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The Canada School Journal.

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CANADA SCHOOL JOURNAL HAS RECEIVED

*An Honorable Mention at Paris Exhibition, 1878.
Recommended by the Minister of Education for Ontario
Recommended by the Council of Public Instruction, Quebec.
Recommended by Chief Superintendent of Education, New Brunswick.
Recommended by Chief Superintendent of Education, Nova Scotia.
Recommended by Chief Superintendent of Education, British Columbia.
Recommended by Chief Superintendent of Education, Manitoba.*

The Publishers frequently receive letters from their friends complaining of the non-receipt of the JOURNAL. In explanation they would state, as subscriptions are necessarily payable in advance, the mailing clerks have instructions to discontinue the paper when a subscription expires. The clerks are, of course, unable to make any distinction in a list containing names from all parts of the United States and Canada.

EDUCATIONAL WORK FOR THE COMING SESSION.

There are several important questions with which the Minister of Education should deal during the next Session of the Ontario Legislature. Among them are the following :

I.—THE 29TH CLAUSE.

The 29th Clause of the Amended School Law of 1879 never could have had a place on the Statute book, and it not been for a total misunderstanding of the relationship existing between the Trustee Boards and the Councils in cities and towns. These bodies are essentially distinct. Each is elected for a specific purpose. Each has the supervision of certain public work, the proper management of which requires a certain amount of public money. Originally each body collected its own money, and the one had no connection with the other. It was soon evident that this was an expensive method of raising the money needed, as it required two sets of collectors to do the work which one could do equally well, and so in order to save expense it was provided, that the tax collectors of the municipal councils should collect the money required by the School Boards. This gave the councils no responsibility concerning the amount needed for school purposes, and consequently gave them no right to exercise any control in relation to it. The School Boards had just as much right to limit the Councils, as had the Councils to limit the School Boards in raising the funds necessary for the proper carrying on of their work.

In process of time, however, some Councils forgot that they were merely requested to raise the amount needed by the School Boards in order to prevent expense, and began to claim the right to control the expenditure of the School Boards. Unfortunately, the Minister of Education and the Legislature hastily granted the demands made, and the School Boards in cities and towns are now merely sub-committees of the Councils without the privilege of a voice in settling even their own affairs at the general Council Board. The insult thus offered to

the School Boards throughout the Province was none the less real, because those who gave it did not comprehend its full extent.

There can be absolutely no justification for the clause either where no accommodation at all has been provided, or where the accommodation is insufficient. In both these cases it is clearly at variance with the clause requiring the municipality to provide adequate accommodation for the children of school age. It is certainly a remarkable fact that the same school law which makes Trustees personally responsible to the ratepayers whose children can not get school accommodation, also gives other men the power to prevent them providing accommodation when necessary.

If it is claimed that Councils are responsible to the ratepayers for the money, there are two ways of removing this objection. The school rate may be inserted separately on the tax bills, or the old plan may be adopted of allowing the Trustees to collect as well as levy their own rates.

It is not necessary that the evil effects of the clause should be explained. They have been felt throughout the length and breadth of the Province. Resolutions calling for its repeal have been passed unanimously by the Inspectors, and by the Provincial Teachers' Association. If it had passed a few years earlier the schools of the country would have been paralyzed to a much greater extent than is possible now, but there is yet time for it to do incalculable evil unless it is repealed.

II.—SUMMER HOLIDAYS.

When a certain class of men in total forgetfulness of their children's best interests, and with the single aim of getting more work out of the teacher, urged the shortening of the summer holidays, they were warned by the intelligent medical men in the Legislature that the results of confining their children in close school-rooms during the warm weather must be injurious. The Minister of Education, however, in order to avoid a wide agitation on the subject, made the shortening of the holidays optional, and promised that the option would be taken away in case only a few sections availed themselves of it. We are not among those who would advocate the repeal of the amendment, because only a small number of schools were kept open for a portion of the regular vacation. The larger the number of School Boards in favor of short holidays, the sooner should the power to shorten them be removed. If the people were all intelligent such a law would do no harm. However the wings of ignorance and greed should be clipped, and we hope Mr. Crooks will deal with this question at once.

It might be wise to allow School Boards some option as to the exact time for closing the schools for holidays. In sections where hops or berries are grown largely, nearly all the children in the districts are required to gather them in their season, and in such cases the schools might well be closed for a couple of weeks, and the summer holidays shortened by that time.

UPPER CANADA COLLEGE.

We have no idea that the country will be satisfied to allow Upper Canada College to remain a mere High School, even under the management of Mr. Buchan. The country did not complain about the management of the Institution, but that provincial funds are so largely used in maintaining a school to do High School work mainly for Toronto alone. The question will undoubtedly be raised, and unless Mr. Crooks can establish for the College a function which will be clearly provincial in its character, there seems to be only one solution for it.

DEPOSITORY INVESTIGATIONS.

For years there have been floating rumors to the effect that a prominent employe in the Education Department has been reaping rich harvests from various fields in connection with the Depository. The most directly productive of these are supposed to have been the map and apparatus departments, although it has been stated over and over again that contractors and book publishers in Canada and elsewhere have been laid under tribute to add to the temporal welfare of the notable official. These rumors may be false slanders, and if they are the party against whom they are directed would have much to gain by a full investigation. We are surprised that he has not demanded an exhaustive enquiry long ago.

It is no secret that towards the close of last session an influential deputation of the reform members of the Legislature waited upon Mr. Crooks in reference to the matter, and that he promised to appoint a Commissioner to investigate the charges made. These charges have been formally made to the Minister of Education by an employe in the Department, whose services have since been dispensed with, but the investigation has not been held. This unpleasant question should be settled, and covering it up temporarily will not settle it.

A LACK IN OUR EDUCATIONAL SYSTEM.

Why should not Public Night Schools be recognized and supported by the Government as well as Public Day Schools? This question is one which forces itself upon those who wish to make State education as perfect as it should be, as perfect as those who support it have a right to expect it to be. We have become so accustomed to associate the name "Public" with the schools conducted during the day, that most people regard the night school as an excrescence, and treat it as a specialty. We hold that the night school is to a large portion of the population of any country as much a necessity as the day school, and that in both as being for the public, and maintained by the public, it has as good a claim to the name "Public" as the day school has.

Many children are unavoidably neglected in their early years, notwithstanding all attempts to secure for them their right to education by compulsory school laws, and by Industrial Schools, where they have been established. The poverty, the wickedness, or the death of their parents may have prevented their attendance at school in early years, and we claim for them the right to receive when older, that which is justly theirs, but which circumstances forced them to lose, when they were young.

There is another class of young people who would be greatly benefited by attending night schools. The School Law exercises no compulsion beyond the age of twelve, and many parents take their children from school very soon after they reach that age. It is perfectly clear that they cannot have received a very sound education in so short a time, and facilities should be afforded them for rendering more complete the training begun while attending day schools. In addition to those two classes, there are very many who did not realize the value of learning while at school, and who through their own carelessness failed to secure sufficient education. They learn on entering upon the struggles of life, how deficient they are in power to rise, and are often most anxious to atone for neglect, and to make up as far as possible for opportunities lost. Their claim may not be so strong as that of those belonging to the other two classes, but *their country as well as they, would reap benefit from their more thorough training.*

It may be said that the School Law in Ontario gives trustees the right to establish night schools. True, but when established they are entitled to recognition, which they do not receive from the Government. We do not claim that in all places School Boards should be compelled to open night schools, as they are to conduct day schools, but we urge the Minister of Education to give a grant to aid those Boards which do conduct night schools. Let them be recognized as a part of the Public School system, and as such let them receive aid on the same basis as schools taught during the day.

It may be argued that night schools can only be conducted in cities and towns, and that it would be unfair to tax the whole country for their support. They might, however, very profitably be opened in villages and even country school-houses. Four or five might be opened in a township, regardless of section boundaries and managed by a Township Board. They would be of immense service to young people in country places, many of whom have comparatively little to do during the winter months. The fact that a peripatetic "writing master" can get a fair attendance almost anywhere in a country district, shows that the sons and daughters of farmers are as fully alive to the necessity for improvement as are the young people in cities and towns.

The fact that in many places the night schools have been only partially successful, does not prove them to be unnecessary, but shows how much they need to be improved and systematized. It does not lead to the conclusion, that it would be wrong to give them Departmental recognition and Government support, but proves that they need such recognition and support in order to a vigorous growth. Let them become a part of the regular School system, let them have the same inspection as the day schools, let them be taught by able teachers, and let them have a carefully selected, partially optional, course of study, and they will not be as irregular and as unsatisfactory as they too often are now.

In several of the cities and towns, and in many country sections, evening schools are conducted now, but they would be better, and others would be opened in many other places, if the

system were placed upon a practical basis. One of our exchanges says:

"Whatever will induce a mortal to abandon idle or vicious habits, or associates; whatever will induce him to take up with himself, to trust himself, to find pleasure in thought, in books or in study; whatever will help to make him a better man for himself, for his family, or for the community, is commendable and worthy to be sustained by all the philanthropic strength of the day. For this reason we advocate the organization in every school system of a night department, not a hap-hazard thing of glittering generalities, but a real, solid, substantial, well-organized, well-officered night school."

FIRST-CLASS CANDIDATES AT NORMAL SCHOOLS.

When it was decided that teachers could obtain First-Class Certificates without additional professional training after that received as Second-Class Candidates, a decisive blow was given to the Normal School in Toronto, and a retrograde step taken, which will do much to prevent the growth of a progressive spirit among the members of the teaching profession generally. It could not be expected that students would attend the Normal School for a year, incurring a considerable expense by doing so, when they could secure equally good certificates at home. If those who attended the Normal School for First-Class training received certificates different from those obtained by others, they would have some inducement to attend. Unfortunately, however, even those who do attend the Normal School as candidates for First-Class Certificates receive no practical professional training. They are not required to teach a single lesson during their course. The result is that our Normal Schools are reduced in power, and are really used to train only Second-Class Candidates.

We are as fully convinced as any one possibly can be, that "teachers are born, not made." So are mechanics, and artists, and doctors. A man of special genius suited to his work may become a good mechanic, a good artist, or a good doctor, by experimenting, but he would have been a much better man in either department, if he had received a special course of technical or professional training in a school suited to that purpose. So a man may become a good teacher without attending a Normal school, but he would have been a much better teacher at a much earlier date, if he had taken a thorough professional training at a good Normal School. We would not allow an apprentice mechanic to experiment with our lumber, or an untrained quack to experiment with our bodies, why should we allow a quack teacher, however great his native ability, to gain experience at the expense of the intellects and moral characters of our children?

But the best mechanics learn their trades by working at them. True, *but they do not work alone*. There is the weak point in the argument. Teachers, too, should learn their profession by working at it; but they should learn it under the guidance of skilled teachers, as the mechanic learns his trade by working at it under the guidance of a skilled mechanic.

It has been claimed that after receiving their "Second-Class" training, teachers can read for themselves works relating to education, and thereby become proficient in their work. Reading good books will greatly aid them undoubtedly, but books

can never take the place of the living teacher. Works on education require explanation, and there is a positive necessity for a Professor of Education either in the Normal School or elsewhere. It may be that the higher professional training may be more economically done in some other place than in the Normal School. High School Masters require to understand how to teach, and it might be wise to found a University Professorship in Education, so that those who are to rank as First-Class Teachers, either in High or Public Schools, might receive a thorough professional training. In whatever way the end may be accomplished, we maintain that our present system of teacher-training, although strong at the beginning, is weak, lamentably weak at the close, and that an improvement ought to be speedily made. The adoption of the Art School as a part of the Departmental work adds another strong reason for requiring First-Class Teachers to prepare themselves in Toronto.

APPEAL TO FACTS.

No sound system of education, government, or religious doctrine has anything to fear from a thorough and impartial examination of its principles as tested by their practical effects. It is often, however, no easy task thus to determine the true character and estimate the real value of principles. These results require analytic observation, passionless judgment, and the most exhaustive collection of relevant facts which circumstances will allow. It must be borne in mind, too, that amid the complicated social and moral phenomena of the present day it is sometimes difficult to trace the working of the law of cause and effect. The effect of many causes is ascribed to one which may have been the meekest of them all. The true cause is often completely lost sight of, and a false one exalted in its stead. *Post hoc ergo propter hoc* was probably never so prevalent and powerful a fallacy as now.

As this difficulty is likely to increase rather than the reverse, it may be well to point out that the best of causes need discreet advocates and clear-sighted defenders. For instance, devoted as we are to the great and good cause of Public-School Education, we yet freely admit that exaggerated claims are sometimes made in its behalf. Neither justice nor wisdom dictates the policy of ascribing to it all political reforms, all social progress, all moral ameliorations. On the other hand its defenders need not trouble themselves to free it, as respects its practical working, from all imputation of human shortcoming and infirmity. It is rather their duty to distinguish between what is reasonable and what is unreasonable in the criticism of opponents, frankly conceding that no system of popular education has yet attained the standard of ideal perfection.

At the same time we cannot congratulate certain *doctrinaire* obstructionists who have been trying by an assumed argument from facts to impose on the plain common sense of the people on the success of their efforts. There may be minor sophistries requiring for their exposure the painstaking examination to which we have referred, artful argumentative deceits which a plain man might be pardoned for not detecting, but an attempt

to connect the spread of popular education with an alleged increase of crime and immorality is not of that character. Even its careful dressing of logical drapery could not disguise this monstrous falsehood and prevent its immediate recognition. The intuitional common sense of the people has proved sufficient to protect their dearest rights from danger.

THE ONTARIO ART SCHOOL.

We urged, nearly two years ago, the propriety of placing the Ontario Art School directly under the control of the Education Department. The necessity for the recognition of Art as an important department of popular education is making itself felt more and more every year. The Public Schools are beginning to teach drawing in a practical and progressive way, and this is creating a demand for a more extended course in the higher classes in Public Schools and in the High Schools. To give this instruction well, teachers need to be specially trained, and they should receive their training in an institution conducted under Departmental supervision. We are glad to learn that it is the intention of the Minister of Education to have the Art School established in the Departmental Building in Toronto. This will place the school itself upon a much more satisfactory basis. The artists who have so ably conducted the school till the present time at great personal sacrifice, will be relieved from worry and responsibility, while, we trust, they will still be able to retain their connection with the School. The large collection of models, copies, and specimens in the museum, will be of immense value, now that a practical use is to be made of them. This is carrying out the design of the far-seeing man who so long conducted the educational affairs of the Province, and by whose efforts the largest collection of Art material to be found on the continent was gathered.

It is not desirable that the school should be open only for teachers, but it is of the highest importance that all first-class teachers should be compelled to attend its classes. This will form an additional reason for insisting on the attendance of all first-class teachers at the Toronto Normal School for special professional training.

DR. RYERSON.

The many warm friends of Rev. Dr. Ryerson have been kept in constant anxiety during the past few weeks owing to his very severe illness. They will be glad to learn that there are good prospects for the recovery of the aged veteran, whose name is indissolubly linked with the educational progress of Ontario. Although nearly eighty years of age, he has retained in a remarkable degree both mental and physical vigor. His illness was contracted while on his annual shooting expedition to Lake Erie. The weather became suddenly severely cold, and he was too old to resist the effects of the unexpected change. Our readers will join us in wishing him a speedy return to health.

—We regret to learn that Mr. P. A. Switzer, the efficient Inspector of Schools in Parry Sound and Algoma District, is unable to attend to his duties through illness. We hope to hear shortly of his speedy recovery.

—Mr. A. L. Parker, M.A., Classical Master, Collegiate Institute, Collingwood, is about leaving. That town will thereby suffer a loss which the School Board will find it difficult to replace, for Mr. Parker's high, scholarly attainments and invariable success as an active and painstaking teacher have won for him considerable renown in the profession. Whatever position he may subsequently occupy we are sure he will grace it with those high qualities for which he was distinguished in Collingwood.

—Rev. Mr. Pinkham, Chief Superintendent of Protestant Schools, Manitoba, desires us to state that Ontario First-Class Certificates, obtained under the new regulations, and any other Certificates which may be considered equivalent to them may be permanently endorsed by him; and also, that he is authorized to endorse till the ensuing examination other *bona fide* Teachers' Certificates obtained in any part of the Dominion, or in the Old Country, but the usual certificate of good moral character must be presented. The next examination of Teachers in Manitoba takes place in August.

—It gives us much pleasure to observe that Mr. J. A. McMillan, M.A., formerly Classical Master, has been appointed Principal of the Ottawa Collegiate Institute, in place of Dr. Thorburn who has resigned. As a scholar and indefatigable teacher Mr. McMillan takes a high position, and the Ottawa School Board has acted wisely in placing him in charge. He is also well known throughout Canada as the editor of a textbook of English Grammar, namely, the Revised Edition of Miller's Swinton's Language Lessons; a book which has during the past few years, reached the enormous sale of 200,000 copies. It is proposed to give to the staff of University men in classics an increase of \$100, and to appoint an assistant at \$700.

—Mr. Wm. Rothwell, who for nearly ten years has been first assistant in Brantford Collegiate Institute, was appointed lately to the headmastership of the Perth Collegiate Institute, at a salary of \$1,200. During the time Mr. Rothwell has been in Brantford he has won golden opinions, not only from his fellow-teachers, by whom he is greatly respected, but also from the citizens of Brantford whose expressions of regret at his leaving are mingled with congratulations at his well-merited promotion. His quiet, unobtrusive, but most effective manner, combined with sound scholarship and well-formed principles in the art of teaching, give him all the elements requisite to make his success in his new position as decided and recognized as it has been eminently so in Brantford. We wish him every success. He will be assisted in Perth by Mr. John Fawcett, Teacher of Science and English; Mr. H. L. Slack, Classical Master,—salaries of each \$700; and Mr. A. W. Burt, Modern Languages, salary \$600.

—The attention of Teachers is directed to our notice in another column of Adams' Historical Chart, which is a marvellous means of presenting the history of the world in a comprehensive and attractive form. Schools and Colleges will find it a valuable adjunct to book work in history as it presents to the eye the leading characteristics of biblical, ancient, and modern history in correlative epochs, centuries and decades, in a most impressionable manner.

Correspondence.

THE TONIC SOL-FA SYSTEM.

To the Editor of the CANADA SCHOOL JOURNAL.

May I ask your earnest attention to a few facts concerning the Tonic Sol-Fa system? You will notice that advocates of that system, unlike their opponents, do not waste time with mere words, theories and suppositions, but go straight to the point with "thus and so has been accomplished and proved." They ask no favors or concessions because they hold the truth, and the truth needs no tender consideration. It only asks for unprejudiced investigation.

Here are the facts which must be set aside before any one has a right to oppose the system of which such things can be said.

1. Of the hundreds of thousands of teachers and pupils who have begun to use Tonic Sol-Fa *not one* has ever been found to afterwards renounce it.

2. Of those hundreds of thousands *not one* has failed to realize and acknowledge that the value of the system became more apparent to them the farther they continued in its use.

3. Of those hundreds of thousands *not one* has failed to find (and often with great surprise) that Tonic Sol-Fa leads to the most intelligent knowledge of the staff, and to its surest use as a medium for reading music. The general verdict is, that it saves one-half the time in learning to read music from the staff.

Now will the JOURNAL state definitely how much value should be set upon the arguments of those who have never used the system as against the foregoing facts presented by those who have? Will the JOURNAL permit me to say with some degree of warmth that the opposing of invariable fact by mere influences is becoming very much like child's play. It is unworthy of the subject; it is unworthy of the position of many who do it. All that Tonic Sol-Fa asks is a fair trial. With such a history as it has had, and such an array of statistics as it gives in evidence of its uniform success, justice to the public, justice to the whole human race with its innate love of music demands that such a trial shall be made before the system is rejected.

