of the Institute: "Drawing—how to teach it;" "How to teach Geography to a third class;" "How to teach addition;" "How to teach mental arithmetic;" "How to teach an object lesson;" "Best methods of analysis in grammar;" "Kindergarten system;" "Teachers' salaries;" "Question drawer." It was also proposed to invite Prof. Young to the next meeting of the Institute, to give his lecture on Psychology.

Ailsa Craig and Newbury have each added an additional teacher to their staff.

It is reported that Dr. Fyfe, Principal of Woodstock Institute, will retire from his position, and that he will probably be succeeded by Professor Wells.

At the last meeting of the London Teachers' Association it was moved by Mr. J. T. Colton, seconded by Mr. A. C. Stewart, that this Association respectfully request the Board of Education of the City of London to pay the teachers' salaries monthly instead of quarterly, as heretofore. Carried.

The managing committee of the St. Thomas School Board lately reported that they were willing to give Mr. Watt the use of one of the rooms in the school, after school hours, for the purpose of teaching music to those pupils who wish to avail themselves of the opportunity, on condition that the Board be not held responsible for fees.

The average High School attendance in Perth was 90, non-residents 25. The average Public School attendance for April 330. No. on roll 411.

The Public School teachers of Hamilton have organized a "Hamilton Teachers' Association," with the following staff of office-bearers:—President, A. Macallum, M.A., LL.B.; Vice-President, G. W. Johnson; Treasurer, Miss S. Bennetto; Secretary, A. Scott Crunkshank; Directors, W. H. Morton, Miss E. White, Miss E. Henry, Miss M. E. Armstrong, Miss E. Daville.

The Inspector for St. Thomas recommended lately that on account of the great overcrowding in the junior grades, the pupils in the first book of reading have their hours shortened to say three hours per day, dividing the children of a particular room into two divisions, teaching one of the divisions one part of the day and the other during the remaining part. It was resolved that the managing committee should carry out the recommendations of the Inspector as far as practicable.

A truant officer is needed in Nananee. At the last meeting of the Board of Trustees the chairman said that he frequently saw pupils in the neighborhood of the Presbyterian and Episcopal Churches, and they had the boldness to tell him they were playing truant. A discussion ensued in reference to truancy, in which it was agreed that parents should look for the monthly reports, and without that it was impossible to prevent frequent absence of pupils.

The closing exercises of Victoria University were of an unusually interesting character this year. Rev. Dr. Ormiston, of New York, a graduate of the University, delivered an eloquent *Bacca-laureate* address to the graduating class. The Alumni meeting was held on Monday, D. C. McHenry, M. A., in the chair. Rev. Dr. Burwash presented a complete list of the members of all of the Faculties of the institution, from its inauguration as a University to the present time, together with a list of the graduates in all of the departments. The total number of graduates in Arts was 256; in Medicine, 812; in Law, 70; in Theology, 39; and in the new department of Science, 2. Grand total of graduates in all of the Faculties, 1,177. One fourth of all the graduates of Ontario have come from Victoria. The Annual Convocation was largely attended. The Hon. Adam Crooks, Minister of Education; Rev. Dr. Ryerson; Hon. W. McDougall, and other distinguished visitors were present. A very successful conversation followed the Convocation.

At the Division Court at Bobcaygeon, May 14th, Miss Esther Davis sued the Trustees of School Section No. 3., Verulam, for \$42, the amount of municipal grant which the Inspector had kept back from said section on account of the teacher neglecting to keep the Daily Register properly and make out the Annual Report, and which amount the trustees had deducted from her salary. Judgment was given for the defendants, on the ground that the teacher had not fulfilled her contract. The case was tried before Judge Dennistoun, of Peterborough. Mr. Barron, of Fenelon Falls, appeared for the plaintiff.

In West Middlesex the following regulations have been issued by the Boards of Examiners. They agree with those adopted by other Boards throughout the district:—"All whose certificates expire in July, 1878, require the recommendation of the Inspector in order to obtain the renewals; so far as West Middlesex is concerned, the recommendations can only be obtained by passing the non-professional examination required from new candidates; in some cases it may be necessary, besides this, to instruct the applicant for renewal to spend a term at our County Model School. Those now teaching who feel their inability to comply with the conditions for renewal, should promptly notify their trustees, so that they may be in a position to secure a teacher for the remainder of the year. Several ladies and gentlemen holding Provincial certificates are now seeking situations, several more will be similarly situated at the close of the Normal School examination, on the 30th June. These will be available for vacancies, and should expect sympathy and encouragement from those retiring, to secure

equivalent qualifications. It is certainly not too much to expect a candidate after teaching three years, and studying with a view to obtaining a second, to be able to pass the examination for third-class certificates."

