

Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- | | | | |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | Coloured covers /
Couverture de couleur | <input type="checkbox"/> | Coloured pages / Pages de couleur |
| <input type="checkbox"/> | Covers damaged /
Couverture endommagée | <input type="checkbox"/> | Pages damaged / Pages endommagées |
| <input type="checkbox"/> | Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée | <input type="checkbox"/> | Pages restored and/or laminated /
Pages restaurées et/ou pelliculées |
| <input type="checkbox"/> | Cover title missing /
Le titre de couverture manque | <input checked="" type="checkbox"/> | Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> | Coloured maps /
Cartes géographiques en couleur | <input type="checkbox"/> | Pages detached / Pages détachées |
| <input type="checkbox"/> | Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire) | <input checked="" type="checkbox"/> | Showthrough / Transparence |
| <input type="checkbox"/> | Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur | <input checked="" type="checkbox"/> | Quality of print varies /
Qualité inégale de l'impression |
| <input checked="" type="checkbox"/> | Bound with other material /
Relié avec d'autres documents | <input type="checkbox"/> | Includes supplementary materials /
Comprend du matériel supplémentaire |
| <input type="checkbox"/> | Only edition available /
Seule édition disponible | <input type="checkbox"/> | Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées. |
| <input checked="" type="checkbox"/> | Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure. | | |
| <input checked="" type="checkbox"/> | Additional comments /
Commentaires supplémentaires: | | Continuous pagination. |

The Educational Journal.

Consolidating "THE EDUCATIONAL WEEKLY" and "THE CANADA SCHOOL JOURNAL."

Subscription, \$1.50 a year.
In advance.

TORONTO, FEBRUARY 2, 1891.

Vol. IV.
No. 18.

Table of Contents.

PAGE.	PAGE.
EDITORIAL NOTES..... 273	FOR FRIDAY AFTERNOON—
PRIMARY DEPARTMENT—	Tommy's Ride 279
Suggestions 274	The Grumbler 279
Object Lessons for February 274	EDITORIAL—
SPECIAL PAPER—	The School Law Amendments 280
Manual Training 274	The Interest of Teachers in University "Extension" Work 280
ENGLISH—	BOOK NOTICES, ETC. 281
The Memorizing of Literature 276	EXAMINATION PAPERS—
A Lesson in Poetry 277	University of Toronto Annual Examinations, 1890 282
MATHEMATICS—	CORRESPONDENCE—
Modern Methods in Geometry 278	The Science of Examinations 283
Correspondence 278	SCHOOL-ROOM METHODS—
Solutions 278	Language 283
Problems for Solution 278	Exercises in Spelling and Definitions 283
HINTS AND HELPS—	A Suggestive Temperance Lesson 284
Canadian History 278	QUESTION DRAWER 284
Avoid Extremes 279	
Talking Shop 279	
Mistakes in School Management 279	
Principles of Good Management 279	

* Editorial Notes. *

WE will commence in next number the publication of the questions set at the late Entrance Examinations, which has been delayed a little through an oversight.

EVERY teacher should have a clear-cut theory, a distinct aim, as a guiding star of all his daily work? What is it you are seeking to accomplish in all your daily work in the school? If you should perfectly succeed in your highest conscious purpose, what kind of men and women would you make out of the boys and girls under your hand?

OUR next number will contain the substance of the admirable address delivered by Principal Kirkland at the opening of the Toronto Normal School Session, the other day. We delayed until too late for this number, in the hope of being able to publish the full text of the address, but unfortunately for us and our readers, it had passed out of Principal Kirkland's hands before our request reached him. We have, however, a reliable summary.

ONE of the most pleasing signs of the times is the increasing interest shown by the newspapers in educational work. One can now scarcely take up a daily or weekly paper without finding some educational article or item, while many have the educational column as a part of the regular weekly programme. This is as it should be. The newspaper is, or should be, itself a great educational force. This force is multiplied when it takes a genuine and intel-

ligent interest in the teachers of the country and their work, and throws its influence in favor of educational reform and progress.

IN this number will be found the excellent paper on "Manual Training," read by W. H. Huston, M.A., Principal of Woodstock College, before the Ontario Teachers' Association, at its last annual meeting. Every teacher should read it in order to get a clear idea of the educational relations and value of the kind of physical and mental culture which is somewhat loosely designated by this term. Mr. Huston looks at the subject from the view-point of an enthusiastic educator rather than that of a hobbyist, while his connection with the first, and, we believe the only College in Canada which gives systematic and scientific instruction in the subject, gives his words the weight which belong to those of one who knows practically what he is talking about.

THE assertion is repeatedly made that teachers as a rule read less concerning their professional work than any other class of people. The time was when this was no doubt true of Canadian teachers, but we do not believe it is any longer true of them as a class. The support given to THE EDUCATIONAL JOURNAL convinces us to the contrary. That large numbers of the less progressive teachers are yet without an educational paper is too true, but this is largely because they have no conception of the help to be derived from professional reading. No better service can be rendered to such teachers individually, to the communities in which they work, or to the cause of public education, than to call their attention to the benefits to be derived from such a paper as THE JOURNAL. We are always glad to send sample copies when desired.

THE *Schoolmaster* (Eng.) says in a late number that, while not accustomed to insert advertisements gratis, it makes an exception in the case of the two following, which appeared in the *Hampshire Chronicle*. They are certainly very suggestive, but we do not feel disposed to cast stones at those in England holding such ideas of the fitness of things, for the advertisements could easily be paralleled in their essential features in Canada. These are the advertisements:

WANTED,—Mistress for small village school. Salary, £16 a year, with house and garden. Constant work found for husband on farm. Applications, with character and capabilities, to be addressed to Rev. G. Pearson, Combe Vicarage, Hungerford.

Just below in the same column, appears another advertisement:

WANTED,—Good Cook, wages from £30 to £40, two in family, six servants; also second Laundress wanted; under Housemaid, four Generals, Kitchenmaids, and five other Cooks, wages from £14 to £22.—Moody's Registry Office, Alton, Hants. Send stamped envelope.

THE question whether students in the great universities should be permitted to proceed to a degree without an examination in Greek is just now being keenly debated in educational circles in England. There may be room for difference of opinion as to whether the particular degree of Bachelor of Arts should be so conferred. This is mainly a question of the technical meaning to be attached in the future to that degree. But it is hard to see how any one, not an educational fossil, can put any obstacle in the way of a student completing a University course, without Greek or Latin either for that matter, and receiving a diploma indicating the work he has done. It is surely time it had come to be seen that the chief function, the very reason-to-be, of the modern University is to encourage, stimulate and aid educational effort along all lines. The spirit of the times demands the broadest opportunities for the higher education of the greatest possible number.

ONE of the natural results of basing the Entrance Examinations in Literature upon a certain number of selected lessons is that teachers are tempted to confine their drill to these lessons, neglecting the rest of the Reader. Consequently, the examination is based upon what the children have been drilled upon again and again, and is no fair test either of their mastery of the whole work, or of their intelligence or originality of thought. A good way of avoiding this fault is, it appears to us, suggested by a "Circular to Teachers," touching the Uniform and Promotion Examinations, issued by Inspector Brown of Dundas Co., a copy of which is before us. This circular announces that the examination in November next will be based upon two lessons—one from a list of eleven lessons which is given—and one exclusive of these, selected from the first 148 pages of the Third Reader. By this simple and fair method, it is made necessary that the whole 148 pages be carefully read and studied. Would not the adoption of a similar plan for Entrance be a decided improvement?

Primary Department.

SUGGESTIONS.

ARNOLD ALCOTT.

"KLING-A-LING-A-LING."

The little hand-bell calls to lines at five minutes to nine o'clock. Now all the pupils are about the centre part of the yard. On the next stroke of the bell every scholar stands still, just wherever he happens to be. The next stroke is the signal for all to march straight to their respective places. Every line is taken special charge of by its own "captain," who gives the command "front-form." This is yard lining.

"Will you tell me how you manage your pupils when they come into the cloak-room?" said a teacher to me. "Certainly," I replied. "My scholars enter the cloak-room in single file, and every pupil has his or her own clothes-peg. No pupil passes ahead but each must wait until the one in front has hung up all his things. The first clothes-peg is farthest away from the door by which the pupils enter. Then number one marches down the other side of the cloak-room, and stands just beside the door by which the scholars enter. And so on, until all the boys are extended on one side of the cloak-room. Next the girls enter. And as each girl removes her things she stands beside her clothes-peg and so the girls are extended on the side of the ante-room opposite to that occupied by the boys. Then the teacher or the "captain" gives the command, "quick march," and as there are two doors in our cloak-room opening into the school-room the boys march out through one door, and the girls through the other, down opposite sides of the room. The scholars as they come to their places take a right turn or a left turn and so the boys and the girls, standing on opposite sides of the room, are now facing each other. Then is a good time to note the white collars and the blackened boots. Next the "captains" give the commands to turn, and to quick march, and the pupils march to and take their seats, immediately assuming position, which is, in my room, the hands clasped and placed on the top of the desk. Sometimes the marching is accompanied by whistling by the boys, and laa-ing by the girls, and sometimes we have a humming accompaniment."

"And do you really tell me that in a little ante-room sixty or more pupils will stand quietly?" "Certainly, will you come in to see them for yourself?" I asked. "It is quite interesting because as I have long curtains on my cloak-room doors the pupils cannot be seen until they come marching out, and once the question was asked, 'Where are all your scholars?'"

WRITTEN WORK.

"Something new in slate work, did you say, Miss Forward?"

"If you please."

"Yes, I have a plan which exercises the scholars in reading silently, in writing, in composition and in expressive reading.

The "elections" over, one of my boys brought me a number of cards with "Your vote and influence requested." The familiar

phraseology set me thinking somewhat on this line:—What influence may these cards have? To what use can I put them? I thought and thought but somehow nothing new presented itself. And as the work came pressing on I forgot about my cards. A day or two later, I surprised the folks at home by saying, "It's settled."

"What?" said one.

"Oh, about using my cards," I said.

The idea was this:—On the blank side I would write work which was to be done by the pupils on the slates, and every card would point out different work, so that no two pupils would be doing the same work.

Let me tell you what some of the cards said:—

1. Write ten lines on "A Monkey."
2. Tell a story about our room.
3. A Boy and a Cat. Write a story.
4. Write your full name and where you live.
5. What lesson do you like best?
6. Write the name of six streets on which the cars run.
7. Write a letter to your teacher.
8. Name four kinds of fish.
9. Name five animals.
10. Write ten names of boys.
11. Write a "gem."
12. Write a story telling what you would like best to be.

OBJECT LESSONS FOR FEBRUARY.

RHODA LEE.

DID you ever realize in its entirety the value of a good beginning? In connection with other matters the thought may have impressed you but in teaching, in all probability, the middle and end engrossed so much of your attention that beginnings were neglected or at least overlooked. There is nothing like an impressive beginning to insure attention and interest, provided there be not too great a disparity between the introduction and what follows.

I have in my mind at this instant a teacher of long ago who possessed just this faculty of starting aright. Whether the secret of her success lay in herself, in the pause and quiet survey which always preceded a lesson, or in what she said, I have never been able to decide, but at all events the most lazily indifferent and uninterested scholar in the class was generally surprised into an attitude of respectful attention, if not decided interest, before many words had been spoken. It may be only a bright little word of praise, a nod of encouragement, a suggestion of something new, or a look that predicts something interesting to you, but they will all, without fail, bring additional success and interest to your lesson.

In object lessons I always try to contrive to make a beginning more than ordinarily interesting, as it helps very materially, the pleasure and profit of the half-hour.

As subjects for this week, I would mention, 1st. WOOL; 2nd. BREAD. My suggestions will, however, be confined to one of these. After placing on each desk a small piece of common yarn—some bright color is preferable—commence the lesson by taking your scholars in imagination to a beautiful clover meadow, in the corner of which stands a clump of shady trees, some

are sure to have been there and will be eager to tell you so. But proceeding, picture next the sheep lying in the cool shadow of the trees during the hot noontide. Their wool though not now like the "driven snow," is nevertheless white, but not very long nor bushy. Why? The children will be able to tell you, and may be able also to describe the shearing that took place by the stream just on the other side of the willows.

Stating the fact that the wool now before them was once shorn from one of these useful animals, proceed to examine by every means possible the object in hand. The methods of procedure have been so often discussed in these columns that we scarcely need to refer to them.

In closing trace the various processes through which the wool passes ere it is ready for use in the half-finished mitten that perhaps lies on your table ready for illustration.

As memory verses in close connection with the lesson the children might repeat William Blake's quaint, old-fashioned verses:

THE LAMB.

Little lamb, who made thee?
Dost thou know who made thee?
Gave thee life and bade thee feed
By the stream and o'er the mead;
Gave thee clothing of delight,
Softest clothing, woolly, bright;
Gave thee such a tender voice,
Making all the vales rejoice?
Little lamb, who made thee?
Dost thou know who made thee?

Little lamb I'll tell thee,
Little lamb I'll tell thee,
He is called by thy name,
For He calls himself a lamb.
He is meek and he is mild,
He became a little child,
I a child, and thou a lamb,
We are called by His name.
Little lamb of God bless thee!
Little lamb, God bless thee!

* Special Papers. *

* MANUAL TRAINING.

BY W. H. HUSTON, M.A.

MANUAL Training is a term very general in its application. Strictly speaking, it includes all those departments of training and instruction that have as their object the training of the muscles of the hand, and (using the term more generally) of the arm and leg, and in fact the whole body—for the successful performance of any act. The category of manual training subjects extends, therefore, from the playing of scales on the piano-forte, or the manipulation (if the word may be used in this sense) of the pedals of an organ, to the dressing of a fowl or the garnishing of a calf's head for an elaborate dinner. Penmanship and plowing, drawing and digging, painting (in the fine arts) and the papering of the walls of a house; carpentry, blacksmithing, wood-carving, knitting, sewing, embroidery, lace-making and every description of ladies' fancy work, are comprised by the term. It would have been well had the fact that the term is widely inclusive been always remembered. The advocates of the Manual

* Read before the Ontario Teachers' Association at its thirtieth Annual Convention at Niagara-on-the-Lake, August, 1890.

Training—the extremists who can see no good in any ideals of education other than their own, have done much to injure their cause by assuming that their system of workshop training has the principal right to be called *Manual Training*, and, in fact, that no other department of manual activity—such as agriculture—has any right to the name; although, strange to say, they have spent much time in the endeavor to prove that the Manual Training school—*i.e.*, the new *Manual Training* school, should receive the credit of all the advantages derived from the study of drawing; this, too, in spite of the fact that, as everyone knows, drawing was on the school programme long before the workshop was thought of as an educational adjunct.

It is right, too, for the *opponents* of Manual Training—in its newer and more specialized sense—to remember that, in reality, the introduction of the work of the shop, or the elements of needlework or cooking, does not imply any change in educational principles. The teaching of drawing, of penmanship and of the bayonet exercise, can be regarded in no different way from that of the hammer, the saw or the turning-lathe. Were this fact kept in mind, there would be far less outcry against Manual Training than has occurred. Whether the principle of hand-training be right or wrong, we are already committed to it, and the question, this afternoon, is not whether Manual Training shall be taught, but rather to what extent it shall be taught, and whether we shall go so far as to teach that department of it which, by degrees, is attracting to itself the name Manual Training, *i.e.*, work in the shop.

I purpose, very briefly, to outline the advantage of shopwork as a subject of school study, and to indicate the extent to which it can safely be adopted. In limiting myself to shop-work I would beg leave to say that it would be a great pleasure for me to see introduced into our schools some other department of work in the interest of our girls and young women. A thorough course in needlework—in the widest acceptance of the term, and of cooking, and general housekeeping, culminating in interior decoration and house-furnishing, would, I am sure, be of the utmost gain to our girls, and would render it less necessary for parents wishing to give their girls a really good education, to take them away from our High Schools, where unfortunately, in spite of the strong determination of the teachers, everything is sacrificed to the interests of those who intend to enter the teaching profession. Were some such course instituted, far fewer of our girls would be attending schools outside the national system.

But the thought of this paper is concerned with the workshop. And, in stating what I consider valid reasons for the introduction of shop-work, I would by way of preliminary say that my own heart was won over to the department by its wonderful uplifting influence on neglected boys in that grandest of educational institutions in this Province, the Industrial School at Mimico. For four years it was my privilege to see very much of the wonderful transformation accomplished in the Victoria Industrial School. So surprising were the results that

I was led to conclude that the boys in that school are really more fortunate in some regards than their brothers in the ordinary city school. I perceived more and more clearly the educative influence of the carpentry, tailoring, farming and baking, till at last I became firmly persuaded that our boys and girls would everywhere learn more and learn better were they daily to give a part of their time to such work. It was with this persuasion that I consented to accept my present position in Woodstock College, which had committed itself to the establishment of a Manual Training Course. During the past year I have been a very careful observer of the effect of the work on our students at the college. It has been my good fortune to work among the boys, to see them taught, and to note in a quiet but very careful way their progress. I am bound to say that my estimate of the value of the course has continuously grown. There have, I think, been minor mistakes, but they are inevitable in what is new and will not occur next year. All in all, most excellent results have been obtained.