The inference drawn by the October JOURNAL from the success of a few cities in their systems of musical instruction does not "cover the ground." In a recent number of the Tonic Sol-Fa Advocate I printed the following sentence: "The time is not far distant when it will be considered as absurd to teach music by the staff notation as to teach a child to read by the use of a dictionary." That comparison is a fair one, the only difficulty being that it does not put the case strongly enough.

Now, suppose it was the custom to teach reading by or with a dictionary, and suppose nine-tenths of the people of Canada never succeeded in learning to read would the fact that many or even most of the pupils in a few large cities learned to read be any proper argument for the general introduction of the dictionary method? The cases are strictly parallel. Nine-tenths of the people in the United States cannot read music. Therefore the prevailing method of instruction is a failure. The comparative success in a few individual cases where the conditions are more favorable than they can possibly be on the average does not alter the truth of the above statement.

Here is a fair summing up of the case.

1. The staff method in America is a failure. A large proportion of those who begin the study of music by that method never gain an intelligent knowledge of the subject or acquire the ability to sing at sight.

2. The Tonic Sol-Fa system in England is a success. All who study it grow rapidly in musical intelligence, and become sight readers.

Mr. Curwen's statement has been explained by his son, Mr. J. S. Curwen. If he had known Lowell Mason's system he might have adopted it, but *not* knowing it, he considered that he had been led to the development of a system that was of incalculably greater value to the human race. Thus he firmly believed to the end of his life, and his belief is shared by *every one* who has used the system.

T. F. SEWARD.

New York, Nov. 1881.

Contribution.

HINTS TO LADY TEACHERS.

READ BY MISS R. WOOD BEFORE THE TEACHERS OF THE COUNTY OF HALDIMAND.

In attempting to offer some hints to the lady teachers present, I am sure that I will be pardoned by them for so doing; my object is not that I presume to possess any superior qualifications, but as I have spent now nearly eight years in active work in the profession, and have been fairly successful, I hope that I can advance a few suggestions that may assist you in your work—thoughts that may increase our interest in our profession, and help us to bring to our work patience and perseverance, hope and courage.

Teaching is one of the few professions in this country available to women, and even in this I think we are placed at a disadvantage. We have to write on precisely the same examinations as the gentlemen, and exactly the same percentages are required of us; but the opinion is very general, that we should not receive the same remuneration for our services, even when as well performed. Now, who is to blame for this unjust condition of public opinion? The lady teachers themselves, to a great extent, are surely to blame. So many girls are educated with such false notions of their object in life, that many who enter the teaching profession seemingly enter it with no love for the work, but they find in it a means whereby they can make a little money, and leave it at the earliest possible opportunity. Those who enter with such notions usually accept small salaries, and when trustees have the option of choosing from quite a number, and can get the majority of them at low figures, there is very small chance for those who are laboring for success in teaching to get much of an advance on prevailing salaries. Now my idea of a true worker, either male or female, is that of one who makes duty his or her watchword, and who will, if entrusted with any work, prove worthy of the trust in all respects. I find that the best part of my life lies in the performance of my daily duties, and that with these performed rightly I can enjoy true happiness. Let us strive to feel that our success in life bears a direct proportion to the exertions we make, and that if we aim at nothing we shall surely achieve nothing. I have never known real merit in teaching or anything else to fail in receiving appreciation, and I think that we can, if we only strive to do so, make others feel that we are worthy of more than the scanty remuneration that is tendered to so many women at the present day. Let us be ambitious to excel in our work, not merely doing it in a mechanical way, but introducing so much of spirit therein that we receive the names of good workers as well as good teachers. Some may say, are we to work ourselves past our strength for the purpose of acquiring a competency? I have never known hard work to injure any of my lady friends who took judicious care of themselves when teaching, and I feel convinced that work properly performed strengthens body, mind, and character,—late hours, and improper food and clothing, injure far more than their school exertions do. Let us honor our profession, and seek to elevate it at all times. I think those who speak slightly of their work, whatever it may be, prove themselves unfitted for its responsibilities and lower themselves far more than they do their profession.

The remark is frequently made of us, that we fail in school government; again I say it is our own fault if we do. Firmness, kindness, and work fully prepared, are the essentials of success in any teacher. Make yourself complete mistress of the school from the very first: let the children see that you understand your work and are prepared to do it. Nor need you be hard-hearted—no true woman is ever hard; but she can be strong, if she seek her strength in true service. In order to have command of your school, have the mastery of self, and do not allow yourself to exhibit passion, even with provocation. Do not be continually scolding—it is only worrying to yourselves, and not at all beneficial to your pupils. Make few rules, — no more than necessary for the good government of your school-room, and see that those you make are carried out. Insist on instant obedience. Children will see very quickly whether it is possible to take any liberties or evade any commands: therefore, if you tell a child to do anything, see that he does it, or you will forfeit his respect by your leniency. Study your pupils' inclinations, find out their tastes, and take advantage of them. You will also find that children can be managed easier if you get an insight into their dispositions. Let your pupils always find in you a friend who is willing to assist them in all that is for their best interests. Do not act as if you thought any of your pupils were really bad; trust them, and even if they have bad habits they will be the better for your confidence. Curb evil inclinations in speech or action, and strive to make your pupils love the truth and abhor falsehood and deception. Do not give all your attention to the bright pupils and strive to crowd a certain number through the examinations. I have heard teachers say they judged of a school's progress by the number of pupils it sent up to High School Entrance, and other examinations. My idea of a successful school is that of one in which every pupil is improving, and I think that the other opinion is not a right one, as we have not the same material to work with. It does not require much talent to instruct a child keen for knowledge, but to arouse an interest in a dull pupil requires more than an effort on the teacher's part. Besides, with many of us, particularly those of us in the rural schools, what a small proportion of our pupils will ever have the opportunity of attending any but a public school. Consider what is best for your pupils; some of them at most have only a few years at school: let their time be given to such subjects as will fit them for the active work of life in which they will have to engage—such subjects as will make them good common-sense men and women, who can speak and write good English and appreciate it. In after years, if not now, they will be able to thank you. Keep a strict oversight of school-house and surroundings,—nothing speaks worse of a teacher than to allow things to go to ruin generally. Trustees also find their labors far easier with a teacher who keeps things in order, and they make a point of it in engaging a teacher. Make your school-room look as cheerful as possible; children are quick admirers of the beautiful, and the adornment of our school-rooms has a refining influence. Take a good educational paper; having once had one, you will find that you cannot keep pace with the educational tendencies of the age without its help. Get as many books as you can on your different school subjects, and in preparing your work you will be able to introduce much of variety as well as true interest in every branch. Arrange your programme in such a manner that your pupils shall have constant profitable occupation. Childhood is all activity, and if you engage the active tendencies of your pupils constantly, you will not find them getting into mischief.

Lastly, let us strive to throw as much sunshine into our work as possible, and to make our pupils feel that school is not a place where the "rod reigns," but that it is a place where they may be sure of an approving smile and an encouraging word for all their honest endeavors. And when it is ours to quit our present occupation,

whether we go to fill earthly homes, or pass to our long, last home, it will be with the pleasing satisfaction of having done our best in that sphere of life in which it has pleased God to place us.

Mathematical Department.

SOLUTIONS TO EXAMINATION PAPERS, JULY, 1881.

FIRST CLASS, GRADE C.

ALGEBRA.

1. (1) Given $x^2 + y^2 + z^2 + 2xyz = 1$, transposing and adding x^2y^2
 $(z + xy)^2 = 1 - x^2 - y^2 + x^2y^2$
 $= (1 - x^2)(1 - y^2)$, and by analogy
 $(y + xz)^2 = (1 - x^2)(1 - z^2)$
 $(x + yz)^2 = (1 - y^2)(1 - z^2)$

From which we have

$$z^2 + xyz = z\{(1 - x^2)(1 - y^2)\}^{\frac{1}{2}}$$

$$y^2 + xyz = y\{(1 - x^2)(1 - z^2)\}^{\frac{1}{2}}$$

$$x^2 + xyz = x\{(1 - y^2)(1 - z^2)\}^{\frac{1}{2}}$$

Adding up and substituting 1 for $x^2 + y^2 + z^2 + 2xyz$ we have the required relation.

- (2) $x^2 + y^2 + z^2 + 2xyz = 1$

or, $(x + y)^2 = (1 - z)(1 + z + 2xy)$

i.e., $\frac{x + y}{1 - z} = \left(\frac{1 + z + 2xy}{1 - z}\right)^{\frac{1}{2}}$ and by analogy.

$$\frac{y + z}{1 - x} = \left(\frac{1 + x + 2yz}{1 - x}\right)^{\frac{1}{2}}$$

$$\frac{z + x}{1 - y} = \left(\frac{1 + y + 2zx}{1 - y}\right)^{\frac{1}{2}}$$

Adding up we have the required relation.

2. (1) Subtracting we have $x = 0$ and $2x = y$
 Substitute these values and $y = \pm \sqrt{13}$ or $\pm 2, x = \pm 1$.
 (2) Put $(1 + x)^n = K$, $(1 - x)^n = m$, and hence $(1 - x^2)^n = Km$
 and we see that the given equation is a quadratic:

$$K^2 - Km - m^2 = 0, \text{ whence } K = m\left(\frac{1 \pm \sqrt{5}}{2}\right)$$

$$\text{i.e., } \frac{K}{m} = \left(\frac{1 + x}{1 - x}\right)^n = \frac{1 \pm \sqrt{5}}{2}$$

$$\therefore x = \frac{(1 \pm \sqrt{5})^n - 2^n}{(1 \pm \sqrt{5})^n + 2^n}$$

3. If a is a root of $f(x) = 0$, then by definition of root

And when $f(x) \div (x - a)$ the remainder is $f(a)$.

See Colenso's Algebra, Part II., page 163. Cross, page 11, Appendix to Part I.

Let x, α and β be the roots

$$\therefore x^3 - 13x^2 + 4x - 3 = (x - \alpha)^2(x - \beta)$$

$$= x^3 - x^2(2\alpha + \beta) + x(\alpha^2 + 2\alpha\beta) - \alpha^2\beta$$

$$\therefore 13 = 2\alpha + \beta, 4\beta = \alpha^2 + 2\alpha\beta, \text{ and } 3 = \alpha^2\beta$$

$$\text{And } \alpha^2 + 2\alpha(13 - 2\alpha) = 4\beta \therefore \alpha = \frac{1}{2} \text{ or } \frac{1}{3}$$

$$\beta = 12 \text{ or } -\frac{1}{3}$$

But the second pair will be found inapplicable to this equation.

Similarly

$$x^3 - 10x^2 + 32x - 38 = (x - \alpha - 1)(x - \alpha + 1)(x - \beta - 2)(x - \beta + 2)$$

$$= \{(x - \alpha)^2 - 1\} \{(x - \beta)^2 - 4\}$$

$$= \text{etc.}$$

Whence, equating coefficients $\alpha = 2, \beta = 3$ and the roots are 1, 3, 1, 5, and other roots which do not apply.

It is generally easy to factor such equations when they have any rational roots. Thus in the latter the factors of 15 are 1, 3, 5, and 15 must = product of all the roots, hence we may try $x \pm 1, x \pm 3, x \pm 5$ as divisors, and the equation splits up into $(x - 1)^2(x - 3)(x - 5) = 0$. Hence the roots.

See McLellan's Algebra, page 92, et seq.

Regarding the roots which do not apply see Colenso's Algebra, Part II., Section 43.

4. Put $S = 1^2 + 2^2 + 3^2 + \text{etc.} + n^2$. If $n = 0$ $S = 0$. $\therefore n$ is a factor of S .

Assume $1^2 + 2^2 + 3^2 + \text{etc.} + n^2 = An + Bn^2 + (Cn^3 + \text{etc.})$, for all values of n .

$\therefore 1^2 + 2^2 + 3^2 + \text{etc.} + n^2 + (n+1)^2 = A(n+1) + B(n+1)^2 + C(n+1)^3 + \text{etc.}$

Subtracting, $(n+1)^2 = A + B(2n+1) + C(3n^2+3n+1) + \text{etc.}$
Equating coefficients $1 = 3C$, $2 = 2B + 3C$, $1 = A + B + C$

Whence $A = \frac{1}{6}$, $B = \frac{1}{2}$, $C = \frac{1}{3}$
And $S = \frac{1}{6}n + \frac{1}{2}n^2 + \frac{1}{3}n^3 = \frac{1}{6}n(n+1)(2n+1)$

5. (1) Book-work.
(2) Let $S = a + (a+b) + (a+2b) + \text{etc.} + \{a + (n-1)b\}$

Reversing, $S = \{a + (n-1)b\} + \{a + (n-2)b\} + \text{etc.} + \{a+b\} + a$
Adding, $2S = 2a + (2a+nb) + (2a+nb) + \text{etc.}, n \text{ terms}$
 $= n(2a) + (n-1)nb$

i.e., $S = \frac{n}{2} \{2a + (n-1)b\}$.

6. (1) Let $S = 1 + 3x + 5x^2 + \text{etc.} + (2n-1)x^{n-1}$
 $\therefore Sx = x + 3x^2 + \text{etc.} + (2n-3)x^{n-1} + (2n-1)x^n$

i.e., $S(1-x) = 1 + 2x + 2x^2 + \text{etc.} + 2x^{n-1} - (2n-1)x^n$
adding and subtracting x^n

$= (1-x^n) + 2x(1+x^2+x^4 + \text{etc.} + x^{n-2} + x^{n-1}) - 2nx^n$
 $= (1-x^n) + 2x \frac{1-x^{2n}}{1-x^2} - 2nx^n$

$\therefore S = (1-x^n) \left\{ \frac{1}{1-x} + \frac{2x}{(1-x)^2} \right\} - \frac{2nx^n}{1-x}$

$= \frac{(1-x^n)(1+x)}{(1-x)^2} - \frac{2nx^n}{1-x}$

$= \frac{(1+x) - (2n+1)x^n + (2n-1)x^{n+1}}{(1-x)^2}$

If the series were infinite we see that $S = \frac{1+x}{(1-x)^2}$

(2) 1st	1	
2nd	2+3	
3rd	4+5+6	
4th	7+8+9+10	
etc.		
nth	$\left(1 + \frac{n(n-1)}{2}\right) + \left\{2 + \frac{n(n-1)}{2}\right\} + \left\{3 + \frac{n(n-1)}{2}\right\}$	
	+ etc. (n terms) + $\left\{n + \frac{n(n-1)}{2}\right\}$.	

Arranging as above, we see that the first term of each group = (sum of all numbers in left hand column except its own) + 1

\therefore the nth group is as above, and
Sum of nth group = $\left\{n+1 + n(n-1)\right\} \frac{n}{2} = \frac{n(n^2+1)}{2}$

Sum of 1st n groups = $1+2+3 + \text{etc.} \left[\frac{n(n+1)}{2} \text{ terms} \right]$

$+ \dots + \frac{n(n+1)}{2}$
 $= \left\{1 + \frac{n(n+1)}{2}\right\} \left\{\frac{n(n+1)}{2}\right\} \frac{1}{2}$
 $= \left\{\frac{n(n+1)}{2} + \left(\frac{n(n+1)}{2}\right)^2\right\} \frac{1}{2}$

Again,		
1^2	= 1	+ 0
2^2	= 2+3	+ 1+2
3^2	= 4+5+6	+ 3+4+5
4^2	= 7+8+9+10	+ 6+7+8+9
5^2	= 11+12+13+14+15	+ 10+11+12+13+14
etc.	etc.	+ etc.
n^2	= etc.	+ etc.

Sum = (sum of n groups) + (sum of n groups) - (last term)
 $= \frac{n(n+1)}{2} + \left\{\frac{n(n+1)}{2}\right\}^2 - \frac{n(n+1)}{2}$
 $= \left\{\frac{n(n+1)}{2}\right\}^2$

In a similar way we might infer the sum $1^2 + 2^2 + 3^2 + \dots + n^2$.
 $1^2 = 1$, $2^2 = (2+3) - (1)$, $3^2 = (4+5+6) - (1+2+3)$, $4^2 = (7+8+9+10) - (3+4+5+6)$ etc.

7. (1) Book-work.

(2) 3 sets + 10 books = 13 things, which give $\frac{13!}{3!10!}$ variations
1st set gives $\frac{13!}{2!11!}$, 2nd gives $\frac{13!}{2!11!}$, and 3rd gives $\frac{13!}{2!11!}$ variations
 \therefore on the whole we have $\frac{13!}{2!11!} \cdot \frac{13!}{2!11!} \cdot \frac{13!}{2!11!}$ variations.
If each set may be arranged from either end, then each set will give two arrangements instead of one as above, i.e., $2 \cdot \frac{13!}{2!11!}$, $2 \cdot \frac{13!}{2!11!}$ and $2 \cdot \frac{13!}{2!11!}$, and the total number will be $2 \cdot \frac{13!}{2!11!} \cdot 2 \cdot \frac{13!}{2!11!} \cdot 2 \cdot \frac{13!}{2!11!}$.

8. Altogether there are $4n+2$ points, or deducting A and B , $4n$ points. Each line parallel to AB will contain 4 points. Take any point in the first circle and join it with two points in the second circle. This may be done in $\frac{2n(2n+1)}{1 \cdot 2}$ ways.

Hence, for the whole $2(2n+1)$ points the number of possible triangles is $2(2n+1) \cdot \frac{2n(2n+1)}{1 \cdot 2}$. But as there are n lines parallel, $4n$ triangles will vanish.

Hence, total number of triangles = $2(2n+1) \frac{2n(2n+1)}{1 \cdot 2} - 4n$
 $= 2n(2n+1)^2 - 4n$.

9. Book-work.

10. (1) The $(r+1)$ th term of $(1-x)^{-\frac{p}{q}}$
 $(-1)^r \frac{p(p+q) \dots \{p+(r-1)q\}}{1 \cdot r \cdot q^r} x^r$

Hence, for $(1-x)^{-\frac{3}{2}} = (-1)^r \frac{3 \cdot 5 \cdot 7 \dots (2r+1)}{1 \cdot r \cdot 2^r} x^r$

Multiply numerator and denominator of coefficient by $1 \cdot r$ and 2^r .

it becomes = $\frac{\{2r+1\}}{1 \cdot r} \cdot \frac{1}{2^r}$.

(2) We have $a_0 = 1$, $a_1 = \frac{n}{1}$, $a_2 = \frac{n(n-1)}{1 \cdot 2}$, $a_3 = \frac{n(n-1)(n-2)}{1 \cdot 2 \cdot 3}$

$\therefore \frac{a_1}{a_0} = n$, $\frac{2a_2}{a_1} = n-1$, $\frac{3a_3}{a_2} = n-2$ etc.

$\therefore S = n + (n-1) + (n-2) + \dots + n \text{ terms} + 2 + 1 = \frac{n(n+1)}{2}$

ANSWERS TO CORRESPONDENTS.

We have received from W. Braithwaite, Unionville, the following proposed solution of No. 4 in the First-Class Arithmetic, of which solutions were given in this department last month:

\$90 due in 40 days.	
\$90 " 101 "	
\therefore \$180 " 70½ "	(equated time).
Disc't. on \$180 for 70½ "	$= \frac{1}{108}$ of \$180 = \$33.
" 180 " 365 "	$= 3\frac{3}{8} \times \frac{365}{70\frac{1}{2}} = \frac{2628}{141}$
Or Int. on 176½ " 1 year	$= \frac{2628}{141}$
\therefore " 100 or per cent	$= \$10.56+$

This is shorter than our solution but is not strictly accurate. Like several published solutions of this problem, it assumes interest equal to discount, viz., that the interest on \$90 paid 30½ days after it is due = the discount on \$90 paid 30½ days before it is due. It is doubtful whether a candidate for First-Class would receive full marks for an answer only approximately correct. In this particular question the sums are so small and the times so short that the difference between mathematical discount and bank discount is only very small, yet the principle of putting interest = discount is scarcely accurate, though it saves some labor in the calculation.