The number of teachers in Brantford is 28, 25 females and 3 males; one of the gentlemen acts as writing-master for all the schools. Total expenditure for 1877, \$14,609.00. For teachers' salaries, \$8,775.37. The Board has employed Constable Dume as truant officer. The Collegiate Institute is about to enlarge its grounds by purchasing the lots in the rear of their present building. The Public School Board has planted a large number of trees this spring about their various schools.

His Honor Judge Elliott delivered a very practical address before the East Middlesex Teachers' Association at its last meeting. In reference to the value of our system of Public Schools he spoke as follows:—"We must remember that under our system the government can only be a reflex of the people. Ignorance is the condition which the unprincipled demagogue will always court. To close our public schools would be to consign us to a reign of ignorance, and open the field to men of shams wider than ever. Many well-meaning persons will say, but would you not combine religious and intellectual instruction? To this inquiry candid people must admit that we must bend to circumstances. We are split into many sects, and to introduce dogmatic theology would ruin the schools. But the sublime ethics of the Gospel furnish a common ground for all."

Inspector Slack closes his last report to the Minister of Education with the following remarks:—"Seven years have now nearly passed away since the great improvement was made in our School Law, which came into force in June 1871, and it is time for us to pause and reflect upon the progress that we have made, and the position we occupy to-day. This I will do very briefly. In a material point we have done well, but little remains to be accomplished, as will be seen by reference to my "Detailed Reports." As far as passing a sufficient number of legally qualified teachers, through our examinations, we have also been very successful; very few "Permits" have now to be granted, and they generally to assistants. Our schools are conducted as well as can be expected, in accordance with the "Law and General Regulations." The outward appearance that we have to present displays signs of life, activity and earnestness in our School history. There remains to be seen whether there is that inward life of improvement in teachers and pupils, without which lasting good cannot be achieved. This to my mind is not so satisfactory as it might be. The "routine" system has not yet been eradicated. There is yet too much attention paid to cramming the memory rather than to developing the powers of the mind. The "art of teaching" has not yet attained to the position in which we hope to see it. Reading in too many of our schools is without that life and taste which should characterize it in order to make it efficient. Arithmetic is yet too much taught by rule and without a practical bearing. Grammar savors too much of text-books, and is lacking in its practical application to Analysis and Composition. Our pupils, as a rule, are not sufficiently educated to *think for themselves*. To these points we must all now direct our special attention until not only in external but internal appearances we may be able to boast of the efficiency which should be expected of those working under the numerous advantages of our excellent Educational system.

I have the honor to be, Sir, your obedient servant,  
H. L. SLACK, M.A., I. P. S., Co. Lanark.  
Perth, May 1st, 1878.

#### QUEBEC.

The Examination of Candidates for Teachers in the Public Schools was held on May 7th. This examination is held half-yearly. For the first time the questions were all printed and the answers given in writing this year. This is doubtless a move in the right direction, although several improvements and alterations would seem to be required in details. For instance, it seems hardly right that the same number of marks should be given for every subject; nor yet that Examiners should be allowed to assign what number of marks they like to separate questions. The majority of the candidates, appear to be ladies. In Quebec city, out of eleven candidates two only were of the opposite sex. This will not perhaps seem strange, when the fact is known that the yearly salary of Public School Teachers is often not more than \$120. The Premier, Hon. Mr. Joly, speaking at St. Hyacinthe, said that the women who scrubbed the floors of the Legislative Halls received a better remuneration than teachers. He promised to reduce the

amount given to the Inspectors and to increase the salaries of the teachers, a most righteous and just measure. It is often a matter of wonder to English-speaking Canadians that some patriotic French-Canadian does not take up in earnest the matter of popular education—a most arduous and extensive field of labor.

It is said that the new Government has reduced the salary of the Hon. Mr. Ouimet, Superintendent of Education, to \$3,000 per annum, making it the same as the ministers themselves.

The examination of candidates for admission to the Study of Medicine took place in Montreal on the 2nd and 3rd of May, before the Board of Examiners appointed by the College of Physicians and Surgeons. The examiners were Rev. Mr. Laflamme, of Quebec Seminary; Mr. Miller, of Quebec High School; Rev. Mr. Verreault, of Jacques Cartier Normal School; and Dr. Howe, of Montreal High School. Out of 24 candidates 5 were rejected. The successful candidates are said to have acquitted themselves better than those of former years—owing probably to the fact that specified portions of the Greek and Latin authors appointed for examination had been indicated beforehand. The translation of the Greek and Latin (First Book of the Anabasis and First Book of the Æneid) was into English or French, at the option of the candidate.

