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THE ONTARIO TEACHER:

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SCHOOL ROUTINE.

Nowhere is the importance of *small things* more felt in the production of great results than in the school-room. Machinery of a complicated nature is always easily deranged. The loosening of a small screw, the defect of a single cog, or the slackening of a bolt may, at any time take place, and so derange natural action as to lead to the complete destruction of what otherwise was a masterpiece of mechanical ingenuity. A school-room is such a machine. There the parts are very varied and oftentimes involved. New powers of the machine have to be tested every hour, and varieties of motion, operation, and result, are constantly demanded. If there is any defect it soon becomes apparent—any weakness, there is sure to be a break down. Every teacher has experienced more or less annoyance in this way, and no doubt many have been oftentimes discouraged by the occurrence of accidents, so to speak, which revealed unexpected defects, or produced disasters which were thought could not possibly happen.

Now, while it is impossible, absolutely, to prevent these accidents, yet many may

be avoided by timely and systematic attention to *routine*. Red-tapism, commonly so called, is, in many cases, a great nuisance. Ordinarily it means officious insolence. In business, however, it means a *routine* indispensable to the harmonious operation of a variety of officers sharing respectively responsibilities of a public nature. Such is the routine required in a Public School. Each scholar should be made to feel a certain responsibility for the harmonious working of the whole school. He should know that he is the integral part of one great factor, and, that without his co-operation, that harmony essential to the well-being of the school cannot be secured.

That such routine is necessary and sometimes hard to establish, no teacher will deny. Once established, however, the result is alike gratifying to teacher or scholar, and productive of the best results to their mutual comfort and well-being. The question then is, How can it be done?

Under the Regulations of the Council of Public Instruction, every school is required to have a Time Table. Then every moment of

school hours is allotted to certain duties. The same classes recite, invariably, each day at the same time. There is to be no encroaching upon the privileges of one class by any partiality for another. The time once allotted, is to be sacred to that purpose, and every scholar knows, by referring to the Time Table, that at a fixed time he must perform a certain task. This is the first step in Routine, and on its faithful observation depends much of the success of further advances. No teacher that wishes to have his school progress systematically, and to avoid the confusion that inevitably takes place from an omission of prescribed duties, can afford to discard any of the requirements of the Time Table.

But there are other minor forms of routine in themselves very important. For instance, the manner in which scholars enter and retire from the school-room, and the manner in which they advance to, and retire from recitations. In regard to the former, there is far too much laxity. It is not at all uncommon, when the bell is rung, to see a whole school, boys and girls, rush into the school-room pell mell, jostling and elbowing each other, and breathless with the effort made to be in first, taking their seats—the confusion of entrance only equalled by the confused idea which they entertain regarding the duties they are expected to discharge. This should always be avoided. Every scholar should enter school calmly and quietly. When the bell is rung, if they do not fall into line outside, they should at least enter as orderly as soldiers in barrack. And the easy imposed restraint required to accomplish this would be a good beginning to maintain a certain amount of self control during the day.

Similarly, with advancing to, and retiring from recitations, nothing is more unseemly in a school than the promiscuous dash of a dozen pupils to the front, that their work might be reviewed or examined by the Teacher. Short of Babel, there is

nowhere greater confusion of sound and patter of feet, than the noise occasioned in this way. And not only is this confusion disagreeable to see and injurious to the proper training of the pupils, but it always occasions a loss of time, and, not unfrequently, so annoys the Teacher himself as to unfit him for properly taking charge of his class.

Now, to obviate all these difficulties, every teacher should follow regularly and inviolably a system of routine in everything connected with his school. The pupils should all be trained to enter and retire according to some uniform system. It makes but little difference what that system is, so long as it subserves the purpose for which it is designed, viz. to secure perfect order and uniformity. And what applies to the entering and retiring of pupils applies equally to every other part of school routine. Whenever a number of individuals are required to perform any duty, the object of the teacher should be to get them to act simultaneously, so that the performance of that duty by a number, would produce no more confusion than if performed by a single individual. This can only be done by a system of drill, by closely watching the movements of every scholar, and securing from them the most perfect compliance with every detail. If it is required that the whole school should "stand up," let every scholar take his feet at once. If it is necessary for a class to come forward, let them do it at once, quietly and in regular order.