But some may argue at the very outset that, whether the results are good or not, it is not the business of the State to teach a trade. We hear too much nowadays in ridicule of "bread and butter" theories of education; for after all we cannot well get along without at least a little of the despised article. Say what we may, the first duty of a school is to put the child in the way of living, of living leisurely and enjoyably if possible, but at any rate of living. On what other ground is the boy taught spelling and figuring, the lad penmanship, the young man law or medicine, if it be not to put him in the way of living? For while it stands true that the best way to teach how to live may be not to deal in the school with the identical things that will surround the student in his later life, but to choose a course that may by discipline strengthen the mind, still, if such a course does not eventually render him capable of living, enjoying life and profiting from life, it has failed in its object.

For my own part I can never give the first place in an educational system to anything save the humanities. The study of literature, ancient and modern, the coming into contact with beautiful and ennobling thought, and the endeavor to cultivate the faculty of noble thinking and right living, must always, it seems to me, be the first and chief part of any system that rises above the beggarly elements. The training of the hand must ever fall below that of the mind which directs the hand, and the training of the intellectual faculties must in turn yield the first place to that of the emotions. Yet we must remember that certain studies must be taught because of the value of the skill acquired or information gained in their pursuit. In every system of education the work must be suited to the needs of the children. What a change would take place in our Public School programmes were it to become the general thing for our boys and girls to take a High School Course!

And as to teaching a trade, even if Manual Training really means the teaching of a trade, it is too late for the educationists of Ontario to object. It is now impossible to

turn back from the educational plow (at Guelph or anywhere else). We have already decided that it is right and wise to teach trades, or professions if you will, for there is no difference. Witness the new Department of Law in the University of Toronto, in which lectures are delivered at public expense on a purely technical subject. Should it be objected that these lectures have a general educative value, the same cannot be said of the Microscopy, or Midwifery of the Medical Department of the same University. Are young men not taught a trade when they are daily instructed how to cauterize a wound, to cultivate bacteria or cut a leg off short? Nor can it be argued that it is to the interest of the State to have good lawyers and good doctors. For if doctors, then horse-doctors, and much more dentists; if artists, then architects, then builders and carpenters; if mineralogists, then smelters and blacksmiths. The truth is that the State can do anything it wants to do, and if it desires to train a carpenter as well as an engineer; a barber, or butcher, or dentist, as well as a surgeon, who can find fault? And, apart from the rightness or wrongness of the principle, we are in Ontario firmly committed to trade teaching.

And why should the fact that a study proves directly useful in after life not be an argument in its favor rather than against it? And a training in shop-work does indeed put one into a position of power by its very practicalness. Who has not at times wondered in his heart whether he has not been imposed upon in the purchase of a book-case, or in the charges for a tile drain? Were our public men more experienced in the ordinary everyday things of life we should have better pavements, better sanitary arrangements, and better everything; while rogues and scoundrels would have less facility in overcharging for inferior work. The boy that takes a thorough course in shopwork is able when he leaves school to give an intelligent order to a mechanic, builder or architect, explain it by a drawing if necessary, and to feel himself at the same time able to defend himself against poor workmanship and poor material. It is not, after all, very strange that amongst the Jews every boy learned a trade, the thought being that it was a good thing to fall back on, and serve as a protection against unscrupulous men.

But manual training does not make a tradesman. While it is certainly true that a boy who takes a four-years' course in carpentry, wood-carving and turning, forging, machine-work and general construction will rapidly learn a trade, still this can be no more an objection than might be urged against the teaching of arithmetic on the ground that it is useful to the clerk in the dry goods store. However, the strong claim of Manual Training to recognition as a school subject, to a place on the school programme is based on its educative and disciplinary value.

For in the first place it trains the hand and eye and other physical faculties. Since we are physical creatures this is a very desirable thing. "A sound mind in a sound body" does not imply merely brawny muscles and well developed chest—the world is running wild to-day over athletics

—but it much more implies, it seems to me, an eye trained to notice and to distinguish, and a hand capable of doing just what is needed.

But shopwork trains and disciplines the mind as well as the hand. When I say this I am conscious that it daily grows more difficult to distinguish between what is mental and what is physical, for every physical act is to some extent a mental act, and is not only brain-effected but also brain-affecting. A person engaged all the time in one simple monotonous act is not liable to be possessed of the brain power that belongs to the person whose occupation leads him to vary the character of his daily toil. This is probably the reason that the playground is so valuable educationally, not perhaps so much that the brain is rested by the change as that by the variety of exercise it is fed and strengthened—altered in its arrangement and material.

Moreover, apart entirely from this, the workshop is one of the best places to train in habits of order, neatness and method. The bench, the chest of tools, the tools themselves, the material used and the machinery, all afford easy and unfailing opportunities for the teacher to foster the habits mentioned. To keep things in their places and to take exactly the right steps in performing an operation can be acquired in a workshop better perhaps than anywhere else. The very tangibility or materialism of the things used makes it possible for a student to arrange and re-arrange, and thus of his own self to correct, improve and perfect much better than in dealing with abstract things, which he cannot so well keep in view.

And again, I have noticed that thoroughness can be better taught in the workshop than almost anywhere else. It is so easy to make a mistake, and it is so visible when made that students become very careful, especially when they know that imperfect work is absolutely refused. The perseverance and watchfulness thus developed are most desirable qualities in a lad; and boys that have been given up as worthless in ordinary school work have, by their success in the shop, been encouraged to take an interest in this work.

Moreover, there is a sense of power begotten in dealing with substances so easily altered and shaped as wood, red-hot iron and molten lead; and the boy is at the same time brought into contact with the most ordinary things and learns to take an interest in them. Thus all things become new. The car wheel is examined to see whether it is made of metal or paper, the bridge to discover the nature of its support, the bookcase to learn the way it is jointed, and so with everything. The boy is taught to sympathize with the great busy world around him, and what is even more important retains that curiosity, that spirit of investigation which is so characteristic of the child in those younger days when it learns so much, but which I am afraid is often destroyed by the routine of our schools.

Of still more importance is the training imparted in planning and creating. In all Manual Training Schools the student is required to make a drawing to a scale of the object he wishes to construct, and then to

work from it. In original work, there must first be in his mind a general conception of what he wants, then comes the thought of the exact form and size, then follow measurements and calculations, and then the drawing is made and worked to. I know of no more valuable training than this, but lack of time prevents further dwelling upon this point.

In connection with the mental value of a course in shop-work, I would direct attention to two things: 1st. That in this, as in everything else, boys may be improperly taught; hence the necessity of putting the work in the hands of teachers of experience, and not in the hands of mere mechanics or machinists, no matter how skilful they may be. At Woodstock we are fortunate to have on our staff men who naturally take to mechanical work. This last year three of the teachers were engaged in teaching in the shop, and we are arranging for teaching help from others of the staff. Thus and thus only will it be possible to make our course valuable educationally. 2nd. That in addition to the mental advantages already enumerated as resulting from workshop practice, there is this to be kept well in mind: the workshop should be regarded in its educational relations more as a mathematical and physical laboratory than as anything else. This has not always been kept sufficiently in view by the advocates of this branch of school work. It is, however, being more and more recognized as its chief function. It can be easily seen how wide a scope is offered for the application and explanation of mathematical forms and principles, and for experiment in physics.

But most important of all is the moral effect of a course in shop-work. It has been urged against our schools that they alienate the affections of our young people from the farm and workshop; and while this alienation has perhaps been over-rated, I am myself aware of boys who have entered school hoping to get a training that would the better fit them for farm life, who have lost their first love as they have proceeded with their work. No boy can for four years undergo a course of training in a shop and all it implies and fail to learn to regard manual labor as most honorable.

It was my intention to outline a course of work from the Kindergarten to the University, but this I cannot do for fear of proving burdensome. Suffice it to say that well-planned and carefully graded courses are now provided in the schools in which the work is taught. Of necessity some time must be spent in learning how to use and care for the ordinary tools of a carpenter. With us the object is to make the boy discover for himself these things. Then a graded course of exercises is followed out, intended to give skill in the use of tools, a knowledge of the properties of wood, and the most advantageous way of utilizing material. After the ordinary carpentering comes wood-turning, then more advanced work in carpentry, then wood-carving, blacksmithing, casting, machine work and construction of machines and engines, illustrating the departments of mathematics and physical science.

The question is often asked to what extent can the system be used in our public

and high schools. While experience seems to show that a boy younger than twelve years cannot profitably begin the use of tools, there should be in every public school a bench or two with as many complete sets of tools. Now that a really good kit may be procured for \$20 or less, there should be no difficulty in securing these. The older boys might profitably use them and follow out the plan of work generally adopted. An hour a day will accomplish wonderful results. In the junior classes preparation should be made for tool work. The Kindergarten, clay modelling and drawing will give sufficient work, and will, if carefully taught, lead right up to the use of tools.

In the High School it is not too much to hope for a complete workshop with twenty or thirty kits of tools and an instructor capable of teaching the work. Any teacher who is of a practical turn can, in a few months, acquire skill and knowledge enough to teach the carpentry, and a special course during the summer vacation in a machine shop or in a factory alongside a good workman will enable him to acquire sufficient skill as a wood-turner, or carver, or blacksmith, to warrant him in adding any of these departments to the course. An hour a day, or even every other day, is all that is necessary to make the course profitable.

In the University the shop-work will grow into the study of machinery, the enquiry into the heating power of fuels, the expansive power of vapors, the generation and storage of electricity, the study of architecture, the application of chemistry to the various industries; in fact there is no limit to the development of the work from the beginnings already made in the School of Science and the physical laboratories of Toronto University. As yet, however, it is impossible to outline what such a course should be, and we must be content to hope that it will not be long before the same unanimity in regard to the advanced course may be found as now exists with reference to the work in its earlier stages.

* English. *

THE MEMORIZING OF LITERATURE.

ALL modern systems of education show a very marked and prominent tendency, the tendency to cultivate inquiry rather than faith, to depend upon reason rather than memory. No one realizes the change that has come over education in this respect more than the teacher of to-day, who is able to contrast his own methods with those under which he himself grew up. How often, when two or three of us talk together of old school-days and old school-books, do old studies recur to our minds, and lo! from the dim recesses of memory steals forth many a list of prepositions and conjunctions, pronouns personal and adjectives distributive. Queer grammatical train, how we smile over the quaint gait and antique forms! Peace to the ashes of such knowledge and such teaching.

Yet in acknowledging that the memory has been sadly abused in past systems, we by no means acknowledge that memory has no true part to play in education. And here we do not mean memory in the broad sense of the term as the hand-maid of foreign languages, mathematics, science. In all such subjects every teacher knows that a retentive memory is the first requisite of a successful scholar that failure is assured to the pupil whose alleged brain is a sieve without a bottom. We mean memory in a narrower sense, when it is used simply as a store-house for things which have no particular

bearing on school work, and of which we make no immediate use. Is such employment of memory justifiable? Is it in fault?

There is, we believe, no part of true education of greater importance than the memorizing of passages from our best authors. In the development of the pupil's vocabulary it is of very great value. No wonder great writers such as Scott and Macaulay memorized so much; no wonder John Bright regularly, year by year, learnt by heart some one of our longer English poems. And a boy, by a little exercise of memory, can lift himself above the vulgarisms and barbarisms of daily conversation, and become more or less master of the language, forms, and constructions of our great writers. As he continues to memorize, his own diction will become tinged and suffused and finally transmuted. He will have a perfect standard of speech in the memory of the words of great men, and that great blessing—the consciousness of his ability to speak before men without being ashamed.

But important as is the memorizing of literature from its influence in the development of speech power, it is still more important in its influence over thought. Every teacher should treasure the reference to teaching made by Carlyle in his *Sartor Resartus*, in which he says: "How can an inanimate, mechanical Gerund-grinder . . . foster the growth of anything; much more of Mind, which grows . . . like a spirit, by mysterious contact of Spirit; Thought kindling itself at the fire of living thought." And if thought is to kindle at the fire of thought, how can we do better than to see that the great thoughts of our race treasured up by our great writers, shall be brought into close contact with the ardent mind of pupils. Thought has a strange reproductive power. Plant a great idea in your mind; let it stay, even uncared for; and lo! when you return it has sent out shoots in all directions.

The influence of literature on the formation of character is a fact beyond dispute. Unconsciously the reader is led to sympathize with the feelings, and to think the thoughts of the writer in whose books he is absorbed. Little by little the nobility or baseness of the writing makes itself a home in the boy's receptive mind. Why should we not by permanently establishing ideals of gentleness and courage and courtesy in his memory, do something to mould his character after higher rules of action than he could deduce from the actions of average society.

A good memory is a blessing or a curse. Like a rich field it is ready to bring forth weeds or wheat. We therefore hold that every teacher of English has a great duty to perform, that of storing the memory of his pupils with some of the noble things nobly said of our English literature. The more abundantly the boy takes these in, the more abundantly he will reap, as years go by, in a firmer grasp of truth, in a wider range of feeling, thought and expression, in a finer taste for what is true and good in literature and in life.

A LESSON IN POETRY.

BY M. F. LIBBY, B.A., OF THE PARKDALE COLLEGIATE INSTITUTE.
THE EVENING WIND.

SPIRIT that breathest through my lattice, thou

That cool'st the twilight of the sultry day,
Gratefully flows thy freshness round my brow.

Thou hast been out upon the deep at play,
Riding all day the wild blue waves till now,
Roughening their crests and scattering high
their spray,

And swelling the white sail. I welcome thee
To the scorched land, thou wanderer of the sea.

Nor I alone, a thousand bosoms round

Inhale thee in the fullness of delight,

And languid forms rise up and pulses bound,

Livelier at coming of the wind of night.

And, languishing to hear thy grateful sound,
Lies the vast inland stretched beyond the sight.

Go forth into the gathering shade, go forth,
God's blessing breathed upon the fainting earth

Go rock the little wood-bird in his nest,

And the still waters bright with stars, and rouse
The wide old wood from his majestic rest,

Summoning from the innumerable boughs
The strange deep harmonies that haunt his breast.

Pleasant shall be thy way where meekly bows
The shutting flower and darkling waters pass,

And where the o'ershadowing branches sweep the
grass.

The faint old man shall lean his silver head

To feel thee, thou shalt kiss the child asleep,

And dry the moistened curls that overspread

His temples, while his breathing grows more
deep.

And they who stand about the sick man's bed

Shall joy to listen to thy distant sweep,

And softly part his curtains to allow

Thy visit grateful to his burning brow.

Go, but the circle of eternal change

Which is the life of nature, shall restore,

With sounds and scents from all thy mighty range,
Thee to thy birthplace of the deep once more.

Sweet odors in the sea-air, sweet and strange,
Shall tell the home-sick mariner of the shore,

And listening to thy murmurs he shall dream

He hears the rustling leaves and running stream.

—Bryant.

THE LESSON.

In the following attempt to illustrate the application of the minute method of criticism, it is to be understood that the lesson is not quite photographic but somewhat idealized. Every teacher knows that when a question is too difficult it must be simplified, and that when it is too comprehensive it must be broken up; moreover, probably some of the answers would have to be suggested pretty plainly to average pupils. Nevertheless, the following catechism is meant to show as nearly as possible the work of a master with a junior form, and it is hoped that there is no material departure from the truth in the representation of the method and its working.

Imagine, then, that in the regular work of a form reading for the primary examination the poem, "The Evening Wind," comes up for consideration; the poem is assigned for the "next day's work," and the pupils will be expected to have read it through carefully and to have memorized the first stanza. The next day arrives and the master takes charge of the class. The Readers are closed and a pupil is called upon to recite the first stanza; this he does after a fashion, but no great care is taken to see that he recites well, as the memorizing before study is only to insure familiarity with the work. As soon as the master is convinced that all have done the home-work assigned, books are opened again and the lesson proceeds somewhat as follows. (M. represents the master and P. the average pupil).

M.—"What seems to you to be the general drift of this poem?"

P.—(possibly after several inferior efforts)—"It seems to be written to make people recognize the benefits they get from the evening wind."

M.—"Tell me, in a few words, the line of thought followed by the poet."

P.—He represents the wind as a good spirit who comes from the sea at sunset, cools and refreshes all persons and things that have suffered from the heat of the day, and then returns to the sea in the morning bearing sweet messages from land to voyagers on the deep."

M.—"Suggest a title for this poem which would be suggestive of the line of thought."