On May the 15th, the remains of Laval, first Roman Catholic Bishop of Quebec, were removed with imposing ceremony to the Seminary Chapel. This is certainly a very appropriate resting place for the relics of the founder of the Quebec Seminary. Of all the labors of this ardent champion of the rights of the Church, the Seminary of Quebec is one of the most important and enduring. Arriving in Canada in 1659, he founded the Seminary of Quebec in 1663, and the "Petit Seminaire" or College de Quebec in 1668. This last was an elementary School from which students passed to the Jesuit College for a classical education, and from this to the Seminary again for theology. Laval also founded a school for boys at Chateau Richer, in the County, which bears his name—Montmorenci. To the Seminary he bequeathed his property. In 1852, the Seminary founded the Laval University. The value of the buildings occupied by these three institutions is estimated at \$400,000.

On the same day the Catholic Bishops of the Ecclesiastical Province of Quebec arrived in the ancient capital, and attended a meeting of the Council of Public Instruction.

NOVA SCOTIA.

The chief event of the past month has been the closing Convocation of Dalhousie College. Rev. Principal Ross, D.D., who has in great part recovered his health, presided. Professor Macdonald, Secretary of the Faculty, prefaced his reading of the list of undergraduates who had passed the session at examinations and obtained University distinctions, with a few remarks on the harmony and good feeling that had characterized the relations of the professors and students. Eight gentlemen, Messrs. John A. Cairns, John H. Cameron, John L. George, James A. McKenzie, Geo. W. Munro, Edmund L. Newcombe, Anderson Rogers, and Alfred Whiteman, were admitted to the degree of B.A., and five, Messrs. W. G. Archibald, J. C. Herdman, L. H. Jordan, A. McLeod, and A. J. Trueman, to the degree of M.A. Mr. Trueman, who has for some time past ably filled the position of Inspector of Schools in Portland, N.B., delivered a brief address, in the course of which he adverted to the value and thoroughness of the training given at Dalhousie College. Hon. G. C. Hill, D.C.L., Premier of Nova Scotia, also spoke, and alluded to the entrance into the Government of the Province of Hon. D. C. Fraser, a Dalhousie graduate. Sir William Young, Chief Justice, President of the Board of Governors, stated that the prospects of the College were brighter than they had ever been, and suggested the propriety of giving degrees in Science. The chief University prizes were carried off this year as follows:

ST. ANDREW'S PRIZE, awarded to the best student in the Mathematics of the second year, Albert E. Thomson.

ELOCUTION PRIZES, given by Sir William Young, Kt.; 1st (\$20), James A. Sedgewick, Musquodoboit; 2nd (\$10), Duncan Cameron, St. Mary's.

NORTH BRITISH SOCIETY'S BURSARY (\$60 annually for two years), for the best average in the second year, Albert E. Thomson.

ALUMNI ASSOCIATION PRIZES.—3rd year,—1st, Roderick McKay; 2nd, Isaac M. McLean;—1st year,—James S. Trueman; 2nd, Graham Creelman.

THE GOVERNOR GENERAL'S MEDALS.—Gold Medal, John L. George; Silver Medal, John H. Cameron.

The Senate of Dalhousie College have presented Sir Wm. Young, their President, with an oil painting of himself by William Barratt, a young Halifax artist. The portrait will be placed in the College Library.

J. J. Mackenzie, Esq., Ph. D., who occupied the post of Lecturer on Physics at Dalhousie during the past winter, has gone to Germany to continue his original researches under Helmholtz and Kirchoff.

Rev. D. Patterson, author of "Memoirs of Johnson and Mattheson," has presented copies of his book to all the Dalhousie students.

The criticism of Wordsworth, in the April number of Belford's Monthly, was from the pen of Professor Lyall, of Halifax.

Mr. Norman E. McKay, of Baddeck, C.B., has passed the first M.B. Examination of the University of Halifax, taking honours in every subject.

The High School building in Halifax is progressing very satisfactorily.

Mr. J. A. McCabe, M.A., has published a fifth edition of his English Grammar; it is a great improvement on former editions.

This month, June, three of the Colleges in this Province close for the year; Mount Allison first, the Acadia, and King's last.

Two mistresses of the Board School at Moreton Hampstead, Eng., have resigned, rather than agree to a resolution abolishing corporal punishment in the schools.

The Goldsmiths' Company of London, Eng., with a view to encouragement of technical education in the design and execution of works of art in the precious metals, propose to give annual prizes of £50 for the best design and £50 for the best model of some article in gold and silver, and £25 for the best execution and workmanship of some such article, besides other prizes. A scholarship of £100 per annum is to be given to a student who shows exceptional talent, and who has secured a prize for design for three successive years, to enable him to study art in precious metals on the continent.

Compulsory religious instruction in the public schools of Genoa, Italy, has been abolished by the city authorities.

Oxford has put a new premium on scholarship. The Very Rev. the Vice-Chancellor has decreed that, according to the statutes, no one in the University below the degree of Master of Arts is allowed to keep a dog.

