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THE CANADA SCHOOL JOURNAL.

An Educational Journal devoted to the advancement of Literature, Science, and the teaching profession in Canada.

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“Practical Methods” in next issue. See “Stella’s” letter in No. 1, January 7th. We publish “Question Drawer” this time and cannot afford space for both departments in one issue.

As the JOURNAL is now issued semi-monthly instead of weekly, at a reduced price, we shall extend the balance of the time on old subscriptions to make up the difference. If subscribers wish to terminate their subscriptions at the time paid to, we shall return the difference in cash, on notification. Address, Business Manager, CANADA SCHOOL JOURNAL, 423 Yonge St., Toronto.

The educational world has suffered a loss in the death a few weeks since of Robert Potts, A.M., of Trinity College. Mr. Potts was well known to Canadian teachers and pupils by his excellent edition of Euclid, so long used in our schools. He was a Fellow of Cambridge, an accurate scholar and editor, and will be much missed in the circles in which he was accustomed to move.

“Second-hand material is at a greater discount in the school-room than anywhere else,” says the *Missouri School Journal*, writing on the necessity of self-reliance to the teacher. The hint is a good one. The wise teacher will gather information, opinions, and methods from every quarter, but will use nothing till it has been thoroughly worked over in the laboratory of his own brain. The self-sufficient teacher who knows so much that he does not need to compare notes with others is bad enough. The servile imitator and copyist is, if possible, worse.

The foregoing remarks connect themselves with the caution given, not to make the process of learning so easy as to save children the labor of mental effort. It has always seemed to us that the danger of kindergartens and the “New Education” lies in this direction. It is not in being lifted over difficulties, but in conquering them, the child’s intellect finds its chief delight. Dry, isolated facts, whether in geography, history, or any other subject, are no fit food for a growing mind. Associate the facts with their causes, their accompaniments, their results; show their relations to great events; their influence upon men’s character, health and happiness, and you will at once arouse interest, and minister delight.

An article on “what Geography ought to be,” by Prince Krapotkin in the *Nineteenth Century*, contains amidst much debatable matter, some excellent hints. He contends, for instance, with much force and reasonableness, that, in order to interest children in the physical features of the earth, these must be associated in the mind with the history of man. The point is well taken. Geography by itself is undoubtedly one of the driest of studies, kindling neither intellect nor imagination. Geography as the interpreter of history, enabling us not only to follow the movements of men and nations, but throwing light upon the causes of the growth and decay of races, as these causes are found in climate and other physical conditions, becomes to an active, hungry mind, one of the most stimulating and delightful of studies.

The Faculty of the Case School of Applied Science, in Cleveland, Ohio, have issued an edict authorizing their students to draw up a code of rules for their own government. It is to be presumed that they will also have a voice in their enforcement, as judges, not as executive. The same method has been adopted with, so far as we are aware, good success in other American institutions. With sensible, earnest students, there should be, and probably would be, no difficulty, but a great saving of friction. It is the old theory of self-government in a new application. The best way to teach a people to use liberty is to make them free. The best cure for unruliness is often a load of serious responsibility. We do not doubt that the underlying principle is one which will be largely developed and utilized in the colleges of the future.

The principle involved is one which is worth the careful study of every public school teacher. Of course the average boys and girls of the public schools are hardly sage enough to be trusted with the duty of legislating for the school. But the farther the teacher can go in throwing upon them a sense of responsibility in the matter, the better for them and for himself. The most mischievous bane of school government, yes and college government, too, is the feeling of antagonism that so often exists between teacher and pupil. The latter tacitly assume that the former are despots, if not tyrants, and that it is a duty they owe to themselves to strain or evade the rules at every possible point, and the former as naturally expect this passive resistance to their authority. He is the true ruler, the model disciplinarian, who can succeed in creating the feeling in the pupils that their aims and interests are identical; that the school is theirs; that they are honored by its success and disgraced by any failure in efficiency or tendency to disorder. He was a wise captain who always said "come," never "go," to his men.

Referring to the practice, now almost obsolete, of punishing delinquent pupils by keeping them in after school hours, the *Journal of Education* says that "all progressive teachers, most supervisors, all normal schools, all pedagogical literature, all physicians, are arrayed against the practice." Apart from other important considerations, there is a crucial philosophical objection against this and every other form of punishment which tends to create in the child's mind an association between study and penalty. The judicious teacher will make it his great aim to create a delight in study for its own sake, but it would be absurd to impose a pleasure as a punishment. The day is not so long past when the committing to memory of verses of Scripture was a favorite "imposition." A better way to teach boys and girls to hate and shun the Bible could not easily be conceived. So if you want your pupil to dislike study, give it to him as a punishment.

The appointment of Dr. Schurman of Dalhousie College, Halifax, to the Chair of Christian Ethics in Cornell University, is worthy of note as showing how Canadians sometimes make their way in the world. Dr. Schurman is a native of Prince Edward Island, where he received his preparatory training. He afterwards attended Acadia College, in Wolfville, Nova Scotia, and while there succeeded in winning the Gilchrist Scholarship. Other successes in English Institutions paved the way for a course of study at the great German universities. Dr. Schurman occupied for a time a chair at Acadia, whence he went to Dalhousie. He visited Toronto two or three years since in the capacity of examiner in Metaphysics in the University. He is a man of superior abilities, fine presence and genial manners. His course thus far has been exceptionally brilliant, and we congratulate him on having now reached a position in which he will no doubt gain still greater honor for himself and his native land.

The question of the advisability of an interchange of professors among the colleges is being discussed in the New

York *Nation*. A writer well suggests that it would serve the same purpose and be more feasible to keep the professors stationary and allow the students to change colleges occasionally. We have always thought that the advantage of a choice of professors was the strong argument in favor of a real confederation of Canadian colleges, could that be brought about. The student should have the privilege of choosing his professor in each branch of study from amongst the competing colleges. The contact with a variety of minds and modes would not only profit the student; it would give new life to the colleges. Let it once be made clear that dry-as-dust professors would have empty lecture-rooms, and there would be a great remodelling of the staffs. Such an option would do more to compel colleges to shake off old-fogyism and get out of old ruts than any other innovation we can conceive of.

We quite agree with our New York namesake, that a good teacher will never get so high and dignified that he cannot enjoy a good joke, and that if anything laughable occurs in the school room it is right and proper to laugh. The teacher who knows how to laugh will stand the strain that leaves his long-faced, sour-visaged contemporary, limp and nervous. A good laugh too is an excellent moral disinfectant in the school room. It dissipates dank humors, and poisonous gases, like sunshine. "He that is of a merry heart hath a continual feast" says the Wise Man. By the way, the Revised Version gives it a "cheerful heart." That is no doubt still better, better philosophy as well as better theology. The man or woman who can be genuinely and perpetually cheerful, will scarcely fail in any sphere; will not certainly fail of friends and cordial welcomes. But this is very high, few can attain to it. But most of us can be merry occasionally, when we will. Try it teachers. The next blue day, when everything is going wrong, and the very demon of stupidity, disorder, or mischief seems to have been let loose in the school, call a halt, and start some good-natured fun. Tell a witty or amusing story; never of course one of questionable taste. Get up a good laugh. You will find it a most effective exorcism.

The Kingston correspondent of the *Toronto Mail* recently sent the following:—"An old rookery is being used as a school, and when an official entered the building to-day he found the children wearing their overcoats, caps, and mitts, and the teacher muffled up. If the pupils wet their slates ice formed on them at once. The school was at once dismissed, and now the parents threaten to lay the matter before the Board of Health to see if their children cannot be secured proper school accommodation." Can such things be in this Ontario of ours and even in the good old city of Kingston? Where has the Inspector been? How many such institutions as that described are there in the Province? One of the strangest inconsistencies in human nature is the fact that so many parents, whose children are comfortably and perhaps luxuriously lodged and cared for at home, are almost oblivious to the discomfort, suffering, and danger those same children undergo during five or six hours a day at school? Those who

send their children to such a rookery, must do so simply to get them out of the way. Common sense must tell them that to learn under such circumstances is impossible.

Many teachers are, we know, sceptical in regard to the possibility of getting the average schoolboy or girl to study for pleasure. Yet we are convinced that the thing may generally be accomplished. It would be easy but for the false methods adopted either at home or school. It is quite as natural for a healthy child to delight in mental as in physical exertion. In neither case does it enjoy best the easiest amusement, by any means. Why should there be less delight attached to the exercise of the mind than to that of the body? The fault is in the tasks, and the dry rote methods. Most of us know children who, once started on the alphabet track, have taught themselves to read, and enjoyed the exercise quite as much as the learning to ride or skate. Often the parent finds it more necessary to repress the ardent young learner within the bounds of moderation than to urge him on. Why should not the joy of gaining knowledge and truth be continuous and perpetual?