Many reasons might be given for this routine, besides the very important one already alluded to. It will not be disputed that such "drill" or attention to routine, contributes to the general discipline of the school. The greatest number of offences against which the Teacher has to contend, arise from thoughtlessness. Children are seldom perversely wicked. They not unfrequently get into trouble through their natural frivolity or warmth of temperament.

Were they subjected to discipline such as that indicated above, it would have a great tendency to correct this thoughtlessness, and to awaken that attention necessary to a faithful discharge of their duties. Besides, such discipline would tend to the cultivation of correct and methodical habits, and to that prompt obedience so important to the harmonious working of the school. It also tends to cultivate an habitual punctu-

ality—a sort of tabulation of the time at one's disposal, thus enabling the person forming this habit to accomplish the greatest possible result in a given time. Let every Teacher pay the most scrupulous attention to every detail of what, though it may not be strictly an intellectual exercise, is nevertheless of the greatest importance to internal order and harmony.

THE TEACHER'S TRIALS.

There is no position in life exempt from difficulties and trials. It seems to be the order of Providence to make every vocation as well as every preferment, a sort of crucial test, where the baser elements are separated from the pure metal, and where that which is intrinsically valuable is made to stand out in brilliant contrast to what is merely useless, perishable dross. These crucial tests, difficult as they may be to bear, disagreeable as they always are, serve a good purpose. Not only do they show the inherent frailty of our human nature, but they lead to the cultivation of those counterchecks, without which frail human nature would entirely succumb. By revealing real sources of weakness, they excite a desire to counteract them, and to the man of a determined will, they only afford a stimulus for effort, which, under other circumstances, might not be felt.

This being the common lot of all, the Teacher must not complain if he is not exempted. Neither should he complain, when, from choice or necessity, he enters the profession, if he finds even more to depress his spirits and to irritate his temper, than is to be found in some other professions in life. Nor let us be understood as saying that the Teacher's troubles and trials are greater than those of any other who serve the public. We are quite conscious,

from long experience, that his trials are great, but they are not exceptionally so. And for him to give way to despondency, and to regard himself as a martyr to society, would not, at all events, be the best way to bear those trials or overcome those obstacles which inevitably lie in his way.

The Teacher's trials may be classified into *internal* and *external*. Of those which are internal, we might first mention *irritability of temper*. The greatest enemy the Teacher can have is an uneven temper, and nowhere is it more important than in the school-room, that the temper should always be under perfect control. We are well aware that the causes of irritation are innumerable—that in no other profession in life is there more constant wear of that nervous sensibility which, when excited, we call anger. The Teacher, however, knows that this is peculiar to the profession, and that his usefulness and success depend largely upon the self control which he may exercise; hence the necessity of *never* allowing those circumstances with which he is constantly surrounded, and with which he must always be surrounded, to stir up a passion, which, the oftener it is aroused, the more despotic it becomes. It should be the ambition of every Teacher to obtain such a complete mastery of himself that, at no time could it be said that he rebuked

a pupil in anger, or mingled counsel with undue severity.

The effect of indulging his temper upon the Teacher himself, is most unmanly, as well as injurious to his influence. It is unmanly because it exhibits a weakness of character unworthy of his position. To think that a man who is, or ought to be, looked upon by his pupils as an epitome of all the excellencies which enter into the composition of frail human nature, as a man so cultivated and so refined as to be far above those petty weaknesses with which humbler men dishonor their manhood—that he should utter unkind words, knit his brows like some grim savage, threaten like an infuriated bravo, and even perhaps punish, in haste and anger, like a maddened prize fighter, is not to add to the dignity of a profession whose design is to elevate, improve, and refine the minds of young immortals. That such exhibitions of professional weakness are not made by the present race of teachers, we are unable to say. One thing we do know, that we have seen them and experienced, in some cases perhaps not undeservedly, some of the dread consequences arising from them.