Teachers' Associations.

The publishers of the JOURNAL will be obliged to Inspectors and Secretaries of Teachers' Associations if they will send for publication programmes of meetings to be held, and brief accounts of meetings held.

NORTH YORK.

The Regular Meeting of the above Association will be held in the 1st Division Room, Newmarket Model School, on Friday, June 21st, and Saturday, June 22nd. J. M. Buchan, Esq., M.A., High School Inspector has kindly consented to be present. He will make some remarks on the teaching of English Literature or Grammar, or perhaps both. A public meeting will be held in the evening (likely) in the Temperance Hall, when Mr. Buchan will deliver a lecture on "Poetry and Politics." The other subjects in the Programme will be as follows:—Arithmetic—1st Class Examination, July 1877, Mr. Terry; 2nd Class Examination, December, 1877, Mr. F. Haight. Analysis—Goldsmith's "Deserted Village," Book V., page 386, from "Near Yonder Copse," &c., 40 lines, Mr. More; History, Mr. Seymour; Composition, Mr. Fotheringham; Algebra—Teaching to beginners, Mr. Jones; English Literature, Grammar, Mr. Buchan. W. Rannie, Secretary; D. Fotheringham, President.

NORTH HASTINGS.

The North Hastings Teachers' Association will hold its next meeting in Madoc Town Hall, on June 8th, at 10 a.m. Subjects for discussion:—1. Method of Teaching Writing, Mr. Morton; 2. Method of Teaching Fractions, Mr. Mackintosh; 3. Method of Teaching Elementary Grammar, Miss Riddell; 4. Method of Teaching Elementary Reading, Mr. Mackintosh; 5. Analysis and Parsing, Mr. Curtis; 6. Public School Examinations, Mr. Fuller. Readings are expected from several members. W. Mackintosh, President.

MUSKOKA.

The next regular meeting of this association will be held in Bracebridge, on Thursday and Friday, 29th and 31st June. The Hon. Adam Crooks, LL.D., Minister of Education for Ontario, will be present. J. A. McLellan, LL.D., Inspector of High Schools, and J. H. Sangster, M.A., M.D., have been invited. Programme: Thursday—9 a.m. English Grammar, H. Roazin, I.P.S., and Rev. J. Clarke; 10 a.m. The Potential Mood, A. McGill; 11. Geography, T. White; 12. Organization Meeting; 2. English History, J. Drummond; 3. English Literature, Rev. A. Findlay; 4. Euclid, Rev. J. S. Cole, P.A. Friday—9. Reading, T. Cliphart; 10. Journalism in Relation to Education, W. E. Hamilton, I.P.S.; 3. Question Box, Committee. A public lecture will be delivered on Thursday evening, by H. Roazin, I.P.S., or one of the gentlemen above named. J. C. Morgan, Esq., I.P.S. for Simcoe, has also promised to be present, if possible. Both days will be allowed all teachers of Muskoka who attend, as extra

visiting days. Teachers are requested to prepare to take part in the discussions which will follow each address. T. White, Secretary; H. Rearin, I.P.S., President.

ELGIN.

The next regular meeting of the above Association will be held in St. Thomas, Friday, the 31st May, and Saturday, 1st June. The attendance of the President of the Ontario Teachers' Association, Dr. J. A. McLellan, High School Inspector, will render the occasion one of more than ordinary interest. Programme. Friday, 31st May—10 to 11 a.m., General Business and Election of Officers; 11 to 12 a.m., Written Examinations for Public School Pupils, Mr. N. M. Campbell, Principal of Elgin County Model School; 2 to 3 p.m., English Grammar for Junior Pupils, Mr. A. F. Butler, County Inspector; 3 to 4 p.m., Arithmetic, J. A. McLellan, L.L.D., High School Inspector; 7:30 p.m., True Spirit of the Teacher, Mr. A. F. Butler; A Paper on the Joint Education of the Sexes, by J. Millar, B.A., Head Master of St. Thomas High School; Address by Dr. McLellan. Saturday, 1st June—9 to 10 a.m., Reading, Dr. McLellan; 10 to 11 a.m., Object Teaching, Mr. S. C. Williams, Principal Aylmer Public School; 11 to 12, Question Drawer. Thos. MacLoche, Secretary.

KINGSTON.