"Moral culture is indispensable to an upright *personal character*." So says President Laughlin, of Hiram College, in *The Current*. There is truth in the remark, and truth that should be well pondered. Some of the most crooked and cantankerous people one has to deal with are no doubt sincere in their desire and intention to do right. But they lack moral culture. They have never learned the art of putting themselves in their neighbor's place. They are bond-slaves of their own prejudices, which they miscall convictions. Their brain-chambers are stuffed with musty heir-looms, the products of narrow minds, working in days of ignorance, and these heir-looms they cherish as deliverances of conscience too sacred to be touched. The power and habit of getting outside of their little selves, so to speak, and judging men and acts in the light of great principles, and with full consideration of the rights and feelings of others, they have never acquired. This power is to be acquired only by deep reflection, this habit formed only at the cost of self-denial and sacrifice.

The astonishing indifference of the ratepayers in some places in regard to the choice of School Trustees is not one of the hopeful signs of the times. In the late election in Toronto, for instance, there were but two wards in which there was any contest. If it might be hoped that the unanimity in the other wards was the result of general agreement as to the merits of the candidates, the election of so many by acclamation would be no cause for regret. But unfortunately there is no room to hope that such is the case. As the *Globe* says, "it was simply a matter of general apathy." The *Globe* thinks the remedy is to be found in having the election of Trustees on the same day as the municipal elections. It is not easy to see how a change in the day of election is going to make indifferent men earnest, unless on the supposition that some of the superfluous warmth engendered in the civic contests will flow over and expend itself on school matters. At the same time we should welcome any change that can be shown to promote better results. The

Trustee elections certainly suffer now by their proximity to the municipal elections. The day should be changed in one direction or the other. Would it not be better to have the Trustee election some weeks later in the season and make it as far as possible, an important event in itself?

It cannot fail to be interesting to every friend of education and progress to note the change which has gradually taken place in the composition of the British House of Commons. Time was, and not so long ago either, when its members were almost exclusively chosen from the so-called "higher classes." The following classification of the new House will show more conclusively than any words how completely it has become representative of the whole people. Like our own House, however, it has far more than its due proportion of lawyers. The 668 members, of whom considerably more than half never before sat in Parliament, are classified as follows:—Bankers, 25; barristers, in or out of practice, and Q.C.'s, 110; brewers and distillers, 24; builders and architects, 6; civil and mining engineers, 6; colliery proprietors, 16; crofters' representatives, 5; diplomatists and government officials, 23; estate and life assurance agents, 4; farmers and agriculturists, 12; gentry and landowners, 71; labor representatives, 12; manufacturers, 69; members of the medical profession, 16; merchants, 42; ministers of religion (retired), 2; newspaper proprietors and journalists, 34; professions not stated, 9; printers and booksellers, 6; professors of universities and economists, 9; solicitors, in or out of practice, 23; sons and brothers of peers, 46; steamship, ship owners, and builders, 21; stockbrokers, 6; tradesmen, various, 17. Army and navy list—Generals and major-generals, 6; colonels and lieutenant-colonels, 20; captains and lieutenants, 14; majors, cornets, and ensigns, 7; naval officers, 7. Total, 668.

"Everybody understands," says the *Journal of Education* "that the teacher, especially in the Public Schools, stands in *loco parentis*." We beg the *Journal's* pardon. Everybody does not so understand the teacher's position. Many of the evils that afflict the Public School system grow out of the too common assumption of this, in our private opinion, mistaken and mischievous premise. We deem it mistaken, in that it tends to foster in parents' minds the impression that they can delegate in part to another the solemn responsibilities which God and Nature have devolved upon them alone, but which too many of them are disposed to shirk. We deem it mischievous, because it throws upon teachers a kind of duty which not one in ten of them is fitted by age or maturity of character to discharge—a duty which, in fact, no man or woman living can fully discharge for another. There are, of course, many children, who, having no parents, or often worse than none, become in a sense the wards of the Community, or the State, which cannot perhaps find a better substitute for the missing parent than the faithful teacher. But these are the exceptional cases. The sooner the majority can be made to feel that their children can have and should have but one father, and one mother; that the parental relation, authority and obligation hold, in school

and out of school, and that these cannot be devolved upon the teacher whose work is strictly, and in the highest sense, professional, the better for the parents, the better for the teachers, and the better for the children.

But the saying of President Laughlin finds another illustration in a very different class of people. How many men and women, especially women, do we meet, who have many really estimable qualities, who are sincerely anxious to live uprightly, many of whom are active members of Christian churches, who yet, from want of moral culture, do many things which are not only not upright, but mean. Many a woman will spend hundreds of dollars on sealskin garments and other luxuries, and grind the faces of her washerwomen and servants to the last cent which their poverty compels them to forego. Others, through sheer lack of moral thoughtfulness, will exact the last pound of flesh, in the shape of service, from the toil-worn bodies of servants, rather than touch a burden with one of their fingers. In days when letter postage was dearer than now, we have seen letters slyly extracted from newspapers which had come through the post, by those who would feel not only insulted but deeply grieved to be told they were not strictly honest. We fear that even yet there are those who do not hesitate to adopt the same means of sending or receiving ribbons, laces, gloves, etc., upon occasion, and who do so without feeling that they are selling their personal honor for a few paltry cents. And what shall we say of those who, when crossing the boundary, put their little dutiable purchases at the bottom of their trunks and officiously expose to the customs' officers the undutiable articles nearer the surface? Why, good, Christian men and women, as we must in charity believe, make a boast of doing it, and never seem to realize that they have not only added virtual falsehood to fraud, but have been guilty of the inexpressible meanness of trading on the officers' trust in their honor, and made a few cents out of the transaction. What great need that the teachers of the young should be themselves men and women not only of strict integrity, but of high moral culture, training up the next generation to be more high minded than their predecessors.

We unfortunately mislaid for a week or two a letter and pamphlet which should have been more promptly noticed. They were sent to us by Mr. Thos. K. Clyde, in reply to a brief note in our issue of Nov. 26th on the Church Disestablishment question. The pamphlet is a "Statement of Facts concerning the church of Scotland, issued by and under the authority of the Sanford Parish Church Defence Association." Amongst the "Facts" it is alleged that "The church is simply the State in its religious aspect, and not a tax," that "the nation did not out of National Property endow the church," that the church of Scotland maintains National Religion, is the church of the people, and of the poor, that the people of Scotland do not wish its disestablishment, etc., etc. Mr. Clyde in his letter also says:—

"If this movement of disestablishment and disendowment were to succeed, the many thousands of pounds sterling which the members and adherents of the church of Scotland annually subscribe for extra parochial and foreign and colonial mission.

ary purposes, would require to be diverted from these more important objects in order to as far as possible make up for this alienation of funds provided by the pious mortifications of our forefathers and their successors down even to the present time."

Neither our space limits, nor the special character of the JOURNAL admit of a discussion of the question, else we should be quite prepared to defend our remark, that "Free and fearless discussion of underlying principles is the one thing the supporters of a state-established and state-endowed church have most to dread." We can find room only to say that while we had the Church of England particularly in mind, in writing, the statement applies, in our opinion, to all established churches, in so far as they authorize the state to step beyond its legitimate sphere, and meddle with spiritual and religious matters, and in so far as they appropriate any portion of the money of the whole people to support the church of a part. No one, we suppose, would advocate robbing any church of endowments or funds contributed by private benefactors.

Special.

ELEMENTARY CHEMISTRY.

WATER.—Continued.

Hard Water.

Water that contains an excess of calcium or magnesium salts is said to be *hard*, while one not so charged is said to be *soft*.

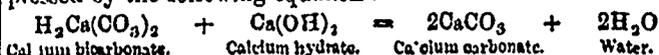
Action of Hard Water on Soap.

Exp. 5.—Dissolve a small quantity of soap in hot alcohol (strong whiskey), and add a little of it to rain water; a "lather" is produced. Now add a little of the soap solution to water containing calcium bicarbonate or calcium sulphate; the soap immediately curdles. There are two organic acids: *stearic acid* $C_{18}H_{36}O_2$, and *oleic acid* $C_{18}H_{34}O_2$, which are formed in most natural fats, the former being about three times the latter. These acids combine with soda and potash to form soap, the combination with soda forming *hard soap*, $NaC_{18}H_{35}O_2$. The lime in the water decomposes the soap, forming *calcium stearate*. This substance constitutes the thin scum seen on the surface of the water when treated with soap. Before it is possible to obtain a lather with a hard water, it is necessary to convert the whole of the calcium and magnesium salts present into insoluble stearates. Since stearates have no detergent action, the presence of large quantities of the salts of lime in water seriously impairs its economic value.

Water which readily curdles soap is called Hard Water.

Temporary Hardness.—We have seen (Art. 132) that when water containing calcium bicarbonate is boiled, the lime is precipitated in the form of calcium carbonate.