General Information.

An Electric Railway from Berlin to Lichterfeld has been successfully opened. The rails are insulated from the earth by wooden sleepers, and are in electrical connection with a dynamo-electric machine worked by steam power at a station. A magneto-electric machine on the driving carriage or locomotive is so fixed and connected with the axle of one pair of wheels as to impart motion to it, the driving axle being covered electrically by introducing an insulated washer, and a current of electricity, passed along one rail to work the magneto-electric machine on the locomotive, returns by the other rail to the stationary machine on the ground. The rate of speed attained was eighteen miles an hour.

GIANTS.—We of the present day are more "Tom Thumbs" when compared with the huge individualities of antiquity. Near Mazerino, in Sicily, in 1516, was found the skeleton of a giant thirty feet high. His head was the size of a hog's head, and each of his teeth weighed five ounces. In 1630, near a castle in Daughin, a tomb was found thirty feet long, twelve wide, and eight high, on which were cut the words, "Keutolochus Rex." The skeleton was found entire, twenty-five feet and a half long, ten feet across the shoulders, and five feet deep from the breast-bone to the back. Near Palermo, in Sicily, in 1548, was found the skeleton of a giant thirty feet long, and another thirty-three feet high, in 1550. The Giant Buart was twenty-two and a half feet high; his bones were found in 1705, near the banks of the river Moneri. In 1614, near St. Germain, was found the tomb of the Giant Isoret, who was twenty feet high.

THE BRITISH QUEEN.—The Queen alone can create a peer, baronet, or knight, and confer privileges on private persons. She alone can erect corporations, and raise and regulate fleets and armies. She is the head of the Church; she convenes and dissolves all ecclesiastical synods and convocations, and nominates to vacant bishoprics and other Church offices. She sends ambassadors to foreign States, receives ambassadors at home, makes treaties and alliances, and declares war and peace, though her power in these respects also is in a large degree limited by the power of Parliament to enact or reject such laws as may be necessary to make it effective. As is well known, the Queen appoints her own advisers, irrespective of the approval of Parliament, and though popularly the Ministry is supposed to possess the whole executive power, no important measure is presented by them to the consideration of Parliament through the channel of the Ministry, and Parliament may originate and pass acts at its pleasure, subject to the constitutional right of the Queen to nullify them by her veto. The Queen can convene Parliament and terminate its sessions at will. There have been but two instances in which the Lords and Commons have met by their authority, namely, previous to the restoration of Charles II., and at the Revolution of 1688.

A youth at Dundee has undergone a very strange and unwonted experience, adding one more illustration to the oft-repeated truth that the inventions of fiction are, after all, frequently outdone by the actual occurrences of work-a-day life. At the public swimming baths in the place named, the water is let off at low tide into the river, previous to the inlet of a fresh supply from tanks on the premises. While the process of depletion was going on one day recently, a lad, in contravention of the rules and regulations of the establishment, plunged into the bath. To the horror and consternation of all present, he did not "turn up" again on the surface, in accordance with those results which usually follow the performance of "a header," and no long time had elapsed when he put in an appearance in a very sorry plight, nude, scared, and much "abraded" as to his epidermis, to tell the story of his mysterious exit and thus prompt return. The strong suction of the water in its disgorgement had dragged the swimmer unprepared into its whirling vortex, propelled him, like a bullet through a small-bore rifle, down some thirty feet of pipe, whose cavity did not exceed twelve inches in diameter, and finally shot him, breathless and bewildered, scared and scraped, into the unexpectant Tay. He unfolded to a sympathetic, if not admiring, audience, the record of this dark page in his life's early history.

The phrase "He's a brick" which is often used by boys is said to have had its origin in the following way: On a certain occasion an ambassador from Epirus, was shown by the king of Sparta, over his capital. The ambassador knew of the monarch's fame—knew that though nominally only king of Sparta, he was ruler of Greece; and he had looked to see massive walls rearing aloft their embattled towers for the defence of the city, but he found nothing of the kind. He marvelled much at this, and spoke of it to the king. "Sire," he said, "I have visited most of the principal towns, and I find no walls reared for defence. Why is this?" "Indeed, sir ambassador," replied Agesilaus, "thou canst not have looked carefully. Come with me to-morrow morning and I will show you the walls of Sparta." Accordingly, on the following morning, the king led his guest out upon the plain where the army was drawn up in full array; and pointing proudly to the patriot host, he said, "There thou beholdest the walls of Sparta—ten thousand men, and every man a brick."

WOOD PULP.—Any white, soft wood may be used. The bark is taken off, the knots and dark and decayed places cut out. It is then put into a large cauldron and boiled, which extracts all the glutinous matter and resin, and renders it soft. It is then put on a large stone grinder, with water pouring on it all the time. The grindstone wears off the fibres until they are finer than sawdust, which floats away into a receptacle. The water is drained off by means of a fine sieve, leaving the pulp, which consists of a fine fuzz of splinters of wood. It is white, and requires no bleaching, but is ready to be mixed with rag pulp or anything else that has a strong fibre, and receive the proper constituents to make a paste, after which it is run off into paper sheets; whereas rags have to be washed and bleached with chloride of lime, soda ash, and alum, and such strong chemicals, to take out the color. Then they are picked to pieces and made into pulp. The process by which wood pulp is made is purely mechanical.

LUCIFER MATCHES are now rarely heard of; the term was once much used; it means "light-bearing." The inventor of them was Isaac Holden; he was at the time a teacher in an academy at Reading, England, and gave lectures on chemistry. He says that about 1829 he was accustomed to rise early in the morning to pursue his studies, and to strike a light used a flint and steel. By striking the flint and steel together a spark was produced; this fell on sulphur and set it on fire. The idea occurred to him to get a spark of fire from some explosive substance, and he used chlorate of potash. This he showed to his class. One of his pupils wrote to his father, a London chemist, and soon matches were made that gave light themselves, and were called "lucifer matches," a very appropriate name. You see the spark is made by the explosive potash, and that burns the sulphur which sets the wood on fire.—*Scholar's Companion.*

SCIO.—Scio (or Chio), the island in the Grecian Archipelago which has been visited by a terribly destructive earthquake, involving the loss of several thousand lives, has an area of four hundred square miles, and is separated from the coast of Asia Minor by a strait seven miles wide. Its civilization and fame are as old as the mythical period of Greek history. Among the seven cities that claim the honor of being the birthplace of Homer, Scio, the capital of the island, was one. When Pan died and the oracles of Dodona became silent; when the curtain fell on the strange, pathetic, beautiful, and romantic story of the old days of pagan mythology, the spirit of life and music that filled the days of Scio with beauty seemed to die and pass away with the departure of her gods.

THE SNAIL.—Several years ago an Egyptian desert snail was received at the British Museum. The animal was supposed to be dead, as no traces of life could be seen, and the specimen was gummed, mouth downward, on a table, duly labelled and dated, and left to its fate. Four years later the tablet was placed in tepid water and the shell loosened, when the snail, which was not dead but sleeping, suddenly resuscitated himself, and began walking around the basin. He then sat for his portrait, which may be seen of life-size in Mr. Woodward's "Manual of the Mollusca." During these four years the snail had never eaten a mouthful of any kind of food, yet he was quite as well and flourishing at the end of this long period as he had been at the beginning.

The following words are often mispronounced. It will be well for the young reader to look them out in the dictionary, and fix the right sound and accent: Usually, zoology, yolk, virago, turbine, tour, trow, tiara, thyme, telegraphy, tassel, suit, strata, soot, sonnet, soiree, salmon, romance, robust, repartee, raspberry, pristine, radish, rapine, prairie, polonaise, plateau, pianist, piano-forte, orang-outang, Orion, orchestra, nausea, naivete, mogul, libertine, leisure, jaguar, heinous, homœopathy, height, giraffe, ghou, finesse, European, equipage, encore, ducat, dishabille, Aegean Sea, Marmora, Mount Cenis, Moscow, Potosi, Port Said, Pompeii, Odessa, Nucces, Edinburgh, Ecuador, Ivry, Messina, Bombay.

It is well known that certain fowls fill their digestive apparatus with gravel and pebbles, which act as millstones in grinding up their food. Recent investigation shows that other animals are addicted to similar habits on a larger scale. Seals swallow stones weighing from one to two and sometimes even three pounds each, while one investigator found, not long since, ten pounds of these boulders in the stomach of a sea lion.

Examination Questions.

JULY EXAMINATIONS, 1881.

FIRST CLASS TEACHERS.—GRADES A AND B.

(Continued from last month.)

CORIOLANUS.

TIME—TWO HOURS AND A HALF.

Examiner—JOHN WATSON, M.A., LL.D.

1. Classify the plays of Shakspeare. Explain and defend the principle of your classification.
2. Discuss the question as to the date of *Coriolanus*.
3. From what source did Shakspeare get his materials for this play? Mention any instance in which he has made a free use of those materials, and any instances in which he has expanded a hint into a character.
4. "The subject of the whole play is not the exile's revolt, the rebel's repentance, or the traitor's reward, but above all it is the son's tragedy." Give the evidence that may be found in the play itself for each of the views indicated. Which view seems to you the most reasonable?
5. Estimate the character of Coriolanus, giving references, special or general, to the passages which seem to bear out your interpretation.

6. *Bru.* All tongues speak of him, and the bleared sights
Are spectacled to see him : your prattling nurse
Into a rapture lets her baby cry
While she chats him : the kitchen malkin pins
Her richest lockram 'bout her reechy neck,
Clamb'ring the walls to oye him : stulls, bulks, windows,
Are smother'd up, leads fill'd, and ridges hors'd
With variable complexions ; all agreeing
In earnest to see him : sled-shown flamens
Do press among the popular throngs, and puff
To win a vulgar station : our veil'd dames
Commit the war of white and damask, in
Their nicoly-gawded cheeks, to the wanton spoil
Of Phoebus' burning kisses ; such a nother,
As if that whatsoever god who leads him,
Were slyly crept into his human powers,
And gave him graceful posture.

—Act II., sc. 1, ll. 197-211.

- (1) Rewrite this passage, so as to bring out the exact meaning of each word.
- (2) 'Rupture' and 'chats of' or 'chats to' have been proposed in place of 'rapture' and 'chats.' (Ll. 197-8.) Do you regard these changes as necessary or reasonable? Explain.
- (3) Write explanatory notes on 'malkin,' 'lockram,' 'bulks.'

7. Let me twine
Mine arms about that body, where against
My grained lash an hundred times hath broke,
And scarr'd the moon with splinters.

—Act IV., sc. 5, ll. 105-8.

—Commanding peace
Even with the same austerity and garb
As he controll'd the war.

—Act IV., sc. 7, ll. 43-5.

Name the figure of speech in 'scarr'd the moon with splinters' and 'even with the same austerity and garb.' Illustrate each by a quotation from Shakspeare or some other writer.

8. *First Serv.* Let us have war, say I : it exceeds peace as far as day does night : it's spritely, waking, audible, and full of vent.

—Act IV., sc. 6, ll. 219-21.

Rights by rights fouler, strengths by strengths do fail.

Act IV., sc. 7, l. 55.

Explain the meaning of the words in italics, as you understand them.

ANCIENT HISTORY AND GEOGRAPHY.

TIME—TWO HOURS AND A HALF.

Examiner—J. M. BUCHAN, M.A.

1. Give an account of the growth of the Athenian empire from the formation of the Confederacy of Delos to the Thirty Years' Truce between Athens and Sparta.
2. What is Cox's view of the subject of the mutilation of the Hermai, just before the departure of the Athenian expedition against Sicily.
3. Sketch, after Mommsen, the constitution of Rome in the period between the First Punic War and the destruction of Carthage.
4. Give an account of the Roman empire at the outbreak of the war against the Cimbric and Teutonic.
5. Sketch, after Mommsen, the character of Gaius Julius Caesar.

ENGLISH AND CANADIAN HISTORY.

TIME—TWO HOURS AND A HALF.

Examiner—S. ARTHUR MARLING, M.A.

1. Describe the growth of the prerogative and of arbitrary power in the reign of James I.
2. Give a history of the Court of Star-Chamber, and explain what was its jurisdiction at different times.
3. Write, after Macaulay, a history of the Long Parliament.
4. Narrate the principal events under Laval's administration in Canada.
5. Describe the relations existing between the home government and the French Governors of Canada.

PROFESSIONAL EXAMINATION.

FIRST CLASS.

SCIENCE OF EDUCATION.

TIME—TWO HOURS.

Examiner—J. A. McLELLAN, LL.D.

1. Give any definitions of Education that have been proposed by prominent writers on the subject.
What do you conceive to be the true aim and scope of education?
2. Discuss briefly the question—Is Education a Science?
What practical uses may fairly arise from a knowledge of the laws which regulate the mental activities?
3. State any of the conditions essential to effective mental action, and shew their bearing on the work of education.
4. Among the objective laws of association (of ideas) are
(1) The law of similarity and contrast.
(2) The law of contiguity in time and place.
Briefly explain and illustrate these laws.
5. Spencer says :—"For the training of the memory science is as good as language, while it has an immense advantage in the kind of memory it cultivates."
Give an outline of his discussion of these propositions.
6. "The influence of the imagination is equally felt in moral and intellectual action." Explain this statement.
In the cultivation of this faculty what methods are open to the teacher?
7. Bain says that the "Rule of Three" can hardly be applied without a knowledge of reasons, and is hence the *pons asinorum* of arithmetic. Compare, giving illustrations, this *pons asinorum* with the Unitary Method. Shew that the objection "Even in the Unitary Method we use the idea of ratio," is futile.

HISTORY OF EDUCATION.

TIME—TWO HOURS.

Examiner—S. ARTHUR MARLING, M.A.

1. Describe concisely the effect produced upon educational methods by the Revival of Learning in the 15th and 16th centuries. Illustrate by examples.

2. What are the leading educational principles developed by Rousseau? State the objectionable features of his 'Emile,' with the reasons of your objections.

3. Give some account of Jacotot and his system.

4. "It seems to be remarked that, in practice, the Pestalozzian system seems scarcely to have fulfilled the promise of its theory" (Herbert Spencer.) How does Mr. Spencer illustrate and account for this?

5. Tell what you know about the distinctive features of the teaching and school discipline of Dr. Thomas Arnold, or, of Bell and Lancaster.

6. Give a clear account of the origin and progress of national education in Ontario. What characteristics peculiar to itself does the Ontario system possess?

NOTE.—Five questions will be reckoned a full paper.

Practical Department.

MOTTOES FOR THE SCHOOL-ROOM WALLS.

No Bad Thoughts.

Be Self Reliant.

Kind Words Never Die.

Truth Wins When Deception Fails.

Our Life is what we Make it.

Let all your Actions be Upright.

Knowledge is Power.

Always be Frank and Truthful.

Indolence Never Climbs a Hill.

Never Give Up.

Always be on Time.

No Idlers Here.

Wisdom is Strength.

God Bless our School.

Always be Polite.

Strive to Please.

Be Kind to One Another.

"I'll try," must Succeed;

"I can't," must Fail.

Honest Youth makes a Happy Old Age.

Truth is Golden.

An Idle Word can never be Recalled.

Always do your Best.

Well Begun is Half Done.

Doing Right Pays.

Perseverance Wins.

Never Forget that God is Ruling.

THE TONIC SOL-FA METHOD OF SINGING.

BY J. L. ROBERTSON, TORONTO.

In the observance of *time* in singing, it may be asked, How am I to know whether the music is to be sung fast or slow? or, What is the duration of a pulse? Generally, two-pulse music is sung slowly, three-pulse faster, four-pulse slightly faster than that, and six-pulse the fastest, but both speed and expression are nearly always noted at the commencement of the piece, especially in those intended for instruction. For marking time an instrument is used, called a *Metronome*, in which a pendulum is moved by clock-work machinery, and by lengthening or shortening this pendulum the required speed is indicated. Thus, if we want to sing a piece marked M. 60 (Metronome 60), we adjust the pendulum to the length needed to produce sixty beats in a minute, and the time which elapses between

each successive beat is the length of the pulse. In fast music, such as six-pulse measure, the pendulum could not be adjusted to beat every pulse, in which case it is arranged to beat half measures, or as it is expressed in the Tonic Sol-fa notation, "beating twice in a measure." The clock-work metronome is rather expensive, and for learners a cheap substitute may be used which the teacher can easily make. Get a narrow white tape, to which attach a plummet of about two ounces in weight—a piece of lead flattened out to the size of a silver dollar, with a hole near the edge, will do—and measure off on the tape lengths corresponding to the scale of inches in the following table, marking on it the several metronome figures:

M 50.....	Tape 56 inches.
M 56.....	" 47 "
M 60.....	" 38 "
M 66.....	" 31 "
M 72.....	" 27 "
M 76.....	" 24 "
M 80.....	" 21 "
M 88.....	" 17 "
M 96.....	" 13½ "
M 120.....	" 8½ "

These metronome figures include nearly all the movements required, until by practice the speed can be regulated according to taste and experience. The plummet is made to swing like a pendulum, while the teacher grasps the tape at the figure which denotes the metronome rate of movement. This simple contrivance is so correct as the clock-work instrument, but is near enough for all practicable purposes.

Difference of Voices.—A boy's voice is like a woman's until a period in his life is reached—generally about fourteen or fifteen years of age—when it becomes hoarser and deeper, and the pitch becomes exactly an octave lower than it was, and continues so. Then when he sings in unison with women he may fancy he is still singing the same notes, but they are only *replicates* of these notes. Some men can sing higher than others, with a clear, ringing sound, but are unable to sink their voices so low; the higher tones form what is called *tenor*, and the lower *bass*. Again, some ladies and boys possess voices capable of high range and strong power, which are classed as *soprano*, while others, whose voices are perhaps equally powerful, have a lower range, which may be classed as *contralto*. The harmonious effect of these voices when singing a well-composed piece of music is, to the majority of the human race, extremely exquisite.

In the staff notation, when music is arranged for four voices, there are two staves used, the upper for soprano and contralto, and the lower for tenor and bass. Sometimes tenor is written in the upper staff, underneath the notes for female or treble voices. Also, the notes are not read in the same manner in each staff; for example, *F* in the treble staff is in the first space; in the bass staff it occupies the fourth line, and even then is an octave (eight notes) below the treble. This discrepancy causes much trouble to the learner. In the Tonic Sol-fa the same expression is used for all voices, but it is understood that both tenor and bass are sung an octave lower than written, because, in the first place, it obviates the necessity of increasing the number of octave marks in writing and printing the notation; and secondly, on account of the impression which exists that men sound the same note as women, when it is in reality only a lower replicate. If it were written as sounded, men would desire to pitch their voices an octave lower than needed, and therefore the plan adopted is convenient though not strictly correct.

The learner will now observe, *and bear in mind*, that when a letter is used without a figure it represents a note in the octave of the key-note; when the figure is attached to the upper part of the letter

the note is in the octave above the key-note, and when in the lower octave, or that below the key-note, the figure is placed at the lower part of the letter. This remark applies to the bass and tenor as well as the trebles.