The Second Annual Meeting of the Frontenac and Kingston Teachers' Association will be held at the Court House, Kingston, on Thursday and Friday, the 13th and 14th June, 1878. Thursday.—Morning Session—11 a.m., to 12, General Business. Afternoon Session.—1:30 to 2:30 p.m., Spelling and Dictation, introduced by Mr. D. McIntyre; 2:30 to 3:30 p.m., Geometry, introduced by Mr. David Robb; 3:30 to 4:40 p.m., Geometry, introduced by Prof. Macoun, of Albert College, Belleville. Evening.—Public Lecture at 8 o'clock by Prof. Macoun, on "The North-West of our Dominion." Friday.—Morning Session—9 to 10 a.m., Reading, introduced by Mr. J. S. Wood; 10 to 11 a.m., Botany, introduced by Prof. Macoun; 11 a.m. to 12, Questions and General Discussion. Afternoon Session.—1:30 to 2:30 p.m., Grammar, introduced by Mr. S. Woods, M.A.; 2:30 to 3:30 p.m., Arithmetic, introduced by Mr. W. J. Summerby; 3:30 to 4:30 p.m., General Business (including election of officers). On Friday evening a Grand Moonlight Excursion among the "Thousand Islands" will take place. The steamer will leave the wharf, foot of Brock Street, at 7 o'clock, and return at 10. Tickets 25 cents. S. Ranton, Secretary. N. F. Dupuis, M.A., President.

DURHAM.

The first Convention of Teachers, for the County of Durham, under the new Regulations, will be held in the Public School Buildings, Port Hope, on Friday and Saturday, June 7th and 8th, 1878. Programme:—Friday—10 a.m. to 12, Organization and Election of Officers; 2 to 3 p.m., Preparation of Lessons by Teachers, P. N. Davoy; 3 to 4 p.m., Algebra, Dr. McLellan; 4 to 5 p.m., Literature for Entrance, and 3rd Class Certificates, D. J. Goggin. Evening Session.—8 p.m., A Public Lecture will be delivered by Dr. McLellan, Inspector of High Schools. Saturday.—9 to 10 a.m., Reading, Dr. McLellan; 10 to 11 a.m., Drawing, J. H. Brown; 11 a.m. to 12, Lecture on Vision, Dr. Hamilton; 2 to 3 p.m., Arithmetic, Dr. McLellan; 3 to 4 p.m., Composition, W. Oliver, B.A.; 4 to 5 p.m., Question Drawer. Questions to be handed in on Friday, A. Purslow, B.A., L.L.B. J. Squair, Secretary, A. Purslow, B.A., L.L.B., President.

EAST KENT.—The Teachers' Association was held in Ridgetown on May 17th and 18th. Mr. Joseph Foy discussed the subject of "Writing," strongly advocating a method which is new. It consists of a partly angular hand. In the afternoon Professor McLellan gave a rare treat in Arithmetic, by showing that problems, which are apparently hard are not so in reality, if we take a proper survey of the question to be solved. He was followed by Mr. W. M. Ward on "Geometry." Dr. McLellan next proceeded to take up the subject of "Reading," discussing in his very able manner the essentials of good reading, drawing particular attention to fluency, distinctness, good pronunciation, expression, &c., and urging upon all teachers to read aloud in order to master the subject before attempting to teach it to their scholars. He then made a couple of selections and read extracts from them to illustrate the different methods of reading. In the evening the Doctor lectured on "This Canada of Ours" to an intelligent and interested audience. A hearty vote of thanks was tendered the Doctor at the close. On Saturday, after receiving and adopting the Secretary-Treasurer's financial report, Mr. Harrison, I. P. S., reported having received a Government grant of \$50, which was voted to be applied to the library fund. The Association then proceeded to the election of officers for the year, resulting in Mr. J. K. Moore as President; Mr. G. W. Shelder, Vice President, and Mr. Joseph Foy, Secretary-Treasurer. After a number of motions relating to association matters, it was moved, seconded, and carried, that letters of delegation be granted by the Secretary to members of this Association who may wish to attend the Provincial Association. Next came the discussion of "Algebra," introduced by Mr. Geo. Munro, and afterwards freely discussed by different members of the Association. JOSEPH FOY, Secy.

Readings and Recitations.

ANNIE LAURIE.

The night before the attacks on the Malakoff and the Redan, the British soldiers in the trenches before Sebastopol sang Annie Laurie. The song was started by one at first, but was gradually caught up from line to line until it was sung by nearly the whole camp. The incident has been beautifully described by more than one poet. A very fine effect may be produced at an exhibition by having one pupil, a good singer, recite the following address to his companions to introduce the song. He should then sing the first stanza as a solo, and the division or class nearest to him should join in the chorus. He should then sing the second stanza as a solo, and two divisions join in the chorus, &c. The

whole of the pupils should be divided into as many parts as there are verses in the song, so that the whole school may sing the chorus to the last verse.

Brave comrades neath yon setting sun,  
That gild the western sky,  
The fairest isles of all the earth  
On ocean's bosom lie.

And many a mother, sister, wife,  
And loving sweetheart there,  
Will breathe to God for you and me  
To-night a heart-felt prayer.