Exp. 6.—Half-fill a test-tube with water containing calcium bicarbonate in solution, and carefully add lime-water to it; the solution becomes milky. The lime-water converts the soluble bicarbonate into the insoluble carbonate. The reaction is expressed by the following equation:—



Hardness which may be got rid of by boiling or by the addition of lime-water, is called "Temporary Hardness."

Permanent Hardness.

Exp. 7.—Shake up a little calcium sulphate (plaster of Paris) with water and filter. The water now contains calcium sulphate, which is soluble to the extent of one part by weight in about 460 parts of water, while calcium carbonate is only soluble to the extent of 2 grains in a gallon (70,000 grains). Boil a portion of the water; no change is observed. Add lime-water to another portion; it still remains clear, the lime remaining in the water.

Water which cannot be made soft by boiling, or by the addition of lime-water, is said to be "Permanently Hard."

Total Hardness—Degree of Hardness.

The term "total hardness" implies both temporary and permanent hardness. In expressing hardness by degrees, it is to be understood that every degree of hardness represents 1 grain of calcium carbonate or its equivalent in soap-destroying power, in a gallon of water. Thus, water that has a hardness of 10 degrees contains 10 grains of carbonate of lime in a gallon. Most chemists now, however, estimate the hardness in 100,000 grains of water.

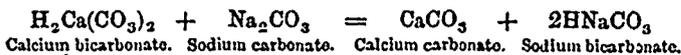
A soft water is one below six degrees of hardness; a water of 8 or 10 degrees is moderately soft, while a water of 20 degrees and upwards is hard. A good drinking water should not have a hardness of more than 15 degrees. A very hard water is injurious for drinking purposes, because its power as a solvent for food is impaired, and because it is absorbed by the stomach with greater difficulty than a soft water, thus giving rise to indigestion and dyspepsia.

The Softening of Hard Water.

(1) *By Distillation.* This method is chiefly, if not solely, used for the preparation of fresh from salt water, for the supply of ships at sea. When freshly prepared it has a vapid and unpleasant flavor, due partly to deficient aeration and partly to the presence of traces of soluble organic substances; both of these objections may be removed by filtration through charcoal.

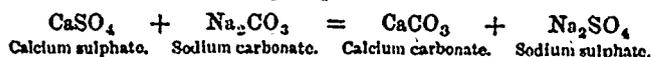
(2) *By the action of Sodium Carbonate.*

Exp. 8.—Add sodium carbonate, Na_2CO_3 (washing soda), to water containing calcium bicarbonate; a white precipitate is formed. The sodium carbonate forming soluble sodium bicarbonate and insoluble calcium carbonate:—



This action takes place slowly in the cold, and rapidly at a higher temperature. As the sodium salts have an unpleasant taste, waters thus softened cannot be used for drinking purposes, but the method is commonly in use by laundresses, who thus avoid the waste of soap.

Exp. 9.—To water containing calcium sulphate in solution add washing soda; soluble sulphate of soda is formed and insoluble calcium carbonate precipitated:—



Water containing salts of magnesium is softened in the same manner. Instead of sodium carbonate, wood-ashes, which contain potassium carbonate, may be used.

(3) *By Boiling.* This method only applies to that part of the hardness of water which is due to the presence of the bicarbonates of lime, magnesia, and iron, but is not applicable to that arising from sulphates. When water containing bicarbonates is boiled, the bicarbonates are gradually decomposed, the insoluble carbonates being precipitated and carbon dioxide expelled with the steam. Ebullition for half an hour is sufficient.

(4) *By the addition of Lime.* This process is applicable to the same kind of water as the preceding, and to the same extent. The reaction is given in Experiment 12. The process is now in use on a large scale in numerous places, being applied to the entire water supply of several towns.

Lead in Water.—As lead acts as a cumulative poison, its salts produce serious results if taken into the system, even in very minute quantities, for a length of time. It is, therefore, of great importance that suspected water should be carefully examined. Pure recently-boiled water has no action on lead, provided air is excluded; but if lead is exposed to the united action of air and water, it is oxidized to the hydrate which dissolves. Potable water always contains a certain amount of salts in solution, and the corrosive action on lead depends upon the nature and quantity of the salts thus present. Salts of ammonia act most prejudicially in this respect, while certain salts of lime, such as the carbonate and sulphate, by forming an insoluble film on its surface, either retard or altogether prevent the action of the water on the lead. This does not apply, however, to water containing a large excess of carbon dioxide, in which case a soluble bicarbonate is formed. Also, some kinds of vegetable matter form insoluble compounds with lead.

Exp. 10.—Boil 100 c. c. of water, acidulated with a few drops of hydrochloric acid, and add sulphuretted hydrogen water (Art. 19). If a brown or black coloration is produced, the presence of lead may be inferred. This black coloration is lead sulphide, PbS . Few waters kept in lead cisterns can be met with which do not yield some trace of lead.

HIGH SCHOOL LITERATURE.

By J. E. WETHERELL, M.A.

SEVENTH PAPER.

WARREN HASTINGS.

A.

"Nuncomar had proposed to destroy the Mussulman administration, and to rise on its ruin. Both his malevolence and his cupidity had been disappointed. Hastings had made him a tool, had used him for the purpose of accomplishing the transfer of the government from Moorshedabad to Calcutta, from native to European hands. The rival, the enemy, so long envied, so implacably persecuted, had been dismissed unhurt. The situation so long and ardently desired had been abolished. It was natural that the Governor should be from that time an object of the most intense hatred to the vindictive Brahmin. As yet, however, it was necessary to suppress such feelings. The time was coming when that long animosity was to end in a desperate and deadly struggle."

1. What is the difference, if any, between "had proposed" and "had purposed," "to rise on its rum" and "to rise on its ruins," "malevolence" and "malignity," "cupidity" and "avarice," "envied" and "coveted," "implacably" and "relentlessly," "ardently" and "zealously," "abolished" and "destroyed," "hatred" and "animosity," "vindictive" and "spiteful," "desperate" and "deadly"?

2. Describe Nuncomar's character. What is meant by calling him "a Brahmin of the Brahmins"? Who was the object of "his malevolence"? What situation had he "ardently desired"?

3. What favorite artifice of the story-writer does Macaulay employ in the last sentence of the extract? Describe the "struggle."

B.

"It was said that their chiefs, when united by common peril, could bring eighty thousand men into the field. Sujah Dowlah had himself seen them fight, and wisely shrank from a conflict with them. There was in India one army, and only one, against which even those proud Caucasian tribes could not stand. It had been abundantly proved that neither tenfold odds, nor the martial ardour of the boldest Asiatic nations, could avail aught against English science and resolution. Was it possible to induce the Governor of Bengal to let out to hire the irresistible energies of the imperial people, the skill against which the ablest chiefs of Hindostan were helpless as infants, the discipline which had so often triumphed over the frantic struggles of fanaticism and despair, the unconquerable British courage which is never so sedate and stubborn as towards the close of a doubtful and murderous day."

1. What *graces of diction* are here exhibited?
2. What constitutes the magnetism of the passage?
3. Give synonymes for "peril," "abundantly," "martial," "ardour," "boldest," "resolution," "induce," "frantic," "fanaticism," "courage," "sedate," "close," "murderous."
4. "Eighty thousand." Could Arabic numerals be used? We find in a subsequent passage the expression, "the nineteenth of January, 1773." Why not "the 19th of January"?
5. Why are the English called "the imperial people"?
6. "The ablest chiefs of Hindostan," etc. Give a signal example.

C

"We hasten to the end of this sad and disgraceful story. The war ceased. The finest population in India was subjected to a greedy, cowardly, cruel tyrant. Commerce and agriculture languished. The rich province which had tempted the cupidity of Sujah Dowlah became the most miserable part even of his miserable dominions. Yet is the injured nation not extinct. At long intervals gleams of its ancient spirit have flashed forth; and even at this day, valour, and self-respect, and a chivalrous feeling rare among Asiatics, and a bitter remembrance of the great crime of England, distinguish that noble Afghan race."

1. What characteristics of style are here displayed? Point out all the rhetorical figures. What is the usual effect of a *syndeton*? What of *polysyndeton*?
2. Why is the story "disgraceful"?
3. "The rich province"—"the injured nation." Name.
4. "Yet is the injured nation," etc. Why are words of this sentence in the present order?
5. What does Macaulay say of the nation's "valour"? What of its "chivalry"?

D.

"It is scarcely possible to mention this eminent man without adverting for a moment to the question which his name at once suggests to every mind. Was he the author of the "Letters of

Junius"? Our own firm belief is that he was. The evidence is, we think, such as would support a verdict in a civil, nay, in a criminal proceeding."

"This eminent man." Who? In what connection does Macaulay have occasion to mention him?