(In the modulator which appears in my last article the following corrections will be made by the learner. In key *F* take the figure off the upper *t*, and place one to lower *l*, also to lower *m* in the key *B* flat just beside it. In key *G* remove the figure from the upper part of *t* to the lower part of same.)

EXERCISES.—The exercises selected this month are school songs which are easily learned. They are both written in four-pulse measure, which is marked by the hand moving down for the first pulse in the measure, left for the second, right for the third, and up for the fourth. The down beat, in every instance, is on the first pulse after the long bar, or upright stroke. The emphasis should be marked also as shown in the last article.

HASTE, HASTE, HASTE.

KEY F. M. 80.

From Curwen's "Second Linnet."

{	d :—		m :—		s :—		— :d	}
{	l. Haste,		haste,		haste,		For	}
{	m :d		r :t		d :—		— :d	}
{	schooltime		now is		near!		A .	}
{	r :r		r :r		m :—		d :d	}
{	way from		home and		la .		hour, With	}
{	m :m		m :m		s :—		m :—	}
{	schoolbooks,		pen, and		pa .		per,	}
{	s :—		s :—		s :—		— :d	}
{	Haste,		haste,		haste,		For	}
{	m :d		r :t		d :—		— :—	}
{	schooltime		now is		near.			}

2. Haste, haste, haste,
For schooltime now is near!
Before the bell stops ringing,
Be there to join in singing,
Haste, haste, haste,
For schooltime now is near.

3. Haste, haste, haste,
For schooltime now is near!
Be always there in season,
Or have sufficient reason,
Haste, haste, haste,
For schooltime now is near.

LITTLE EYES.

KEY F. M. 72.

From Curwen's "Second Linnet."

{	d :r		m :—		r :m		d :—	}
{	l. Lit-tle		eyes,		lit-tle		eyes,	}
{	m ₁ :f ₁		s ₁ :—		f ₁ :s ₁		m ₁ :—	}
{	r :m		f :s		f :m		r :—	}
{	O . pen		with the		morn-ing		light.	}
{	s ₁ :s ₁		l ₁ :t ₁		r :d		t ₁ :—	}
{	d :r		m :—		r :m		d :—	}
{	Up-ward		look,		up-ward		look,	}
{	m ₁ :f ₁		s ₁ :—		f ₁ :s ₁		m ₁ :—	}
{	r :m		f :r		d :t		d :—	}
{	Heav-en's		morn is		al-ways		bright.	}
{	f ₁ :m ₁		r ₁ :f ₁		m ₁ :r ₁		m ₁ :—	}

2. Little heart, little heart,
Full of laughter, full of glee,
Beat with love, beat with love,
For the Lord who blesses thee.

Learn ye may, work or play,
Daily to do good to all.

3. Little hands, little hands,
Busy with the kite or doll,

4. Little feet, little feet,
Soft your patten, light your load,
Do not stray, keep the way,
Walk the straight and narrow road.

MISCELLANY OF HYGIENIC RULES AND APHORISMS.

The first thing a child should learn is to ask for a drink of water. I have seen hand-fed children scream and fidget for hours together, as if troubled by some unsatisfied want, but at the same time rejecting the milk-bottle and pap-dish with growing impatience. In nine such cases out of ten the nurse will either resort to paregoric or try the effect of a lullaby. I need not say that the poison-expedient would be wrong under all circumstances, but, before you try anything else, offer the child a cup of cold water. To a young nursing the mother's breast supplies both food and drink, but farinaceous paps require a better diluent than milk.

If I should name the greatest danger of childhood, I would unhesitatingly say, Medicine. A drastic drug as a remedial agent is Beelzebub in the rôle of an exorcist.

Our nursery system, after all reforms, is still far from being the right one—how far, we may infer from the fact that we have not yet learned to make our babies behave as well as young animals.

Tight-swaddling, strait-jacket gowns, and trailing petticoats—restraint, in short, makes our infants so peevish. If we would give them a chance to use their limbs they would have no time to scream.

It would prevent innumerable diseases if people would learn to distinguish a morbid appetency from a healthy appetite. One diagnostic rule is this, that the gratification of the latter is not followed by repentance; another, that the former has to be artificially and painfully acquired: our better nature resists the incipience of a morbid "second nature." After acquitting Nature from all responsibility for such factitious appetites, it may be justly said that a man can find a road to health and happiness by simply following his instincts.

The supposed danger of cold drinks on a hot day is a very expensive superstition. It deprives thousands of people of the most pleasurable sensation the human palate is capable of. It is worth a two hours' *anabasis* in the dog-days to drink your fill at the coldest rock-spring of the mountains.

Bathing in flannel!—I would as soon take ice-cream in capsules. The price of the flannel suit would buy you a season-ticket to a lonely beach.

A disposition to excessive perspiration is often due to general debility, but there is a specific remedy for it. Fill your knapsack with substantial and take a pedestrian trip in midsummer, up-hill, if possible, and without loitering under the shade-trees; in short, give your body something worth perspiring for. After that it will be less lavish of gratuitous performances of that sort. The soldiers of the Legion Etrangère are mostly northmen—Poles, Belgians, and Russians—but upon their return from a year's service in Algiers it takes a long double-quick under a Mediterranean sun to drill them into a sweat.

"A catarrh is the beginning of a lung-disease." It would be the end of it if we did not aggravate it with nostrums and fusty sick-rooms.

Somewhat or other we must have abused our teeth shamefully before Nature had to resort to such a veto as toothache.

A tooth pulled in time saves nine.

"If you doubt whether a contemplated act is right or wrong," says Zoroaster, "it is the safest plan to omit it." Let dyspeptics remember that when they hesitate at the brink of another plateful.

The digestion of superfluous food almost monopolizes the vital energy; hence the mental and physical indolence of great eaters. Strong-headed business-men manage to conquer that indolence, but only by an effort that would have made the fortune of a temperate eater.

A glutton will find it easier to reduce the number of his meals than the number of his dishes.

Highland children are the healthiest, and, even starving, the happiest. "There is no joy the town can give like those it takes away."

Paracelsus informs us that the composition of his "triple panacea" can be described only in the language of alchemistic adepts. Nature's triple panacea is less indescribable—fasting, fresh air, and exercise.

A banquet without fruit is a garden without flowers.

The best stuff for summer-wear—one stratum of the lightest mosquito-proof linen.

"Do animals ever go to the gymnasium?" asks an opponent of the movement cure. Never: they have no time—they are too busy practising gymnastics out-doors.

Descent from a long-lived race is not always a guarantee of longevity. A far more important point is the sanitary condition of the parents at the birth of the child. Pluck, however, is hereditary, and has certainly a prophylactic, a "health-compelling" influence.

The first gray hairs are generally a sign of *dear-bought* wisdom.

The "breaking-up" of a pulmonary disease could often be accomplished by breaking the bedroom-windows.

Death, formerly the end of health, is now a-days the end of a disease.

Dying a natural death is one of the lost arts.

There seems to be a strange *fatum* in the association of astronomy with humbug: formerly in horoscopes, and now in patent-medicine almanacs.

A patent-medicine man is generally the patentee of a device for selling whiskey under a new name.

A "chronic disease," properly speaking, is nothing but Nature's protest against a chronic provocation. To say that chronic complaints end only with death, means, in fact, that there is generally no other cure for our vices.

Every night labors to undo the physiological mischief of the preceding day—at what expense, gluttons may compute if they compare the golden dreams of their childhood with the leaden torpor-slumbers of their pork and lager-beer years.

If it were not for calorific food and superfluous garments, midsummer would be the most pleasant time of the year.

Early impressions are very enduring, and can make useful habits as well as evil ones a sort of second nature. In order to forestall the chief danger of in-door life, make your children love-sick after fresh air: make them associate the idea of fusty rooms with prison-life, punishment, and sickness. Open a window whenever they complain of headache or nausea; promise them a woodland excursion as a reward of exceptionally good behaviour. Save your best sweetmeats for out-door festivals. By the witchery of associated ideas a boy can come to regard the lonely shade-tree as a primary requisite to the enjoyment of a good story-book. "Or, *mes pensées ne roudent jamais aller qu'avec mes jambes*," says Rousseau ("Only the movement of my feet seems to set my brains a-going"), and it is just as easy to think, debate, rehearse, etc., walking as sitting; the peripatetic philosophers derived their name from their pedestrian proclivities, and the Stoic sect from their master's predilection for an open porch. Children who have been brought up in hygienic homes not rarely "feel as if they were going to be choked" in unventilated rooms, and I would take good care not to cure them of such salutary idiosyncracies.

Every observant teacher must have noticed the innate hardness young boys, their unaffected indifference to wind and weather. They seem to take a delight in braving the extremes of temperature,

and, by simply indulging this *penchant* of theirs, children can be made weather-proof to an almost unlimited degree; and in nothing else can they be more safely trusted to the guidance of their protective instincts. Don't be afraid that an active boy will hurt himself by voluntary exposure, unless his chances for out-door play are so rare as to tempt him to abuse the first opportunity. Weather-proof people are almost sickness-proof; a merry hunting-excursion to the snow-clad highlands will rarely fail to counteract the consequences of repeated surfeits; even girls who have learned to brave the winter storms of our North-western prairies will afterwards laugh at "draughts" and "raw March winds."

A hard crust is the best possible dentifrice. I never could get myself to believe in the natural necessity of a tooth-brush. The African nations, the Hindoos, the natives of Southern Europe, the South-Sea Islanders, the Arabs, the South American vegetarians, in short, three-fourths of our fellow-men, besides our next relatives, the frugivorous animals, have splendid teeth without sozodont. I really believe that ours decay from sheer disuse; the boarding-house *homo* lives chiefly on pap—wants all his meats soft-boiled, and growls at cold biscuit or an underdone potato; in other words, he delegates to the cook the proper functions of his teeth. We hear occasionally of old men getting a second, or rather third, set of teeth. I met one of them in northern Guatemala, and ascertained that he had become toothless during a twelve years' sojourn in a seaport town, and that he got his new set upon his return to his native village, where circumstances obliged him to resume the hard torn-cake diet of his boyhood years. His teeth had reappeared as soon as their services were called for, and would probably never have absented themselves if a pap-diet had not made them superfluous. An artificial dentifrice will certainly keep the teeth white, but that does not prevent their premature decay; disuse gradually softens their substance, till one fine day the hash-eater snaps his best incisor upon an unexpected bone. Every old dentist knows hundreds of city customers whom the daily use of a tooth-brush did not save from the necessity of applying, before the end of the fortieth year, for a complete "celluloid set." I do not say that a soft tooth-brush and such dentifrices as oatmeal or burned arrow-root can do any harm, but, for sanitary purposes, such precautions must be supplemented by *mental exercise*. Let a child invigorate its teeth by chewing a hard crust, or, better yet, a handful of "St. John's bread" or carob-beans, the edible pod of the *Mimosa siliqua*. Children and whole tribes of the northern races seem to feel an instinctive desire to exercise their teeth upon some solid substance, as pet squirrels will gnaw the furniture if you give them nut-kernels instead of nuts. Thus Kohl tells us that the natives of southern Russia are addicted to the practice of chewing a vegetable product which he at first supposed to be pumpkin or melon seeds, but found to be the much harder seed of the Turkish sunflower (*Helianthus perennis*). Their national diet consists of milk, *kukaruz* (hominy, with butter, &c.), and boiled mutton, and they seem to feel that their Turkoman jaws need something more substantial. The school-boy habit of gnawing pen-holders, finger-nails, etc., may have a similar significance. The *Mimosa siliqua* would yield abundantly in our Southern States, and its sweet pods would make an excellent substitute for chewing-gum. Our practice of sipping ice-cold and steaming-hot drinks, turn about, has also a very injurious effect upon the brittle substance that forms the enamel of our teeth; no porcelain-glaze would stand such abuse for any length of time, and experience has taught hunters and dog-fanciers that it destroys even the bone-crushing fangs of the animal from which our canine teeth derive their name.—DR. FELIX L. OSWALD, in *Popular Science Monthly for November*.

ENGLISH LANGUAGE IN THE PRIMARY SCHOOL.

Every art must be learned in the beginning by practice. The art of language demands much practice. The acquirement of a vocabulary and a familiarity with correct forms of expression is a very slow process, and, like the study of numbers must be begun early in the child's life. If this practice be omitted for technical teaching, or if it be delayed until the pupil's habits of speaking be firmly fixed, and until the period of acquiring an extensive vocabulary easily and rapidly is past, a fine command of language can hardly be acquired. A life-time will hardly suffice to obtain what might have been easily gained in the impressible season of childhood. That language does have, then, more than an incidental place in the primary school, no one will question. Not as a science at all, but as a means of gaining a vocabulary and fixing correct forms of expression, thereby preparing for the scientific study of the language. Nor will a proper teaching of it add to the teacher's work, but rather lighten the whole lump. Any one who has tried it, or has watched its working in the best schools of the country, will bear me out in this statement.

There is no more favorable period in the child's school-life for this work. He is constantly getting new ideas; these need to be expressed,—need to be put into words. Ideas become clearer ideas through expressing them; thoughts are retained by being stated clearly. There is, then, a great call for the use of language, and, if given the opportunity, the child will respond with a readiness he will never afterward exhibit. He has not self to forget at this period, for he has never learned to think of self; neither is he conscious of surroundings, as he will be later, but will freely and unaffectedly state his thought. That is what he has been doing for years before coming to school,—been doing it as he has been doing nothing besides,—for he has been allowed and encouraged to talk about everything with which he has come in contact. Exercise his one talent, then, and continue the instruction begun at home. The school-room will be more real to him with this one connecting link between it and home.

Language-culture must be largely oral through the primary course; each "lesson is the joint product of the work of teacher and pupil." Its exercise, therefore, depends upon the genuine sympathy existing between teacher and pupil, and also upon the teacher's individual thought in planning an exercise. This being true, no detail of methods can be closely followed. I can, however, speak of some of the methods I have used in language-training, and these will suggest many others to your mind.

Let the first exercises be purely conversational, and with the very little ones let them continue so for several weeks. Let the questions with the youngest ones be somewhat after this manner: How many shoes have you on your feet? The answer comes, "Two." "Two what?" "Two shoes." "What about two shoes?" "Two shoes on my feet." Now who will tell me the whole story? and so follow up the questioning until you receive a complete statement. They soon learn that you expect this, and will give it without waiting to be questioned for it. How many mittens do you wear at once? What do you wear on your head? what else? who wear bonnets? who wear tall hats? What do you see from the window? What did you see coming to school? What do you think you will see going home?

Show pictures, and call for the objects they can see in the picture. Show an apple, and ask, What would you do with it if you had it? What else can you eat? When do you eat breakfast? dinner? supper? When does puss have her dinner? How does puss drink her milk? How many feet has your cat? What will she do if you pull her tail? With what will she scratch? Where does she hide her

claws? Show a toy-horse and cart, and ask, What do you see now? Is this a real horse? Is this a real cart? What can a real horse do? What do people put in a cart? How many of you have a cart at home? Is it just like this cart? Is it as large?

In this way I lead them to observe and think, and then require their thought. They soon lose all restraint, and talk freely and sensibly about their home, their playthings, what they like, what they do not like, with whom they play, what things are made of wood, of glass, of tin, or about any particular thing to which I call their attention. I have only to present the stimulus to thought, and their little active minds respond readily. Thought with them means expression, and they give it without thinking of how they shall give it, or feeling at all embarrassed as to their nouns, verbs, and adjectives. There are constant mistakes in the use of these at first, but gentle, patient correction, soon establishes a fair degree of perfection even with the little ones.

At first I can have little method in my questions. My aim is solely to awaken thought without regard to concentrating it, and to ascertain the child's range of ideas. When I know where the class stands, I can choose my subjects and put my questions according to the children's comprehension. Objects themselves, or pictures of objects, present the best stimulus of thought. "Indeed the only way to cultivate language in the child is to extend his knowledge of objects, and allow him full opportunity of talking about them and hearing when talked about."

Movements have a great charm for children, so I let them describe mine or each other's. I go to the board, draw a straight line, return to the class, and ask who can tell me what I have done. I open a door and talk with an imaginary person outside, and ask again what I did. I go to my desk, take a flower from the vase and give it to one of the class, and again ask what I have done. I let her do what she pleases with the flower, and let them tell me what has been done.

At another time I say, Put your heads on the desk and think of something that has four feet; two feet; that flies; that has four wheels; two wheels; one wheel; three wheels. Of something you would like me to bring you when I go to Boston; of something that grows on trees; of some animal you know; of some plant you know. Tell me what articles are found in the kitchen; in the parlor; in the school-room. I write a sentence on the board, putting a horizontal line in place of one of the words and require the child to supply the word omitted. For illustration:

Teacher: My — can jump.

Class: My cat can jump.

My dog can jump.

My cow can jump.

My brother can jump.

My squirrel can jump.

These skeleton sentences give an excellent practice in word-finding, both now and farther on, when I can leave several blanks to be supplied, or when I can put a story on the board, writing only a few of the most important words, and require a connected story with this mere outline for a guide.

I describe a word and require them to tell it to me from the description. Thus: "I am thinking of something that grows in the field, and that men mow in the summer time." They are quick to say I am thinking of *grass*. "I am thinking of something the grass makes when it is dried; of something that is done to the hay; for what the hay is used."

I tell a story and require the scholar to tell me what he remembers of it. I point to a word with which they are familiar, and ask who will use this word in a little story?

I point to an object in the room and ask, Who will tell me some-

thing about this? They answer the questions: What can you do? what can you taste? what can you wear? what can you hear? what can you touch?

All these ways, and many more, I use to "bring to expression their previous knowledge, and make it a basis for added facts." The number of ways may be quadrupled and still leave ample scope for originality. All these exercises are adapted to the first years in school. They are largely conversational; occasionally objects are described, but the power of description comes later than the power to narrate, so I employ narration first. — *N. E. Jour. of Ed.*

ORAL INSTRUCTION.

I know that microscopic politicians have persuaded the long-suffering public of this country that teachers ought to have nothing to say about education; but I think they should have, and am going on to say my share, in spite of all the politicians who are not yet translated.

To whom should the public look for information about education, if not to teachers? If teachers are timid or dumb, can they complain if education suffers? Two-thirds of the general literature of education is inflicted upon a docile public by plausible theorists who never strayed even by accident into a class-room; who boldly seize the chart and compass to navigate our ship on a sea they never saw, and by observations they never took. Brethren, it is high time that teachers should begin to teach, and not leave themselves and the public the victims of theoretical experimenters, who are not even yet in the early days of their apprenticeships to a very complex business. I notice that this latter-day cry for oral instruction only, and abolition of text books, comes from such people, who, nevertheless, have no intention of touching this burden with so much as one of their little fingers. Such cries are dangerous to progress already made, and are like newly discovered short cuts, which are proverbially long roads. Young enthusiasts just beginning to sense the power which is new to them; ancient fabrics set on fire for the first time and burning with a consuming fierceness; extremists who, by exaggeration, make the mildest virtues into aggravating vices, all by their intensity bring a good thing into disrepute, and have to be tempered by moderation, and cooled down into steady and unexcited service. Oral instruction is necessary to every good teacher, and the younger the pupils the more it is essential to their happiness and progress, but you can no more abolish text-books for proper use in day schools than you can banish them from universities or technical schools for adults. And there is as much danger to be feared from oral instruction without text-books as is found in the mechanical use of text-books without the life of oral instruction. Every good teacher approves of a due proportion of oral instruction and practises it, regarding it as the brightest and keenest weapon in his armory; and uses text-books also to make his work stick, and sustain him and his pupils, in weak moments, at the standard of their best. No good teacher avoids it, or goes fanatically insane about it, either for or against. He knows that if you deliberately abolish text-books, and call upon teachers to depend upon oral instruction only, not occasionally, as it is now, and always has been, practised by good teachers, but as proposed by fanatics, namely, for five hours a day on five days in the week, you will kill all the good teachers in a month, leaving alive only the sticks who are skilled in the art of self-preservation, who never teach at all, orally or otherwise, and therefore never wear out, to comfort you in your solitude among the graves of those you have destroyed. Suppose, for example, you were to try this wholesale oral experiment on ministers in churches. Make them preach without manuscript, and insist on their congregation singing without hymn-books, the preach-

ors to change their subjects every hour, not for one hour a day but for five hours a day, not only on one day in the week but for five days in the week, to a congregation of lost souls, every one of whom has been born an infidel, and is in dire need of conversion. The clergy are good, self-sacrificing men; many of them approve of this idea for schools, and would doubtless not object to having it practically tried in churches. When strong men and adult pupils have been proved to be able to endure this strain and are improved by it; it may, without cruelty and iconoclastic stupidity, be fair to try it on weak women and infant scholars. If experimenters will begin there, they will find that in a year many pulpits and churches have been many times over thus emptied, and many graveyards and asylums filled, and the fragments of congregations left will declare that their works do follow them. In mercy, then, begin with ministers and churches, because all concerned will be able-bodied adults and likely to exercise free-will to defend themselves; then, if it succeeds, we may try it on teachers and little children in our schools, without being guilty of Herod's crime, or breaking all the commandments at once for educational purposes, as Moses did. — *Walter Smith.*

SCHOOL MANAGEMENT AND GOVERNMENT.