P.—"The Evening Wind and its Mission of Kindness."

M.—"Suggest titles for the different stanzas as if they were separate short poems."

P.—"First stanza—'The poet welcomes the evening wind.' Second stanza—'Thousands welcome the evening wind as heartily as the poet.' Third stanza—'Suffering humanity are especially glad of the coming of the evening wind.' Fourth stanza—'Nature also rejoices at the coming of the evening wind.' Fifth stanza—'The wind returns to the sea.'"

M.—"Tell me in a few words the substance of the first stanza."

P.—"The poet addresses the evening wind, calling it a spirit, and declaring that he is grateful for a cool sea-breeze after a hot and enervating day."

M.—"What can we learn of the scene in which the poet places himself by considering the words of the first stanza?"

P.—"Such expressions as 'through my lattice,' 'twilight of the sultry day,' 'round my brow,' may suggest a mental picture of the poet sitting at the window of some cottage by the sea at the close of a hot day; the wind from the ocean is blowing through his hair, and he feels refreshed."

M.—"Why does he speak of the wind as a spirit?"

P.—"Because poets like to make intangible things seem vivid and of definite shape; because spirits are messengers of good and evil because a spirit has many qualities in common with ourselves, and to attribute these to the wind is to make us take more interest in it." (Other suggestions will be given.)

M.—"Does the poet keep up this notion of a spirit in speaking of the wind? If so, point out words in which the notion is expressed or implied."

P.—"Breathest, 'thou,' 'at play,' 'riding,' 'wanderer,' in the first stanza, and others in the following stanzas."

M.—"Why does Bryant use but one comparison for the evening wind, whereas Shelley uses about thirty in his study of the cloud?"

P.—"Bryant insists upon the regularity and constancy of the evening wind, while Shelley insists upon the ceaseless variations of the cloud; the one is represented as of a sober and beneficent character, while the other is fickle and airy, gay and grave by turns."

M.—"Point out expressions in the poem that harmonize with 'sultry day,' and show that the poet kept the idea of sultriness clearly before him."

P.—"Scorched land, 'languid forms,' 'fainting earth,' 'faint old man,' 'moistened curls.'"

M.—"What does a poet gain by such harmony or consistency of description?"

P.—"His work is more impressive because the parts all tend to produce a single and natural picture; his work seems life-like and real."

M.—"Gratefully, in the third line, seems to be used in an uncommon sense, doesn't it?"

P.—"Grateful usually means feeling gratitude, but poets sometimes use it in the sense of exciting gratitude. 'Gratefully' is here used in the poetic sense."

M.—"Isn't one consonant rather conspicuous in the third line? Is this accidental?"

P.—"It would seem that 'f' sounds and the 'l' and 'r' sounds (liquids) of this line harmonize well with the idea of waves succeeding one another; it may be unintentional, our language is full of beautiful harmonies of sound and sense, but poets have the greatest faculty for devising such harmonies."

M.—"Is there anything especially suitable about the choice of the name 'deep' for the sea?"

P.—"It suggests that the vast depth of the water would ensure the coolness of itself and of the wind playing on its surface."

M.—"What mental picture do you get from lines 4, 5 and 6?"

P.—"The picture in nature is of waves in the solitudes of the ocean swelling and ridged with white-caps; but the poet adds to this a playful spirit careering upon the waves, which in turn become horses with tossed manes."

M.—"Why does Bryant mention the fact that the wind swells the sails of the ships?"

P.—"His general purpose in this poem is to represent the wind as helpful and useful rather than as airy and playful, hence he corrects the impression of lines 4, 5 and 6 by adding that the wind, though fond of sport, helps the merchant and sailor even while it frolics. In the last lines of Stanza V. he recurs to this view, intimating that the wind, which has been on its mission of kindness all night, returns to sea in the morning only to continue its beneficence, and returns not weaker by its efforts, but with 'sounds and scents' gathered in its work, with 'sweet odors, sweet and strange.'"

M.—"What is the origin of our word 'welcome'?"

P.—"It is compounded of *well* and *come*, and here its parts have all their original significance."

M.—"What is a 'wanderer' in its original sense?"

P.—"It means *one who (er) keeps on (er) going (wend)* and is a very appropriate epithet to apply to the wind." (The bell rings, and the second stanza is assigned for the next lesson.)

I have not attempted to exhaust the first stanza even, but I hope I have shown that there is endless material in the simplest poem for literary culture, and that minute reading has nothing to do with grammar questions or any other form of educational dust and ashes; moreover, it can hardly be urged that this method "pulls the flower to pieces" in any unpleasant sense: we examine the flower closely, even microscopically, but tenderly and sympathetically.

"Questions and Answers" in next number.

* Mathematics. *

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

MODERN METHODS IN GEOMETRY.

THE following proofs will be of interest to our readers; the figures are simple and easily drawn, and are therefore omitted here:

If two triangles have one angle of the first equal to one angle of the second, then the areas of the two triangles are proportional to the rectangles contained by the sides of each that include the equal angles.

PROOF.—Superimpose the equal angles, and let ABC and ADE be the two triangles having the common angle A. Suppose DE falls within ABC so that D is in AB and E in AC.

Join BE. Then ABC and ABE have the same altitude, having the common vertex B and their bases on the same straight line.

∴ ABC : ABE = AC : AE, for triangles of equal altitude are proportional to their bases, Euc. VI. 1. Also

ABE : ADE = AB : AD. Multiply these ratios and cancel out ABE and we have

$$ABC : ADE = AB \cdot AC : AD \cdot AE. \quad \text{Q.E.D.}$$

The areas of similar triangles are to each other as the squares of their homologous sides. Euc. VI. 19.

PROOF.—Let ABC and DEF be similar triangles. Since the angle B = E, then by the preceding proposition

ABC : DEF = AB · BC : DE · EF, or, expressed fractionally,

$$\frac{ABC}{DEF} = \frac{AB \cdot BC}{DE \cdot EF} = \frac{AB}{DE} \times \frac{BC}{EF}$$

But $\frac{AB}{DE} = \frac{BC}{EF}$, since the triangles ABC, DEF are similar.

Substitute in the above equation and we get

$$\frac{ABC}{DEF} = \frac{BC}{EF} \times \frac{BC}{EF} = \frac{BC^2}{EF^2}. \quad \text{And similarly for}$$

any other two homologous sides. Q.E.D.

CORRESPONDENCE.

SIR,—The article on "Euclid's Sequence," in your issue of November 1st, strongly condemns educational authorities for clinging so obstinately to Euclid's text in preference to modern methods in elementary geometry. There is much to be said against Euclid's treatise, but, with all its faults, I doubt if we have anything fit to take its place. The few modern works on the subject that I have seen are decided failures from a logical point of view. One of the latest, by Prof. Dupuis, a Canadian author, may be taken as a specimen, as it has received great praise from the advocates of modern methods. In this work we find the demonstrations considerably shortened, but the whole thing is a burlesque on logic and helps to confirm the opinion of the majority that for mathematical reasoning the old Greek geometer still holds the fort.

In the first few sections the author takes for granted what Euclid proves in propositions 9, 10, 11, 12, 20, 31, etc., of the first book, and at page 63 he abandons all demonstration and establishes his theorems by simply stating them. The only demonstration worthy of the name which he gives of the propositions of Euclid's second book is indeed a marvel of brevity. One short line is all. "They may be all proved most readily by superposition of areas." He might as well have said, "For proofs see Euclid's second book." It is true he asserts in the preceding sentence, but nowhere proves, that these theorems are but "geometric interpretations of well-known algebraic identities." Every schoolboy knows that geometric relations cannot be expressed by algebraic symbols, for as the author had said on page 108, "the quantitative symbols of algebra denote numbers," and lines and areas cannot be denoted by numbers. The learned professor has therefore simplified the second book by abolishing it.

The proof of theor., 152°.3, (page 105), which seems to be fundamental in the theory of rectangles, is a very curious piece of reasoning. He undertakes to show that $\square AC$ is equal to the product of AB and AD, meaning, I suppose, the product of the numbers of unit-lengths in AB and AD. But, by hypothesis, there is no unit-length that will measure both AB and AD, consequently these lines can have no product. Yet, strange to say, this non-existent, inconceivable and impossible product is exactly equal to a real surface. What he really proves is that $\square AC$ is *not* equal to the product of AB and AE, which requires no proof, for the rectangle is not equal to any product in which AB is a factor.

On page 61, as already intimated, the author begins a style of reasoning which is certainly unique. The "principle of continuity" serves the purpose of shortening many a complicated demonstration, but it is needless to tell any intelligent reader that to state a theorem and declare that its truth has been arrived at by some process called "continuity," is an entirely different thing from proving it. To show how clearly defined this principle of continuity was in the author's mind, it will suffice to give his definition of it:

"When a figure which involves or illustrates some geometric property can undergo change, however small, in any of its parts or in their relations without violating the conditions upon which the property depends, then the property is *continuous* while the figure undergoes any amount of change of the same kind within the range of possibility."

What makes this "principle" so effective in the author's hands is the ease with which he can efface the conditions upon which, to ordinary minds, some geometric property would seem to depend. For instance, in 106° (page 64) after proving the first case of Euclid's prop. 20, Book III., he states the limiting conditions to be only an angle at the centre and one at the circumference, and concludes that wherever these are found upon the same arc the former is double of the latter. I should think that if the limiting conditions were only an angle at the centre and an angle at the circle, and since these exist in the first case, there would be no second case. But I fancy there are several limiting conditions besides the two stated; for instance, (1) the angle at the centre and the one at the circumference are on the same side of the common chord AB, (2) the angle at the centre is less, or at least not greater, than 180°, (3) the angle at the centre lies within the chords containing the angle at the circumference. In the second and third cases these limiting conditions are violated, and the reasoning in case 1. does not apply. On page 67, his proof that a tangent (whatever that is) cannot touch a circle in two points, depends upon the fact that P *represents* a double point—another puzzle to the average reader. Nor is anything gained by the use of the undefinable term "represents" for the demonstration referred to (94°) proves only in the case in which the three points are real points. On page 69 I find that, if a pupil already knows that a line joining the centres of intersecting circles is perpendicular to the common chord, we have only to sound this euphonious polysyllable in his ears to convince him that if the circles do not intersect, the common centre-line must pass through the point of contact, even if there be no contact. Here we should expect the limiting conditions would require at least two intersecting circles and a common chord, but it seems we can abolish the intersection and the chord without violating these conditions, so that the property of bisecting the non-existent chord still remains, and we are supposed to take it as self-evident that the middle point of a chord that does not exist is equivalent to a point of contact. As some of the most important propositions relating to the circle are, in this book, either assumed without proof or "proved" by this "principle of continuity," I think it would be a great mistake to substitute Section V., Part I. for Euclid's third book, and I have already shown that Section IV. Part II. is, if possible, worse as a substitute for the second book.

The reasoning in Part III., which treats of proportion and similar rectilinear figures, is on a par with that of the sections above referred to, but this letter is already too long. Yours, etc.,

R. S. T.

ALBERTA, N.-W.T., Dec. 9, 1890.

CAN you recommend a text-book on Arithmetic which will cover the course required for the Junior Leaving (?) Examinations?—E. T.

ANS.—It is not quite possible to recommend such a book. None of the authorized books are as difficult as the paper set last summer, and the new High School Arithmetic by Mr. Glashan, though in many respects a piece of excellent work, does not exactly meet the requirements. On the whole McLellan and Kirkland's Problems and Girdlestone's Arithmetic seem to be the best books for II. Class work. There is an element of unfairness in the examination in that it is made a little higher and wider than any text-book extant on the subject.

SOLUTIONS.

67. By E. C. WIGHT, Maxville.

A has to gain $4 \times 1\frac{1}{2}$ miles to overtake B, and he gains 1 mile each hour, ∴ A will take 5 hours and walk 20 miles to overtake B.

68. By E.C.W. Slow train runs $3\frac{1}{2} \times 25 = 80$ miles in 3 hours 12'. Fast train gains 12 miles per hour, *i.e.*, it gains 80 miles in 6 hours 40', and overtakes the slow train at 10.52 o'clock p.m. Again, fast train runs $6\frac{2}{3}$ hrs. @ 37 miles per hour = 246 $\frac{2}{3}$ miles.

G. SILVER and C. DALEY, Sutton, sent elegant solutions of No. 69—Pub. Sch. Arith., p. 146, No. 27. If space were not at such a high premium we should be glad to reproduce the work of these two clever pupils.

PROBLEMS FOR SOLUTION.

70. By N.E.D. P. S. Arithmetic, Ex. XXXVII. Quest. 15: "Find the L.C.M. of 1 sq. l. and 1 sq. ft."

71. P. S. Arithmetic, Ex. LXV. Quest. 26: "I bought 50 yds. of calico, part at 13c. the yd. and the remainder at 18c. the yd., and paid \$7.62 for the whole. How many yards did I buy at each price?—READER.

No. 72. By NEMO. I have a board whose surface contains 49 $\frac{3}{4}$ sq. feet; the board is $1\frac{1}{2}$ inches thick and I wish to make a cubical box of it. Required the length of one of its equal sides.

73. A carpenter has a plank 1 foot wide, 22 $\frac{3}{4}$ feet long and 2 $\frac{1}{2}$ inches thick; and he wishes to make a box whose width shall be twice its height and whose length shall be twice its width. Required the contents of the box.

74. If I borrow \$35,000, and in twenty years it be liquidated by paying 7 $\frac{1}{2}$ % on the whole amount yearly, what rate % do I really pay?

ALEX. H. D. ROSS; M.A., Almonte, sends a number of solutions which will appear shortly. Several other valued correspondents have promised assistance, and the omens seem to prognosticate a successful and profitable year. To all our friends, new and old, we return sincere thanks for timely aid. Enthusiasm is its own best reward.

* Hints and Helps. *

CANADIAN HISTORY.

BEBE.

MEN'S thoughts were turning towards the Municipal elections and that my little men and women might not miss the opportunity for learning something, I produced my two green-covered pamphlets and read to them a few names, at which they looked wise or merry, till I knew they would enjoy ever so much having the little books, called "List of Voters," in their own hands. So one went with the girls and the other with the boys, and the pages were investigated with an interest that augured well for the coming lesson.

It came next day and the first questions elicited the following information, that the voters must be men, (I confined our remarks to "Persons entitled to vote at both Municipal Elections and Elections to the Legislative Assembly") owners, land holder's sons, or tenants, and that each must be twenty-one years of age. The class understood the term *vote*, for the scholars are sometimes called upon to vote upon certain questions concerning their own government. In imagination we journeyed through the neighborhood, and made flying visits to severa

sections adjoining ours ; then down on the black-board below *vote* and *voter* went *ward*. The list told us there were five wards in our *Township* or *Municipality*. All agreed that such a number of people required some controlling body to superintend certain affairs for them ; for though each voter might be capable of attending to his farm or to his store, yet there were bridges to be built, roads to be gravelled, culverts to be put in, hills to be cut down, etc., which were for the common weal.

Someone volunteered the name of this body—*Township Council*, and as the village at which it met could be seen on a clear day, and as several pupils eagerly named men belonging to it and many hands testified to their owner's having seen those very men, it was settled that the council was no myth. There was no need of my telling these important pupils that a meeting required a chairman, so they told me, and soon *Reeve* was being written on the black-board, but the *Deputy-Reeve* required some consideration before we could put him down. The name of Council had paved the way for *Councillors* ; and the class offered some very good remarks in the search after the duties of these officers.

Then came the great questions, "How and when are the members of the Council appointed?" In answering these the pupils required much help, but by degrees they learned that the *voters* in each *ward* voted at one place in each ward called the *poll* or *polling place*, on the first Monday of each New Year. The method of voting became suddenly necessary to one boy's happiness, so there came *ballots* (oh for a real ballot ; an imitation does not at all satisfy) and *ballot-boxes* and scrutineers. Suddenly it dawned on Flora that this stirring Monday must be *Election Day*, and we had to take that information in the midst of the *count* and the ascertaining of the *majority* for the *elect*.

I discovered that it was an excellent subject to draw out the ideas of the girls and boys.

During the holidays matter was to be gathered for a lesson upon "Nomination Day and the Results of the Election."

Either lesson furnishes a fitting occasion upon which to impress the pupil with the power which the possession of a vote implies. He must be taught that it is contemptible and dishonorable for a man to sell his vote or to buy that of another ; and that a man should listen, observe and read that he may know for whom and for what he is going to vote.

A friend, early in the past year, held a Nomination Day in her school-room, at which Reeves, Deputy-Reeves and Councillors were nominated. The election followed, the pupils being the voters. The ballots were written, the electors made their crosses, rolled up their ballots and dropped them into the boxes in the presence of the scrutineers, a pair of maidens. An edict from Miss Teacher legalized Woman Suffrage. The Council held power one month.