2. Summarize the "evidence" that the essayist adduces.
3. What is the difference between a civil and a criminal proceeding?
4. "Nay." How is it that the substitution of "yea" for "nay" will not affect the general sense?

E.

"These strong words can refer only to the case of "Nuncomar"; and they must mean that Impoy hanged Nuncomar in order to support Hastings."

1. What are the "strong words." Can you show that Macaulay has misinterpreted them?
2. What attempts have been made to rehabilitate Impoy? (See "The Week" of August 13th, 1885, page 579.)

OUR COUNTRY SCHOOLS.

Read before the Darke County Teachers' Association, at Versailles, Ohio, Nov. 20, 1885, by J. H. W. SCHMIDT.—Cont'd.

Man's education would be very one-sided if his moral nature were left undeveloped, and the school must do its share in this development. It may be argued that it is not the part of the school and the teacher in it to give instruction in morals, but that this devolves upon the church and the home. Very true, it may not be the teacher's duty to give formal instruction in morals, but it is his duty, his imperative duty, to speak a word for the Master, to implant moral truths whenever an opportunity presents itself. In the city, this can and should be done. But the teacher cannot lead the child through nature up to nature's God as well in the city as where he can illustrate the love and justice of the Creator by pointing to his works. Grand old Bryant says that "the groves were God's first temple," and though the devoted follower of the Prince of Peace can find his Lord and Master in the noise and bustle of the crowded city, it is only in the quiet country, while holding communion with nature, that he finds "God is Love" written upon every leaf and flower. What grand texts, then, can be found here from which to teach childhood some of those moral truths that are essential to its future well-being, texts of which every country teacher should take advantage.

We thus see that the country school is not without its advantages as compared with its contemporary in the city. But, it has also not a few disadvantages—disadvantages that are a hindrance to its efficiency, and that like the ball and chain upon the limbs of a prisoner, prevent its keeping step in the march of progress.

One of the disadvantages under which the country school labors is that there is, with but very few exceptions, no course of study. When a teacher steps into a school-room to direct the education of the pupils, he is at a loss where to begin. In a well graded city school, just as soon as an instructor takes charge of a grade, she knows just where the pupils stand and where her work begins. In the country all this is different. There is nothing to guide the teacher in his work. He cannot begin where his predecessor left off because he does not know where that is, consequently, much valuable time is lost in taking the pupil over the same ground which he has passed.

As a natural consequence, where there is no plan of work mapped out, there can be no system in the manner in which the work is done and without a systematized manner of doing things but very little can be done effectually. For lack of system much of the learning done in our country schools is done in a hap-hazard manner. The minds of the pupils are used as lumber rooms in which the acquired knowledge is not put in its proper place, but is a confused, disordered mass of, one might almost say, rubbish. If a system of imparting knowledge were adhered to, there would be much less fruitless teaching than there is, and our country pupils would rank higher than they do.

Another hindrance to the efficiency of our country schools is the irregularity of attendance. In most of the districts pupils have to contend with distance to go, coupled with bad roads, so that in bad weather, this irregularity is such that the teacher cannot do justice to all concerned.

Still another great defect of the country school is the want of permanency of teachers. This is to be deplored. Our country schools might be much better than they are were it not for this. Almost as soon as a teacher gets well acquainted with his pupils, begins to know their real wants and capabilities, he leaves, and his successor wastes much valuable time until he finds out how the land lies, when he, too, soon yields his place to some one else. Thus it goes on in the same ceaseless round of succession from year to year. Is it any wonder that the country school cannot do better work than it does?

Another serious defect of these schools is the neglect of primary work. This kind of work is sadly neglected in theory, but more so in practice. Our educators do not impress the importance of using advanced methods of instruction in the primary work of the country schools. Our educational journals do not insist that these methods be carried into these schools and adapted to the wants of the children in them. Yet it can and should be done, and is done in many parts of the country. In too many of these schools the idea prevails that a primer, slate and pencil are all that a child needs in its start on the road to knowledge. Too little heed is paid to writing and numbers, and all that the child does is to draw meaningless pictures. The sooner a greater interest is manifested in the primary work of the country schools, the better the pupils will be off that attend them.

Of man, the poet has said that he "wants but little," but this is not the case with our country schools. They need a great deal to make them do the work they were intended to do; and first and foremost among their wants are *better teachers*. When we say *better teachers*, we do not mean to say that all country teachers are not what they should be; on the contrary, in many of these schools are found some of the noblest, grandest souls that are laboring for the advancement of the cause of humanity, men and women who shall one day "shine as the brightness of the firmament, and as the stars for ever and ever." We do say, however, and say it without fear of successful contradiction, that there are still too many among them who are a dead weight, a hindrance to the true progress of the schools, fossils that had better be gathered and exhibited to future generations, in some museum, as the remains of ages past and gone in the history of the race.

If our country schools, however, suffered only from the proverbial "old fog" as teacher, matters would not be quite so bad as they are. But I fear me that more damage is done in "teaching the young idea how to shoot" by the use of fossilized methods than by anything else. And these methods are used by many teachers who ought to know better. We have only to step into many of our country schools and observe the recitations to be convinced of the truth of this. In primary reading the old a b c method is still in vogue, and we can hear the little folks cunning over their a-b-c's in the way that their fathers used to do. When it comes to reading in the higher grades, all that the pupils read is "words, words, words." In United States History, the use of the text-book as a reader is not obsolete, but in spite of all remonstrance it goes on from year to year. In arithmetic, the little folks are often too sadly neglected and must get their first idea of number as best they can. In advanced arithmetic, too much stress is laid upon "getting the answer" to the neglect of the principles involved in the operation. In writing, the child is left to help himself. If he learns to write, well and good; if not, "allice same" to teacher. In geography, the old question and answer method is used right along, without fear of contradiction. Reading, writing, arithmetic, geography, and a modicum of spelling, and, perhaps, grammar, comprise the average education that can be obtained in the country school; and were this not supplemented by the education obtained from wood and field, our "country cousin" would be but poorly equipped for the battle of life.

Another need of our country schools is more apparatus for the teacher to work with. Too many of them have nothing whatever in this line, and the teacher is thus thrown upon his own ingenuity in supplying his wants in this direction. But "there's the rub." Too many of the teachers do not do anything at all in this line, and whenever boards of education occasionally open the public purse to supply the deficiency in part, the teachers do not use the apparatus they get. Is it any wonder that boards of education are sometimes a little stingy?

Another crying need of our country schools is intelligent supervision. There is nothing like unity of action. Each district is a little realm by itself and has nothing whatever to do with its neighbors. With intelligent supervision, all would be changed. There would be a union of the different districts and each would feel that it is but part of a greater whole. A course of study could be adopted, and thus the school work could be directed with some definite aim. The teachers, too, would feel the influence. No one who does his duty well would have cause to fear the visit of the superintendent, and the sooner the others are gotten out of the way the better for the honest workers. Intelligent supervision would make the teacher feel that he is observed by one who will judge his work by its merits, and reward accordingly. It would also encourage the timid but faithful teacher, for he knows that this friend, the superintendent, will stand by him no matter what may come. It would also have its influence with the pupils, as they would be brought in friendly competition with their neighbors, and each school would strive to lead in the race for excellence. In several townships of our State, the supervision has been tried and found a success. May the day speedily come when all the country schools of Ohio will receive its benefits.

Thus has been sketched, very briefly, the country school with its bright and dark sides. Although there are many who are concerned in their advancement, the burden of responsibility must fall upon the teacher. He must labor more than any other to bring these schools up to a higher plane. He must lead the pupils higher up, so that they can get a broader view. But he must not alone strive to make the children good citizens of this republic, he must do his part towards making them good subjects of the King of Kings. When the true teacher feels this great responsibility and his own incompetency to meet it, he cannot but pray with Aurora Leigh:

"Alas, long-suffering and most patient God,
Thou must be surelier God to bear with us
Than to have made us! Thou aspire, aspire
From henceforth for me; Thou who hast thyself
Endued this fleshhood, knowing how as a soaked
And sacking vesture it can drag us down,
And choke us in the melancholy deep,
Sustain me, that with Thee I walk these waves,
Resisting—breathe me upward, Thou in me,
Aspiring, who art the way, the truth, the life—
That no truth henceforth seem indifferent
And no way to truth laborious."

Ohio Educational Monthly.

Examination Papers.

NORTH YORK UNIFORM PROMOTION EXAMINATION—NOV. 6th, 1885.

TO JUNIOR THIRD.

GRAMMAR AND COMPOSITION.