"As the teacher is, so is the school," is a trite saying, the truth of which none will question.

See to the orderly management of everything. Have a place for each pupil to hang his hat and wrappings, put his books, to sit or stand in his class, and see that his place is kept.

Have a regular time for reciting, and, if possible, for studying every lesson.

See at all times that the best of care is taken of the school property.

Always keep the school-room neat and clean; ornament it with pictures, mottoes, maps, charts, wreaths, and flowers.

Always call and dismiss your classes in order; count, or tap the bell as signals.

Be firm and kind. Don't scold. Be prompt in everything. Your pupils will often follow your example.

Do not allow communication, leaving seats, or going out, or getting water during school hours, without permission.

System, self-possession, energy, and kindness on the part of the teacher are the disciplinary agents.

Profitable and constant occupation is the true preventive of disorderly conduct.

Have every pupil secure a slate and pencil, and be sure he uses them.

Have as few classes as will be consistent with the wants of the school. A teacher cannot teach a successful school and hear thirty or thirty-five recitations daily.

See that the room is properly ventilated — about 65° or 70° Fahr. is the proper degree of temperature.

Have the syllables of all words pronounced, or teach the pupil to make a slight pause between syllables.

Do not have your pupils report "perfect" and "imperfect." It leads to habits of lying and deception.

All the pupils of the same class should pursue the same studies if possible.

Don't forget to have the general exercise for the whole school each day. Use the oral and general exercises provided for each grade, for the whole as far as practicable.

"Order is Heaven's first law," and without order no school can succeed. The first step in governing a school is to govern yourself.

Have written examinations once a month for the larger pupils, and oral examinations for the smaller ones.

Every teacher should be a regular reader of at least one educational journal.

Always be a living model for your pupils, whether in or out of school.

Begin school promptly at nine o'clock and close at four.

Visit your patrons frequently and urge them to visit your school.

Visit some of the best schools you can hear of each year, and don't fail to attend the institute.

Make a full report at the close of your school. — *Iowa Course of Study for Ungraded Schools.*

TRUE METHOD OF TEACHING NOTATION.

I propose to show the true method of enabling those children who have already learned to hundreds properly to express any number, no matter how high.

THREE STEPS.—There are but three different steps to be attended to, none of which possesses any great difficulty.

Write on the blackboard any series of figures in proper order. When this is done—

(1) Show the children the method of dividing these into *periods*, or groups of three, counting always from the right hand. In this there will be no difficulty. The separation of each group may be effected by a comma, a hyphen, a tick, or, with very young children, the three figures in each may be united by a line above them, as 406, or they may be completely surrounded by a circle, as (406), the great object being to accustom the pupils to regard each group as independently of the others as possible.

(2) They should next learn to read these periods; that is, to read the numbers in each exactly as if written by themselves. Thus, suppose the number divided into periods on the blackboard stood thus:—
640,307,081;

they must say, pointing to the first, *eighty-one*; to the second, *three hundred and seven*; to the third, *six hundred and forty*; the name of each period being omitted.

This is exceedingly easy, but it is exactly in this that defects are most frequently met with. They should, therefore, be exercised on it frequently, until they can do it correctly and without the smallest hesitation.

(3) Then, but not till then, they should be taught the names by which the periods are distinguished from each other; and they should make use of these when repeating the numbers in each. Thus, to the above numbers they should add *millions* after the six hundred and forty, *thousands* after the three hundred and seven, and *units* after the eighty-one; so that the whole will read six hundred and forty millions, three hundred and seven thousand, and eighty-one units. They can next be taught to drop the word units—it being generally left out—but in each case, when not expressed, they ought to know that it is understood.—*School Bulletin*.

THE PRIMARY CLASS.

WRITING LESSONS.

How should we interest these little folks in the writing lesson? Let them write.

Children like to talk, and next to talking comes this wonderful sign-language, writing. Let the little folks write often to learn to write, as you let them talk often to learn to talk, and read often to learn to read. But when you hear them talk or read, you are ready to prompt them, so that they will not fall into wrong practice. They need just the same care on your part when they write. Watch their fingers. Prompt them when they make the written signs, as you do when they make the spoken ones. Written language should follow very close to spoken language, with the child. He has to repress his voice in a great measure when in school. His mind is bubbling over. Let some of this mental energy work out of his fingers. Let him write as often as you can; never to tire him; never in a hap-hazard way; but under eye, with care, with thought, with interest.

I know of no elementary branch into which more life and interest can be put than the writing. It gives the children something real to do. It is visible. Above all, it can be read. A child's first writing is to him truly wonderful. Do not confuse the child's mind with theoretical analysis, nor give him fragments of letters to write. The favorite method of teaching seems to be, first, a wearisome practice on elementary lines and fragments of letters; next, a tedious drill on isolated letters and disconnected words; and finally a monotonous procession of copy-book saws and proverbs. This dull routine has robbed writing of its highest charm as a medium of expressing thought, and has placed the greatest obstacles in the way of both teacher and pupil. How would it seem in reading; if, for many months the child was required solely to articulate letters, syllables, and words, disconnected from any thought? Whatever might be his gain in enunciation, would be at the expense of all natural effort and interest.

Make the writing more a natural process. Give your pupils at

the start a complete idea, a whole letter. As soon as they have learned a few letters, let them build up little words; and as early as possible, let them write easy phrases and sentences. Let children write thoughts as you let them read thoughts; and give them something interesting to write. Their writing thus becomes a language to them, the same as their reading and speaking.

Talk to the children a great deal about writing. Tell them about the letters, so that they will feel acquainted with them. Help them to see how much like the printed signs the written ones are. Write the letters on the black-board, and attract the eye of every pupil by what you say about them.

The analogies between different letters will be a fruitful theme. We take the little dotted letter first, and study it, and when the children once learn to make it, they have only to double it, and leave off the dot, and they have a second letter, *u*. Then, again, the teacher takes small *u*, and shows the children the two parts of the letter. They learn to know these parts, and how to make the letter from them. The teacher tells them if they just double the first part of *u*, and add to this the last part, they will have another letter, small *m*.

In this way, children will get to be as sure of each letter they write as they are of each word they speak. It is possible to educate their minds far ahead of their fingers; but the latter will catch up, and will soon do better work for the child's knowing more about it. Illustrate freely on the black-board; associate pleasant ideas with the letters; make the writing always a recreation to the child—never a task.—*Primary Teacher*.

TEN RULES FOR LOSING CONTROL OF A SCHOOL.

1. Neglect to furnish each pupil plenty of suitable seat-work.
 2. Make commands that you do not or can not secure the execution of. Occasionally make a demand with which it is impossible to comply.
 3. Be frivolous and joke pupils to such an extent that they will be forced to "talk back." This will "break the ice," and they will soon learn to be impertinent in earnest. Or be so cold and formal as to repel them.
 4. Allow pupils to find out that they can annoy you.
 5. Promise more in your pleasant moods than you can perform, and threaten more in your "blue spells" than you intend to perform.
 6. Be so variable in your moods that what was allowable yesterday is criminal to-day, or *vice versa*.
 7. Be overbearing to one class of pupils and obsequious to another class.
 8. Utterly ignore the little formalities and courtesies of life in the treatment of your pupils in school and elsewhere.
 9. Consider the body, mind, and soul of a child utterly unworthy of study and care. Let it be a matter of indifference to you whether a child is comfortable or uncomfortable. Consider that it is unimportant why a child enjoys one thing and dislikes another, and that it is not your business to aid him in forming a worthy character.
 10. Let your deportment towards parents and officers be such as will cause you to lose their respect and confidence.
- One or more of these rules faithfully executed will secure the end in view.—*Wisconsin Journal of Education*.

WHISPERING.

Many teachers are fretted and troubled by the whispering of their pupils. They ask "How can we stop whispering?" Suppose we put this in another aspect, and ask "How shall we prevent their wanting to whisper?" The usual way is to have a rule against it and a penalty. So much is deducted from their standing, or they are made to stay in at recess or after school. But let the teacher give the pupils employment, and then they will not be likely to whisper. "An ounce of prevention is worth a pound of cure." It is not well to make a rule against whispering. Let the pupils know that you do not want it done, and then try the effect of employment. At all events do not consider the scholar as a reprobate if he will whisper. Reflect what you would do under the same circumstances; reflect further that teachers are very apt to whisper when together. And if a pupil whispers, it is not absolutely necessary to rap on your desk and look crossly at him. The world will not fall to pieces if one or ten whisper each day. Be brave, then, and do not be frightened if one whispers.

Let us now see how it can be stopped, for a school-room that is full of noise and confusion is an unsightly spectacle. Noise and

study are incompatible. Explain this to the scholars and enlist their aid in the matter. Make them find that you want to make the room pleasant; that you do not want them to be troubled and harassed by others interrupting them. These plans may be tried to accustom the children to abstain from speaking.

1. Ask them to go without whispering for a half-hour, or hour, and at the end of that time ascertain who have succeeded, letting them raise their hands. Commend their success; give them a little rest, and then let them try another period.

2. Have a period set apart for speaking, by having a large card marked "Study Hour," on one side, and "Needful Speech," on the other. At the end of each hour turn this card.

3. Keep an eye on the noisy ones, and give them a separate place to sit, not so much as a punishment as to prevent them troubling others.

4. Keep a record of those who whisper much, and class them as "Disorderly," and lower their standing for good behaviour. This needs to be handled with care.

5. Detain those who are noisy, and try to influence them by a kind personal talk.

6. Appoint some of these as monitors.

7. Give extra employment to those who seem to have time to whisper.

8. Make a great distinction between those who whisper about their studies and those who whisper about mischief.

9. Dismiss in the order of orderly conduct as you have noted it—saying I will dismiss in the class—(a) "Those who have seemed to me to be successful in managing themselves; these may stand—James, Henry, etc., etc." After dismissing these—(b) "Those who have seemed to me to be moderately successful; these may stand—William, Mary, etc." After dismissing these—(c) "Those who have had the least success these may stand—Susan, etc." Then dismiss these.

There are many other methods, but the above carefully applied and followed by close personal attention will generally suffice.—*N. Y. School Journal.*

PRACTICAL QUESTIONS.

NATURAL PHILOSOPHY.—Why do housekeepers test the strength of lye, by trying whether or not an egg will float in it? How much water will it take to make a gallon of strong brine? Why can a fat man swim easier than a lean one? Why does the firing of a cannon sometimes bring to the surface the body of a drowned person? Why does the body of a drowned person generally come to the surface of the water after a time? Will a pail of water weigh any more with a live fish in it than without? Why can stones in water be moved so much more easily than on land? Why is it so difficult to wade in the water when there is any current? Is the water at the bottom of the ocean denser than at the surface? Why can a swimmer tread on pieces of glass and other sharp substances at the bottom of the water without harm?

PHYSIOLOGY.—Why do we need food? Why will a person starve without food? Are the current stories of people who live without food to be relied upon? What does food do to us? What does food contain? Must a student starve himself? Is there any danger of over-eating? Do not most people eat more than is for their good? How should the season regulate our diet? Should we labor or study just before or after a meal? Why should care be banished from the table? Will a regular routine be beneficial? What kind and quantity of food does a sedentary occupation require? What caution should students, who have been accustomed to manual labor, observe? What is the rule for exercise? Is a young person excusable, who leads a sedentary life, and yet takes no daily outdoor exercise? What will be nature's penalty for such a violation of her law? Will a postponement of the penalty show that we have escaped? Ought a scholar to study during recess? Will a promenade in the vitiated air of the school-room furnish suitable exercise? What is the time for taking exercise? Who can exercise before breakfast? What are the advantages of the different kinds of exercise? Should we not walk more?

CHEMISTRY.—What is the meaning of oxygen? What are the destructive effects of the oxygen in the air? What causes the decay of peaches? Why does not canned fruit decay? How is river water purified on a sea voyage? By what means is the oxygen carried through the system? What work does it perform in the body? Why is the blood in the arteries red and in the veins black? Does fire differ from decay? In what sense is the body a furnace? What

is the fuel? Why do we eat more food in the winter than in summer? Would a fat man endure starvation longer than a lean one? Why do teamsters warm themselves by slapping their hands? Why does running cause panting? Why does one die when his breathing is stopped? Could a person commit suicide by holding his breath? Why do we need extra clothing when we sleep, even at mid-day, in the summer? How do hibernating animals illustrate this? How does a cold-blooded animal differ from a warm-blooded one? Is there any part of our body that is permanent? Why does a person drown in water? Would a person drown in pure nitrogen? What causes flesh to decompose so much more easily than wood? What use do plants make of the nitrogen they breathe in? Why do we need a draught to a stove? Why do we use "kindlings" in starting a fire? Why does blowing on a fire kindle it, and on a lighted candle extinguish it? Why can we not ignite hard coal with a match?—*Steele's Sciences.*

OCCUPATION FOR THE YOUNG CHILDREN IN SCHOOL.

CLAY EXERCISE.

Form If practicable, provide each child with a small piece of board containing wet clay. Where the class is too large, have a large tray or box containing the clay, and allow two or three children to work at one time, while the class look on, criticise the work, and when necessary different ones may be appointed to rectify mistakes; thus all may be kept interested.

As in previous lessons, begin with a talk about clay. What kind of a substance? Where obtained? Of what use? Speak of bricks; have one to show. If convenient, present other objects made of clay; speak of their manufacture, or what is better, let the children find out as much as possible for themselves, and relate it at the next lesson.

Have the children first make a ball or sphere of clay. What kind of a surface has it? How many hemispheres can be made of it? Let them cut it with a knife. What part of the sphere is the hemisphere? What does hemi-mean? How many halves in a sphere? in an apple? in anything? How many faces has it? What kind? What edges? Let them place the two halves together, then press it and make an oblate-spheroid; then make it round again, and taper one end for an ovate-spheroid or egg shape. Return again to the sphere, and cut off each side for a cube. Review the shape as faces, edges and corners. Roll it out for a cylinder, cut off sides for square prism; if possible, cut it in two for triangular prism. Then form pyramids, cones, etc.

Let them make the shapes of different kinds of fruit, using little sticks for stems; for strawberries they could make little indentures with pins for the seeds. Have a talk about each kind of fruit, and when practicable, present the natural.

Have a lesson on the bird's nest, and let them mould it in clay, and make the eggs and place in it. Let them give a list of the names of little birds. A great variety of objects may be made, as well as cakes, pies, and bread, and a little lesson on each be given. The children will exercise their own ingenuity and devise many new forms.

The clay may also be used for geography lessons. The children may form mountains, valleys, capes, islands, peninsulas, straits, bays, springs, rivers, etc. They may get the idea of water flowing from all parts of the land, and at last finding its way to the ocean. They will surely get ideas instead of mere words. Children must have the object picture before they can grasp the idea.

ANNA JOHNSON.

GOOD READING.—No topic connected with the subject of education is exciting more attention than that of reading. The belief is becoming general that good reading depends not so much upon the mode of expression, as upon a clear understanding of the subject matter. One reason why so little has been accomplished in this direction is the fact that teachers in dividing the subject into reading aloud and silent reading, too often regarded the latter division as no part of their province. It is too often the case that pupils are especially drilled upon one or two favorite selections in the reading book until their reading becomes mere mechanical by imitation. Elocution and reading are not synonymous terms. The remedy for this defect is to increase the range of reading. Good oral reading depends upon the skill with which the reader is able to carry his eye ahead of the point where he is reading, to interpret, to thought and adjust it to the preceding. This can only be acquired by extensive practice.

PRIMARY READING.

PRACTICAL HINTS FOR JUNIOR TEACHERS IN TEACHING BY ANY METHOD.

BY JAMES L. HUGHES.

1. Use the Black-board.—The reasons for the extensive use of the black-board until the pupils reach the Second Reader, are:

(a) *Children see the work done, and are therefore interested.* So far as the teacher is concerned, there are three ways of communicating knowledge, by talking about a thing, by showing it to them, or by making it or doing it before them. The third is better than the other two combined. A little girl will take more intense and prolonged interest in seeing her mother dress her doll, than she does in the doll itself, and a little boy will give more delighted attention to the making of a toy with a few sticks, a jack-knife, a hammer, and some nails, than to the most beautiful picture or toy that can be purchased for him. Printed words are unmeaning things to a child. Let him see you make them for him, and he will attend to you, and be interested in them.

(b) *The letters may be made large enough.* The letters should be made large at first, so that their distinctive parts may be brought prominently before the pupils.

(c) *The curiosity of the pupils may be constantly called into action.* Curiosity is one of the strongest instincts of childhood, and the wise teacher seeks to arouse and gratify it. The use of the black-board prevents the pupils from knowing what comes next, and so keeps them alert and expectant.

(d) *Habits of attention are formed.* In the average school the most listless and inattentive classes are usually the junior reading classes. It is no uncommon thing to find the pupil who is reading to be the only one looking at the tablet. This need not excite wonder when we remember how much unvarying routine there generally is connected with the lesson. With the teacher reduced to a mere pointer-guide, gliding methodically from "cat" to "rat," or from "hen" to "den," and the pupils droningly responding, it is not strange that their little eyes wander, and that they frequently look unconsciously at the teacher's face instead of the tablet, while they spell "g-oo-s-e, goose." The teacher with crayon in hand is an object of living interest to her class. The crayon is a magic wand which compels attention in the hands of a skilful and enthusiastic teacher.

(e) *Words may be used specially adapted to the circumstances of the class.* The topics of most absorbing and immediate interest to the children may be made the subjects of the lessons, and only such words may be used as involve elements already mastered, and those next to be taught.

(f) *The special difficulties of the class may receive particular attention.* Examples of any difficult or peculiar combination may be multiplied to suit the circumstances of each case. Characteristic words which have been learned may be kept on a portion of the board set apart for the purpose, so that they may be regularly reviewed. By this means difficulties will rapidly disappear.

(g) *Word-building may be carried on.* This is at first a very profitable exercise. As soon as a word such as "at" has been learned, a list of words may be formed by prefixing a single letter, and giving its sound in each case; as hat, cat, sat, rat, mat, &c. These may still further be modified by prefixing or affixing other letters. This is a thoroughly practical way of teaching the sounds of the letters, as the pupils learn their use by using them.