This irritability of temper often exhibits itself in another way—a way which, though it does not produce a violent ebullition of temper, is equally injurious to the teacher himself. There is a species of ill temper which may be called petulance or peevishness. In some respects it is even worse than the violence which exhausts itself in one tremendous outburst, and then ceases for a time. It often exhibits itself in constant *fault finding*, *small scolding*, and an apparent determination *not* to be pleased. Something is always wrong, or somebody is always doing what they should not do, or there is some imperfection which must be pointed out and supplemented with a word of reproof. Against such a disposition the Teacher should guard most assiduously.

The effect upon himself is injurious in every sense of the word. If long continued, it even impresses itself upon his countenance, and makes it all but desirable to look upon. The effect upon the school is also injurious. Scholars who always expect to be rebuked, who feel a moral certainty that their best efforts will be reprimanded, soon settle down to a state of listlessness and indifference, completely fatal to their progress and success. They learn to disregard the admonitions which are coupled with censure, and even to dislike (which is not at all surprising) the person who, while in some instances rendering them substantial service, couples that service with annoyance and reproach. Of all things then, let teachers avoid a petulant temper, remembering what Cowper said in his poem on "Friendship :—

A fretful temper will divide
The closest knot that can be tied,
By frequent sharp corrosion.
A temper passionate and fierce,
May suddenly your joys disperse,
In one immense explosion.

Another difficulty against which the Teacher has to contend, is *despondency*. It often happens that, owing to bad ventilation, and not seldom to indifferent health, the spirits become depressed, resolution fails, and a languor and loathing unutterable takes complete possession of the mind. Every teacher, we believe, feels more or less this depression, and it is often with the greatest difficulty that he is able to rouse himself to the exertion necessary. At other times the same feelings get possession of the mind from an over anxiety to advance the interests of his school. A sanguine teacher, anxious to advance his scholars, and finding that the progress expected is not secured, imagines either that he has mistaken his vocation, or that his labors are not appreciated, or that he is a complete failure and should resign. He passes in review mentally such and such a scholar that has attended school so many months to

very little purpose. Again, he looks at the many evidences of disorder to be seen in the daily operations of his school, or he calls up some case of truancy, or some evidence of defective training where all was thought to be perfect, and allowing these feelings to gain the ascendancy, he settles down into a misanthropic mood, which unfits him for many days for the proper discharge of his duties.

It needs no comment to shew the injurious effects, both to the teacher and the school, which may arise from the indulgence of such feelings as have been alluded to. In any case there should be the utmost vigilance exercised over every tendency to melancholy and mental depression. To the teacher such vigilance is of the highest importance. His duties are of such a nature as to require the utmost vivacity and sprightliness. And without a good flow of spirits it is absolutely impossible to make the Public School as attractive and interesting as it ought to be. The volatile nature of children requires all the sunshine of good feeling which it is possible to procure, and no teacher with a single drop of acid in his blood, or a melancholy thought in his heart, is fit to enter a Public School. In order to guard against this tendency, the teacher should pay particular attention to ventilation. There is nothing more depressing than carbonic acid gas. Plenty of fresh air and a clean comfortable room have a very invigorating effect upon the mind, as well as upon the body, and if properly attended to, would add materially to the usefulness and efficiency of many teachers.

Besides this the teachers should pay more attention to their general health than is often done. Outdoor exercise, plain food, and the cultivation of a happy frame of mind are essentially necessary to the fullest degree of professional usefulness.

There are certain *external* trials which

might also be briefly noticed. First, we would mention unfriendly criticisms, which often come to the teacher's ears. We do not assume that teachers are much more sensitive than others, but we do believe that their feelings are easily wounded, and great discomfort produced by unfriendly criticisms. It often requires all the fortitude they can command to avoid those feelings of discomfort and uneasiness, which might impair their usefulness, and almost if not altogether destroy their happiness.