- Tell what is meant by Proper names, Common names, and Material names, and give an example of each.
- John gave Mary a pretty doll; and Mary, thanking John for giving Mary the doll, told John John was very kind.
 - Write the above sentence as it is given, underlining the names.
 - Write the sentence again, putting, where you think it necessary to do so, other words instead of the names.
 - "A pretty doll." Why not an pretty doll.
 - "A pretty," "the doll," Show how to pronounce "a" and "the."
- Correct the following:—
 - One of my books are torn.
 - Me and henry is to go for the water to-day.
 - Was you at roberts wedding?
 - Each of the men have a little lantern.
- Re-write, with any necessary changes:

i seen henry george and james setting their dog mr g r browns cat.
- Write five simple statements about apples.

GEOGRAPHY.

1. Tell what is meant by School Section, Town, Hail, Snow, Tide, Delta, Island, Wind, Mountain, River.
2. Name in order, beginning with those nearest and going eastward, (1) The Continents, (2) The Oceans.
3. Name the incorporated villages in North York, telling as nearly as you can their situation.
Name the eight principal points of the compass.
4. Draw a circle about four inches in diameter, and place in it lines representing the Equator, Tropics of Cancer and Capricorn, Ecliptic, the Arctic and Antarctic Circles.
5. What and where are London, St. Lawrence, Winnipeg, Battleford, St. Clair?

SPELLING AND LITERATURE.

1. Tell in your own words the story of "The Indian Woman and the Bear."
Name and explain fully the two traits of character which, like this woman, we should cultivate, and which saved her life.
Name the opposite traits, and tell what would have been their result in her case.
2. Tell in few words the fable of "The Boy and the Crow;" and name three or more unwise notions that the boy got cured of by the supposed talk with the crow.
In the lesson on "Presence of Mind" what action of the friend shows that he possessed this gift, and how does it show it?
3. Write the following words and phrases on separate lines with at least one exact meaning to each:—"Loved them dearly; had caught; fever; raging; doctors; struggling nobly; flannels; preserver; hearthrug; manage; hic-cough; spaniel; keep pushing; manhood; assail; prospect of regaining; perceived; country-folks, scanty meal, luckily. (Extra meanings to count in like proportion.)
4. Write out, with proper capitals and spelling, 16 lines of "Kitty and Mouse," or of "Little Drops of Water," or of "Never Say Fail." Two of the pieces given correctly to count 15.
5. Correct the spelling of the following words:—Ryme, bleeting, hanch, shepard, medows, puding, Beujamen, Raynard, journy, wonderous, cusins, sented, squeeked, plumbtree, introod, greivous, amonds, received, middle-some, lusious.

ARITHMETIC.

1. Write down the greatest number which can be formed with the figures 7, 8, 6, and 9. Write that number in words, and also in Roman numerals.
2. Give the names of the first four periods in numeration. Write in figures, and also in words, the number which has five in the fourth period, twenty-six in the third period, and one hundred and nine in the first period.
3. To the sum of 793206, 86324, and 2749867 add the difference between 1234567 and 765479, and from your result take 79 times 24769.
4. Divide 13189212 by 937 and prove your result by multiplication.
5. What is the amount of the following bill at store:—7 pounds tea, at 65 cents a pound; 15 pounds sugar, at 8 cents a pound; 14 yards of cotton, at 13 cents a yard, and 20 yards of cloth at 68 cents a yard?
6. A boy threw a stone down the road 140 feet, and another up the road 160 feet. How far had he to walk to bring both stones back to the spot from which he threw them?

(To be continued.)

Practical.

HOW TO MAKE READING PROFITABLE.

Read an entire chapter or lesson very carefully, then take your pen and write out the substance of what you have read, in the choicest language you can command. Pursue the same course until you have completed the book or study you are seeking to master. You then have a manuscript book of your own. While reading try to grasp ideas rather than words, and do not seek to use the exact language of your author when writing your abstract.—*School Education*.

A PROOF OF ADDITION AND THE USE I MADE OF IT.

After finding the sum of the given numbers, draw a line under it and treat the whole as a new example to be added. If the work is correct, the second sum will be double the first. To illustrate, take the following:

| | |
|------|--|
| 670 | The first sum is 1969. Draw a line under this sum, and, |
| 327 | adding again, we have just double the first amount, or 3938. |
| 993 | |
| 1969 | I give my younger pupils many examples on the board |
| 3938 | and ask them to copy and add. When they have done so, |

I say, Draw a line under the answer, add it with the rest, and show me the result. I can then tell whether the work is correct without footing it up, and much time is saved.

I have never found a pupil in the primary or intermediate grades, and but few in the more advanced grades, who could see how I could tell so readily.—*Ala M. Perkins, Monticello, Pa., in "School Education."*

PUNISHMENT.

The largest and one of the best day-schools I ever examined, where the whole tone of the discipline is singularly high, manly, and cheerful, has never once during its whole history had a case of corporal punishment. But the master, when I was reporting on the school, begged me not to mention this fact. I do not mean to use it, he said, but I do not want it to be in the power of the public or parents to say I am precluded from using it. "Every boy here knows that it is within my discretion." I believe that to be the true attitude for all teachers to assume. They should not have their discretion narrowed by any outward law, but they should impose a severe law upon themselves. And in carrying it out I venture to make two or three suggestions only:

(1) Never inflict corporal punishment for intellectual faults, for stupidity, or ignorance. Reserve it exclusively for vices, for something morally degrading. (2) Never inflict it while under the influence of heat or passion. (3) Never permit an assistant or an elder scholar to inflict it under any circumstances. (4) Do not let any instrument of punishment be included as a part of the school furniture, and as an object of familiar sight, or flourished about as a symbol of authority.

The great triumph of school discipline is to do without punishments altogether. And to this end it is essential that we should watch those forms of offence which occur oftenest, and see if by some better arrangements of our own, temptation to wrong may be diminished, and offences prevented. If your government is felt to be based on high principles, to be vigilant and entirely just, to be strict without being severe, to have no element of caprice or fitfulness in it; if the public opinion of the school is so formed that a scholar is unpopular who does wrong, you will find not only that all the more degrading forms of personal chastisement are unnecessary, but that the need of punishment in any form will steadily disappear.—*Fitch's Lectures*.

The ill-health of pupils, the wretched system of ventilation prevalent in many schools, and the various phases of physical education, are subjects that require thought and action on the part of every teacher.—*Selected*.

HUMORS OF WRITTEN EXAMINATIONS.

The many teachers who read the *Journal*, as well as the brighter of their pupils, will be amused by some of the stories, told in recent English journals, of answers actually on record in official reports of the examinations in physiology in London schools.

To the request to "describe the process of digestion," one child responded as follows:

"Food is digested by the action of the lungs. Digestion is brought on by the lungs having something the matter with them. The food then passes through your windpipe to the pores, and thus passes off your body by evaporation, through a lot of little holes in your skin, called capillaries. The food is nourished in the stomach.

If you were to eat anything hard, you would not be able to digest it; and the consequence would be, you would have indigestion. The gall-bladder throws off juice from the food which passes through it. We call the kidneys the bread-basket, because it is where all the bread goes to. They lay up concealed by the heart."

Domestic economy, as nowadays taught to "children of the elementary-school class," is a subject which affords hosts of amusing answers. Thus, in reply to the question, "Why do we cook our food?" one fifth-standard girl gives the delightfully inconsequent reply, "Their of five ways of cooking potatoes. We should die if we eat our food raw." Another girl writes: "The function of food is, to do its proper work in the body. Its proper work is to well masticate the food; and it goes through without dropping, instead of being pushed down by the skin." A third pupil puts in her paper that "food digested is when we put it into our mouths, our teeth chews it, and our tongue roll it down into our body. We should not eat so much bone-making foods as flesh-forming and warmth-giving foods; for, if we did, we would have too many bones, and that would make us look funny."

On the subject of ventilation, one student informs us that a room should be kept at ninety in the winter by a fire, and in the summer by a thermomete.; while a class-mate writes: "A thermometer is an instrument used to let out the heat when it is going to be cold." Another girl sets down: "When roasting a piece of beef, place it in front of a brisk fire, so as to congratulate the outside." But an answer, perhaps, best illustrating the jargon that comes of the cram system is the following: "Sugar is an amyloid; if you was to eat much sugar and nothing else, you would not live, because sugar has not got no carbon, hydrogen, oxygen, nitrogen. Potatoes is another amyloids."

Educational Notes and News.

Mr. Pichard is re-engaged in S. S. No. 5, Greenock.

Mr. Lees, principal of Chepstow school, has been re-engaged.

Mr. B. M. Brisbin, principal of the Essex Centre Public School, has resigned.

Miss Nettie Clark, of Woodville, has gone to teach at Aspdon, near Huntsville, Muskoka.

Ralph Ross, B.A., Toronto University, is second master in the new High School, Dutton.

J. C. Graham, of Middlemiss, has been engaged to teach Cowal school for the current year.

Collingwood Collegiate Institute has a larger attendance this year than for many years past.