How gladly would we go to-night  
On furlough to the West,  
To spend one blissful hour at home  
With those we love the best.

What sweet re-unions we would have  
By hearth and trysting tree,  
With loved ones in the dear old land;  
But such things cannot be.

Before that sun again declines  
We'll storm yon Russian towers,  
And both the frowning Malakoff  
And dark Redan be ours.

But may a gallant British heart  
Must bleed before they fall,  
And few of us may live to see  
Our flag upon their walls.

Join then with me while yet we may,  
And in our sweetest tone  
We'll sing o' Annie Laurie, but  
We'll think each of his own.

ANNIE LAURIE.



Max - wellton's braes are bon-nie, Where ear - ly

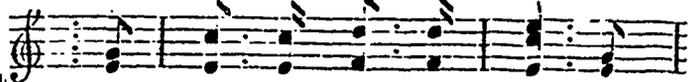


fa's the dew, And it's there that An - nie



Lau - rie Gie'd me her pro - mise true,

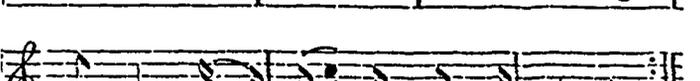
Chorus.



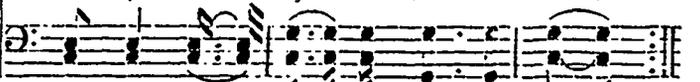
Gie'd me her promise true. Which



ne'er forgot will be; And for bon - nie An - nie



Laurie, I'd lay me down and dee.



Her brow is like the snow drift,  
 Her throat is like the swan;  
 Her face it is the fairest  
 That e'er the sun shone on—  
 That e'er the sun shone on,  
 And dark blue is her eye,  
 And for Bonnie Annie Laurie  
 I'd lay me down and die.

Like dew on the gowan lying,  
 Is the fall of her fairy feet;  
 Like the winds in the summer sighing,  
 Her voice is low and sweet,  
 Her voice is low and sweet,  
 She's all the world to me,  
 And for Bonnie Annie Laurie  
 I'd lay me down and die.

#### THE DRUMMER-BOY'S BURIAL.

All day long the storm of battle through the startled valley swept;  
 All night long the stars in heaven o'er the slain sad vigils kept.

Oh the ghastly upturned faces gleaming white through the night!  
 Oh the heaps of mangled corpses in that dim sepulchral light!

One by one the pale stars faded, and at length the morning broke;  
 But not one of all the sleepers on that field of death awoke.

Slowly passed the golden hours of that long bright summer day,  
 And upon that field of carnage still the dead unburied lay.

Lay there stark and cold, but pleading with a dumb, unceasing prayer,  
 For a little dust to hide them from the staring sun and air.

But the foeman held possession of that hard-won battle plain,  
 In unholy wrath denying even burial to our slain.

Once again the night dropped round them—night so holy and so calm  
 That the moonbeams hushed the spirit, like the sound of prayer or psalm.

On a couch of trampled grasses, just apart from all the rest,  
 Lay a fair young boy, with small hands meekly folded on his breast.

Death had touched him very gently, and he lay as if in sleep;  
 Even his mother scarce had shuddered at that slumber calm and deep.

For a smile of wondrous sweetness lent a radiance to the face,  
 And the hand of cunning sculptor could have added naught of grace,

To the marble limbs so perfect in their passionless repose,  
 Robbed of all save matchless purity by hard, un pitying foes.

And the broken drum beside him all his life's short story told:  
 How he did his duty bravely till the death-tide o'er him rolled.

Midnight came with ebon garments and a diadem of stars,  
 While right upward in the zenith hung the fiery planet Mars.

Hark! a sound of stealthy footsteps and of voices whispering low,  
 Was it nothing but the young leaves, or the brooklet's murmuring flow?

Clinging closely to each other, striving never to look round  
 As they passed with silent shudder the pale corpses on the ground.

Came two little maidens,—sisters,—with a light and hasty tread,  
 And a look upon their faces, half of sorrow, half of dread.

And they did not pause nor falter till, with throbbing hearts, they stood  
 Where the Drummer-boy was lying in that partial solitude.

They had brought some simple garments from their wardrobe's scanty  
 store,

And two heavy iron shovels in their slender hands they bore.

Then they quickly knelt beside him, crushing back the pitying tears,  
 For they had no time for weeping, nor for any girlish fears.

And they robed the icy body, while no glow of maiden shame  
 Changed the pallor of their foreheads to a flush of lambent flame.

For their saintly hearts yearned o'er it in that hour of sorest need,  
 And they felt that Death was holy, and it sanctified the deed.

But they smiled and kissed each other when their new strange task was  
 o'er,

And the form that lay before them its unwonted garments wore.