(h) *Words may be marked to suit the pronunciation.* It is well for a few weeks to use only one sound or power for each letter. This enables the pupils to learn what reading is, without any of the

mental confusion resulting from the meeting with different sounds for the same letter. Having mastered this first great step, other sounds may be introduced and appropriately marked. The short sound of the vowels should be given first because more frequently used. Then the long sound may be added, and marked as in dictionaries. The short sound need not be marked, but should be given except when a mark is used to indicate some other sound. Two valuable methods may be practised to familiarize the pupils with the sounds of the letters. The teacher may mark the words, crossing out silent letters, marking vowels, &c., for the pupils to sound; or she may sound the word and require the pupils to mark it as pronounced. The same word should be sounded by the teacher in as many ways as possible, and the pupils should vary the marking to suit the changes in pronunciation. It is also a good practice for the teacher to mark the same word in various ways, and let the pupils change the sounds in accordance with the marking. They should also be asked to tell what the name of the word would be if its silent letters were sounded.

(i) *The teacher may vary the plan of teaching the reading lessons.* The system and method of teaching should be definitely fixed, but the plan should be varied as much as possible. The black-board greatly aids in preventing the adoption of an unvarying routine in conducting the reading lessons.

SELECTIONS FOR MEMORIZING.

The systematic practice of memorizing brief selections from the best authors was first introduced by Hon. J. B. Peaslee, Superintendent of Schools in Cincinnati. It is one of the most important, and may be made one of the most interesting, of school exercises. The selections are *taught in school* as a part of the opening exercises, and form no part of the *home work* of the pupils. One selection is taught each week; two or four lines being taught at a time, so that only a very short time is spent each day.

The benefits resulting from the exercise are:

1. The memory is cultivated.
2. The moral nature is developed.
3. A large store of choice selections are fixed in the minds of the pupils.
4. Composition is improved; the vocabularies of the pupils are enriched, they become acquainted with the language used by the best writers, and learn to use these words in their most appropriate connection.
5. Expressive reading is taught in the most practical way possible.

METHOD OF TEACHING THE SELECTIONS.

1. One line is written on the board by the teacher, and read by him distinctly, with emphasis rather overstrained, and pauses marked too distinctly.
2. The pupils repeat the line, imitating the teacher.
3. The teacher calls special attention to those parts of the line where the pupils have failed to imitate him accurately, and repeats the whole line, which is again repeated by the class. This is continued until the class recites the line correctly simultaneously.
4. A few individual pupils may then be called upon to recite the line.
5. The other lines are taught in a similar way. After each additional line is taught, the whole is recited from the beginning.

FIRST BOOK CLASSES.

1.

Hearts, like doors, can open with ease
To very, very little keys;
And don't forget that they are these:
"I thank you, sir," and, "If you please."

Then let us watch these little things,
And so respect each other;
That not a word, or look, or tone,
May wound a friend or brother.

2.

Do your best, your very best,
And do it every day;
Little boys and little girls,
That is the wisest way.

Whatever work comes to your hand,
At home or at your school,
Do your best with right good will;
It is a golden rule.

3.

Suppose you're dressed for walking,
And the rain comes pouring down,
Will it clear off any sooner
Because you scold and frown?
And would it not be nicer
For you to smile than pout,
And so make sunshine in the house
When there is none without?

SECOND BOOK CLASSES.

1.

If you find your task is hard,
Try, try again;
Time will bring you your reward.
Try, try again,
All that other folks can do,
Why, with patience, should not you;
Only keep this rule in view
TRY, TRY AGAIN.

2.

Beautiful faces are they that wear
The light of a pleasant spirit there.
It matters little if dark or fair.

Beautiful hands are they that do
Deeds that are noble, good, and true,
Busy with them the long day through.

Beautiful feet are they that go
Swiftly to lighten another's woe,
Through summer's heat or winter's snow.

Beautiful children, if, rich or poor,
They walk the pathways sweet and pure
That lead to the mansion strong and sure.

3.

Over and over again,
No matter which way I turn,
I always find in the book of life,
Some lesson that I must learn;
I must take my turn at the mill,
I must grind out the golden grain.
I must work at my task with a resolute will
Over and over again.

4.

Do what conscience says is right;
Do what reason says is best;
Do with all your mind and might;
Do your duty, and be blest

5.

Count that day lost,
Whose low descending sun,
Views from thy hand,
No worthy action done.

THIRD BOOK CLASSES.

1.

I live for those who love me,
For those who know me true,
For the heaven that smiles above me,
And awaits my spirit too;
For the cause that lacks assistance,
For the wrong that needs resistance

For the future in the distance,
And the good that I can do.—*Mackay.*

2.

'Tis being, and doing,
And having, that make
All the pleasures and pains
Of which beings partake
To be what God pleases,
To do a man's best,
And to have a good heart,
Is the way to be blest.—*Peter Parley.*

3.

"I Can't" is a sluggard, too lazy to work;
From duty he shrinks, every task he will shirk;
No bread on his board and no meal in his bag;
His house is a ruin, his coat is a rag.

"I Can" is a worker; he tills the broad fields,
And digs from the earth all the wealth that it yields;
The hum of his spindle begins with the light,
And the fires of his forges are blazing all night.

4.

It may not be our lot to wield
The sickle in the ripened field;
Nor ours to hear on summer eves
The reaper's song among the sheaves;
Yet where our duty's task is wrought
In unison with God's great thought,
The near and future blend in one,
And whatsoever is willed is done.—*Whittier.*

FOURTH BOOK CLASSES.

1.

Within this ample volume lies
The mystery of mysteries;
Happiest they of human race
To whom their God has given grace
To read, to fear, to hope, to pray,
To lift the latch, to force the way;
And better had they ne'er been born,
Than read to doubt, or read to scorn.—*Walter Scott.*

2.

"No God! no God!" The simplest flower
That on the wild is found,
Shrinks as it drinks its cup of dew,
And trembles at the sound.
"No God," astonished Echo cries
From out her cavern hoar;
And every wandering bird that flies
Reproves the atheist lore.—*Mrs. Sigourney.*

3.

Sad are the sorrows that oftentimes come,
Heavy and dull, and blighting and chill,
Shutting the light from our heart and our home,
Marring our hopes and defying our will;
But let us not sink beneath the woe,
'Tis well, perchance, we are tried and bowed;
For be sure, though we may not oft see it below,
"There's a silver lining to every cloud."—*Eliza Cook.*

The day is drawing to its close,
And what good deeds, since first it rose,
Have I presented, Lord, to thee?
What wrongs repressed, what fruits maintained;
What struggles passed, what victories gained—
What good a tempted and attained,
As offerings of my ministry?—*Longfellow.*

FIFTH-BOOK CLASSES.

1.

What prodigies can power divine perform,
More grand than it produces year by year,
And all in sight of inattentive man?
Familiar with the effect, we slight the cause,
And, in the constancy of Nature's course,
The regular return of genial months,
And renovation of a faded world,
See nought to wonder at.—*Cooper.*

2.

Let winter come! let polar spirits sweep
The darkening world and tempest troubled deep!
Though boundless snows, the wither'd heath deform,
And the dim sun scarce wanders through the storm,
Yet shall the smile of social love repay,
With mental light, the melancholy day!
And, when its short and sullen noon is o'er
The ice-chain'd waters slumbering on the shore,
How bright the faggots in his little hall
Blaze on the hearth, and warm the pictured wall!

—Thomas Campbell.

3.

There is a tide in the affairs of men
Which taken at the flood: leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.—Shakespeare.

4.

One adequate support
For the calamities of mortal life
Exists one vale; an assured belief
That the procession of our fate, how'er
Sad or disturbed, is ordered by a Being!
Whose everlasting purposes embrace
All accidents, converting them to good.—Wordsworth.

Notes and News.

ONTARIO.

The executive and legislative committee of the Provincial Teachers' Association met in Toronto, early last month. A number of important matters were brought before the Minister, and a programme was arranged for next annual meeting. Among the topics provided are: 'Temperance in Schools,' 'Inductive and Deductive Methods of Instruction,' 'How to make County Meetings of Teachers more Useful,' 'Model Schools,' 'Music in Schools,' 'School Hours and Vacations,' 'Text-books in Public Schools.'

Mr J. L. Margach has been appointed Head Master of the Brockville Public and Model School. On leaving Pickering where he has taught for several years past, his friends expressed their high appreciation of his services as a teacher by entertaining him at a supper where he was presented with a very flattering address accompanied by a still more substantial mark of esteem in the form of a purse containing \$130. This is just as it ought to be. We understand that Mr. Margach is a hard-working, energetic, faithful teacher and a man of sterling integrity. We trust he will be as successful in his new sphere as he has been in that from which he has retired.

The minutes of the twenty-first annual Convention of the Ontario Teachers' Association held last August, have been published, and may be had on application to Mr. F. S. Spence, Toronto. The book, which is neatly printed by Mr. C. Blackett Robinson, government printer, is for sale at a nominal price, and contains, apart from the formal proceedings of the meeting, the exceptionally instructive papers read before the Association, which will prove of intense interest to teachers and friends of the great educational cause.

Bath Public School, Mr. Wm. Irwin, Principal, passed two candidates for Intermediate Grade C, instead of one as reported in Sept. No. of the JOURNAL. Only two wrote, both of whom were successful.

Mr. J. W. Johnson, one of the Principals of the Ontario Business College, delivered a lecture on the subject of "Joint Stock Companies' Book-keeping," before the Institute of Accountants and Adjusters of Ontario, at Toronto, last month. The lecture is spoken of as a most interesting one.

From a corrected report received it appears that Kingston Collegiate Institute passed ten candidates at the late Intermediate Examination; not two as previously reported. In addition to this creditable result three have won higher grades. The information was in the first instance derived from a respectable newspaper, and the circumstance plainly shows how needful it is that High School Masters and others interested should communicate with us themselves rather than put us to the necessity of gathering items of educational intelligence from collateral sources.

Mr. W. R. Telford, late Head Master of Caledonia Model School, has accepted a similar position at Walkerton, at an increased salary.

During the four years he has spent in Caledonia he has earned the respect of all classes of people, and although his leaving is regretted, there is a general feeling of satisfaction at his advancement.

St. Thomas Collegiate Institute is maintaining its position in the front rank, and, backed up by a large and efficient staff, has laid out a course for 1882 which is worthy of observation. Special attention is given to the several branches, particularly English, Mathematics, Languages, and Physical Sciences; while Intermediate course, University work, and Commercial training constitute an area to bring into requisition all the teaching resources available. The record of the past academic year shows, that 1 passed 2nd year's examination in Arts (Toronto University); 3 passed matriculation in Arts, 6 in Law and 6 in Medicine; and 27 passed the Intermediate, including 1 second A and 14 second B's.

Mr. James Bruce, for nearly nine years Mathematical Master, Waterdown High School, has resigned his position to accept the second mastership in the Elora High School.

The CANADA SCHOOL JOURNAL for November is a splendid number. The articles of a general character cannot fail to interest and edify any youthful reader, and the professional parts must be valuable to those for whom they are specially intended.—Bowmanville Observer.

NOVA SCOTIA.

Mr. F. W. Goodwin, who has successfully conducted the Preparatory Department of the Lunenburg County Academy during the past three terms, resigned in October last, and is now a student at the Halifax Medical College. His successor was Miss J. A. Coleman (Grade B), a Normal School Graduate. The Principalship is still held by Mr. E. H. Owen, who has occupied it, at three different periods, for nearly eleven years.

The last half-yearly public examinations were conducted by a number of professional gentlemen, residents of the town. The Lunenburg Progress states that "the pupils stood the test well, to the satisfaction of the examiners."

The Convocation of the University of Dalhousie College, in connection with the opening of the Annual Session, was held in the Hall of the Legislative Assembly, on the afternoon of Tuesday, 1st November. Among those present, besides the Faculty of the College, were Sir Wm. Young, Hon. S. Creelman, Dr. Allison, Superintendent of Education, Dr. R. S. Black, Principal of the Halifax Medical College, Hon. Judge Shannon, Dr. Burns, Revs. Saunders, Simpson, Morrison, Laing, and Duncan.

The opening address of the Very Rev. Principal, Dr. Ross, referred to the improved, and still improving, circumstances of the College, twenty-six students had already matriculated, and supplementary examinations yet to be held would considerably augment the number. The Munroe Bursaries and Exhibitions were proving not only attractions to students but a most effective stimulus to scholarship.

Prof. McDonald, Secretary of the faculty, then gave the names of the successful candidates for the Munroe Exhibitions and Bursaries as follows:

Exhibitions—\$200 each for two years; 1st, Isaac Gammel, Pictou Academy; 2nd, W. Aiton, Sussex School and Pictou Academy; 3rd, H. K. Fitzpatrick, Pictou Academy; 4th, John H. McLeod, Prince of Wales College; 5th, not awarded.

Bursaries—\$150 annually for two years.—District 1: 1st, Lily B. Calkin, Normal School, Truro; A. W. Thompson, Pictou Academy. 3rd, S. A. Mackenzie, New Glasgow and Halifax High School. 4th, W. M. Tufts, Halifax High School. District 2—1st, W. F. Kempton, Lockport (private study); 2nd, Margaret Newcomb, Normal School, Truro; 3rd, not awarded. District 3—1st, James M. McLean, Inverness (private study); 2nd, not awarded. District 4—1st, Geo. C. Robinson, Prince of Wales College; 2nd, F. J. Coffin, Prince of Wales College. No Bursaries were awarded for District 5.

Special Bursaries of \$100 a year have been awarded to Judson Crawford and Kenneth J. Martin of the Prince of Wales College, Charlottetown, under the same conditions as the ordinary Bursaries.

The inaugural address was then delivered by Rev. Mr. Forrest, the recently elected Professor of History. The learned Professor's paper, which was exceedingly well received, was mainly devoted to a review of the Colleges and Universities of America. In discriminating terms he expressed himself in favor of Collegiate Consolidation as the true educational policy for Nova Scotia.

The Rev. R. Laing of St. Matthew's Church, on invitation of the Principal, gave a spirited address, in which he advocated the removal of certain exclusive features still characterizing, in the Rev. speaker's opinion, the management of school affairs in the City of Halifax.

The proceedings closed with a few felicitous remarks from Sir Wm. Young.

The total number of students in attendance is stated to be 112.

Several changes in the teaching staff of Academies and High Schools have been announced. Mr. W. D. Dimock, A.M., for several years Principal of the Model School, in connection with the Provincial Normal School, Truro, having resigned his position, Mr. W. Mortimer McVicar, A.M., has been chosen to succeed him. Mr. E. J. Lay of the County Academy, Annapolis, has been engaged as Principal of a similar institution at Amherst.

Mr. C. F. Hall, former Principal at Amherst, has taken charge of the High School at North Sydney. Mr. J. M. Longley, A.M., is now Principal at Annapolis. Mr. Henry McIntosh (Grade A, 1881) has been elected to succeed Mr. J. M. Morton, A.M., as Principal of the County Academy, Shelburne. Mr. A. J. Denton, A.B., recently Principal of the Grammar School, Shediac, has returned to Nova Scotia, as Principal of the High School, Kentville.

In Halifax City there have been several changes. Mr. Peter O'Hearn has been appointed Principal of St. Patrick's School vice Mr. Scott, removed to St. Mary's. Mr. F. J. Bowles has been appointed Principal of Albro St. School, to succeed Mr. A. N. Archibald. Mr. Bowles' former position as Principal of the National School, has been filled by the appointment of Mr. Frank Andrews, A.B., of Acadia College.

The new Academy at Sydney, C. B., is to be opened for the reception of pupils after the Christmas vacation. It is a handsome and commodious edifice, containing eight large and well furnished apartments.

The reference to the Gilchrist Scholarship for the current year in the *Ontario Notes* for November should not be interpreted to the prejudice of Mr. Howard Murray (not Murray Howard), to whom the Scholarship has been awarded. Mr. Murray is the last man in the world who would wish to derive profit from an act of injustice to another. When summoned to present himself in London as winner of the Scholarship he was entirely unaware of the circumstances referred to. It may be added that he was in exceedingly poor health when writing for the Scholarship.

The annual session of the Provincial Normal School, Truro, was formally opened on the 9th November. There were present, beside the Faculty and Students, the Superintendent of Education and a large number of the clergy and leading citizens of Truro. Principal Calkin explained the revised regulations under which the Institution was resuming work. The inaugural address was delivered by Prof. F. H. Eaton, A.M., on the subject of Physical Education. It was a forcible and eloquent plea for greater attention to a much neglected branch of culture. On invitation of the Principal, Dr. Allison delivered a short address of advice and encouragement to the pupil-teachers. He referred to similar institutions in England and Scotland. Manifest as were the signs of educational activity and progress in the Old World, he was not led to be dissatisfied with the state and prospects of Education in our own country. Upwards of one hundred students were enrolled on the day of opening.

NEW BRUNSWICK.

NORMAL SCHOOL—THE FORMAL OPENING.

The formal opening of the Normal School, for the present term, was an interesting occasion. The exercises began at half-past two, in the Assembly Hall, in the presence of a fair attendance of citizens, including His Honor Governor Wilmot, Chief Superintendent Rand, A. F. Randolph, Esq., of the Fredericton Board of Trustees, Inspector Mullin, the teachers of the Normal and Model School, and others. The students marched in to an organ march by Prof. Cadwallader, and took seats in the central part of the hall. Shortly after, the Principal entered, with the Lieut.-Governor, Dr. Rand, A. F. Randolph, Esq., and other prominent citizens, all of whom took seats upon the platform. Principal Crocket introduced Chief Supt. Rand, who was received by the students rising. The Chief Superintendent then introduced His Honor the Lieut.-Governor, the students and audience rising and singing the National Anthem, Prof. Cadwallader at the organ. At the close of the anthem, Prof. Cadwallader played a fine organ selection from "Moses in Egypt." The Acadian students, twenty-five in number, occupied seats at the right of the platform, and attracted much attention. There were in all 156 applicants, of whom 137 were enrolled, nine having failed to come forward, and ten to be admitted. It was a matter of congratulation that the number failing to pass is much smaller than that of former terms. But the work was of a much

higher order, and the results were very satisfactory. Another pleasing feature of the case is, that so large a number (74) were admitted on certificates. He alluded in warm terms of praise to the working of the Superior School Allowance as at present distributed. The counties send students as follows: Albert, 5; Carleton, 9; Charlottetown, 5; Gloucester, 6; Kent, 12; King's, 21; Madawaska, 6; Northumberland, 8; Queen's, 8; Restigouche, 1; St. John, 13; Sunbury, 6; Westmoreland, 18; Victoria, 1; York, 26. Denominations: Baptist, 24; Congregationalist, 1; Church of England, 25; F. C. Baptist, 15; Methodist, 23; Presbyterian, 23. Roman Catholics, 35. He read a letter from Hon. P. A. Landry, regretting his unavoidable absence, and making special reference to the Acadian students.

Principal Crocket's address, which occupied nearly an hour in delivery, was couched in warm and encouraging terms. He pointed out the scope and intent of the course of study at the Normal School. He referred in a spirited and candid manner, with delicate humor and pathos, to his own early career as a teacher. He urged upon the students earnest attention to every subject of the course, so that, with intelligence and confidence, they might make their teaching effective. They must know far more of the subjects than they are required to teach, else their teaching would be defective in method and substance. He next pointed out the special work of the School, which referred to their profession. Teaching was a science, based upon fixed and immutable principles. It had a definite object in view, and this could only be completely obtained by an intelligent application of the laws of mental and moral development. Childhood's nature and wants were now better understood than formerly, and our literature and art teemed with rich allusions and illustrations of the mental and moral nature of childhood. He referred, at some length, to the order in which the work would be undertaken, and closed with an eloquent appeal to the students to devote themselves with a strong, earnest, and resolute will to the grand work before them.