Miss Maggie McPherson, of Lorneville, holds her school for the present year, near Collingwood.

Mr. W. H. Sharpnell commenced his duties as principal of the Napier school on the 6th inst.

Miss Taylor, of St. Thomas, has been engaged as teacher in the infant department of the Aylmer school.

Miss Mabel Nixon has gone to Waubuno to take charge of the public school of that place for the current year.

Mr. King has been re-engaged for the Enniskillen school, and Mr. Johnston, has accepted Eden Grove school.

Miss Lilly McKelvey has been appointed to a position in the Sarnia public schools, at a salary of \$250 per annum.

Mr. John Simpson, B.A., late assistant in the Vienna High School, has been appointed to a similar position in Cayuga.

Miss Aggie Dundas, of Hamilton, has taken a school near Alvington and commenced her duties at the beginning of the year.

Mr. Simmons is engaged in S. S. No. 7, Greenock, salary \$512.50. He holds a first class C, non-professional certificate.

Miss Helen R. Foote has been engaged as teacher of the Norland Public School. She is spoken of as a very successful teacher.

Mr. R. Fairman, Woodville, has been re-engaged at Lambeth at an increase of salary. He has been very successful during the past year.

The highest salary paid in Kinloss township a few years ago, was \$400, not \$200 as stated in a recent number of the *JOURNAL*. It is now \$510.

Mr. Thomas Allin, late of Durham, is in attendance at Collingwood Collegiate Institute, preparing for 1st A. We wish him success.

Oakwood High School has a larger attendance this year than it had for many years. Additional seating accommodation had to be provided.

Mr. R. E. Brown, of S. S. No. 5, Colborne, Huron County, lately referred to in the *JOURNAL* as resigning his position, has entered the insurance business.

Mr. Wm. Egbert, for several years the popular principal of Dunnville Public School, has resigned to take up the study of medicine. He is succeeded by Mr. Hindson.

Miss Springer, of Scotland, Ont., has been appointed third assistant in Goderich High School in place of Miss Spence, who goes to Toronto to complete her university course.

Gladstone school-house, near Belmont, has been totally destroyed by fire which, it is supposed, originated from some defect in the stove. It had been erected only a couple of years and was worth \$2,000.

At the late examination for the entrance to the High School seventy-one candidates from Sarnia schools wrote, but owing to the unusual modes of expression used in many of the questions a large number have failed to pass.—*Sarnia Observer*.

The *Beacon* puts it this way:—Mr. Arthur was a teacher in St. Mary's Collegiate Institute at \$800 per year. He asked for \$900. A Mr. Chisholm, of Hamilton, came along and offered his services for \$750. Chisholm got the situation.—*Mitchell Advocate*.

The friends of Mr. John Darrach, editor of the *Parkhill Review*, recently presented him with a purse of \$53 and an appropriate address in acknowledgment of his valuable services in the cause of education. Mr. Darrach was assistant teacher in Parkhill High School.

T. Otway Page, B.A., the new principal of Waterdown High School, has arrived. He comes from Port Perry and is said to possess the qualifications requisite to maintain the reputation of the Waterdown High School, viz., age, experience, learning and tact.—*Canadian Champion*.

Mr. Lauchlin Gilchrist, principal of Woodville Public School, has had his salary increased. This is his seventh year in succession at that school, during which time he has passed many third class teachers and a large number of entrance pupils. At last examination this school sent up 7, of whom 6 passed.

Miss Robertson, of Oshawa, lady teacher in the Peterboro' Collegiate Institute, arrived and will at once enter upon her duties. The Institute appears to be in a flourishing condition. There is a much larger number of pupils in attendance this year than last, both from the town and country.—*Peterboro' Examiner*.

At the late High school entrance examination eleven pupils from the Catholic Separate School of this city (London) passed—seven boys and four girls. This makes fifteen pupils of the city Separate schools that were successful at the entrance examinations of 1885—ten boys from Mr. Brown's class, four girls from Sister de Sales' class, and one from Madam Scott's.—*Free Press*.

A Teachers' Association is about being formed in Aylmer, the first meeting of which will probably be held about the 6th of February. The intention is to invite all the teachers of Malahide, South Dorchester, Springfield, and Aylmer, to this meeting, with the view of forming a branch association.—*Free Press*.

Mr. H. Kay Coleman, late headmaster of Peterboro' public schools, has removed to his new sphere of labor at Port Arthur. He commenced school business on Tuesday, January 12th, under very favorable auspices. We wish him abundant success, and congratulate the inhabitants of Port Arthur on their wise selection.

Mr. J. B. Wynne has entered on his sixth year as Principal of the Brigham Public Schools, the attendance during these five years has increased upwards of 125%. He has had pupils at each of the last five entrance examinations to High Schools, all of whom were successful. Miss Rowand of Walkerton has charge of the 2nd Division.

The late notable success of Seaforth High School has caused such an influx of pupils that if it should continue the School Board will have to consider the question of additional accommodation. The form for third class now numbers 60, whilst the second class teachers and University forms are proportionately large, the total number on the roll being 126.

Mr. M. P. McMaster, the headmaster of the Thorold public schools, enters on the new year with an increase of \$50 to his salary. We congratulate the Trustee Board on their liberality towards faithful and earnest work. No less than 42 of Mr. McMaster's pupils have successfully passed the Entrance Examination for High Schools and Collegiate Institutes since December of 1884.

We clip the following from Inspector Jas. H. Ball's report of the Public Schools of Thorold for the last half year of 1885.—"In all the departments the endeavors of the teachers to promote the improvement of their pupils have been marked by earnestness and painstaking, and during the half year substantial progress has been made and the order and discipline maintained have been very satisfactory."

The Chicago Board of Education has unanimously passed a regulation directing the teaching of music in the public schools in accordance with Mr. Tomlin's method (Tonic Sol-fa). This is a step in the right direction. Let us have the best. The new system will not go into effect until April, in order to give the teachers time to familiarize themselves with Mr. Tomlin's system, who will organize classes for the instruction of teachers, especially adapted for the work.—*Correspondent of the Journal of Education*.

We are glad to say that Mr. Rothwell, late Principal of the Perth Collegiate Institute, has been appointed Principal of the Dutton High School, at a salary of \$1,000. Dutton is a rising village on the Canada Southern Railway, Elgin county, and its High School is the only one in the county apart from the one in St. Thomas, which is separate from the county for municipal and educational purposes. The people of Dutton will find in Mr. Rothwell one of the most energetic and successful teachers and High School Principals in the province.—*Perth Courier*.

Belfast, county of Huron, has had an interesting experience with teachers. One of the winners in our late Arithmetic Competition, while in charge of the school, took to himself a wife. He was succeeded by another teacher who followed the good example. A third on taking the position also became a benedict and now Mr. E. McKenzie who takes charge of the school for 1886 has followed in the footsteps of his predecessors. A comfortable dwelling adjoining the school may be the cause of it all. It may be in place to state that the three first referred to gave good satisfaction and left to take more desirable positions elsewhere.

The Charlottetown, P. E. I., school opened Monday, June 4th, after having been closed seven weeks on account of the small-pox epidemic. The opening attendance was good. The first day was devoted to medical inspection, a physician having been in attendance at each school to inspect the pupils, and see that all had been vaccinated. The following changes have taken place in the teaching staff, viz.:—Miss Emma Barr takes the principalship of Upper Prince Street school, vacated by the resignation of J. T. Mellish, M.A.; Miss C. C. Snaddon takes Miss Barr's place as vice-principal. Miss E. McKinnon has been transferred from West Kent Street school to Upper Prince Street to take charge of the class formerly taught by Miss Barr. Miss G. Brown takes Miss Boswall's place in Upper Prince. Mr. George Robinson succeeds Miss McKinnon and Mr. Charles McDonald takes Mr. S. M. Bent's place.

Mr. C. S. Eggleton, who for the last three years has been teaching in Hastings County, and last year principal of Bogart Public School, is now in attendance at the present session of the Toronto Normal School. He is known to be an energetic, ambitious young teacher. Last summer vacation he was in attendance at the Ontario School of Art, Toronto, and successful. During last year at Bogartville his record stands as follows:—Four out of a class of five were successful at the High School Entrance Examination. According to the South Hastings' system of Promotion Examinations 6 passed to fourth class, 5 passed to third class, 9 passed to second class. The attendance too, was sometimes very irregular and changeable.

If intelligence and application are any tests there is no reason why women should not have votes at Parliamentary as well as at municipal elections. A little arithmetical analysis of the marks obtained by the successful candidates at the entrance examinations, shows that the average of the marks obtained by the girls was 447½, while the average of the "stronger and more intellectual sex" was only 421½. In the intellectual contest, petticoat v. pantaloons, the undivided garment seems to be gaining the lead. If things continue to go on at this rate the lords of creation will soon find that their claim to the right of lighting the kitchen fire on frosty mornings will be contested.—*Peterboro' Examiner*.