Then with slow and weary labour a small grave they hollowed out,  
 And they lined it with the withered grass and leaves that lay about.

But the day was slowly breaking ere their holy work was done,  
 And in crimson pomp the morning again heralded the sun.

And then those little maidens—they were children of our foes—  
 Laid the body of our Drummer-boy to undisturbed repose.

—*Harper's Monthly.*

#### SCHOOL STATISTICS.

'Twas Saturday night, and a teacher sat  
 Alone, her task pursuing;  
 She averaged this and she averaged that  
 Of all her class were doing.  
 She reckoned percentage, so many boys,  
 And so many girls all counted,  
 And marked all the tardy and absentees,  
 And to what all the absence amounted.

Names and residence wrote in full,  
 Over many columns and pages;  
 Canadian, Teutonic, African, Celt,  
 And averaged all their ages,  
 The date of admission of every one,  
 And cases of flagellation,  
 And prepared a list of the graduates  
 For the coming examination.

Her weary head sank low on her book,  
 And her weary heart still lower,  
 For some of her pupils had little brain,  
 And she could not furnish more.  
 She slept, she dreamed; it seemed she died,  
 And her spirit went to Hades,  
 And they met her there with a question fair,  
 "State what the per cent. of your grade is."

Ages had slowly rolled away,  
 Leaving but partial traces,  
 And the teacher's spirit walked one day  
 In the old familiar places.  
 A mound of fossilized school reports  
 Attracted her observation,  
 As high as the State House dome, and as wide  
 As Boston since annexation.

She came to the spot where they buried her bones,  
 And the ground was well built over,  
 But labourers digging threw out a skull  
 Once planted beneath the clover.  
 A disciple of Galen wandering by,  
 Paused to look at the diggers,  
 And plucking the skull up, looked through the eye,  
 And saw it was lined with figures.

"Just as I thought," said the young M.D.,  
 "How easy it is to kill 'em!"

Statistics ossified every fold  
 Of cerebrum and cerebellum;  
 "It's a great curiosity, sure," said Pat,  
 "By the bones can you tell the creature?"  
 "Oh, nothing strange, said the doctor, "that  
 Was a nineteenth century teacher."

#### ANSWERS TO QUERIES.

Will Candidates at the Intermediate Examination be allowed to use the abbreviations given by Hamblin Smith in his Euclid? W. T. Yes.

Will those teachers, who taught three years and obtained a Second-Class Certificate of the lower grade, previous to seventy-five, have to attend the Normal after passing the Non-professional for a second grade "A," before a professional certificate of that grade will be granted to them. G. B. No.

Would you be kind enough to tell me in your next Journal what History is necessary to read for 2nd Class Examination in July. SUBSCRIBER.

The Examination in History for Second-Class Certificates will be upon the work laid down for the Intermediate Examination in High Schools: Leading Events of English and Canadian History; also Roman History to the End of the Second Punic War.

#### BOOK REVIEWS.

LAURIE'S COMPOSITION TEXT BOOKS. Thomas Laurie, Edinburgh. *First Steps, 6d., Practical Text-Book, 1s.* There is no subject of equal importance which is so poorly taught as composition. Undoubtedly the want of a proper text-book on the subject has a good deal to do with the quality of the teaching done. These little books would be exceedingly useful to teachers in guiding them in the right methods. *First Steps* is not so much needed in Ontario,

as Swinton's Language Lessons more than supplies its place. The Practical Text-book, however, is a very valuable book, and would make an admirable Text-book for High Schools, and for the classes above the third grade in Public Schools.

In the NEW DOMINION MONTHLY for May we see an exceedingly interesting "Sketch from Canadian History," which gives a very full account of the war of 1812, especially of the actions of General Brock therein. "Two Scottish Heroes" is an account of the early lives of Andrew and James Melville, who lived in Reformation times. G. H. F. contributes an article on the late George Cruikshank—whose portrait appears in the frontispiece—in which are cuts of several of his humorous drawings. "The Wolf of Badenoch" is a criticism by a Backwoods farmer of a recent Canadian work. A subject of rare interest to ethnologists is to be found in a paper commenced in this number. It is entitled "Monograph of the Dônd-Dindjié Indians. These Indians dwell in the northern part of British North America, and their character, manners and customs, and relationship to other races were made a matter of enthusiastic study by the Rev. Father Petitot, who spent his life amongst them. This work has been ably translated by Mr. Douglas Brymner, of Ottawa. We may say further that Father Petitot hints at a "lost ten tribe" origin for these Indians. The manner of hunting racoons is well described in "Coon-Hunting," by Mack. In "Our Affectionate Townsman" we find a description of the villainy of a "resurrectionist." For the Young Folks there is a selected paper, with illustrations, which tells about the School for Deaf-mutes in Boston, and the way in which the children are taught to speak. In the Home Department is begun an interesting story entitled "Lotty Farwell's Duty." Under Literary Notices is an extract from "MacLeod of Dare," Mr. Black's last novel.