Dr. Rand eulogised the address of Principal Crocket, and said he must repeat a remark made by Prof. Smith, of Boston, on hearing an address of Principal Crocket's before the Provincial Institute, last summer, "It is a great treat to hear a sensible man talk." He pointed out to the students that the teachers of the Normal School were to be looked upon as helpers—sympathetic and encouraging to all. They must come to their work in a spirit of reverence and deep humility. He took up the statistics of the admission, and expressed his satisfaction at the large number coming in under departmental certificates. He criticized the present Grammar School system, and declared it unjust and impolitic. The one thing now needed was the distribution of the grant upon the same principle as that of the Superior School allowance.

The students who had been admitted on certificate were then called upon to receive their certificates.

They were addressed by His Honor the Lieut.-Governor in fitting and encouraging terms, and the certificates presented by Dr. Rand. The certificates are very neat in design, and embellished with the Provincial Coat of Arms, and the seal of the Board of Education. They state that the pupil has passed a successful examination in Standard VI, or VIII, as the case may be; certified by the Inspector, and signed by the Chief Superintendent.

Inspector Mullin was introduced, and referred in very favorable terms to the present Course of Instruction and Inspectoral System.

Hon. Senator Wark pointed out the great advantages which the present students possessed over those who first undertook the teaching work in this Province.

The exercises, which, throughout, were of a very interesting character, were closed shortly after 4 o'clock, by the singing of the Dismission Hymn.

Teachers' Associations.

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

TORONTO.

During his recent visit the Rev. Mr. Pinkham, superintendent of the Protestant Public Schools of Manitoba, delivered an interesting lecture in the Educational buildings, before the Toronto Teachers' Association, on the subject of "Educational Work in

Manitoba." Rev. Dr. Davies occupied the chair, and in rising to introduce the reverend lecturer he stated that he had expected the Hon. Adam Crooks, Minister of Education, would have presided. That gentleman, however, was unavoidably absent. Rev. Mr. Pinkham, having briefly alluded to the very kindly reception which he had received in Toronto and elsewhere, proceeded to say that he had been sent on a mission of enquiry by the Protestant Board of Education of Manitoba, of which he had been superintendent for ten years, into the eastern provinces. It would be his duty to inspect the Normal and High Schools in this part of Canada and the United States, with a view to the introduction of similar schools in Manitoba at an early day for the training of their own teachers. Although not an Ontario man himself, he was glad to be able to say that the board of education he represented had drawn largely upon the province for its teachers, and although the Prairie Province was only in its infancy it was already reaping a rich harvest from the educational seed which had been sown years ago by the venerable Dr. Ryerson, whose illness he regretted to say prevented him at present receiving visitors. Consequently it was comparatively easy work for the people of Manitoba to deal with their educational matters. The lecturer then proceeded to give a history of the early days in that province, when they could boast only of parochial schools; but was glad to be able to say that these schools, which were conducted under the auspices of the Roman Catholic priests at St. Boniface, by the Anglican clergymen at St. Johns, St. Andrews, and other Church of England parishes, and at Kildonan, under Rev. Dr. Black, did splendid service. In 1871 the Provincial Legislature passed the first School Act in Manitoba. It contained only four pages. This Act provided for establishing an educational board, which consisted of fourteen members—seven Protestants and seven Roman Catholics; and this board had the power of establishing all the Public Schools in the province, whether for the use of the Roman Catholic or Protestant children. In the latter part of 1871, the first Public School was opened in Winnipeg under Mr. Luxton, the present editor of the *Free Press* newspaper, who had only twenty-three pupils. At the present time there were about 1,000 pupils in attendance at the Protestant schools there, with sixteen teachers. The board, as originally established, worked very harmoniously; but it experienced much difficulty in establishing schools, and it was finally deemed prudent to add greatly to the school law, and provide for exigencies previously overlooked. This has been done from time to time. The Board of Education now consists of twenty-one members, twelve of whom are Protestants, and nine Roman Catholics. The schools are now managed in sections, separately, by both Protestants and Roman Catholics. The Act also provided for the levying of a school tax, each body being assessed only for the support of its own schools, and each section has a superintendent. The law had also been altered so as to give the school trustees the exclusive right of fixing the amount of taxes required for school purposes. The Legislative grant for education is divided between the Protestant and Roman Catholic sections of the Board of Education on the basis of the census returns of the children of school age in their respective districts. The grant this year was \$21,000, of which the Protestant board received \$14,000. The new order of things, by which the school trustees were enabled to get whatever sum they deemed necessary for school purposes, had given a great impetus to education in Manitoba. The reverend gentleman spoke in very high terms of the educational outlook, of the establishment of the Manitoba University, and of the composition of the council thereof. He pointed out that between two and three million acres of the best land in Manitoba were set apart for school purposes, and he looked forward to the time when the Dominion Government would give a handsome grant in aid of the university. These lands were worth \$5 per acre, and the school board had already drawn \$10,000 a year for three years on this credit from the Government. With regard to the establishment of High Schools he thought it prudent to work them in connection with the Public Schools; and he proposed not to have what we called Collegiate Institutes or High Schools, but a higher grade of school under the same board of trustees. The pupil would step out of the highest grade in the Public Schools into the university. Here they might take scholarships, and afterwards pursue their studies in the affiliated colleges. The reverend gentleman presented a glowing picture of the fertility of the great North-West, the value of which to the Empire he said was incomparable. It was the finest country, in his opinion, on the face of the earth.

SOUTH HASTINGS.—This Association held its semi-annual meeting in the Central School Buildings, Belleville, on Thursday and Friday, 29th

and 30th September. The President, J. Johnston, I. P. S., occupied the chair. After disposing of the regular routine of business, Mr. J. W. Dafeo, delegate to the Provincial Association, gave a report of the proceedings of that body, particularly that part relating to the proposed amendments in the school law with regard to the superannuation fund. An animated discussion on the regulations relating to the granting of Third Class certificates, in which part was taken by Prof. Dawson, Messrs. Irwin, Dafeo, and the President, followed. Mr. G. S. Wilson took up the subject of "Reading, Junior Classes," giving a practical illustration of his method of teaching this important subject by means of a tablet class, and a class in the second book, from his own school. Mr. Wilson's plan of gaining and keeping the attention of a class shows him to be a thoughtful, painstaking teacher. Prof. Stanistreet played and sang Sullivan's "Looking Back" in his usual brilliant style. Mr. Johnston, I. P. S., gave some valuable hints on teaching Spelling and Dictation, advising teachers to see that the pupils keep a list of the words they misspell and frequently review them. After a recitation by Master Harry Pashley, Prof. Dawson took up "Reading," pointing out the principal faults readers are apt to fall into, and the way to correct them. He considered our text-books, on reading, were not adapted to the wants of our schools, more particularly the Fifth Reader. Miss Bolland and Miss Diamond sang "Beautiful Star" with good effect, after which G. A. Swayze, Writing Master of the Belleville High and Public Schools, gave his method of teaching the subject of "Writing." Miss Harold rendered "Jessie, the Flower of Dunblane," followed by "Business Papers," by J. W. Johnson, Principal of the Ontario Business College. Mr. Johnston's discourse was replete with valuable hints to teachers and others on the subject of Promissory Notes and Bills of Exchange, and the latest decisions in the courts of law relating to them. A hearty vote of thanks was tendered Mr. Johnson for his able and instructive address. Short addresses were delivered by the Rev. Mr. Burns, Rev. D. Mitchell, Rev. A. Schuster, Rev. Dr. Jaques, and Rev. B. Law. On second day, Mr. Wheeler took up the subject of "Elementary Arithmetic," giving a practical illustration of his method of teaching this subject. A lively discussion followed, Messrs. Irwin, Dafeo, Johnston, Hicks, and others taking part, and much valuable information was elicited. Mr. Johnston, I. P. S., followed with an excellent address on the method of teaching "Geography," and closed with a list of the railways of Ontario, and the principal stations on their route. "Composition," by H. M. Hicks, Head Master Trenton High School, was the next subject taken up. Mr. Hicks gave some excellent advice on the teaching of this important but much neglected subject. After an address from the Rev. Mr. McLean, Mr. O'Hagan sang "Man the Life Boat," and Mr. Moore "The Sailor's Grave," which were both well received. Mr. O. S. Hicks then explained how he would deal with the Infinitive Mood, illustrating by a number of examples. Miss Carr sang "Music in the Air," Miss Florence Hicks presiding at the organ. Miss Boswell sang "I Cannot Sing the Old Songs," and Miss Diamond and Miss Harold sang "When you gang awa, Jamie," all of which were well rendered and received with bursts of applause. The institute then adjourned. Arrangements had been made with the Rev. Dr. Jeffers to deliver an address to the teachers on Thursday evening, but owing to the sudden indisposition of the Doctor, the lecture was postponed.

GLENGARRY.—The regular half-yearly meeting of the Glengarry Teachers' Association was held in the Brick School House, Alexandria, on Thursday and Friday, September 29th and 30th. About sixty teachers were present from different parts of the country; the chair was occupied by Dr. McDiarmid, Inspector of Public Schools, and President of the Association. After routine business, the Secretary read some communications with regard to the terms on which certain school Journals could be supplied to the Association. He also read a report of the proceedings of the Provincial Teachers' Association with regard to the Superannuation Fund. Mr. Seldon read an excellent paper upon "Object Lessons," which commanded the careful attention of the meeting, and was followed by a discussion in which Messrs. Houston, Hunter, and Kennedy took part. W. D. Johnston, B.A., of the Alexandria High School, read a paper on "English Literature for the Entrance and Intermediate Examinations," which was very attentively listened to by the teachers present. An animated discussion followed, sustained by Messrs. Hunter, McDiarmid, Kennedy, McDonell, Johnston, and Houston, in the course of which some very valuable hints were thrown out with regard to the best methods of teaching this important and interesting subject. Dr. McDiarmid gave his method of questioning a class, introducing ideas calculated to be of great use to the teachers present. Remarks were made upon this subject by Messrs. Hunter, Houston, McDonell, Seldon, and Johnston. Mr. Grant of Dalhousie Mills read a paper on "Geography," devoting his attention chiefly to Mathematical Geography, and going over the subject very carefully. After a short discussion, Mr. Johnston gave a reading. The subject of Reading was then introduced in a very able manner by Mr. Kennedy, Head Master, Model School, Martintown, and after remarks and suggestions by several members of the Association, Miss Smart gave a reading very nicely. Mr. J. D. Houston of Lancaster gave a very excellent address upon "Uniform Promotion Examinations for the Schools," mentioning strong

arguments in their favor. In this connection Dr. McDiarmid spoke concerning a scheme of Promotion Examinations for the three counties, now under consideration by the Inspectors, and which might be introduced with advantage. It was moved by J. D. Houston, seconded by D. J. Hunter, That the Glengarry Teachers' Association is of the opinion that the payment of any tax of subscription for the support of the Superannuation Fund for Teachers should be optional. After some discussion, *pro and con*, this motion was carried. This brought to a close one of the most successful meetings yet held by this Association. W. D. JOHNSTON, *Secretary*.

NORTH HASTINGS.—The semi-annual meeting of the North Hastings Teachers' Association was held at Madoc, October 6th and 7th. The usual routine business was disposed of, and a motion to purchase a sufficient number of copies of the Minutes of last meeting of Provincial Association, to supply each paying member with a copy, was carried. The Treasurer was instructed to publish a detailed statement of the receipts and expenditures in connection with the promotion examinations. A short discussion took place on 'How to improve those Examinations,' and examiners were appointed for the Christmas examinations. The following subjects were discussed during the Convention: Reading to 2nd, 3rd, and 4th Classes, Grammar, Canadian History, introduced by Mr. Smith, I.P.S., Hamilton and Wentworth, to whom much of the success of the Convention is due; English History, introduced by Mr. Kirk, Principal Model School, Madoc. The Railroad System of Ontario, by Mr. Rowe, Marmora. Writing, for the discussion of which the Association was fortunate enough to obtain the services of Mr. Robinson, Business College, Belleville. Spelling, introduced by Mr. Mackintosh, I. P. S., North Hastings, who also gave an address to teachers. A very hearty vote of thanks was given Mr. Smith for the very valuable assistance he had given in making the Convention a success; and also to Mr. Robinson for his instructive address on writing. On the evening of the 6th, Rev. Dr. Jaques, Albert College, Belleville, delivered a very interesting lecture on "Professional Enthusiasm," to a large and most attentive audience. *Secretary*, N. H. T. A.

DUFFERIN.—The Dufferin Teachers' Association met in Orangeville Model School, on October 14th and 15th. The first forenoon was spent in visiting the various departments of the school as it remained in active work during that time. The meeting being called to order, the President, Mr. N. Gordon, P. S. I., delivered the opening address. Besides essays read and classes taught by the Public School Teachers of the County, the proceedings were enlivened by the presence of Messrs. Hughes, P.S.I., (Toronto), Steele, B.A., and Tait (Collingwood). Mr. Tait gave his method of teaching English History and also Senior Arithmetic. Mr. Steele's subjects were, Algebra to beginners, and Analysis and Parsing of "The Preacher," from the *Deserted Village*. Mr. Hughes addressed the Association on Drawing in Schools, and the Sol-fa System. On Friday evening, October 14th, J. Laughlin Hughes, Esq., P. S. I., Toronto, lectured in the Town Hall, to a large audience, on "School Room Humor." The lecture, which lasted nearly two hours, caused constant risibility and was received with round after round of applause. The officers elected for the ensuing year are:—President, A. Steele, B.A.; Vice-President, R. L. Mortimer; Secy.-Treas., F. B. Denton. Journal secretaries were appointed at the opening of the meeting to send a *resume* of the proceedings to each of the local papers, and to the Educational periodicals.

LANARK.—The half-yearly meeting of this society was held in the Convocation Hall of the Collegiate Institute, Perth, on Friday and Saturday. Through the effort of the managing committee, a first-class programme was provided. After the preliminary business had been transacted, a practical and appropriate address was delivered by the President, F. L. Michell, Esq., County Inspector, in which general educational topics were touched upon. He indicated methods by which our school system might be made more efficient, dwelling particularly on the duties of trustees with regard to visiting their schools, and of teachers with regard to the character of the reading in which they should spend their spare time. The address was replete with timely remarks and was well received. Mr. McCarter then illustrated his method of teaching grammar by calling up a class of teachers present. This elicited a large amount of profitable discussion. An interesting paper entitled "Gleanings," was then read by Mr. Jamieson, of Carleton Place, in which various interesting points were adverted to. The subject of composition was next introduced by Mr. Steele, Head Master of the County Model School, in a well-conceived and well-written paper, in which the importance of teaching English by written exercises was thoroughly recommended. At the opening of the morning session of Saturday, Mr. Birchard exemplified, by diagrams, his method of teaching fractions to junior classes. His treatment of the subject was able and well received. Mr. Guttridge was the next on the programme. He read a paper on history in which he indicated the place this subject should occupy in our schools, and the method he had adopted in teaching it; criticising by the way the authorized text books, and particularly animadverting upon Creighton's history primer. Several gross blun-

ders in syntax were instanced and the style of the author characterized as bad. The subject was well presented and his views met with general approbation. A lecture on "Retention of Ideas," was then delivered by Mr. Whittington. In a well arranged scheme he represented the various faculties of the human mind and the part each performs in the acquisition of knowledge. He suggested methods for improving the intellectual powers, calling particular attention to the fact that the imagination, having once become morbid, torments its unhappy possessor by its own false creations. How careful then we should be to keep the mind pure, so that no unclean bird should hover within its sacred precincts, nor should we be less careful that the children entrusted to our care should, as far as in us lies, be prevented from reading obscene literature or witnessing scenes of an immoral character. He strongly condemned the reading of "yellow-covered" literature. The last paper was an elaborate treatment of "Mood" by Mr. Clarke, of the High School, Smith's Falls. He drew his illustrations from the classics, Anglo-Saxon, French, and German. Though taking exception to some particular point, his views were in the main those of Mason. Great care must have been expended in the preparation of this well-written paper. The county was well represented by a large body of teachers, who seemed to take a lively interest in the various educational matters brought before them. Votes of thanks were tendered to all the essayists, and to the Board of Education for the use of the hall. The next meeting will be held in Almonte.

PRESCOTT.—On the 14th and 15th Oct. a convention of the Teachers of the County of Prescott was held at Vankleek Hill. More than fifty Teachers and other friends of education were present. The President, Mr. W. J. Summerby, I.P.S., opened the first day's proceedings with an address on "The Teachers." In regard to some of his remarks, a discussion followed in which Messrs. Page, C. R. Gray, N. G. Ross, and H. Gray took part. Mr. Alex. Johnston, Fournier, read an essay on "How to Teach History to a 4th Class," which was received with approval by the Association. Comments on this subject were also made by Messrs. Summerby, Gray, and Ross. "The different systems of questioning" was taken up by F. Bisset, Esq., L'Orignal, who discussed this subject very minutely. In the afternoon an eloquent address on "English Composition" was delivered by T. Otway Page, B.A. He dwelt chiefly on the construction of sentences, and on the proper arrangement of words, phrases, and clauses, in order to convey the idea intended. Special reference was made to the misplacing of "only," and the use of "if," for "whether." After the conclusion of his address, the remarks then made by Messrs. Gray, and Ross, forced him to make a defence of some of his statements. An essay was read by Mr. C. R. Gray, which was a tirade on the Teaching Profession. Mr. N. G. Ross, Plantagenet, explained his method of teaching "Cube Root" by means of cubical blocks. Mr. O. Duford delivered an address in French, and the afternoon session closed. In the evening "A Musical and Literary Entertainment" for the benefit of the public was held in the Town Hall. Programme.—The Reading of Mr. C. R. Gray's Essay; Solo, "British Lion" by Wm. McKillican, Esq.; Reading, on the "Theatre," by H. Gray. Addresses by Rev. S. G. Phillips and T. Otway Page, B.A.; Recitations, by Miss A. Phillips, and Mrs. H. Gray; Reading, "Hohenlinden" by J. Nason, B.A. The proceedings were frequently enlivened by choice and well rendered selections from the efficient choir under the leadership of Wm. McKillican, Esq. "The Proper Method of Teaching Arithmetic from Addition to Proportion" was illustrated by Mr. M. Lefebvre. A discussion followed, in which Messrs. Page and Ross took prominent parts. An able essay on "Junior French Reading," was read by J. Belanger, Esq., L'Orignal. He was followed by Mr. O. Duford, Asst. I.P.S., who made some appropriate remarks on the same subject. Comments on "Discipline," the last subject on the programme, were made by H. Gray, Esq., H.M.M.S. He endeavoured to explain how a school should be conducted, and to state what punishments should be resorted to, in order to correct and prevent certain irregularities. An animated discussion then took place in which Messrs. Summerby, Page, Ross, and C. R. Gray made remarks upon several of the statements advanced. The following resolutions were passed at this meeting: That Mr. T. O. Page, B.A., be appointed Librarian in place of Mr. Summerby, resigned. That the next meeting be held, on the 9th and 10th of June 1882, at such place as the Managing Committee may select: That a vote of thanks be tendered to the choir and others who assisted at the entertainment, to the Municipal Council of West Hawkesbury for the use of the Town Hall, and to the Public School Board for the use of the Public School Buildings.—HENRY GRAY, *Secretary*.