The lesson certainly was practical, and the Council may have rendered good service.

AVOID EXTREMES.

ONE other error I will name, and that is the *tendency of carrying the concrete too far*. It was seen years ago that the mind could be aided in the study of numbers by the use of objects ; and now some extremists, who do not seem to know the difference between a stick and a number, hold that all arithmetic must be taught with objects. One teacher says he would never allow a pupil to do any work in arithmetic, not even solve a problem in "long division," without having it illustrated with objects. Another teacher holds that every process in fractions must be illustrated with lines or squares or bits of paper, for in no other way can the pupil understand the subject. Another teacher, who lacks the ability to illustrate with tooth-picks that two times three are six, denies the fact, and says that two times three are only three. And still another, who cannot make the principles of numbers correspond with his operations with sticks and splints, questions the arithmetic which Newton and La Place thought to be correct, and reaches the astounding proposition that $12 \div 4 + 3 = 15$! With such absurdities as these coming from those who set themselves up as exponents of the New Education, is it any wonder that we are often disappointed in the practical results of some of the methods which have been introduced under the supposition

that they were an essential part of a new and improved system of instruction?—Dr. Edward Brooks.

TALKING SHOP.

DON'T talk "shop." When at your boarding place avoid in all possible, gentlemanly ways, talk about your school, your pupils, or yourself as a teacher. It is not the fault of teachers that they so often show their profession, but the fault of other people who act as though a teacher couldn't talk about anything else. The public is curious to know about the school. The teacher has many amusing incidents in school. Some boy has given a stupid answer, or some girl has shown herself to be a silly child. People know that the teacher is full of the witty or stupid sayings of the children, and lead to the telling of them, and laugh merrily. But a laugh is frequently deceitful, and these same people go away and say, "You might know he was a school-master, for he is always talking shop."

It should be a matter of honor with a teacher never to speak of anything that transpires in the schoolroom. It is a point of honor with a physician to hold as a sacred trust everything revealed to him in the course of his practice. If he should "talk shop" and entertain his friends with the silly, stupid things that he sees and knows in his office and sick-room practice, he would be decidedly interesting, but the result to him would be anything but interesting. The same is true of the lawyer and of some clergymen—it should be of all. Now the teacher should regard every mistake and blunder of the schoolroom as a sacred trust never to be revealed except professionally. A physician, lawyer, or clergyman who "talks shop" is a weakling with few patients, clients or hearers. Every community has some cheap specimen of each of these professions who always "talks shop," and makes people ashamed to have anything to do with him professionally. Let teachers place their profession in the front rank by placing themselves with those physicians, lawyers and clergymen, who never talk shop, who never abuse the privileges of their professional life by revealing its secrets.—*Journal of Education*.

MISTAKES IN SCHOOL MANAGEMENT.

1. It is a serious mistake to neglect the details of school government.
2. It is a serious mistake to omit thorough yard supervision during recess.
3. It is a great blunder to stand too near a class.
4. It is a mistake productive of deceit and misrepresentation to have pupils report at the close of the day as to their conduct during the day, whispering, etc. (Ask your pupils their honest opinion as to their reports and practices.)
5. It is a mistake to censure each trifling error too severely.
6. It is a mistake to complain or grumble much.
7. It is a mistake to allow pupils to help each other.
8. It is a mistake for a teacher to be tardy and then punish her pupils for being tardy.
9. It is a mistake to sit very much while teaching.
10. It is wrong to give a command when a suggestion will do instead.
11. It is a mistake to make spiteful remarks before the school about notes received from parents.
12. It is a mistake for the teacher to act in such a manner that the pupils will be impudent to her during the recitation.
13. It is a mistake to show temper in dealing with parents.—*Colorado School Journal*.

PRINCIPLES OF GOOD MANAGEMENT.

No school can be well taught if not managed.

Never make anything pertaining to management an end of itself.

No work is likely to be well done if it is not well planned.

A teacher's example weighs more than his words.

Make no law, grant or refuse no request, give no reproof, till you have thought about the matter.

When you have once taken your position, stick to it.

If, however, you see you have made a mistake confess and rectify your mistake like a man.

One who keeps busy about right things has no time for mischief.

Be more anxious to prevent wrong-doing than to punish it.

Often make a friend of a wayward pupil by getting him to do you a service.

Seek always the good of your pupils, let good to yourself be incidental.

Never punish in anger.—*Exchange*.

For Friday Afternoon.

TOMMY'S RIDE.

THE crackers cracked ; the guns went bang ;
Folks shouted : and the bells they rang ;
All hearts were full of joy and pride,
When Tommy took his famous ride.

It wasn't in a big balloon
That he sailed up to meet the moon ;
But all the money in his pocket
He spent upon a single rocket.

He planted it against the wall,
And there it towered, slim and tall ;
Then silly Tommy—such a trick !—
Must tie himself fast to the stick.

Whiz ! went the rocket in the air ;
The people stopped to wildly stare ;
The dogs they barked with all their might,
But Tommy was soon out of sight.

The old man in the moon looked out
To see what it was all about ;
Said he to Tommy, "Is that you ?
Come in and see me,—how d'ye do ?"

Away went Tommy, fast and far ;
He tried to catch a pretty star ;
He saw the clouds go sailing by,
Like boats of pearl along the sky.

But soon he slower went, and then—
Down, down, he fell to earth again !
Down, down :—the old man in the moon
Said, "Call again some afternoon."

Down, down : sweet faces o'er him beam :
How lucky this was all a dream !
Safe in his little crib he lay ;
And it was Independence Day.

—*George Cooper, in Children's Museum.*

THE GRUMBLER.

FIRST PUPIL—HIS YOUTH.

HIS cap was too thick, and his coat was too thin ;
He couldn't be quiet : he hated a din ;
He hated to write, and he hated to read ;
He was certainly very much injured indeed !
He must study and toil over work he detested ;
His parents were strict, and he never was rested ;
He knew he was wretched as wretched could be,
There was no one so wretchedly wretched as he.

SECOND PUPIL—HIS MANHOOD.

His farm was too small, his taxes too big ;
He was selfish and lazy, and cross as a pig ;
His wife was too silly, his children too rude,
And just because he was uncommonly good !
He hadn't got money enough and to spare ;
He had nothing at all fit to eat or to wear ;
He knew he was wretched as wretched could be,
There was no one so wretchedly wretched as he.

TOGETHER—HIS OLD AGE.

He finds he has sorrows more deep than his fears :
He grumbles to think he has grumbled for years ;
He grumbles to think he has grumbled away
His home and his children ; his life's little day :
But alas ! 'tis too late ! it is no use to say
That his eyes are too dim, and his hair is too gray :
He knows he is wretched as wretched can be,
There is no one no wretchedly wretched as he.

—*Selected.*

The Educational Journal.

Published Semi-monthly.

A JOURNAL DEVOTED TO LITERATURE, SCIENCE, ART
AND THE ADVANCEMENT OF THE TEACHING
PROFESSION IN CANADA.

J. E. WELLS, M.A. - - - - - Editor.

Terms:—One dollar and fifty cents per annum, payable strictly in advance. Clubs of three, \$4.25; clubs of five, \$6.75. Larger clubs, in associations, sent through association officials, \$1.25.

Individual members, subscribing at a different time from that of the formation of the Club, may send their subscriptions to this office. Their orders will be taken at club rates.

New subscriptions may begin at any time. Payment, when by mail, should be made by post-office order or registered letter. Money sent in unregistered letters will be at the risk of the senders.

In case it may be necessary to make change, please send it in two-cent stamps.

The date at the right of the name on the address-label shows to what date the subscription is paid. The change of this date to a later one is a receipt for remittance.

Renewals of all subscriptions should be made promptly.

Subscribers addressing the office on any business will, in all cases, please give the names of the post-offices to which their papers are being sent at the time of writing.

Rates of advertising will be sent on application.

Business communications should be addressed to the publishers; those relating to matter for insertion in the paper to the editor. These distinct matters should always be treated on separate sheets of paper.

NOTICE.

As many people, either thoughtlessly or carelessly take papers from the Post Office regularly for some time, and then notify the publishers that they do not wish to take them, thus subjecting the publishers to considerable loss, inasmuch as the papers are sent regularly to the addresses in good faith on the supposition that those removing them from the Post Office wish to receive them regularly, it is right that we should state what is the LAW in the matter.

1. Any person who regularly removes from the Post Office a periodical publication addressed to him, by so doing makes himself in law a subscriber to the paper, and is responsible to the publisher for its price until such time as all arrears are paid.

2. Refusing to take the paper from the Post Office, or requesting the Postmaster to return it, or notifying the publishers to discontinue sending it, does not stop the liability of the person who has been regularly receiving it, but this liability continues until all arrears are paid.

PUBLISHED BY

The Grip Printing and Publishing Co.

TORONTO, CANADA.

T. G. WILSON, - - - - - Manager.

* Editorials. *

TORONTO, FEBRUARY 2, 1891.

SCHOOL LAW AMENDMENTS.

ON Wednesday last a deputation of the Ontario Branch of the Dominion Trades Congress waited upon Premier Mowat and Hon. Richard Harcourt, to press upon the attention of the Government certain legislative reforms recommended by the Congress as being in the interests, not only of the wage-workers but of all the people of Ontario. Among these recommendations were the following in regard to the school laws:—

Resolved: That this Congress do petition the Ontario Legislature to so amend chap. 225, cited as "The Public Schools Act"—

(1) That the school age of compulsory attendance at school be changed to six to fourteen. (2) That the law be made more effectual by making it compulsory on municipalities in towns, cities and incorporated villages to appoint an officer to see that the law is carried out. (3) That all children attending school, whether Public or Separate, be provided with books free of charge. (4) That the constitution of school boards for cities, towns and incorporated villages be modelled after the system now in vogue in English boroughs, embracing the following features:—Election of trustees from the whole municipality at large by cumulative

voting, thereby doing away with the ward system, and securing a proper minority representation. (5) That it be compulsory on school boards to provide the necessary accommodation for all children. (6) That all elections for school trustees shall be by ballot, and that the election take place on the same day as the municipal election.

That the Legislative Committee of the Province of Ontario be and they are hereby instructed to urge upon the Government of the Province of Ontario to make the following changes in the Education Department thereof:—(1) That the present legislative grant to Public, Separate and High Schools be doubled, and that the municipal grant be at least equal to the legislative grant. (2) That in all municipalities outside of cities, towns and incorporated villages, school sections be as equally divided as possible (territorially) and a uniform rate be levied for school purposes in each of such municipalities, and the said school funds be equally divided among said section, regardless of the number of school children or school attendance in the section.

These different proposals, it will be seen, are, some of them, of great educational importance. They were discussed clause by clause and the views of the Government, so far as conclusions had been reached, were very frankly stated. The results, so far as they can be gathered from the *Globe* report, were briefly these:—

The present limits of school age specified in the clause of the School Act relating to compulsory attendance, viz., seven to thirteen, was deemed sufficient, as no doubt it is. Certainly no teacher would approve changing the *minimum* from seven to six.

The Minister of Education intends to make the changes necessary in the law in order to make the enforcement of the compulsory clauses obligatory and effective.

With regard to the question of providing the children with books free of charge, Mr. Mowat said that the Minister of Education was in favor of free text books, but he (Mr. Mowat) did not know if public opinion had advanced so far as that. It is to be regretted, we think, that the Premier's answer was not more definite on this point. It may well be doubted whether public opinion is sufficiently educated to make it wise to make a free-text book system compulsory, but surely no harm could come from making the matter optional with school boards in towns and cities. We are not without hope that the Legislature will so ordain, notwithstanding the hesitancy of the cautious Head of the Government.

The very important change involved in proposition 4 was discussed, and is to be taken into consideration. This was probably all that could be reasonably asked at present. There can be little doubt that the English borough system is very superior to the ward system, but so radical a change

requires time and discussion to prepare the minds of the people for a change which they will probably approve when fully considered. The fact that the city of Toronto has decided by a large majority to take a long step in the same direction, in the matter of civic administration, is a pretty good indication of the way in which the minds of the people are moving.

Having, no doubt, the fear of clerical supporters of the Separate Schools before his eyes, the Premier gave very little encouragement to the sixth recommendation, until it is more strongly desired by the ratepayers of these schools. The other proposals are to be taken into consideration. There ought not, one would suppose, to be much hesitation about the fifth.

The two recommendations embodied in the last paragraph are far too large to be pronounced upon off hand, though there is much to be said in their favor. They may be regarded as before the people of Ontario for consideration, and should be carefully weighed by all who are in any way connected with the work of public education.

The Dominion Trades Congress certainly deserves great credit for its intelligent attention to such questions, and its energetic efforts in behalf of the extension and liberalization of our school system.

THE INTEREST OF TEACHERS IN
UNIVERSITY "EXTENSION"
WORK.

IN our last issue we called our readers' attention to the nature and rapid development of this movement in England; our present aim is to supplement what was then said with a brief statement of the reasons why teachers of all grades should take an interest in the "extension" experiment about to be made in this country. Though the University of Toronto has not yet declared that it will at once undertake or recognize "extension" work, it is quite certain that it will do so at no distant date, and it is not too soon to ask teachers to consider what they are going to do about it.

Bearing in mind that University "extension" teaching is a very advanced kind of academical instruction, is in fact real "seminary" work, it is obvious that all teachers should aid in the establishment of "local centres," on the ground that everything promotive of popular culture deserves to be encouraged. There is at best too much philistinism abroad respecting education, and no better way of correcting this, and of diffusing more liberal views, can be devised than bringing the masses into direct and real touch with the great seats of learning. One who has attended an extension "course,"

passed a University examination at its close, and received a certificate of academic standing, is as really a member of his University as is an honor graduate. He never can look on culture in quite the same way as he would have regarded it had even this small amount of University training not come in his way. The larger the number who take such certificates, the more widespread the University influence will be for good, and it is not too much to hope that by this process the whole community will be leavened and liberalized. From the teachers' point of view this is, of course, a desideratum, for the more enlightened the community is on the average, the more likely is his work to be appreciated at its true value.

But, besides this indirect though not unimportant interest in the work, teachers are directly interested in it on account of the facilities it offers for their own self-culture. It is a melancholy truth that the isolated teacher is inclined to get into grooves and ruts, and that he finds it very difficult to keep himself abreast of the times. In a city, with daily papers to read, lectures to hear, scientific discussions to take part in, and a general ferment of fluctuating opinion to stimulate him, the cramping influence of the school-room is counteracted; but he who has no society from day to day but that of his pupils is apt either to come to a stand still in his own development, or to throw up an intrinsically noble calling in disgust. The teacher, above all others, needs guidance and encouragement in the work of self-culture. His ordinary routine is very exhausting both physically and mentally, and he is sure to give way to fatal lassitude if he does not come under the influence of some powerful stimulus of an intellectual or æsthetic kind. Such a stimulus the Universities can easily supply through the medium of "extension" work, and whenever or wherever it comes within his reach, the earnest teacher should make use of it as an antidote to the baneful effects of professional isolation.

In England "local centres" of "extension" work are established in all sorts of population centres, from London down to comparatively small towns and even villages. The one almost indispensable condition is that the place shall be easily accessible by rail, as the same lecturer generally takes a weekly circuit of several places. A town with half a dozen teachers in its schools will have quite as many within reach of it who are teaching in rural sections, and a dozen teachers would form a powerful nucleus of a "local centre" organization. The addition of a similar number of earnest members of the community who are not

teachers would make up a very respectable "class" for a course in History, Literature or Science. So far as the teacher is concerned it makes little difference what subject is chosen for the "course," so long as the lecturer is enthusiastic in presenting and competent in expounding it. Any subject can be made a useful means, not merely of general intellectual or æsthetic improvement, but also of pedagogical training, and the "extension" method, as developed in England, is full of pedagogical hints to the observant teacher.

Cambridge and Oxford Universities have for years shown more than a willingness to do actual professional work in connection with the extension movement. Classes of teachers have been formed for the purpose of taking educational courses, and those who persevere in such work may secure University recognition for it as for work of any other kind. So probably it will be in Canada. The University of Toronto, though a Provincial institution, has not as yet done anything in the way of recognizing Education as a University subject, but it might easily do this through the "extension" system. There are many cities and towns in Ontario where it should be possible to get together a class of from twenty to one hundred teachers to learn the history of education, to discuss methods of presenting different subjects, and even to get the benefit of each other's views on organization and discipline. A course of twelve lectures, accompanied by class-work and a final examination, along any one of these lines would do more than attending many district institutes to keep the teacher abreast of the march of pedagogical improvement.