We would not have teachers wholly insensible to public criticism. There is a pressure in public opinion, which is often very salutary. The influence of a well regulated public sentiment is invaluable to the formation of correct habits. "Seeing ourselves as others see us" has its advantages, and no person in the discharge of a public duty should shun or fear the most rigid criticism. But while this is true, it is also necessary that that degree of indifference to criticism should be cultivated which would not deter the individual from the prosecution of any task or the discharge of any duty, known to be right and honest in itself. The teacher who feels satisfied that he is honestly and faithfully doing his duty,—that no effort is spared on his part to secure the highest degree of advancement in his school, should never quail or falter, no matter who may criticise or condemn. To be driven about from one line of action to another, simply because of the sneers or the aspersions of some ill-disposed or ill-informed neighbor, would betray the most unpardonable cowardice and imbecility. Fortitude in the discharge of a well matured course of action, with a keen appreciation of what the public have a right to expect, is the only comfortable frame of mind for the teacher to cultivate. No teacher should, for one moment, hesitate in regard to any course he may be pursuing, so long as he is fully able, after a conscientious and discriminate consideration of the case, to decide that his

course is right, and one against which there cannot be any well founded objections.

Another trial often is the obstructive character of some Boards of Trustees. Our own experience, both of Trustees and all others with whom we are required to transact any business is, that a proper knowledge of human nature will remove many difficulties in their first stages which, in the course of time, might become insurmountable. The teacher should recognise, in the kindest manner, the official character of his Trustees, and without in the least degree compromising his manliness, acknowledge their jurisdiction as prescribed by law.

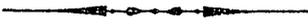
But notwithstanding the fact, that a teacher might discharge every duty with all possible fidelity, it does happen that they are subjected to considerable annoyance by unreasonable Trustees. In such cases, the teacher has only to exercise that fortitude and decision of character which every man is required to possess, if he pretends to

claim any degree of fitness for public life. The teacher must expect his share of those difficulties, incident to every person who has any transaction with his fellow men. As already stated, there is no position in life exempt from its difficulties.

Montgomery says :—

The bounding pulse, the languid limb,
The changing spirits rise and fall ;
We know that these were felt by him,
For these are felt by all.

Nor need those engaged in the exalted labors of the public teacher expect exclusive privileges. To be able to rise above such influences should be their constant aim. Anything that impairs their usefulness, or weakens the impressions which they ought to make upon their scholars, should be manfully overcome, and those depressing influences, in many cases trifling and unimportant, should be despised as matters too small to affect the actions of those born for higher purposes and a nobler destiny.



REMARKS ON THE CHIEF SUPERINTENDENT'S REPORT FOR 1871.

BY JUDEX.

This interesting document will amply repay perusal, presenting, as it does, not only voluminous statistics, but also copious extracts from the Reports of the different Inspectors, shewing the state of Education throughout the Province, from which it appears, that the "statistical growth of the schools is in advance of their prosperity."

While agreeing with much that Dr. Ryerson says, we must nevertheless confess that we also demur to much, and as the Report is too lengthy for a critique *in extenso*, we shall confine ourselves to commenting on a few topics embraced in it, commencing by stating our conviction of the truth of the assertion, "that our twenty-five years' pro-

gress has been illusory, and that we are not yet honestly prepared or ready to add the new elementary subjects to our School course." We shall have less difficulty in giving reasons for "the faith that is in us," inasmuch as the Doctor has furnished them, and while admitting the premises, denies the legitimate conclusion.

In his preliminary observations on the condition of the schools, and the operation of the Act of 1871, the Chief Superintendent says, "in commencing a new era of school progress, I have felt it to be indispensable, with the aid of the newly appointed and efficient Inspectors, to give in their own words a summary account of the pre-

sent condition of the schools, *in order to ascertain exactly where we are.*" From the Reports of these Inspectors* *The Doctor is of the opinion that the following facts are established, viz. "that the internal condition of the schools generally has not materially improved for years; that the character of the school accommodation, the constant change of teachers, and the paramount desire in many places to obtain their services, if at all, at a cheap rate, have told fearfully upon the morale of the schools, and have discouraged all hope of real progress and advancement. Both schools and pupils have, under such a system, been brought into a chronic state of change and experiment, alike forbidding even a quiet respectability of standing, and utterly precluding anything like real progress and efficiency."* Surely then, if this be the case, "our twenty-five years progress has been illusory, and we are not yet honestly prepared to add the new elementary subjects to our school course." Yet the Doctor joins "issue with those who say, that their introduction is premature." What is this but admitting the premises, and denying the legitimate conclusion. The Doctor however does not seem to perceive that *his admission of the facts established, is any evidence whatever against his hobby, though he truly remarks, but apparently fails to see the application, "that the thorough knowledge of a few subjects will do more for intellectual development, and for the purposes of practical life, than the skimming over a large number of topics."* Whether twenty different subjects can be considered others than "a wide range" we leave to the judgment of our readers, but we can vouch, that wherever the New Programme has been attempted in its entirety, it has been *thoroughly skimmed.* We have no material objection to offer against the subjects required for the first four classes, although they are susceptible of improvement, but