MANITOBA.—The fifth convention of the Manitoba Teachers' Association began its work on Friday, Oct. 14th in the court house, at 10.30 o'clock, the President, Rev. W. C. Pinkham, Superintendent of Protestant Schools, in the chair. The members present were the following: Rev. W. C. Pinkham, superintendent of education; Mr. J. H. Stewart, Inspector of the city schools; Messrs. W. A. McIntyre, J. B. Ferguson, J. Hunt, J. Acheson, A. Springer, E. Blakely, E. Garratt; Misses Roblin, Maggie Eyres, Aggie Eyres, Melroy, Wright, Harvey and McEwen, city; and Messrs. N. Hewitt, St. Paul; W. S. Pope, Little Mountain; W. Duncan, Victoria; F. Shore, Balmoral; J. B. Adams, Cook's Creek; A. H. Monkman, North High Bluff; J. Kelly, Hurdingley; J. P. Dill, Westbourne; A. E. Smalley, Central St. Andrews; F. F. Kerr, Sturgeon Creek; John May, North Springfield; Miss Bella Hargrave, city; Mr. J. M. Robinson, Wood-

lands; Mr. Alexander Acheson, St. James; Miss Shore, Miss Lafferty, city. The proceedings were opened with reading of the Scriptures and prayer by the President. The several committees made their reports. Mr. Garratt suggested the desirability of increasing the membership fee, so as to provide the amount requisite for the payment of the subscription price for numbers of the CANADA SCHOOL JOURNAL sufficient to supply the members of the association with copies. Mr. Ferguson pointed out that the annual membership fee was fixed at 50 cents by the constitution, and that it could not therefore be changed except by a two-thirds vote, and notice of motion given at the preceding meeting. On motion of Mr. Stewart, seconded by Mr. Ferguson, the secretary was instructed to telegraph to the publishers of the JOURNAL to ascertain the price per year for which they would furnish the JOURNAL to this association. On motion of Mr. Ferguson, seconded by Mr. Springer, Miss McEwen and Miss Maggio Kyros were appointed scrutineers. Mr. Hunt was appointed to act as Secretary during the temporary absence of Mr. McIntyre for the purpose of sending a telegram as instructed in the resolution passed. Ballots having been taken for the several offices, and the reports of the scrutineers having been received, the following officers were declared elected: President, Rev. W. C. Pinkham, re-elected, 1st Vice President, Mr. J. H. Stewart; 2nd Vice President, Miss Wright; Secretary, Mr. W. A. McIntyre, re-elected, Treasurer, Miss Maggio Kyros. The afternoon session was opened at 1:30 o'clock, the President in the chair. The first business taken up was that of balloting for five councillors. From the scrutineer's report the following were declared elected: Miss McEwen and Messrs. Ferguson, Howitt, Hunt and Garratt. The general business of the association being thus far concluded, the reading and discussion of papers bearing on school work were entered upon. Mr. Stewart having in accordance with the programme of arrangements, being called upon to read the first paper, then introduced his subject which was "School Routine." He said that in the course of ten years experience in connection with teachers' institutes, he had been led to the conclusion that the first aim should be to make the exercises practical. It was of too frequent occurrence that the themes chosen, although highly elaborated and embellished, were of no practical importance. Again the complaint was often made that while the object of the meeting was that the members should profit by the accumulated experience of all, yet comparatively few of the teachers took an active part in the proceedings. In view of these facts he had determined not to prepare any special paper, but to touch upon some of the elementary principles, and take up some of the smaller difficulties with which the teacher had to contend at the very entrance to his profession. He proposed to deal with the classification of the pupils, the government of classes, and the general conduct of the school. To secure practical benefit, and to elicit the views of the members present, he proposed to have the teachers formed into a class, and to call upon them in order for expressions of their opinions on different subjects. Proceeding accordingly with the formation of a class, he then called upon the members present, by number, to state their practice and their views resulting from their experience in reference to such points as the following: the best method of calling in the scholars at the opening of the school exercises; calling them from their seats to their positions in classes; the bodily positions to be assumed by the pupils while reciting in class; the changing of the relative positions of the pupils in class; methods of dismissing classes; the teacher's position of body while hearing classes recite; seats; employment of monitors; how to deal with children coming to school late, etc. A considerable variety of practice, it appeared, was followed by the various teachers, and the different views held were enunciated with considerable interest and animation. After a large number of the teachers had taken part in the discussion, Rev. J. B. Silcox addressed the association briefly, advising with much force the practice of insisting with the utmost strictness upon absolute punctuality. Messrs. Adams, McIntyre, Hunt and Ferguson, also Miss Lafferty, spoke on the same subject. The President then closed the discussion with a few remarks. He said that the matter was largely in the hands of the teacher. He suggested that making the school a place where the pupils like to be was the most effectual means of promoting punctuality of attendance. In some respects the fewer the rules laid down, the better. Rules could not be laid down that would apply to every case. One of the best ways by which the teacher should strive to secure punctuality was by being punctual himself. It was a very common thing for teachers to be late; but where they were as punctual as they ought to be, the pupils would be also. Mr. Stewart then concluded his remarks by stating that he had, for some years, kept a note book in which he had recorded his observations upon school work, noting the various difficulties with which he had met and the means by which he had solved them. In visiting different schools he had noted how other teachers had overcome particular difficulties. From his note books thus prepared, he had selected the subjects which he had to-day brought before the association. He commended a similar course to the teachers, on the ground that it would afford them opportunities of reviewing their work from time to time and seeing wherein they had succeeded and wherein they had failed. Mr. Adams was next called upon to read a paper, the subject of which was, according to announcement, "How to make a child wish to come to school," (which will appear in next month's JOURNAL). It was then resolved, on motion of Mr. McIntyre, seconded by Mr. May, that the association request the publication in the newspaper of the city, and also in the CANADA SCHOOL JOURNAL, of Mr. Adams' paper. The meeting then adjourned until nine o'clock next morning, and the benediction was pronounced by Rev. A. McDonald. The second day's proceedings commenced at 9:30 o'clock on Saturday morning, the Inspector of the Winnipeg schools taking the chair in the absence of the President. The meeting opened with devotional exercises, conducted by the Rev. J. B. Silcox. Following the programme of arrangements, Mr. Hewitt then read a paper on "The Teachers' Appearance in the School Room." (This paper will also appear in our next issue, En. C. S. J.). In the absence of Mr. Martin, of High Bluff, who had been expected to read a paper on grammar, the following business was, on motion, taken up: Mr. Stewart presented a report of the committee appointed to prepare a system of uniform promotion examinations; and the last hour of the forenoon session was spent in considering the same. The report was taken up clause by clause, and, after an interesting discussion of a number of the clauses, it was on motion of Mr. Hewitt, seconded by Mr. Blakely, referred back to the committee with the request that they report again at the next meeting of the association. At noon the meeting adjourned until 1:30 p.m. Fourth session.—At the opening of the afternoon session the President rose and said that he had great pleasure in introducing to the association Mr. Stewart Mulvey, chairman of the Protestant board of school trustees, Winnipeg, a member of the Board of Education, and an old teacher, who had kindly assented to address the association. Mr. Mulvey, in response, read the following paper, "Should corporal punishment be retained in our Schools?" (which we shall publish in a future number of the JOURNAL). On concluding his address, Mr. Mulvey was warmly applauded. Mr. Acheson, in introducing the discussion of the paper, referred to his experience in the State of New York, where corporal punishment, though nominally abolished by the law, was practically retained. He agreed with the position that in most cases such punishment need not be resorted to. Mr. Ferguson agreed with the sentiments of the paper, but thought that a teacher lessened the esteem entertained for him by the parents of the children whom he punished. Discretion should be used as to the offences for which corporal punishment was employed. Mr. Hewitt believed that a teacher would be all the more respected if he punished judiciously. He should punish that the child himself would acknowledge the punishment to be justly administered. Mr. Adams thought that a teacher would lose esteem more by carrying favor than by acting with manly independence. Punishment should be reduced to a minimum. An ounce of honest praise—not fulsome adulation—went further than a pound of correction. The less threatening employed, the better. Punishment should be short, sharp, soon over and well felt, and then no more allusion to it. Pupils should know that the teacher had power to punish. Mr. Hunt was in favor of punishing according to natural law, or making the punishment like the natural result of the offence. Mr. Springer illustrated the good effects resulting from corporal

punishment judiciously administered. Such punishment, as was known, was more practiced in the old countries than in Canada. Mr. Stewart suggested the use of the negative punishment or refraining from marks of kindness, as effective in many cases. Still, the use of corporal punishment was at times necessary. It should then be so employed as to increase rather than diminish the affection of the child. Mr. W. P. Laxton expressed his agreement with the positions taken in the paper. The end to be arrived at was to maintain discipline, and it was not advisable to lay down cast iron rules as to the particular instances in which corporal punishment should be administered. The President expressed thanks to Mr. Mulvey, on behalf of the association, for his valuable paper which he had so carefully prepared and given. On motion of Mr. Stewart, seconded by Mr. Acheson, the association requested the publication of Mr. Mulvey's paper. It was resolved, on motion of Mr. Stewart, seconded by Mr. Garratt, that Mr. Stewart Mulvey be made an honorary member of the association, and that he be notified by the Secretary to this effect, also that the Secretary convey to him the thanks of the association for the help which he has so kindly given. The President briefly addressed the association. He expressed himself as sure that the suggestions thrown out in the papers and in the discussions would do good particularly to the teachers, but also to all others present. He urged the importance of all teachers becoming members of the association. He was exceedingly grateful to those who had taken up the matter this year. He recommended that all, both old and young, should take an interest in the work of the association, and that none would consider himself too young or inexperienced to take part. As the Saviour drew from little children the lessons that those about him should learn, so the least experienced might touch exceedingly valuable lessons to those who were the most experienced. It was within the power of the teachers to make the association a success and a great good throughout the province. He hoped that those to whom the committee might assign work for the next convention would consider it their solemn duty to do the very best they could with the subjects assigned. In conclusion, he expressed his intense satisfaction, in view of the kindness and courtesy the association invariably received from the press of the province. He had always felt that they owed a great deal to the press of the City of Winnipeg for the willingness which they had invariably shown to publish anything worth publishing. Moved by Mr. Stewart, seconded by Mr. Acheson, and carried, that the publishers of the CANADA SCHOOL JOURNAL be asked for quotations for fifty or one hundred copies of their journal, and that the Secretary notify the members and teachers through the press what subscription sum would entitle them to the journal for one year, as well as all the privileges of the association, and also whether they would have to remit such sum to secure the desired privilege. A resolution for adjournment having then been passed, the President pronounced the benediction.

REVIEWS.

AN EDUCATIONAL WONDER.

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ADAMS' ILLUSTRATED CHART OF BIBLICAL AND SECULAR HISTORY, FROM 4004 B. C. TO 1881 A. D. Combining *Object Lessons in History* for children, with tabulated and synchronized history for both day and Sunday schools. It constitutes a complete encyclopædia of history and chronology, for schools of all grades, for family use, for private students, and is indispensable to every well-equipped library. 5 Union Square, New York: Colby & Co.

This great practical Chart is a chromo-lithograph, mounted on canvas, is about twenty-one feet long by two and one-quarter feet wide, and is in three styles: On Rollers, turned by cranks, and occupying such space on a wall as may be desired for family or school use; in Portfolio form, for table use; and in Book form, bound in paper, hinged on cloth. We give our readers the following general description of this superb work:

The length of the Chart is divided by perpendicular lines into five and a half centuries and their decades; across these century columns pass, from left to right, colored lines or streams that represent the different historic nations (and lives of the patriarchs), and change their color to indicate every change of rulers; these streams divide, subdivide, unite, or disappear according to the record of the nation represented; thus every nation, with its consecutive rulers and all the leading facts of history, are placed upon a fixed scale and presented to the eye in their proper relations as to time, just as, geographically, a map locates towns, rivers, and countries. Meridians intersect places of the same longitude, in the same manner that century and decade lines on this Chart mark contemporaneous nations, rulers, and events.

The origin of nations, their grand march through the centuries, and their final overthrow, are prominent features of the Chart, while the confused mass of dates and events, that usually comprises our knowledge of history, is so sifted and synchronized by it, so lighted with colors, models, and illustrations, that the centuries of the past seem transformed into individual realities, marked with their peculiar characteristics. *The plan of the Chart is so simple that children can readily understand it, and so comprehensive that it is in itself an Historical Encyclopædia for the mature scholar.*

Beginning at the left (everything runs from left to right, from the past to the present), among the world's great eras and events so attractively presented on this panorama, may be noted, in the line of sacred history, the genealogy of the patriarchs, the genealogy of Christ, the Deluge, the Call of Abraham, the Bondage in Egypt, the Exodus, the Division of the

Kingdom, the Loss of the Ten Tribes, the Captivity in Babylon, the Restoration, and the Crucifixion. In secular history we trace the lines of Phenœcia, Egypt, Babylon, Assyria, and Greece, for some seven teen hundred years, and find few changes. Then we see indicated the fall of Babylon, the massing of power under the great Persian Empire, Alexander's kingdom, Rome engulfing the national streams of the world, its fall in the fifth century, A.D., and the rise and progress of the modern nations to the present time.

Thus all that is known of human history is spread out clearly before the eye, quite as plainly as what is known of the earth's surface is delineated on the best map. The comprehensiveness of the Chart is surprising. It enables the reader to readily trace the contemporaneous events of any period of the world, decade by decade, and century by century, while it outlines for him the successive rulers, conquests, and losses of each nation throughout all historic time.

The work is not denominational, as it is in use in the leading English and American Protestant Libraries and Educational institutions, and it is also endorsed and used by Cardinals McCloskey and Manning, Chancellor Thomas S. Preston, *The Tablet*, London, Mgr. Aguzzi, Sec. Propaganda Fide, His Eminence Cardinal Newman, *The Oratory*, England; Manhattan College, New York, Mount St. Vincent Academy, New York, and many of the Colleges, Convents, and Parochial Schools in New York and elsewhere.

Sir Charles Reed, President London (Eng.) School Board, also says "The author does not need a monument over his grave."

A Key is furnished, which explains the Chart so simply and so thoroughly that a child cannot fail to understand it. The Indices save much valuable time, and add vastly to the pleasure of using the Chart. The names of rulers and eminent men are carefully syllabled and accented according to *Thomas' Pronouncing Dictionary of Biography*. This Chart must be examined to be fully appreciated. No mere description can convey an adequate idea of its practical worth to teachers and students. Even primary teachers will find it of great value in giving *object-lessons* on historical, geographical, and general topics. It enables them to instruct, through the eye, the mind of every child, and it will awaken and stimulate interest and investigation on the most important subjects. The author has, with a vast amount of critical study and adjustment, planned and executed his work upon the principle that what we see in picture is remembered, while what we read is soon forgotten; and he has, with consummate skill, produced what has been styled a photograph of universal history and chronology. We heartily commend it to teachers, school-officers, and to the people generally. It is now being used in many of the best schools, and when its simplicity, its comprehensiveness, the grand series of historical object-lessons it presents, and the attraction it gives to the much-neglected study of history becomes known, it will be considered indispensable in every school-room, study, and family living-room. It is an admirable present for child, parent, or pastor.

As the Chart is not sold by or through the trade, a few of the best agents will be given entire control of general agencies. Any information in regard to this Chart can be obtained of John E. Colby & Co., publishers, 5 Union Square, New York city.

THE FRANKLIN ARITHMETICS Primary, Elementary, and Written. By E. P. Seaver, A.M., and G. A. Walton, A.M. Boston: William Ware & Company. These books are the joint work of Mr. Seaver, present Superintendent of the Boston Schools, and Mr. Walton, Agent of the Massachusetts Board of Education, and fully sustain their reputation as teachers and authors. In the *Primary Arithmetic*, numbers are taught by the objective method. Almost every page contains pictures appealing to the child's powers of observation, and suggesting to the teacher what objects to use and how to use them. All the language and operations of elementary arithmetic are brought into play while the child is using small numbers. To the primary teacher, puzzled how to make first steps in arithmetic not only intelligible but interesting to young children, this book will be a revelation. The *Elementary Arithmetic*, though designed as an introduction to the *Written Arithmetic*, contains a complete short course suitable for pupils who leave school early. The four fundamental rules are very thoroughly treated. The *Written Arithmetic* con-

tains a full course of arithmetical instruction and drill. Illustrative examples develop the principles of each successive topic. Oral exercises precede the slate examples which are the best we have ever seen for developing the reasoning faculties of the pupil and at the same time preparing him for ordinary business affairs. At the close of each section there are questions for review of theory, problems for review of the topics discussed in the section and slate exercises in great number and variety on all previous work. A set of Drill Tables—probably the most useful feature of the work closes the section. These tables extend in definitely, practice in arithmetical operations without additional labor on the part of the teacher, and compel pupils to work independently. An appendix, containing over 500 problems, concludes the book. The publishers are entitled to much credit for their share of the work. Illustrations, print, paper, and binding are exceedingly good.

THE SHAKESPEARE PHRASE BOOK. By John Bartlett, 1034 pages. Little, Brown & Co., Boston, Mass. Mr. Bartlett is the author of many works of intense value to the student, characterized by scholarly research and deep erudition. The book before us is one of that class and falls behind none of the others in careful preparation, complete compilation, and general excellence. It is "an index of the phraseology of Shakespeare, a concordance of phrases rather than words." The principal words used by the great dramatist are arranged in dictionary order, and under each are placed the lines containing the word and comprising the complete phrase which conveys the thought and preserves the sense. At the end of the book are comparative readings from several texts—a chapter of much importance, as it gives a finish and perfection to a work of great intrinsic merit. No student, teacher, or author should be without it, and the library in which it is not found as a reference book is sadly deficient.

THE DAY OF REST for November contains, as usual, a variety of articles briefly treated by their respective writers. "Don John" and "God and the Man" are continued, the latter to be concluded next month, when we expect to find the satisfactory unravelling of the plot it has been describing. The Vicar of Lowmeads still writes "Letters to my Parishioners," and Mr. Strachan in his "Twenty years of a Publisher's Life," gives some very interesting collections of Dr. Livingstone and Archbishop Whately, with illustrations. "A Cornish Holiday" contains some graphic descriptions of scenery, and their continuance will be welcomed. These are only a few of the subjects handled. The number is a valuable one, and will be prized by its readers.

THE IDEAL, a book for singing classes. By L. O. Emerson. Oliver Ditson & Co., Boston. Price 75 cents. We have examined from time to time several books of music published by this enterprising firm, and without detracting from the merits of their previous publications for use in schools and singing classes, must acknowledge that the "Ideal" is a decided step in advance. It is almost sufficient to mention that Mr. Emerson is the author to ensure its public success, as he is well known, through his other works, as a popular composer and practical teacher of music; but the "Ideal" contains so many beautiful airs, sacred and secular, arranged for choir singing, that the book itself should be purchased and used to secure the appreciation it deserves.

Publishers' Department.

We are compelled to hold over some reports, in type, of Teachers' Conventions, also a few contributions, reviews and other matters, through want of space. They will appear in our next issue.

With the expiration of the year quite a number of subscriptions also expire. We would respectfully ask subscribers to examine the address label and if the date thereon is 'Dec. 31,' it will be a hint to renew their subscriptions. Considering the intense satisfaction the JOURNAL has been giving, as testified to by subscribers in every Province of the Dominion and in the United States, we expect a still greater increase in circulation in the coming New Year. We feel much encouraged and stimulated by the large support we have received during the past twelve months, for which we return our grateful thanks, and we respectfully request its continuance.