THE MATHEMATICAL VISITOR. Edited and published by Artemus Martin, M. A., Erie, Pa. This journal contains an admirable collection of what are in the main original problems, with solutions, together with a list of problems, solutions to which may be sent in during the year. Mr. Martin divides the contents into junior and senior problems. The former class will be found to contain questions of interest to those who have acquired some skill in Mathematics; the latter will entertain and instruct those who are acquainted with the higher departments of the subject. Among the senior problems will be found a number on the application of the calculus to questions of chance. An interesting feature is the number of solutions by ladies, of questions in some cases belonging to the higher analysis. Altogether the journal is unite on a footing with the best English publications of the kind. We recommend it to our Canadian mathematicians. It is issued annually, price 50 cents, and may be obtained from Mr. Martin.

### Publishers' Department.

OF SPECIAL INTEREST TO TEACHERS. —We would draw special attention to an advertisement in another column of the Ontario Business College, Belleville, regarding the formation of special classes for teachers during the coming vacation. There will be two courses: one in Book-keeping and Penmanship, and the other in the full range of subjects required for third, second, and first class certificates. The gentleman who is to conduct the latter course is Mr. W. E. Sprague, Head Master of the Model and Public Schools, Cobourg, and medallist of the Toronto Normal School. We have the utmost confidence in recommending those to whom the course mentioned would be beneficial to avail themselves of the opportunity afforded. Belleville is a beautiful and healthy city and a cheap place to live in; and we know that the teaching will be of the highest order.

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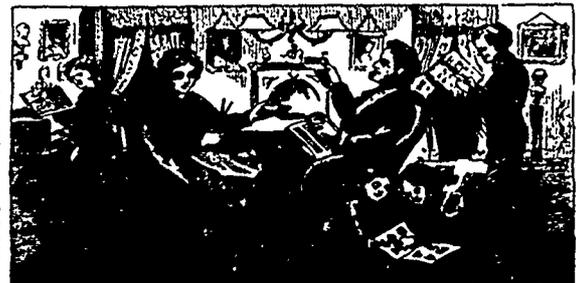
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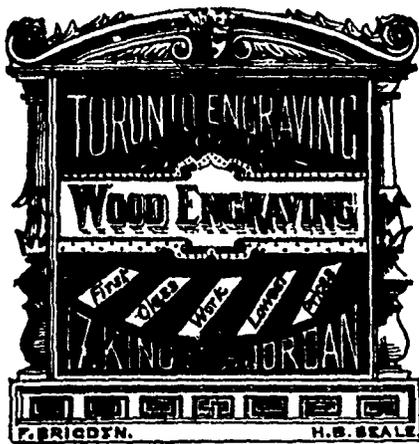
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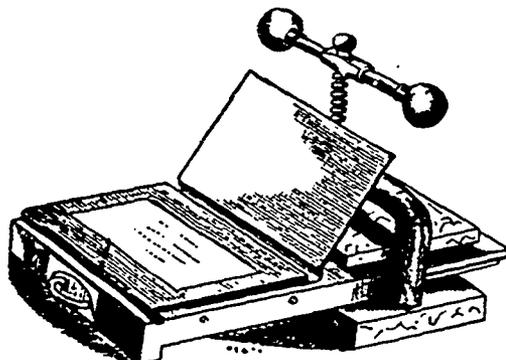
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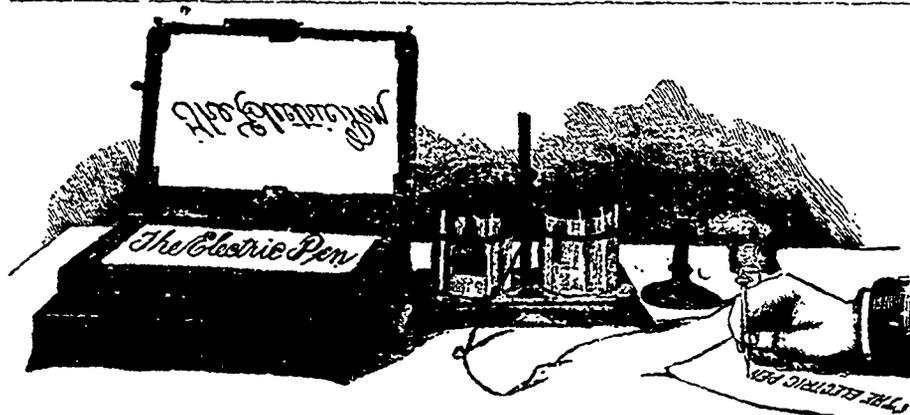
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