One other point is worthy of notice in this connection. For many teachers the summer vacation is scarcely less monotonous than the ordinary school terms. In most cases a long trip, or a sojourn at a fashionable watering place, is beyond the teacher's means, but for a large proportion of them the modern summer resort of the Chautauqua type contains indefinite possibilities. At such places living can be had at little cost, and their aim is to furnish their patrons with the means of culture of a genuine, if not very thorough kind. One such resort has been doing for some seasons past real Educational work—the Niagara Assembly—and the management of that institution have already announced that "extension" work will form a prominent feature of next season's operations. One course of twenty hours will be given in Shakespeare's "Merchant of Venice," both the literary and the elocutionary sides of the play receiving attention. A similar course will be given in Tennyson's "Idylls

of the King," with some of his minor poems. A course of twelve lectures will be given in Canadian History, eight of these being devoted to the development of the constitution and the other four to its present form and mode of operation. A twelve-lecture course will be given in Economic Science, eight of the lectures being devoted to a systematic exposition of the great questions connected with the production and distribution of wealth, and the other four to the mechanism of exchange, with special reference to the history and practice of currency and banking in Canada. It is expected that the Provincial University will be ready and willing to grant recognition for work done in these and other courses, and certificates of successful standing can hardly fail to be useful to those teachers who secure them. It need hardly be pointed out that the "Merchant of Venice" is part of the work for the first C examination in 1892, and that one of the "Idylls of the King" is, with other poems by Tennyson, included in the work for second-class certificates at the same examination.

Book Notices, etc.

Cowham's Mulhauser Manual of Writing and Exercise Book. Prepared by J. H. Cowham, Master of Method, Westminster Training College. London: Joseph Hughes, Pilgrim Street, Ludgate Hill, E.C.

This useful practice book is the result of a study of the Script characters, reducing them to their simple elementary forms, and constructing an orderly and progressive arrangement of the whole alphabet on scientific principles. The practice is facilitated by means of rhomboidal ruling of the pages, and hints for guidance given in foot notes.

The *Detroit Journal Year Book* for 1891 is a very neat and pretty little book, embellished with very fine illustrations of educational and other public buildings of the State. It is also a mine of interesting and useful information on a great variety of topics.

WE have received the first number of *Canada*, a new comer into the field of Canadian journalism. It is edited by Rev. Matthew Richey Knight. The address given for communications is *Canada*, Benton, New Brunswick. This first number contains articles or poems, amongst others, from Charles G. D. Roberts, J. M. Lemoine, J. Hunter Duvar; Mary Barry Smith, etc. The main object of the journal, as announced, is "to create, where it is uncreated, and to foster and develop, where it exists, a spirit of Christian patriotism in Canada." Subsidiary to this are others, "We intend," says the editor, "to advocate the application of the principles of religion and righteousness to politics, literature and social life. We want to help in furnishing our own writers with a medium through which they can employ their talents at home. Our ambition is to produce a journal so cheap, so good and so interesting that it will win its way into almost every Canadian family and write on the hearts of old and young, 'For God and Canada!' We have already encouraging promises of assistance, and enter on our undertaking with strong faith and good hope."

Examination Papers.

UNIVERSITY OF TORONTO — ANNUAL EXAMINATIONS, 1890.

JUNIOR MATRICULATION.

ARTS.

CHEMISTRY.

HONORS.

Examiner—GRAHAM CHAMBERS, B.A., M.B.

NOTE.—Candidates for Honors or the Senior Leaving Examination will take any six of the eight questions.

I. (1) State the facts from which the following deductions have been made :

(a) That phosphorous is an element.

(b) That the atomic weight of phosphorous is 31.

(c) That its molecule in the gaseous state contains four atoms.

(d) That amorphous and yellow phosphorous are different modifications of the same element.

(2) Calculate the volume of gaseous phosphorous at 400 c.c. and 740 mm. Bar. given by 10 grams phosphorous.

II. (1) Describe experiments showing the relation by volume in which hydrogen unites with oxygen to form water. How can this relation be used to determine the amount of oxygen in the air?

(2) Calculate the volume of steam given by 100 c.c. of water at 4° c., the steam being measured in litres at 150° c. and 720 mm. Bar.

III. (1) Write an equation illustrating the formation of hydrogen sulphide from ferrous sulphide and hydrochloric acid.

(2) What products are formed by the combustion of hydrogen sulphide in air?

(3) How many c.c. of oxygen are required for the combustion of 100 c.c. of hydrogen sulphide?

IV. (1) When hydrochloric acid and manganese dioxide are treated in a test tube, a gas is evolved. What gas? Give an equation.

(2) How would you demonstrate the physical properties of the gas?

(3) Describe, illustrating by equations, what chemical and physical changes take place when the gas is conducted into the following solutions :

(a) Solution of potassium iodide.

(b) Solution of hydrogen sulphide.

(c) Solution of ferrous chloride.

(d) Solution of vegetable coloring matter.

V. Describe the experiments by which you would demonstrate the volumetric composition of ammonia gas.

VI. A solution is known to contain a salt of lead, iron, arsenic, or antimony. How would you determine most simply which it contains?

VII. Give an account of the chemistry of sodium. Illustrate its relations to the other members of the alkali group.

VIII. Describe experiments showing how you would detect :

(a) Mercuric chloride in a sample of mercurous chloride.

(b) Zinc sulphate in a sample of magnesium sulphate.

(c) Potassium iodide and potassium bromide in a sample of potassium chloride.

(d) Ferrous chloride in a sample of ferric chloride.

(e) Arsenious acid in a sample of hydrochloric acid.

ZOOLOGY.

Examiner—J. J. MACKENZIE, B.A.

NOTE.—Honor candidates and candidates for the Senior Leaving Examination must answer the first three questions and any one of the last three. Candidates for Scholarships must answer the questions marked with an asterisk.

*1. Dissect out and draw the appendages in front of the great claws of the form submitted.

*2. How does respiration take place in this animal? Compare its respiration with that in the insects.

*3. Describe fully the stomach of this animal. Illustrate its structure by diagrammatic drawings.

4. Point out briefly the modifications in the skeletons of birds in adaptation to the power of flight.

5. Explain what is meant by metamorphosis in the animal kingdom. Illustrate by reference to the insecta and vertebrata.

*6. Make a diagrammatic drawing to illustrate the circulation of the blood in a typical fish. Point out how it differs from the circulation of a frog.

HAMILTON PUBLIC SCHOOLS.—PROMOTION EXAMINATIONS.

DECEMBER, 1890.

ARITHMETIC.

GRADE 5.

Values—14 and 15 each and 5 for neatness—89.

1. To build a mile of a certain railway costs \$3,579. What would 1,009 miles of such a railway cost?

2. A pole is 3 yards 2 feet 7 inches long; the distance between two houses is 27 times the length of this pole. How far are the houses apart?

3. A piece of tape $35\frac{3}{4}$ inches long is cut into pieces $2\frac{3}{4}$ inches long. How many of these pieces will there be?

4. A yard of cloth costs nine-tenths of a dollar. How much will seven and a half yards cost?

5. How many inches are there in seven-ninths of a yard?

How many seconds are there in 23 thirtieths of a minute?

How many pints are there in $\frac{3}{8}$ of a gallon?

6. If a locomotive can go 8 miles in one-fifth of an hour, how many miles can it go in one hour and a half.

GRADE 6.

1. Express in words 96.79 and 87.06 and multiply these numbers together.

2. How many yards of cloth, worth \$3.97 a yard, can be bought for \$266, and how much money will be left?

3. A pole is 3 yards 2 feet 7 inches long: the distance between two houses is 37 times the length of this pole. How far are the houses apart?

4. What are the prime factors of any number? Find the prime factors of 72, 105, 114.

5. Three planks measuring respectively 12 feet, 16 feet and 20 feet in length were cut into the largest possible pieces of equal length. What was the length of each piece, and how many pieces were there?

6. A farmer sells to a grocer 19 dozen eggs at 18 cents a dozen, 47 pounds of lard at 13 cents a lb., and 117 pounds of beef at 8 cents a lb., and takes in exchange 7 pounds of tea at 55 cents a lb., 9 pounds of coffee at 35 cents a lb., a set of dishes worth \$7.50, and the balance in cash. How much cash is due him?

GRADE 7.

1. Find the interest on \$367 for $4\frac{1}{2}$ years at 6 per cent.

Find also the amount.

2. How much will \$968.75 amount to in 73 days at 7 per cent.

3. A person borrows \$1,795 on the 19th of September and pays it back on the 1st of December; how much interest must he pay at 9 per cent.?

4. If a barrel of flour weighing 196 pounds is bought for \$4.90, and sold at the rate of 3 cents a pound, what per cent. is gained?

5. If an agent sells 25 sewing machines at \$40 each, and receives a commission of $1\frac{3}{4}$ per cent. besides his expenses which are \$50, how much does the owner receive from the sale of the machines?

6. I have some paper which is 9 inches wide, some which is 12 inches wide, and some which is 15 inches wide, which I wish to cut into strips of equal width. What can be the greatest width of the strips so as to have no waste of the paper?

GRADE 8.

1. A rectangle is four feet long and three feet wide; explain clearly how you get the area to be 12 square feet.

2. There is a rectangular plot of ground 84 yards long and 75 yards wide. Running across this is a strip of grass 20 feet wide, and also another of the same width running lengthwise; what did it cost to sod these strips at 11 cents a square yard?

3. A box 16 inches long, 12 inches wide and 8 inches high (outside measurements) is made of boards an inch thick. How many pints of sand will the box hold if $34\frac{3}{4}$ cubic inches make a pint?

4. A coal bin is 10 feet square, find its depth in order that it may hold the least whole number of tons of either hard (35 cubic feet to the ton), or soft (42 feet to the ton) coal.

5. What length of wall 6 feet high and 2 feet thick can be built with 12 cords of stone?

6. Write down the following statement of six weeks' cash receipts; add the amounts vertically and horizontally, and prove the correctness of the work by adding your results:

	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Total.
1st.	\$28 79	\$34 71	\$35 33	\$30 10	\$27 97	\$47 81	
2nd.	23 87	30 78	29 38	33 84	26 77	48 77	
3rd.	16 99	27 09	28 69	30 16	24 95	43 07	
4th.	29 13	33 72	30 81	39 97	28 47	50 05	
5th.	18 47	32 29	26 73	34 45	28 78	45 93	
6th.	19 02	27 06	29 04	29 89	29 51	64 98	
Total							

GRADE 9.

1. A boy does not understand how two-thirds of four-fifths of anything is equal to eight-fifteenths of it. How would you explain it to him?

2. Why is it that every odd number is one-half of an even number?

3. What difference will it make in the measure of a distance whether a foot or a yard is taken as a unit of measurement?

4. The part of the Central Fair grounds which the City Council proposes to sell measures $2\frac{1}{2}$ inches by $1\frac{1}{4}$ inches on a map drawn to a scale of 300 feet to the inch. If the Board of Education reserves a school site 121 yards long and 80 yards wide, how many acres will be left to be sold?

5. What length of wall 6 feet high, and 2 feet thick can be built with 12 cords of stone?

6. Write down the following statement of six weeks' cash receipts; add the amounts vertically and horizontally, and prove the correctness of the work by adding your results:

For table see above.

GRAMMAR.

GRADE 5.

Values—16, 20, 12, 16, 18, and 5 for neatness—87

1. GIVE rules for spelling names to mean more than one (6).

Write the following names to mean more than one: gas, valley, pulley, monarch, scissors, deer, staff, calf, tomato, solo (10).

2. Use each of the following words in a statement—

(1) As the name of more than one;

(2) As an action-word that states what one does: stones, skates, rings, flies, shoes, (20).

3. Why do we add "s" or "es" to action-words? (4)

Write statements giving the different uses of the action-word (8).

4. Add er and est or prefix more and most to the following: dim, dry, sly, rosy, wet, wilful, active, gentle (16).

5. When do we add 's and when apostrophe only to denote possession?

Write the following names so as to mean more than one and denote possession: man, wife, fly, ox, bee, child, deer, cannon (16).

GRADE 6.

Values—6, 6, 8, 27, 5, 14, 14, and 5 for neatness—85.

1. What is a proper noun? Write a sentence containing a proper noun.
2. What is a pronoun? Write a sentence containing a pronoun.
3. What is a sentence? Name the different kinds of sentences. Give an example of each.
4. Write down the nouns and pronouns in the following :
You know, we French stormed Ratisbon ;
A mile or so away,
On a little mound, Napoleon
Stood on our storming day.
5. What is an action-word? What is a relation-word?
6. Write down the action-words and relation-words in the following :
Under a spreading chestnut tree the village smithy stands.
Children coming home from school look in at the open door.
7. Name the two parts of a sentence, and separate the following accordingly :
(a) The drifting snow falls silently (4).
(b) He spoke roughly (4).
(c) Matted and damp are the curls of gold (6).

GRADE 7.

Values—12, 15, 16, 12, 12, 5, 8, and 5 for neatness—85.

1. What may a preposition and its object modify? Give an example of each.
2. "In the same way, the beautiful asters of our woods, with their flowers of yellow or purplish disks, let their little fruits fly away from their heads as soon as ripe."
(a) Write down two phrases, each of which modifies a noun, and tell the noun it modifies.
(b) Write two phrases, each of which modifies a verb, and tell which verb it modifies.
3. Use each of these words as a noun and as a verb: light, charge, taste, walk.
Use each of these words as a noun and an adjective: dark, lost, Hamilton, iron.
4. What may an adverb modify? Give examples of each.
5. "It seemed so hard at first, mother, to leave the blessed sun,
And now it seems as hard to stay and yet
His will be done."
Tell the part of speech of each of these words: so, hard, now, and his, will.
6. Write each of these words so that it will denote possession: boys, fox, woman, ladies, children.
(a) Write a sentence in which a conjunction connects two phrases.
(b) Write a sentence in which a conjunction connects the same parts of speech used in the same way.

GRADE 8.

Values—12, 14, 12, 12, 30, and 5 for neatness—85.

1. Name the demonstrative pronouns, and give an example of the proper use of each.
2. Write both numbers of deer, staff, pailful, salmon, thanks, die, goods, man-servant, cactus, me, sister-in-law, talisman, it, Mr.
(a) Write sentences using each of the following words as a noun and as an adjective: skating, playing.
(b) Write sentences using each of the following words as a verb and as an adjective: painted, lost.
(c) Write sentences using each of the following words as an adverb and as a preposition: above, up.
4. If the proposition and the conjunction are both used to connect words, what is the difference between them? Give an example showing this difference.
5. What happened to it?
He watched the cloud-banner from the funnel of a running locomotive.
You have John's book.
(a) Tell the number, case and relation of each noun.
(b) Tell the kind, person, case and relation of each pronoun.

- (c) Tell the person, number and subject of each verb.
(d) Tell the relation of each preposition.

GRADE 9.

Values—8, 10, 8, 12, 10, 12, 8, 12, and 5 for neatness—85.

1. Change the voice of the verbs in the following sentences :
(a) Have the usual notices been given by the Secretary?
(b) He did much to promote the prosperity of the Province.
(c) The paper he sent us gave all the particulars.
(d) Man marks the earth with ruin.
2. Give all the inflections of lady, woman, happy, him and write.
3. Write sentences showing the correct use of "you and I," "him and me," "you and me," "look good."
4. Form adjectives from Greece, colony, circle, energy, sense; nouns from accede, deep, reluctant, protect, remember; adverbs from true, probable.
5. Give the present participle, the past participle, the 3rd sing. present and the 3rd sing. past of lead, go, get, rise, be.
6. Select the phrases in the following, and tell their grammatical value and relation.
(a) Ten thousand fleets sweep over thee in vain.
(b) Man marks the earth with ruin.
(c) From out thy slime the monsters of the deep are made.
(d) Nor doth remain a shadow of man's ravage.
7. Fill the blanks with the proper prepositions :
(a) He felt the need _____ warmer clothing.
(b) He accused me _____ having taken it.
(c) He let it fall _____ the mud.
(d) It looks different _____ what it did yesterday.
8. Parse: "He that died at Azan gave This to those who made his grave."

✻ Correspondence. ✻

THE SCIENCE OF EXAMINATIONS.