to that part of the Programme for the 5th and 6th classes, embracing the new subjects, we are of those who deem 1st, "that their introduction is premature," and 2nd, "that they are unnecessary." We admit with the Doctor, that "after twenty-five years of educational infancy it is high time we should take a step or two in advance," nevertheless, as the baby can as yet *hardly creep*, we must patiently await further developments of strength and agility. The fact is our country schools are generally in a very backward state. Spelling, Reading, Writing, Arithmetic, Geography, Grammar, and History are but imperfectly taught, the two latter subjects especially, and the propriety of teaching Chemistry, Algebra, Natural Philosophy, Botany, Mensuration, Natural History, Christian Morals, Physiology, Geometry, Book-Keeping, Vocal Music, Linear Drawing, Composition, and the Elements of Civil Government, to pupils ignorant even of a mere rudimentary course, may well be questioned. Our progress has indeed been "illusory," and we may remark *en passant*, that at the late Convention of Inspectors at Toronto, it was admitted that the schools had retrograded, and the state of Public School education was worse than fifteen years ago.

It further appears from the Report of the Chief Superintendent that out of the 5,306 teachers engaged in 1871, *only 327 held 1st Class Provincial certificates, and 517 2nd Class ones.* Of the remainder, probably 3,500 will be enabled to grade as 3rd Class under the present regulations, and the rest may possibly succeed in ranking as 2nd Class, so that about *two thirds of our teachers, or the large majority occupied in the rural districts, are required to teach what the official regulations exempt them from knowing, or being examined in.* What an astounding contradiction! For be it observed that a knowledge of the scientific subjects of the New Programme is not required from Candidates for a 3rd Class Certificate, and we

* See appendix B of the Chief Superintendent's Report for 1871.

will guarantee that they are perfectly innocent of any such attainments. Surely, then, even if the schools were fitted for the introduction of these branches, *common sense would dictate the utter folly of attempting it, while devoid of the material necessary to impart the instruction.* Furthermore, few indeed of our First Class *certificated* teachers have much more than a smattering knowledge of the new subjects, and, when they are attempted to be taught, as in some of our Town and City Schools, it is simply on the rote system. We know a teacher of this stamp, who has the covers of all his text books closely written with stereotyped questions, which are regularly repeated at every examination, and to which his parrots as uniformly respond. The result of such a system is of course simply *Book Botany, Book Chemistry, Book Philosophy, and Book Science*, and such will continue to be the result, unless the teacher is at least tolerably proficient in these sciences, and, having apparatus at command, is able, by experiments, to demonstrate. Here again the Doctor comes to our aid, and furnishes us with an admirable quotation from Dr. Lyon Playfair, as follows: "The pupil must be brought in face of the facts through experiment and demonstration. He should pull the plant to pieces, and see how it is constructed. He must vex the electric cylinder till it yields him its sparks. He must apply, with his own hand, the magnet to the needle. He must see water broken up into its constituent parts, and witness the violence with which its elements unite. *Unless he is brought into actual contact with the facts, and taught to observe and bring them into relation with the science evolved from them, it were better that instruction in science should be left alone.*"

The Doctor also quotes Professor Agassiz, who, however, evidently sees what the Superintendent seems to be unaware of, that the introduction of the study of the Natural

Sciences into our Public Schools is premature at present, for, says Agassiz, "I trust that the time will be only so far removed as *is necessary for the preparation of teachers capable of imparting that instruction.*" The Professor also thinks, "that there are branches which are better taught without books than with them. When we would study Natural History, instead of books, let us take specimens—stones, minerals, crystals. When we would study plants, let us go to the plants themselves, and not to the books describing them. When we would study animals, let us observe animals."