Mr. Edward Ward's many friends will be pleased to hear of his appointment to the position of Head Master of the Collingwood Public Schools. Few teachers have a better record than Mr. Ward. During the time he has been in Collingwood, he has held, with great success and to the satisfaction of the citizens, several important positions, namely, Assistant English Master of the Collegiate Institute, Writing Master of the Public Schools, and Teacher of Writing and Drawing in the Collegiate Institute. For the past five years he has conducted the Entrance Class of the Public Schools, and 21 (twenty one) of an average each year, have creditably passed. Mr. Ward is one of Ontario's best penmen, a graduate of the Ontario School of Art, and fully alive to all modern improvements in teaching. We therefore congratulate the people of Collingwood on his appointment, and predict a prosperous future under his able supervision.

Wm. Crockett, Esq., M.A., Superintendent of Education, New Brunswick, has issued a circular in his jurisdiction calling for an educational exhibit for the Colonial and Indian Exhibition. The exhibit will consist, (1) of specimens of "Manual Work," and of Examination Questions set to pupils in advance of Standard VIII; (2) of Photographs of School Buildings, both exterior and interior; (3) of School Desks and Seats adapted to the respective grades of pupils, Maps, Text-Books, Apparatus, Specimens of Provincial Woods and Minerals as used for illustrative purposes; copies of the prescribed Course of Instruction and the School System, with tabular synopsis of the same; (4) School Reports with a sketch of the Educational progress of the Province. All exhibits should be forwarded to the Education Office, Fredericton, not later than February 15th. It is in contemplation to hold an exhibit in St. John on the last Friday of February of specimens of School Work, of Photos of School Buildings, etc., which have been forwarded before being shipped for London. Parents and Trustees are earnestly solicited to co-operate with teachers in their endeavors to make the exhibit useful as well as creditable to the Province.

FOREST, January 13th, 1886

To the Editor of THE CANADA SCHOOL JOURNAL.

DEAR SIR,—I have just read Mr. Green's letter in the last JOURNAL in reference to High School entrance marks. My information was obtained by communication with head masters, and from published reports of examinations which I considered reliable. As the mark (678) obtained by Master W. Woodhull is higher than that obtained by my best pupil, there has been a mistake somewhere which I am positive I have not been the author of—probably is of a clerical nature. Honor to whom honor is due; Master Woodhull and his teacher are to be complimented for the high standing he secured—the highest I am aware of. Yours truly,

Jno. R. Brown.

The last lecture in the course of six lectures arranged by the Ladies' Aid Society of the Methodist Church, was delivered in the town hall, Acton, on Monday evening by Mr. James L. Hughes, LL.B., Inspector of Public Schools, Toronto, and, as the *Free Press* predicted, proved to be the most enjoyable of the entire course. The lecture, while it bristled with amusing and humorous anecd-

notes, really deserves a more dignified title. It was crammed with matter of an educational character, delivered in that interesting and entertaining style which wins and retains the undivided attention of every eye and ear in the audience. The lecturer gave a review of his schoolboy days, portrayed in life-like word pictures the peculiarities of five of the teachers of his youth, vividly illustrated their errors and abuses, and presented in glowing terms the commendable features of the systems individually established by them. The lecture was inimitable in every particular, and was pronounced by many who were present—persons capable of judging, too—as the best lecture they had ever heard. The subject matter was upon a common everyday topic with which the public generally is well acquainted and in a position to appreciate the various lines of thought discussed. As a lecturer Mr. Hughes is an eminent success. He has a pleasant address, excellent delivery, unapproachable manner, perfect gesture, and the happy faculty of presenting his words in such form that they are immediately grasped and thoroughly understood by every hearer. Mr. Hughes has won for himself a very desirable place in the hearts of our citizens, and he will be greeted by a large and appreciative audience upon the occasion of any future visit to Acton.—*Acton Free Press.*

TORONTO NORMAL SCHOOL.—The Session of the Normal School opened on January 19th, with an attendance of 120 students, 80 ladies, and 40 gentlemen. The proceedings were formally opened, January 21st, at 11 a.m., with the Hon. G. W. Ross, Minister of Education presiding. A large audience was present in addition to the staffs of the Normal and Model Schools.

Mr. Thomas Kirkland, Principal of the Normal School, delivered the opening lecture. After heartily welcoming the students he addressed them on the dignity of the teacher's office, the qualifications required for the due discharge of its duties, and the rewards inseparably connected with a faithful performance of them. The subject on which the teacher operated was not matter but mind, mind made in the image of God, capable of vast improvement, and destined to exist for ever. The work of the teacher was to take mind in its most susceptible state and form it for the great purpose for which the Creator brought it into existence. It was an unworthy conception of the teacher's office to regard it as intended simply to teach the young to read, write, and cypher. The aim of the true teacher was to unfold the powers of thought, discipline the will, inspire the pupils with a love of truth, of virtue, and excellence. The calling was associated with a long succession of the noblest characters. The Apostles of our Lord were teachers. Our Divine Lord Himself came into the world as a teacher. The aim of all the influences which God is exercising over His intelligent creatures on the earth was to teach them, to draw forth, to elevate, and to ennoble their minds. Such being the dignity and importance of the teacher's office, earnest efforts should be given to prepare for its responsibilities, that it should be adorned by skill and scholarship, and dignified by personal worth. One of the qualifications required for the due discharge of its duties was a love of truth for its own sake. He was the best teacher who had the greatest love for truth himself, and the happiest talent for making others understand and love it. The next most important qualification of the teacher is common sense. This was, in a great measure, a gift, but might to a great extent be cultivated by an habitual attention to the subjects of common life. The third qualification was an accurate and comprehensive knowledge of the subjects taught. Accuracy was absolutely necessary to command the unwavering confidence of the pupils. The knowledge of the teacher must also be extensive. It was not possible thoroughly to understand any branch of science without knowing much of various kindred sciences. Certainly no one but a general scholar could teach well any branch of science or literature. The power to investigate truth belonged to science. The power to expound truth belonged to literature. The accomplished teacher required both. Finally, the teacher must have a mind, intelligent, clear, active, largely imbued with patience, kindness, and full of the spirit of teaching. The true teacher must be a Christian, performing the duties of her calling under an abiding sense of responsibility to a higher power. The rewards for services so laborious and useful were inadequate from a pecuniary point of view, but that should not be the principal motive. Teaching had inducements of a different kind which go far to compensate for its pecuniary disadvantages. The teacher was rewarded with the approbation of his own mind, in that he was engaged in a high and noble work. He was rewarded with the respect and esteem of the wise and good, and more especially rewarded in

the affectionate and grateful remembrance of those whom he had trained to virtue, honor, and usefulness. Finally, the faithful teacher was rewarded in the approbation of Him whose favor is life, and whose loving kindness is better than life, and who on the just day will reward those who have faithfully labored in training intelligent and immortal minds for the future duties of the present life, and for the higher duties of the life to come.

Addresses were also given by the Minister, Dr. Davidson, Mr. Clarkson, and Dr. Carlyle.

Literary Chit-Chat.

The January number of the "Andover Review" has reached a second edition.

Houghton, Mifflin & Co. have issued a cheap edition, in two volumes, of James Freeman Clarke's "Ten Great Religions."

The opponents as well as the admirers of Professor Huxley as a scientific theorist will regret to learn that he has become hopelessly deaf.

Macmillan & Co. announce a new edition, in eight monthly volumes, of the Writings of John Morley, uniform with the Eversley edition of Kingsley, issued a year or two since. The first volume, containing Voltaire, will appear this month.

An interesting work, no doubt, will be "Oceana," promised in a few weeks, from the pen of James Anthony Froude. It is to contain the record of his recent journey round the world, including historical studies of the British colonies he visited. An American, as well as an English, edition is to be published.

J. B. Lippincott, the well known publisher of Philadelphia, died Jan. 5, of heart disease. While yet a young man, in 1836, he founded the house of J. B. Lippincott & Co., which has for many years been at the head of the book trade in the Quaker City. The firm has published 3,000 books.—*N. Y. School Journal.*

The book of Appleton Morgan, A.M., LL.B., written four years ago, to prove that Shakespeare was not Shakespeare, or rather that he did not write and could not have written Shakespeare's plays, has now reached a second edition. Criticism, censure, argument, and abuse have all failed to shake the author's faith in his own arguments, and he re-asserts his theory, and adds new evidence.

D. C. Heath & Co., of Boston, will publish, January 1st, "The Temperance Teachings of Science," by Professor A. B. Palmer, of the University of Michigan. It is intended for teachers and pupils in the Public Schools. Its sole object is "to bring all, and especially young people, to the rational conclusion and firm resolve, that in whatever form, as an article of 'diet,' of luxury, or as a beverage, alcohol is harmful; is useless; we will not take it.