To the Editor of THE EDUCATIONAL JOURNAL:

SIR,—In your issue of January 1st J. S. C. discusses somewhat briefly "The Science of Examinations," and deploras the want of efficiency in this department. He apparently holds very exalted views on this subject, for he says, "I * * * will go at once to the main point in all educational matters—examinations." Now the present writer is free to confess that the "main point" in all his educational work—and he is not altogether a tyro in this matter—is *not* examinations, but rather the formation of correct habits, physical, mental, and moral, the acquisition of useful knowledge, and the practical application of the knowledge thus obtained to the affairs of every day life. There are not a few persons who talk very learnedly about examinations, and write somewhat vigorously against them, but the examinations they assail, and the examinations as they are actually conducted to-day, have very little resemblance to each other except in name. Others again protest in no set terms against "that system of over-cramming which in the present day is so destructive to the physical and mental well-being of the community." These writers seem to have drawn their inspiration from the schools of "long ago," for had they kept abreast of the educational methods of to-day, they would not be so anxious to demonstrate their own ignorance by the assumption of superior wisdom. It is always safe and generally prudent to assume that the court knows a little law, otherwise we are apt to find ourselves in the position of the plaintiff when the defendant has won the suit. Our Normal and Model school masters, as well as the inspectors and teachers in Public and High schools, have certainly learned something about examinations, over-cramming, *et hoc genus omne*, and in their weak way may be fighting these hydra-headed monsters to the death. Surely the lines have not fallen in pleasant places so far as teachers and examiners are concerned, for has not J. S. C. told us plainly regarding the science of examining, that he is in doubt "whether the first stone has as yet been laid

—its first axiom enunciated." This is really too bad. To think of the long years of toil and anxiety—not to say anything about close study and careful thought—that have been bestowed upon this matter, only to be told that "that present plans are utterly beside the mark, a moment's consideration will establish; and that a better can be readily supplied, is of equally facile demonstration," gives us but little consolation. He tells us that he can examine a third form, place the pupils in order of merit, and next day examine them again and give quite different results, from which he deduces the question, "Which is the proper method of examining?" The writer leans to the view that both ways are defective, or such results would not follow. I am afraid that J. S. C.'s methods of examination have not even the first stone laid in their foundation, and that his axioms have very little reason for their existence outside of his own imagination. Perhaps J. S. C. will enlighten the benighted members of the teaching profession by giving us his foundation principles and axiomatic truths, illustrating and expounding them so far as necessary to make his meaning clear to the mind of the average teacher. I feel quite confident the numerous readers of the EDUCATIONAL JOURNAL would be delighted to obtain any new and valuable information upon these points—over-cramming and the Science of Examination. Yours faithfully,

ORLANDO BROWN, Dominic.

School-Room Methods.

LANGUAGE.

FILL the blanks, using *who* or *whom*, *he* or *him*, *she* or *her*, *I* or *me*.

1. It is . . . who speaks to you.
2. Do you know . . . he thinks . . . is?
3. I know . . . he takes . . . to be.
4. I saw . . . he was.
5. The captain knows . . . to be the culprit.
6. . . . do men say that . . . am?
7. They know . . . they have believed.
8. It were better to be . . . than . . .
9. Will you allow . . . and . . . to sit together.
10. . . . or . . . am going to the city.
11. Who was struck? . . .
12. The teacher wants . . . and . . . to be careful.
13. Who ate the candy? It was . . . and . . .
14. It is, not . . . or . . . is wanted.
15. . . . do you take to be?
16. . . . does . . . think will be chosen.
17. He thinks that either . . . or . . . will be.
18. I consider . . . an honest man.
19. He told . . . he intended to employ.
20. It was . . . was seen.

—Central School Journal.

EXERCISES IN SPELLING AND DEFINITIONS.

SPELL the following words, and give two or more meanings to each, that bear little or no resemblance to each other.

- | | | |
|-----------|------------|----------------|
| 1. page | 8. ring | 15. porter |
| 2. palm | 9. season | 16. pupil |
| 3. pen | 10. strain | 17. refusal |
| 4. pine | 11. mine | 18. resolution |
| 5. pinion | 12. match | 19. swallow |
| 6. port | 13. march | 20. tender |
| 7. Moor | 14. light | |

Give synonyms for the following words. Spell each word and its synonym:—

- | | | |
|----------------|---------------|------------|
| 1. adjacent | 4. accomplish | 7. address |
| 2. achievement | 5. accurate | 8. angry |
| 3. abundant | 6. agile | 9. anguish |
| | 10. aim | |

Give homonyms for the following words:—

- | | | |
|------------|-----------|---------|
| 1. heir | 4. awl | 7. blue |
| 2. bough | 5. veil | 8. hear |
| 3. ceiling | 6. cane | 9. seer |
| | 10. peer. | |

—Popular Educator.

School-Room Methods.

(Continued).

A SUGGESTIVE TEMPERANCE LESSON.

COMPARATIVE MORTALITY TABLE.

(Compiled from the 45th Annual Report of the Registrar General for England.)

Occupation	Deaths
CLERGY & MINISTERS	556
FARMERS & GRAZERS	631
FARM LABOURERS	701
MALES, HEALTHY DISTRICTS	804
CARPENTERS	820
COAL MINERS	891
MASONS & BRICKLAYERS	969
ALL MALES (AVERAGE)	1000
PAINTERS &c	1202
BREWERS	1361
PUBLICANS	1521
PUBLIC HOUSES & HOTEL SERVANTS	2203

THE above table gives the average deaths of men between fifteen and sixty-five years of age, in various occupations, compared with all males in the country, as shown by the cross line. The annual mortality during the period covered by the report (1880-82), was 1,000 deaths per 64,641 males.

It will be seen from this table that even those occupations in which men are often badly fed, badly clothed, and badly housed, and exposed to accidents and bad air, yet show a lower death-rate than those connected with the liquor traffic.

The Registrar-General says: "The death-rate undoubtedly depends more upon the extent to which people are brought into contact with drink than upon anything else whatever. . . The mortality of men who are directly concerned in the liquor trade is simply appalling. That this terrible mortality is attributable to drink might be safely assumed *a priori*, but the figures in Table L. (Causes of Death), render it incontestable."

The above incontestable facts, gathered from the most reliable statistical sources, should be known to every intelligent citizen, young or old. But, putting the tables on the blackboard, and making the figures and their teachings clear, as they may easily be made even to quite young pupils, impressions may be made that will have a lasting influence in the promotion of future character and habits.

Question Drawer.

1. WHAT are the qualifications of a voter in the provincial elections?
2. Please state the best mode of ventilation for a country school-house, and explain. We are about to build.
3. Is there an arithmetic for Entrance work that my class can buy for not more than fifteen cents each? If so, please tell me where we can get it.
4. What further training and examination does a Normal graduate with a first non-professional certificate require to obtain first professional?
5. Can I get school books cheaper by sending to Gage & Co. than at the local book store?—COUNTRY SCHOOL.

[1. Ontario has virtually manhood suffrage, with certain residential qualifications. 2. See article in EDUCATIONAL JOURNAL, of Dec. 15th, page 232. Send also to Education Department for pamph-

let on "School Architecture." 3. We know of none. Perhaps some teacher can answer. 4. Sec. 126, "Regulations," provides that any holder of a first-class non-professional certificate, who attends a training institute one session . . . and passes the professional examination prescribed by the Education Department, shall be entitled to rank as a first-class teacher. 5. You had better write direct to the firm.]

1. WHICH is the better language course for a young lady to take in Arts—Latin, French, and German, or Latin and Greek?
2. Which would give her the better standing? or with which could she more easily secure a situation as High School Teacher?
3. In taking First C which is the better to take?
4. Is it possible for one already having a first-class professional but not having studied the languages, to pass junior matriculation with honors studying one year privately and one year at a good Collegiate Institute?—J. E. S.

[This young lady asks hard questions. It is impossible to give a categorical answer to any of them, seeing that so much depends on the aptitudes of the individual student. Probably, as a rule, the Modern Language Course is preferable, as the number of Greek pupils in the High Schools is, if we mistake not, comparatively few. This is as far as we can go in regard to questions 1, 2 and 3. In reply to 4, we should say "Yes, in the case of a fairly clever student." But the High School year should, we think, come first in order.]

1. Is the medical profession overdone in Ontario at present?
2. What is the outlook of salaries for High School teachers in the future?
3. Which is the best method to become a High School teacher, by taking a first class certificate or a University course?
4. I have a second-class certificate; what is necessary to pass the junior matriculation?
5. Will a first C be taken as a substitute for junior matriculation?
6. To whom must I apply to enter the Normal School next session?—D. B.

[1. The members of the profession will probably say "Yes." 2. Good teachers will usually command good salaries. 3. The University course by all means, if possible. 4. You can now matriculate by passing the H. S. Leaving Examinations. 5. No. 6. To the Principal. Write to him for blank form.]

1. CAN you give a reason for calling the pleasant weather in late autumn "Indian Summer"?

2. Can you give the dimensions of one or two of the largest ships now in use? Also the amount of cargo usually carried by them?

3. Is it probable that the model training of third-class teachers will be extended to a full year in the near future?—B. S.

1. The name is said by some to be derived from the custom of the Indians to use this time in laying in stores of food and otherwise preparing for winter. Others suppose it to be derived from some religious belief or custom of the Indians.
2. The largest ocean steamships now in use are of about 10,000 tons; length, say 580 ft; width, 57 ft; depth, 39 ft; load, about 3,000 tons coal and 4,000 tons cargo.
3. We have no means of knowing.]

PLEASE state which of the following men is legal trustee:
On Dec. 31st there were not any at the school meeting, and two ratepayers called

a meeting at 7.30 the following Wednesday, one trustee writing out one of the notices. This trustee wrote out other notices, signed by two other ratepayers, for a meeting to be held second Monday in Jan., at 10 a.m. At the first meeting A. B. was elected trustee, at the second C. D.

1. Was the meeting held at 7.30 p.m. legal?
2. What is the best way to settle the dispute?—PERPLEXITY.

[Probably neither election was legal on account of insufficient notice, and a new one will have to be held.]

Teachers and Students should attend the
GALT BUSINESS COLLEGE
— AND —
SHORTHAND INSTITUTE.

THE Galt Business College and Shorthand Institute re-opened in its new and commodious quarters on the 19th inst. under very favorable circumstances. A public meeting was held in the evening which was addressed by several ministers and prominent business men of the town. The Principal gave a brief sketch of the history of the school and of the work done, and referred with pleasure to the number of students parents present, which was to him a favorable comment on the instructions that had been given to their sons and daughters. The room that are now occupied by this school are about the most elegant, best ventilated and well lighted of any that we know of and we heartily congratulate the proprietor on his success in obtaining such accommodations for teaching the commercial branches of education.

Book-keeping, Penmanship, Arithmetic, Banking, Correspondence, Reporting, Shorthand, Typewriting.
No Classes—Individual Tuition—Low Rates.
For Circulars Address, PRINCIPAL.

THE OWEN
Electric Belt and Appliance Co'y.

(Head Office, Chicago, Ill.)

Incorporated June 17, with a Cash Capital of \$50,000.

(Patented in Canada, December, 1877.)

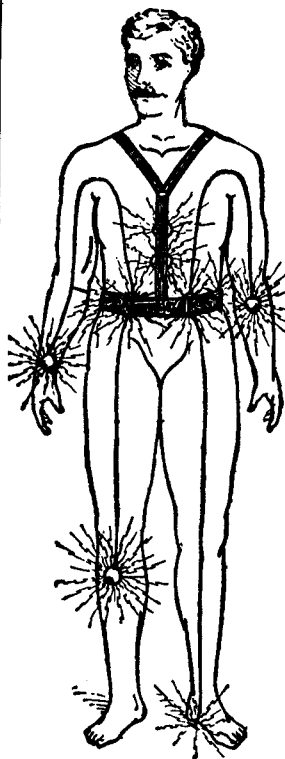
71 King St. W., Toronto, Canada.

C. C. PATTERSON, Manager for Canada.



Electricity as Applied by The Owen Electric Belt and Appliances

Is now recognized as the greatest boon offered to suffering humanity. It has, does and will effect cures in seemingly hopeless cases where every other known means has failed. Rheumatism cannot exist where it is properly applied. By its steady, soothing current, that is easily felt it is cure,



- Rheumatism
- Sciatica
- Spinal Diseases
- General Debility
- Neuralgia
- Lumbago
- Nervous Complaints
- Spermatorrhea
- Dyspepsia

- Liver Complaint
- Female Complaints
- Impotency
- Constipation
- Kidney Disease
- Varicocele
- Sexual Complaints
- Epilepsy or Fits
- Lame Back.

RHEUMATISM.

It is not pleasant to be compelled to refer to the indisputable fact that medical science has utterly failed to afford relief in rheumatic cases. We venture the assertion that although electricity has only been in use as a remedial agent for a few years, it has cured more cases of Rheumatism than all other means combined. Some of our leading physicians, recognizing this fact, are availing themselves of this most impotent of Nature's forces.

TO RESTORE MANHOOD AND WOMANHOOD.

As man has not yet discovered all of Nature's laws for right living, it follows that every one has committed more or less errors which have left visible blemishes. To erase these evidences of past errors, there is nothing to equal Electricity as applied by The Owen Electric Body Battery. Rest assured, any doctor who would try to accomplish this by any kind of drugs is practising a most dangerous form of charlatanism.

WE CHALLENGE THE WORLD

to show an Electric Belt where the current is under the control of the patient as completely as this. We can use the same belt on an infant that we would on a giant by simply reducing the number of cells. Other belts have been in the market for five or ten years longer, but to-day there are more Owen Belts manufactured and sold than any other makers combined.

ELECTRIC INSOLES. Dr. Owen's Electric Insoles will prevent Rheumatism and cure Chilblains and Cramps in the feet and legs. Price, \$1.00 sent by mail.

EXTRACTS FROM CANADIAN TESTIMONIALS.

"For eight years I have suffered with rheumatism, and am now out of pain and growing better daily and in my 75th year. Can confidently recommend the Owen Belt when everything else fails." A. Menzies, Niagara Falls.

"Having some knowledge of electricity and its power, and having used other belts prior to my use of yours, I can say that it is the best that I ever wore." Jas. Blair, Port Dalhousie.

"Am much pleased with belt; it has done me a great deal of good already." J. Sergerim, Galt, Ont.

"Saved my life when I had muscular rheumatism." Mrs. Caroll, West Market St.

"Your Electric Belt cured a violent attack of sciatic rheumatism of several months' standing, in eight days." Jas. Dixon, Sr., Grand Valley, Ont.

"Have been a sufferer for years from nervous headaches and neuralgia. After trying one of your belts am more than satisfied with it. Can knock out a headache now in fifteen minutes that used to keep me in bed for days." Thos. Gales, Crawford St., Toronto.

BEWARE OF IMITATIONS AND CHEAP BELTS.

Our attention having been attracted to base imitations of "The Owen Electric Belt," we desire to warn the public against purchasing these worthless productions put upon the market by unprincipled men who, calling Electric Belt that has stood the test of years and has a continental reputation.

Our Trade Mark is the portrait of Dr. A. Owen, embossed in gold upon every Belt and Appliance manufactured by the Owen Electric Belt and Appliance Co. None genuine without it. The cheap so-called Electric Belts advertised by some concerns are perfectly worthless as a curative power, and dear at any price. A genuine Electric Belt cannot be manufactured and sold at cheap prices. Send six cents for illustrated catalogue of information, testimonials, etc.

The Owen Electric Belt Co., 71 King St. West.

TORONTO.

Mention this paper.]

THE advertisement of Messrs. Vannevar & Co.'s well-known book house appears elsewhere. This house is noted for the prompt execution of all orders entrusted to it and deserves your patronage.

FOR Lung Diseases only those Emulsions which are scientifically prepared can expect to succeed. SLOCUM'S OXYGENIZED EMULSION OF PURE COD LIVER OIL, compounded at their manufactory in Toronto, Ont., has from the start, won a place in public confidence which surpasses any success achieved by a like preparation. It is handled by all druggists.

MODERN LANGUAGES.

THE Ingres-Coutellier School of Modern Languages was established about two years ago. It occupies one of the most commodious and handsome apartments in the city in the new Canada Life Building. Only French, German and Spanish is spoken, as English is strictly prohibited to the pupils. The school takes care that the pupils acquire a pure accent by employing only French and German native teachers.

The school has branches in nearly every large city of the Dominion. The Montreal school, situated in the magnificent Nordheimer Building, St. James' Street, is in charge of Mr. Ingres; the Toronto establishment is administered by Mr. Coutellier. Every two or three weeks Mr. Coutellier delivers French lectures in the Y.M.C.A. building, which, so far, have found approbation, the hall having been crowded in every instance. It would be too long to explain here the successful method taught in the Ingres-Coutellier schools. The only thing to say is that the pupils are improving with a marvellous rapidity, and after a relatively short time succeed in talking and understanding quite well the studied languages.

We can't close this paragraph without talking of a new thing the administration of the Ingres-Coutellier school established in Toronto for the great benefit of the Torontonians. Prof. Geo. Coutellier thought that it would be a capital thing for the people interested in the study of languages to have courses in French and German literature delivered by native professors; now every week at 8 o'clock p.m., on Tuesday for French and Wednesday for German, are delivered lectures on the beauties of the French and German literature. Professor Coutellier is taking charge of the French course, and the room is already too small to contain the numerous auditors. Any person can attend these lectures, paying 50 cents (40 cents for the pupils of the school) for admission, and special arrangements can be made for the whole term.

We can never sustain permanently that which we do not hold in respect, and only when the value and dignity of the affections are fully realised can their culture maintain the place which it really deserves.

GERMAN. FRENCH. SPANISH.

THE INGRES-COUTELLIER

School of Modern Languages

Natural Method by Native Teachers.

TORONTO: Canada Life Building. MONTREAL: Nordheimer Block, 207 St. James St.

DIFFERENT BRANCHES:

St. John, N.B.; Halifax, N.S.; Winnipeg, Man.; Brantford, Ont.; Kingston, Ont.; Ottawa, Ont.; Bangor, Me.; Calais, Me.; Yarmouh, N.S.; and other cities.

Office and Recitation Rooms in the Canada Life Building. At the next French literature course, Tuesday, Feb. 3rd, 8 o'clock, Prof. George Coutellier will talk about: Horace de Corneille. Admission—For pupils of the school 40c., for non pupils 50c. Special arrangements will be made for the whole term.

PROTESTANT BOARD
Of School Commissioners
FOR MONTREAL.

The Headmastership of the Boys' High School will be vacant at the close of the present session.

Applications for the position will be received by the undersigned up to 1st April next.

E. W. ARTHY, Secretary.

I took Cold,
I took Sick,
I TOOK
**SCOTT'S
EMULSION**

RESULT:
**I take My Meals,
I take My Rest,**
AND I AM VIGOROUS ENOUGH TO TAKE ANYTHING I CAN LAY MY HANDS ON; getting fat too, FOR Scott's Emulsion of Pure Cod Liver Oil and Hypophosphites of Lime and Soda NOT ONLY CURED MY Incipient Consumption BUT BUILT ME UP, AND IS NOW PUTTING **FLESH ON MY BONES** AT THE RATE OF A POUND A DAY. I TAKE IT JUST AS EASILY AS I DO MILK." Scott's Emulsion is put up only in Salmon color wrappers. Sold by all Druggists at 50c. and \$1.00.
SCOTT & BOWNE, Belleville.

Barker & Spence's Shorthand and Business School.

The Proprietor of "Barker's Shorthand School" and J. W. Spence, Esq., late of the College of Commerce, having entered into partnership, and added a Business Department, new and commodious premises have been taken at 133 King Street East, Toronto, over "Army and Navy," which have been thoroughly equipped for Shorthand, Typewriting, and general business instruction.

Depot for all kinds of Shorthand Books, Reporters' Note Books, Wirt's Fountain Pens, and agency for Shorthand Periodicals.

Circulars Sent Free.

THE HIGH SCHOOL
Drawing: Course

Authorized by the Minister of Education.

The course is now complete:

- No. 1—FREEHAND,
- No. 2—PRACTICAL GEOMETRY.
- No. 3—LINEAR PERSPECTIVE,
- No. 4—OBJECT DRAWING,
- No. 5—INDUSTRIAL DESIGN.

These books are all uniform in size and style, and constitute a complete uniform series. The same plan is followed through them all—the Text, the Problems, and opposite the Problems, in each case, the Exercises based upon them. The illustration is upon the same page with its own matter, and with the exercise, in every case, is a space for the student's work. Each copy, therefore, is a complete Text-book on its subject, and a Drawing Book as well, the paper on which the books are printed being first-class drawing paper. The student using these books, therefore, is not obliged to purchase and take care of a drawing book also. Moreover, Nos. 1, 4 and 5 are the only books on their subjects authorized by the Department. Therefore, if the student buys the full series, he will have a uniform, and not a mixed series, covering the whole subjects of the examinations, and edited by Mr. Arthur J. Reading, one of the best authorities in these subjects in this country, and recently Master in the School of Art.

Each book is in the direct line of the curriculum, and is authorized.

The examinations in High School Drawing will be set from the authorized books.

PRICE, ONLY 15c. PER BOOK.

Grip Printing & Publishing Co.
TORONTO.

FOR
SCHOOL SUPPLIES

Of Every Description

Address—

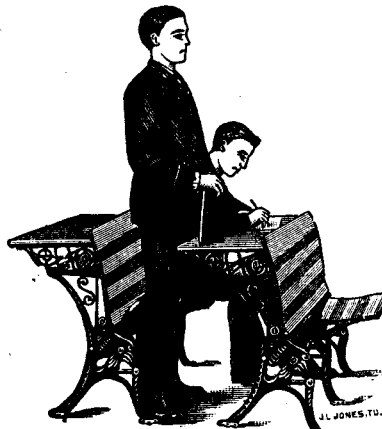
E. N. MOYER & CO.
60 Yonge St., TORONTO, ONT.

The Canadian Office and School Furniture
Company, Limited,

PRESTON, - ONTARIO.

Successors to W. STAHLSCHEMIDT & Co.

Manufacturers of Office, School, Church and Lodge Furniture.



THE "PERFECT AUTOMATIC" SCHOOL DESK.
The latest and best.

The School Desks of this Company cannot be excelled for Strength, Beauty of Design, Adaptability and Comfort to the Scholar. Send for Circulars.

FITS
EPILEPSY OR FALLING SICKNESS
in severe cases where other remedies have failed. My reason for sending a free bottle is: I want the medicine to be its own recommendation. It costs you nothing for a trial, and a radical cure is certain. Give Express and Post Office. Address:
CURED

H. G. ROOT M. C., 186 West Adelaide St. Toronto, Ont.

JAMES MURRAY & Co.
+ PRINTING, +
PAPER RULING
BOOKBINDING.

FIRST-CLASS BOOK, LAW,
COMMERCIAL AND
GENERAL JOB WORK.
26 & 28 FRONT ST WEST
TORONTO.

TEACHERS AND STUDENTS

When in need of Books will find it to their advantage to send their orders to us, as we have unusual facilities for prompt forwarding, and our prices are known to be of the lowest.

We Can Supply Any Book You Want.
VANNEVAR & CO. - Educational Booksellers.
440 Yonge Street. - TORONTO, ONT.

EVERY LIVE TEACHER
Must Have
ARMSTRONG'S
Arithmetical Problems.

This work has been prepared to supplement the present Public School Arithmetic. It contains over 800 problems. It has appended the Entrance Papers for the last ten years. It receives the approval of teachers and inspectors.

READ WHAT THEY SAY.

From J. C. LINKLATER, Esq., Principal M. S., Gananoque.

"Arithmetical Problems received a few days ago. I have examined the problems, and think they are admirably suited for the purpose intended. I am sure that teachers of senior classes will find them a great assistance."

From W. MACKINTOSH, Esq., Inspector, North Hastings.

"I have examined Arithmetical Problems and am satisfied of its suitability for the place for which it was designed. I have no doubt it will prove very useful."

From J. W. GARVIN, B.A., Principal M. S., Woodstock.

"Your book of Problems received. It will certainly be very helpful to teachers of Senior and Entrance pupils of our Public Schools. I shall recommend it to my teachers-in-training."

From J. C. MORGAN, M.A., Inspector, Barrie.

"I have no hesitation in saying that for the purpose for which it is intended, the work is infinitely the best with which I am acquainted. Its strong point, to my idea, is the logical sequence in the problems by which the pupil is almost insensibly led on step by step until he reaches quite a difficult style of question. The printer, too, has done his work very well, and there are but few typographical errors. I shall certainly recommend every teacher in my inspectorate to use a copy."

PRICE, Strongly Bound in Cloth, 25 Cts.

Address,

Grip Printing and Publishing Co.
28 FRONT ST. WEST, TORONTO.



The Cyclostyle Duplicating Apparatus—For Duplicating, Writing Drawing, Music or Typewriting

Two thousand exact copies from one writing, each copy having all the appearance of an original. Simple, rapid, clean and durable. Endorsed by upwards of 3,000 firms, corporations and institutions throughout the Dominion. Invaluable for teachers and schools for reports, examination papers, circulars, blank forms, instructions, notices, maps and all classical work. Used in most of our colleges, and rapidly being taken up by our principal schools. Write for circulars and testimonials.

CYCLOSTYLE CO.,
16 KING ST. EAST, - TORONTO.

WOMAN'S MEDICAL COLLEGE



Toronto, Ont.
In Affiliation with the University Trinity College.
For full information regarding graduation, prizes, fees, etc., and for copies of the annual Announcement, apply to D. J. GIBB WISHART, M.D., Secy., 36 Carlton St., Toronto.

MOULTON LADIES' COLLEGE

A Department of McMaster University,
TORONTO, - ONTARIO.

Winter term opens January 6, 1891. Board and Tuition for the rest of the year \$99.00. Address, MISS A. L. SMILEY, M.A., Principal.

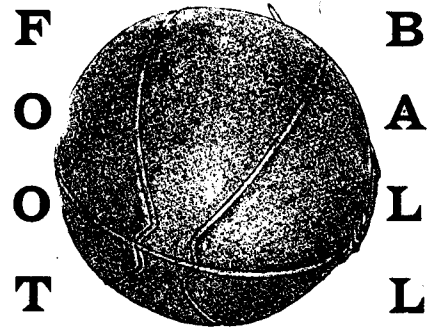
Light Line Shorthand

Best System, Easiest Acquired. One Slope, One Position. One Thickness. Legible as Print, Unlimited Tuition until Proficient, \$5.00.

Call or write for particulars PRINCIPAL. GEORGE WATSON, - 68 YONGE ST. ARCADE

THE CAUSLAND & SON
MEMORIAL WINDOWS TORONTO ONT.
MEDALISTS. CHURCH & SECULAR STAINED-GLASS
LONDON 277 1886. DESIGNS SUBMITTED

"PERFECTION."



BUTTONLESS.

The above cut shows the design of the Perfection Buttonless Football as it is registered in Great Britain, and represents to the fullest degree perfection in shape, perfection in workmanship, perfection in the material used in its manufacture, and perfection in finish.

This, combined with the closeness of our price, has led certain dealers to have the design slightly changed in hopes that they would thereby be able to get a little more for them. Beware of such. We sell the best buttonless balls made, and give the number, circumference and price of each.

ASSOCIATION FOOTBALLS COMPLETE.

Sizes—No. 1, No. 2, No. 3, No. 4, No. 5
Perfection, 20 in. 22 in. 24 in. 26 in. Ass'n.
buttonless, prices, \$1 50 \$1 60 \$1 75 \$2 25 \$3 00
Perfection Chrome, Special Buttonless Water-
proof, only one size made..... 3 50
Queen's Park, the well-known favorite..... 3 00
Rugby Match Ball, very superior, price, \$3.25.

RUBBERS AND COVERS SEPARATE, ETC.

No. 1. No. 2. No. 3. No. 4. No. 5.
Rubbers, separate,
Mackintosh's best, \$0 60 \$0 70 \$0 80 \$0 90 \$1 00
Covers, separate,
buttonless..... 0 95 1 00 1 10 1 50 2 15
Covers, separate, Queen's Park, \$2.15. Chrome But-
tonless, \$2.55.
Inflators, Brass Piston, The Little Wonder, 60 cts.;
large size, \$1.50. Rubber Cement, 30c. box.
Shin Pads, Cloth Lined, 50c. per pair; Best Leather,
Chamois Lined, \$1.00 per pair.

The above covers are all the celebrated McKechnie make, made of hand-wrought leather of the very best (specially prepared) quality, and filled with McIntosh's TESTED rubbers of best quality, STAMPED.

The Inflators are both first-class articles, nothing to go wrong about them, like the rubber bulb ones. No club should be without one at these prices.

Any article in above list mailed free on receipt of price to any address in the Dominion of Canada or United States. Send money or stamps by registered letter or, if convenient, a post office order is absolutely safe. Address

LUMSDEN & WILSON,

Importers of Football Goods, BAFORTH ONTARIO.

**OFFICIAL
CALENDAR**

—OF THE—

**EDUCATION
DEPARTMENT**

—FOR THE—

YEAR 1891.

January:

1. NEW YEAR'S DAY (Thursday).

Reports of Examiners to the Department on the December Entrance Examinations, due.

Trustees should notify Municipal Clerks if they require names of children between 7 and 13. [P.S. Act, sec. 115].

5. Rural Public and Separate Schools open. [P.S. Act, sec. 204 (1); S. S. Act, sec. 79 (1).]

7. Polling Day for Trustees in Public and Separate Schools. [P.S. Act, sec. 98 (3); S. S. Act, sec. 31 (3).]

High, Public, and Separate Schools in cities, towns and villages open. [H. S. Act, sec. 50; P. S. Act, sec. 204 (2); S. S. Act, sec. 79 (2).]

Semi-Annual Reports of High School Trustees to Department, due.

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

14. Names and addresses of Public School Trustees and Teachers to be sent to Township Clerks and Inspectors. [P. S. Act, sec. 40 (6).]

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

Annual Reports of High School Board to Department due. [H.S. Act, sec. 25 (12).]

Annual Reports of Boards in cities and towns, due. [P.S. Act, sec. 113(11).]

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

19. Appointment of High School Trustees by Municipal Councils. [H. S. Act, sec. 17 (1).]

20. Normal Schools open (First Session).

21. First meeting Public School Boards in cities, towns, and incorporated villages. [P.S. Act, sec. 107.]

**SOLID GAINS
In 1890.**

More applications, more insurance, more premiums, more interest income, younger average age of new risks and higher class business with smaller death claims and smaller general expenses puts

The Temperance and General Life

Solidly ahead of its previous record.

In 1891

We desire to increase our gains in all the above important particulars, and will offer the best plans, most truly liberal policies, and fair classification of risks that can be obtained.

For any desired information consult our agents or write to

H. SUTHERLAND, Manager.

Good Agents Wanted.

TEACHERS WANTED

To handle our popular

Subscription Books & Bibles

DURING VACATION.

Special Discounts given.

Write and secure agency.

Rose Publishing Co., Toronto.

TO AGENTS!

A Chance to Make Money Selling

THE NORTH-WEST

Battle * Pictures.

Every Volunteer in Canada will buy them.

Apply for Sample Sets and Prices to

The Grip Printing & Publishing Co.

28 Front Street West, Toronto.

**WHERE AND HOW TO GET YOUR
STANDARD DICTIONARY!**

The Regulations of the Education Department (approved August 25, 1885) No. 23 (f), read as follows:

"Every School should have, at least, a Standard Dictionary and a Gazetteer."

We make Teachers and Boards of Trustees the following offers:—

Concise Imperial, best binding, - \$5.50
Webster's International, full bound, 11.50
Lippincott's Gazetteer, full bound, - 11.50

Together with one year's subscription to THE EDUCATIONAL JOURNAL in every case.

The Grip Printing and Publishing Co.

28 & 28 FRONT STREET WEST, TORONTO.

WALL MAPS FOR SCHOOLS.

The most accurate and best series of wall maps published. Drawn and engraved by the eminent geographer, J. BARTHOLOMEW, F.R.G.S., Edinburgh. Mounted on Strong Cloth, with Rollers, clearly Colored and Varnished.

NO.	SIZE.	REGULAR PRICE.	NO.	SIZE.	REGULAR PRICE.
1. Railway Map of Ontario,	43 by 33 inches	\$3 00	10. Africa,	67 by 52 inches	\$4 50
2. Ontario,	67 by 52 "	4 50	11. British Islands,	67 by 52 "	4 50
3. Quebec,	67 by 52 "	4 50	12. Australia and New Zealand,	67 by 52 "	4 50
4. New Brunswick,	67 by 52 "	4 50	13. Palestine,	67 by 52 "	4 50
5. Nova Scotia and Prince Edward Island,	67 by 52 "	4 50	14. The World in Hemispheres,	67 by 52 "	4 50
6. North America,	67 by 52 "	4 50	15. The World on Mercator's Projection,	67 by 52 "	4 50
7. South America,	67 by 52 "	4 50	16. United States,	81 by 52 "	6 00
8. Europe,	67 by 52 "	4 50	17. The Dominion of Canada,	80 by 49 "	6 50
9. Asia,	67 by 52 "	4 50			

To any Teacher or Board of Trustees subscribing for THE EDUCATIONAL JOURNAL at \$1.50 we will send one or more of the above maps, each at \$1.00 less than the Regular Price.

This is an opportunity that should not be neglected. Supply your school at once with First-Class Map at wholesale rates.

In ordering Dictionaries or Maps please give your nearest express office. Address,

EDUCATIONAL JOURNAL, Grip Office, Toronto.

CONSUMPTION SURELY CURED

TO THE EDITOR:

Please inform your readers that I have a positive remedy for the above named disease. By its timely use thousands of hopeless cases have been permanently cured. I shall be glad to send two bottles of my remedy FREE to any of your readers who have consumption if they will send me their Express and Post Office Address. Respectfully,
T. A. SLOCUM, M.C., 186 West Adelaide St., TORONTO, ONTARIO.

NEW EDITION OF

Hamblin Smith's Arithmetic.

Printed from Entirely New Plates.