"Religion," by Count Leo Tolstoi, a Russian nobleman, is a book which is attracting much attention. The author is a writer of note, and his literature is clear, simple, and forcible. In the present work he pleads persuasively for a direct application of the literal teachings of Jesus as found in Matthew v., 6, 7, to practical life. He holds that the Sermon on the Mount contains the principles of human action that will guide men to the highest happiness, and that a correct interpretation of the commandments of Jesus will lead to universal fraternity, the abolition of war and of the death penalty, the indissolubility of marriage, and a life of purity and simplicity under natural conditions.

Education, hitherto edited by the Hon. T. W. Bicknell and published by the New England Publishing Company, is now owned by Mr. William A. Mowry, who is also editor and publisher. For five and one-half years this standard magazine has been growing in strength and usefulness under the scholarly management and editorship of Mr. Bicknell. It was issued bi-monthly, and occupied a foremost place in the educational literature of the United States. It is now published monthly (except July and August), and, judging by the January number, it bids fair to uphold its high character. In this number there are eleven papers, furnished by some of the leading educationists of America, bearing upon phases of educational thought that are of the deepest interest. The new editor is a sound scholar, an earnest educator, and a brilliant writer, and we believe that he will devote such energy to his work that the cause of education will be much benefited by this excellent magazine. The office is at 3 Somerset street, Boston, Mass. The subscription is \$3.00 a year.

COLLEGE SONGS.—In everything that enters into the make up of acceptable College Song books, those published by Oliver Ditson & Co. are unquestionably superior to all others. "Carmina Collegensia" (\$3.00), an elegant volume, containing a complete collection of American and Foreign Student Songs, at once took its place as the song book *par excellence* years ago. After twenty or more editions, as the result of frequent and careful revisions, (as remarked by the Springfield *Republican*) it remains the standard book of its kind and will probably so continue for years to come. Not long ago, to meet the demand for a cheaper edition, this house issued "Student Life in Song" (\$1.50) with a charming introduction by Charles Dudley Warner and containing choice selections from the larger book including all of its foreign student and miscellaneous songs.

To these favorite books has been added a third, the popularity of which is attested by the fact that every edition has been exhausted as fast as printed. This book, "College Songs" (mailed free for 50c) is unquestionably the best as well as cheapest of its kind. It contains not only a selection of the best "old songs," but a splendid collection of new songs recently introduced in college circles, most of which are copyrighted and can be found in no other collection. Among them are such capital ones as "Funiculi," "Paddy Duffy's Cart," "Darling Clementine," "In the Morning by the Bright Light," "Irish Christening," "Emmet's Lullaby," "McSorley's Twins," "Spanish Cavalier," "Solomon Levi," "Carve dat possum," "To the Bravest," (quartet) "Rosalie," "Good bye, my Lover, Good bye," "What Beams so Bright," and many more choice gems.

One of the best features of this, and the books first mentioned, is that all of the solos have piano accompaniments.

That these books should excel others of their kind in value, is not surprising in view of the fact that their editor has had at his disposal the copyright material and other facilities of the largest music publishing house in the world. Those who desire the best college song books should see to it that they have the imprint of Oliver Ditson & Co.

Question Drawer.

QUESTIONS.

Will some reader of THE SCHOOL JOURNAL kindly furnish a solution to the following question:—A man and a boy are at work on alternate days at a piece of work which would have occupied the boy alone 13 days. If the boy take the first day, the work will be finished half a day later than if the man commences. Find how long a time they will take to do it working together. (Hamblin Smith's Arithmetic, p. 284.) "KIRK."

1. Is the Literature for Entrance in July next the same as that for the recent examinations?

2. What book or books are required of candidates next July in Drawing? PETER, Peterboro'.

A teacher engages to teach a school for six months, but the trustees carelessly neglect to gather their taxes, and thus keep him out of part of his salary. His certificate expires two weeks after he stops teaching,

(1) Can he sue for the same rate of salary for three months in addition to his engagements?

(2) If the trustees offset him with the plea that his certificate has expired, can he sue every three months till he is paid and collect it? E. A. M. T.

(1) I am the holder of an Intermediate Certificate, Grade B; obtained it in 1882; have taught since on a professional 3rd. Am I qualified to attend the Normal School?

(2) (a) When does the Normal School open this year? (b) How long is it in session? (c) What steps should I take to obtain admission? GRENVILLE CO. TEACHER.

Jan. 13th, 1886.

Please publish in the JOURNAL a list of the text-books authorized for the Public Schools of Ontario in the following subjects: Grammar, Geography, Arithmetic. Changes are so frequent that we cannot keep track of all the subjects. T. P.

(1) What are the selections from the Ontario Readers for Literature for the Entrance Examinations in June, 1886?

(2) A person buys 6 per cent. City of Toronto bonds, the interest on which is paid yearly, and which are to be paid off at par three years after the time of purchase. If money be worth 5 per cent., what price should he give for the bonds? A. W.

Caintown, Jan. 9th.

ANSWERS.

RODENICK.—We have sent your suggestions to the gentleman who presides over our Entrance Literature department, and you may expect a satisfactory response in our next issue.

PETER.—1. The literature papers at the High School Entrance Examinations will be set from the following lessons in the new Ontario Readers, the only series now authorized for use in Ontario:—

July, 1886.

| | |
|------------------------------------|------------|
| 1. Boadicea..... | pp. 35— 36 |
| 2. The Truant..... | " 46— 50 |
| 3. The Fixed Stars..... | " 93— 96 |
| 4. Lochinvar..... | " 169—170 |
| 5. A Christmas Card..... | " 207—211 |
| 6. Riding Together..... | " 231—232 |
| 7. Marmion and Douglas..... | " 250—258 |
| 8. The Capture of Quebec..... | " 233—239 |
| 9. The Ride from Ghent to Aix..... | " 285—287 |

December, 1886.

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| 1. The Truant..... | pp. 46— 50 |
| 2. The Vision of Mirza—First Reading..... | " 63— 66 |
| 3. The Vision of Mirza—Second Reading..... | " 6— 71 |
| 4. The Bell of Atri..... | " 111—114 |
| 5. Lochinvar..... | " 169—170 |
| 6. A Christmas Carol..... | " 207—211 |
| 7. The Ride from Ghent to Aix..... | " 285—287 |
| 8. A Forced Recruit at Solferino..... | " 287—288 |
| 9. National Morality..... | " 295—295 |

The next entrance examination will be held on the 5th, 6th and 7th of July.

2. Drawing Course No.-3, 4, or 5 will be accepted.

E. A. M. T.—The School Law, chap. 49, sec. 159, states: "Every teacher shall be entitled to be paid at the rate mentioned in his agreement with the trustees, even after the expiration of the period of his agreement, until the trustees pay him the whole of his salary as teacher of the school, according to their engagement with him, provided always that an action must be commenced within three months after such salary is due and payable by the trustees." We do not think the fact of the teacher's certificate having expired can invalidate his right to sue for arrears.

GRENVILLE CO. TEACHER.—(1) If you have taught the prescribed time, we think you are qualified in the other respects. (2) (a) Jan. 19th, 1886. (b) Five months. (c) Apply to the Secretary, Education Department, Toronto.

T. P.—The list is not yet out of the press. Better apply, after a short time, to the Inspector of Schools of your district.

A. W.—See answer to "Peter" in this number.

I enclose a solution of the question given by "Pearl" in your paper of Jan. 7th:—

$$\frac{1}{5} = 2$$

$$\frac{11}{3 \cdot 5} = \frac{1}{3} \cdot \frac{2^3}{5^3 \cdot 2^3} = \frac{1}{3} \cdot \frac{8}{1000} = \frac{1}{3} \text{ of } .008 = .00266666$$

$$\frac{11}{5 \cdot 5} = \frac{1}{5} \cdot \frac{2^3}{5^3 \cdot 2^3} = \frac{1}{5} \cdot \frac{32}{10000} = \frac{1}{5} \text{ of } .00032 = .000064$$

$$\frac{11}{7 \cdot 5} = \frac{1}{7} \cdot \frac{128}{5^3 \cdot 2^3} = \frac{1}{7} \cdot \frac{128}{1000000} = .00000182$$

$$\frac{11}{9 \cdot 5} = \frac{1}{9} \cdot \frac{512}{1 \cdot 000000000} = .00000005$$

The sum of the plus terms = .20006405

The sum of the minus terms = .00266848.

The difference = .19739557.

This quantity multiplied by 16 = 3.15832912.

$$\text{Also } \frac{4}{239} = .066736401.$$

$$\therefore 3.15832912 - .016736401 = 3.141592 +. \text{ Ans.}$$

So far as I know, there is no shorter solution without summation of series be employed.

"KIRK," Tiverton.