Authorized for use in the Schools of Ontario.
 Authorized for use in the Schools of Quebec.
 Authorized for use in the Schools of Nova Scotia.
 Authorized for use in the Schools of Prince Edward Island.
 Authorized for use in the Schools of Newfoundland.
 Authorized for use in the Schools of Manitoba.
 Authorized for use in the Schools of British Columbia.

PRICE 60 CENTS.

New Edition of

Examination Papers IN ARITHMETIC.

Dr. McLellan and Thos. Kirkland, M.A.

Containing all the recent papers set for
 Official Examinations up to
 July, 1890.

NEW EDITION

Notes to 5th Reader

LITERATURE SELECTIONS

PROF. WELLS,

AND
 F. H. SYKES, M.A.

NOW READY.

Containing full and complete notes on all the
 Literature Selections required by Candidates for 3rd
 Class Certificates.

FRENCH LITERATURE SELECTIONS, 1892.

(IN PRESS.)

Sardou—La Perle Noir. (The Romance.)
 De Maistre—Voyage Autour de ma Chambre.

With Notes and References to New High School French
 Grammar and Complete Vocabulary.

J. SQUAIR, B.A.

University College, Toronto.

J. MACGILLIVRAY, Ph.D.

Queen's College, Kingston.

SECOND EDITION

GAGE'S

EXAMINATION BOOK-KEEPING * BLANKS *

Contains all that is necessary for Departmental
 Examinations.

GAGE'S

Standard and High School

EXAMINATION

Book-keeping Blanks.

Large Post 4to, Size, 8 1/4 x 10 1/2. Unit ruled. 164 pages

CONTAINING:

- Day Book,
- Journal,
- Cash Book,
- Six-Column Journal,
- Commission Sale Book,
- Ledger With Index.
- Trial Balance,
- General Statement,
- Balance Sheet,
- Model Form of Notes Drafts,
- Cheques Receipts,
- Bills of Exchange, Etc.
- Bill Book.

Made out of our "British Bank" paper, having specially
 hard surface and firm texture, this being particularly suit-
 able for a book which requires so much handling prepara-
 tory to inspection by examiners.

What is Said by some of the Leading Commercial Masters
 in High Schools and Collegiate Institutes:

I consider it better adapted for the purpose intended than any
 of the other blank books I have seen.
 C. S. FALCONER, Commercial Master Alexandria H.S.

Am very much pleased with it. It is much superior to any that
 I have seen. Have recommended my students to get it in prefer-
 ence to all others.
 A. R. INNES, Commercial Master Richmond Hill H.S.

Much pleased with your book-keeping blanks. They are just
 what we want.
 C. L. CRASSWELLER, B.A., Head Master Essex H.S.

Have examined blanks and found them an improvement on
 former ones. Shall use them.
 J. D. BRUELS, Head Master Deseronto H.S.

We shall use them in the Glencoe High School.
 A. MCINTYRE, Commercial Master Glencoe H.S.

In every way excellent.
 JOHN HOUSTON, Head Master Brighton H.S.

I have no hesitation in saying that it is superior to any book of
 the kind now published. I shall recommend it to my classes and
 to others. The book itself will be its best recommendation.
 W. E. EVANS, Science and Com. Master Port Hope H.S.

Am much pleased with it.
 J. S. COPLAND, Science and Com. Master Brockville C.I.

Your book contains in itself everything required in order to
 enable third-class candidates to comply with the recent regulations
 of the educational department in respect to the commercial course.
 The special points in which your book excels are: (1) Its size, which
 is very convenient; (2) Its having ruled pages for a commercial
 sales book; (3) Ruled amount columns; and (4) Ruled spaces for
 trial balance, balance sheets, etc.
 J. A. WISMER, M.A., Com. Master Jameson Ave C.I.

Your new High School Examination Book-keeping Blanks are
 far ahead of any others yet issued by any Canadian publisher, leav-
 ing the pupil nothing further to wish for. They deserve and will
 doubtless have a very extensive circulation.

A. ANDREWS, Head Master Niagara-on-the-Lake H.S.

A NEW BOOK

FROM COVER TO COVER

JUST ISSUED.

FULLY ABREAST WITH THE TIMES.

A GRAND INVESTMENT

For the Family, the School, the Professional
 or Private Library.

WEBSTER'S

INTERNATIONAL DICTIONARY.

Webster's International Dictionary is the legitimate
 successor of the famous Webster's Unabridged Dictionary,
 which has been so long the standard authority on the words and
 usages of the English language.

The "International" is, in fact, the popular "Unabridg-
 ed" thoroughly re-edited in every detail, and vastly enriched in
 every part, with the purpose of adapting it to meet the large and
 severer requirements of another generation as satisfactorily as the
 "Unabridged" as revised in 1864 and enlarged in '79 and '84
 has met the requirements of the last generation.

LIPPINCOTT'S

Pronouncing Dictionary

JOSEPH THOMAS, M.D., LL.B.

Revised and Enlarged Edition. Sheep.

Lippincott's Gazetteer

OF THE WORLD.

NEW EDITION

With the Most Recent Census Returns. Sheep.

Sesame and Lilies.

Notice is hereby given, that we have by arrangement
 with the English Publishers, copyrighted in Canada,
 selections from Ruskin's "Sesame and Lilies," containing
 portions of the two lectures entitled "KING'S TREAS-
 URES" and "THE QUEEN'S GARDENS."

W. J. GAGE & CO., Publishers.

W. J. GAGE & CO., 54 FRONT ST. WEST, TORONTO.

Some Choice Books
SUITABLE FOR TEACHERS.

Cassell's Concise Cyclopædia: Edited by Wm. Heston; with 600 illustrations; 1344 pages; new and revised. Royal 8vo., Colored Edges, bound Library style. Price, \$5.00.

Cassell's Miniature Cyclopædia; containing 30,000 subjects. Bound in Cloth. Price, \$1.50.

Cassell's Latin-English Dictionary, by J. E. Beard, D.D. and C. Board, B.A.; 914 pages. Crown 8vo. Price, \$1.50.

Cassell's German-English and English-German Dictionary; by E. Weir; cloth; 1126 pages. Crown 8vo. Price, \$1.50.

Cassell's French-English and English-French Dictionary; Compiled from the best authorities of both languages; by Professor De Lolme and Wallace and Henry Bridgeman; revised and corrected from the seventh and latest edition (1877) of the Dictionary of French Academy; by Prof. E. Rowland, B.A. (Paris); 1152 pages. Crown 8vo., Half Roxburgh. Price, \$1.50.

Any of the above books sent with a year's subscription to the JOURNAL for \$1.00 extra, or you can get them free by sending us three new Subscribers to Grip and six dollars in cash, the regular subscription price, and we will send any one of the Dictionaries or the Miniature Cyclopædia free, postage paid, or

Send us ten new Subscriptions to Grip and twenty dollars in cash, the regular subscription price, and we will send you the Concise Cyclopædia free, postage paid, or

If you prefer the Dictionaries to the Concise Cyclopædia send us twelve new subscriptions and twenty-four dollars in cash and we will send you the three Dictionaries and the Miniature Cyclopædia.

If you cannot procure the required number of subscriptions to entitle you to a book, send us all you can and we will charge you just enough to cover the cost of the book to us.

Don't fail to try; every subscription secured will materially reduce the price of the books to you.

These books have been carefully selected as ones most needful to the teaching profession.

This is the greatest Offer ever made to the Teachers of the Dominion.

These publications are the most recent editions of the celebrated publishers, CASSELL & CO., London and New York.

100 LESSONS IN
English Composition.

MODERN. PRACTICAL.
THOROUGH. METHODICAL.

A New Book, by a Practical Teacher, for use in Composition Classes in the Public and High Schools of Canada.

This book contains 100 lessons, each lesson consisting of four exercises, and each exercise being composed on the average of eight questions or examples. There are thus within its covers about 3,200 questions for class work. The exercises are properly graded for use in the Public Schools and in the junior forms of the High Schools.

PRICE, - 25 CENTS.

Practical Problems
IN
ARITHMETIC.

For First, Second and Third Classes.

By JAMES WHITE, Public School Teacher,
EDMONTON, ONT.

This book is now ready for delivery. It contains nearly 700 Practical Problems in Arithmetic for the three lowest forms, and will supply the teacher with questions at once interesting and useful. The problems are properly graded for the separate classes, and answers are given in the appendix.

Board and Linen Covers—
Price, post-paid Only 25 cts.

The Grip Printing & Publishing Co.
TORONTO, ONT.

NEW AND CHEAP
Little Books
REQUIRED BY EVERY TEACHER.

We ask attention to the Catalogue of Books and School Supplies recently issued with the EDUCATIONAL JOURNAL. In it will be found a large list of books for assistance or recreation especially valuable to the teachers. We select the following from the list:

BOOKS

For Clubbing with "Educational Journal"

To subscribers to EDUCATIONAL JOURNAL we will give the following special list of books at the low prices named:—

Little People's Speaker, 100 pages, attractively bound, well filled with motion songs, concert, holiday, temperance and patriotic pieces, suited to every occasion in which the little folks are called upon to take part. Paper, 15c.

Little People's Dialogues, 120 pages, handsome cover. This book is specially prepared for children's recitations, by Clara J. Denton. It is adapted to the most varied kinds of entertainments and exhibitions. Paper, 25c.

Humorous Dialogues and Dramas, handsome cover, contains a great variety of specially prepared selections, humorous, without being coarse. Paper, 25c.

Sunday School and Church Entertainments, handsome cover, contains dialogues, tableaux, recitation, concert pieces, motion songs, and short dramas, illustrating Biblical truths. Paper, 25c.

March's Speeches and Dialogues for Wee Tots, comprising a variety of short speeches and dialogues, suitable to children from three to ten years old. Paper, 25c.

Tableaux, Charades and Pantomimes. A first-class collection for various entertainments. Paper, 25c.

Jokes. A collection of the brightest, funniest and most catching jokes of the day. 150 pages; attractive cover. Paper, 25c.

Popular Synonyms. Twenty-five thousand words in ordinary use; accurate, elegant, cheap. Flexible cloth cover, 25c.

Words Correctly Spoken. A work valuable to all who desire accuracy of language. Cloth, 15c.

The following special list will be found attractive:

Wilford's Original Dialogues and Speeches for Young Folks.—Being by far the most complete of its kind ever issued. This work supplies that palpable need, which has so long been evident in books of this class, that of *Dialogues and Speeches* adapted to the natures of children. This work contains 19 original Dialogues and 53 Speeches, especially adapted for children between the ages of five and 12 years. 160 pages. Paper cover, price 25c.

Ritter's Book of Mock Trials.—An entirely novel idea. The trials are very amusing take-offs of actual scene in court and daily life; containing sixteen complete trials—adapted to performance by amateurs or professionals. Paper cover, price 25c.

Rowton's Complete Debater.—Containing nine complete Debates, Outlines of Debates, and 108 questions for Debate. The most perfect work of its kind published, and especially adapted to Literary and Debating Societies. No person should be without this great literary work. We are sure that those who purchase copies will declare it well worth ten times the amount spent. Containing over 200 pages. Boards, price 50 cts.

Beale's Calisthenics & Light Gymnastics for Young Folks.—120 illustrations from Life by Photographic Process. Containing Broom and Fan Drills, Marches, Fencing Club, Hand and Dumb Bell Exercises, Swimming and Music for Marching. This is the most complete work published on the subject. 160 pages. Boards, 75 cts.

Burdett's Dutch Dialect Recitations and Readings.—This collection of amusing and laughable recitations embraces all the newest and most successful pieces, original and selected, with which the celebrated reader, James S. Burdett, invariably "brings down the house." Containing 94 original and selected gems of Humorous German dialect pieces in prose and poetry. 16mo, 160 pages. Price, paper 25 cts.

Brudner Gardner's Stump Speeches and Coming Lectures.—Containing the best hits of the leading Negro delineators of the present day, comprising the most amusing and side-splitting contributions of oratorical effusions which have ever been produced to the public. The newest and best book of Negro comicities published. 160 pages. Bound in illuminated paper covers. Price 25 cts.

Sent post-paid on receipt of price.

Address:

GRIP PRINTING and PUBLISHING CO.,
26 & 28 Front St. West, Toronto.

A few thoughts concerning

ASTHMA

Its Cause and Cure

Must interest every one afflicted with this terrible disease. To describe this disease to one that has suffered for years the untold agonies of suffocation and distress night after night and who (in many extreme cases) would only gladly welcome death in order to be relieved from such suffering with no prospects of ever being any better is not pleasant to contemplate. All the boasted remedies heretofore claimed to cure Asthma have failed or only given temporary relief. The smoking of leaves and barks, saturated paper and pastilles has been resorted to as the last means for only a temporary relief anything being considered a blessing that will release the grasp of the fingers of death (even for a short time), which seems to be tightening every moment more and more; the sufferer knows that this is Asthma.

To-day suffocating, in a few days relieved, and no good reason can be given as to the cause of these sudden changes and return of suffering, only by the poisonous blood acting on the nerves producing the disease. In Asthma there is a

SPECIFIC POISON in the Blood that must be **DESTROYED**
before Asthma can be

CURED

This poison is oft-times inherited and passed through many generations, like Scrofula, never losing its power to produce Asthma and oft-times affecting the lungs and bringing the sufferer down to a Consumptive grave. Location, with surrounding causes will arouse and set to work this poison in the blood, so that in some sections of the country an Asthmatic cannot live, even in one part of a city their suffering is intense, move to another part and they are entirely free from Asthma. Thus you learn that there exists a certain poison in the system, that when certain influences are brought to bear that exist in the Atmosphere in many localities will develop this poison in an unusual degree thereby affecting the NERVES, producing spasms and difficult breathing, which every Asthmatic has had such sad experience with, suffering, and no hope of being cured; for having tried every known remedy, exhausted the skill of the physicians, have given up in despair.

After years of study and patient research and watching this disease in all its various phases under various circumstances we present a cure for Asthma known as **DR. TAFT'S ASTHMALENE**, which will entirely destroy this poison in the blood and restore the nerves to a healthy condition and when this is done the spasms will cease, the choking will subside, and the injury done to the lungs will begin at once to be repaired and the nerves restored to perfect health. **ASTHMALENE** is unlike all other so called Asthma cures, as it **CONTAINS NO** Opium, Morphine, Ipecac, Squills, Lobelia, Ether, Chloroform or any other Anodyne or Narcotics, but its combination is of such a nature that it will destroy every particle of this poison in the blood and eliminate it from the system, effect a cure and give a night's sweet sleep. We have received thousands of testimonials from every State in the Union of the marvelous cures from the use of the **ASTHMALENE**. We have never published them, for testimonials have been manufactured so extensively and sold so cheap that people have no confidence in them.

WE DO NOT WANT YOU TO SEND US MONEY

We do not make out a long list of prying, personal and impertinent questions, nor do we resort to any clap trap or any nonsense of any kind in order to make monthly or permanent patients; we only ask any one suffering from Asthma to **TRY A FEW DOSES** of Asthmaleene; **WE MAKE NO CHARGE FOR** a trial bottle to sufferers from this terrible malady. **SEND** us your name on a postal card and we will mail

FREE

enough of Dr. Taft's Asthmaleene to show its power over the disease, stop the spasms and give a good night's rest, and **prove to you** (no matter how bad your case) that **ASTHMALENE CAN CURE ASTHMA**, and you need no longer neglect your business or sit in a chair all night gasping for breath for fear of suffocation. Send us your full name and post office address on a postal card. **THE DR. TAFT BROS. MEDICINE CO., ROCHESTER, N. Y.**

SELBY & CO.

32 1/2 Church St., Toronto,

Importers and Manufacturers of

KINDERGARTEN GOODS.

Agents in Canada for the MILTON BRADLEY COMPANY, the celebrated United States makers of Kindergarten Materials.

Estimates given for the complete furnishing of Kindergartens. Correspondence invited.

DEAFNESS!

ITS CAUSES AND CURE.

Scientifically treated by an aurist of world-wide reputation. Deafness eradicated and entirely cured of from 20 to 30 years' standing, after all other treatments have failed. How the difficulty is reached and the cause removed fully explained in circulars, with affidavits and testimonials of cures from prominent people, mailed free.

DR. A. FONTAINE, 34 West 14th St., N.Y.



REMINGTON

STANDARD

TYPEWRITER

Is now a necessity in all First-class Educational Institutions. Write for particulars.

GEORGE BENGOUGH, General Agent,
4 Adelaide Street West, - Toronto.

TEACHERS AND STUDENTS may have all their book wants promptly attended to, either in the new or used line and at reasonable terms, by addressing

Frank Porter, 535 Fonge St.

(SUCCESSOR TO DAVID BOYLE.)

Books to any part of the Dominion, for Inspectors, Teachers and Students, mailed or expressed daily.