We therefore are forced to conclude, as the result of our observations, strengthened by the mass of evidence which the Doctor has furnished from the Inspectors and other practical educationists, coupled with his own opinion,—that as our schools "have not even a quiet respectability of standing," and as we have not the material to impart the instruction, the attempt to introduce the new subjects of the programme into our Public Schools is certainly premature.

Having thus disposed of the first objection to which the Doctor "joins issue," we now proceed to combat on behalf of the second, viz., "that the introduction of Natural Sciences into the Public Schools is unnecessary." This profession, we are told, "contains a fundamental error," but what that is, we can only infer from the context; there being a "pressure on us to advance, we cannot remain stationary," and then follows what the Doctor thinks is evidence of the "painful results of our present limited course of instruction." He thus discourseth, "Painful as is the admission, it is no less true, that thousands of lads and young men are leaving our Public Schools, in the rural districts, every year, who are practically ignorant of even the elementary principles of science, which they find developed in the industrial appliances with which they are

immediately brought into contact upon leaving school. Take one in twenty of these lads, and ask him to give you anything like a correct idea of the threshing machine, fanning mill, reaper, any of the mechanical powers, railway locomotive, or the thousand and one adaptations of science to industry, which he daily sees, and he will frankly tell you he knows little or nothing about them, and that in very many cases he never heard of them at school! Are we prepared to defend and perpetuate a state of things which produces such results, and be content to allow the Canadian youth of our day, with their ingenuity and varied intellect, to leave our Public Schools (aptly named the people's colleges,*) so unfit even to understand, much less to control and direct in the great industrial enterprises and mechanical inventions of the day?"

Now we needn't "take one in twenty of these lads" only, but we may select the same number from those who are termed educated, even from our Normal School Professors, from the Alumni of our Colleges and Universities, from our B. A.'s and M. A.'s, our L. L. D.'s and D. D.'s, and the same remarks are applicable to them; in some instances, they may have a theoretical smattering knowledge, as per text book, but the practical knoweth them not. It is one thing to know the names of the different parts of a plant according to a book, and another to be able to point out those very parts in the plant itself. Many a text book botanist discerneth not the difference between a pumpkin and a squash, and we last year beheld a Normal taught botanist unable to tell, on looking at a field of grain, whether it was oats, rye or wheat, which any one of the lads, "with their ingenuity and varied intellect," would have known in a twinkling. We know a Rev. Gentleman, who, having planted some beans in his gar-

den, was astonished, on observing, a few days after, (what in scientific language would be termed) the cotyledons or seed-leaves raised out of the soil, (but in his own expressive language) "the beans sticking up above the ground," and considering it some freak of nature, very industriously set to work replacing the beans beneath the soil, but again they reappeared; at length he wisely concluded, "what a fool I was, as if the beans didn't know better than me how to grow." Such is the language he uses when jocularly narrating his practical knowledge of Vegetable Physiology.

Many also of our incipient chemists who have published compilations, or "little books," in the full meaning of the term, and have thus arrogated to themselves the credit due to others, are unable to analyze soils, or, indeed, any of the Compound Bodies. Their knowledge of Chemistry, perhaps, leaves them under the impression that all acids are Binary Compounds, and on the whole is equivalent to what Horace Greeley knew about farming. We remember a Professor of Chemistry (at that time rather raw on the subject, but who shortly afterwards compiled a "little book" on it, and called himself an Author!) gravely informing a class of students, on announcing the subject of his next lecture, (Oxygen) that among other experiments, "he would make it burn, in order to show the intensity of its light." On another occasion a Rev. Gent. was employed by the Directors of a Mechanics' Institute, in a Western town of this Province, to deliver a course of lectures on Chemistry, and actually asked the writer (after obtaining some Sodium and Potassium from him, and being informed that they must be kept under Naptha to prevent oxidation) "whether Alcohol would not answer to preserve them in? as he had no Naptha." This lecturer, be it observed, was to discourse that very evening on those elements, and wished to illustrate, by experiment, their intense affinity for Oxygen.

* What bitter irony! or as Artemas Ward would express it, "N. B. This is sarkasm."

Of the chemical constituents of Alcohol he was evidently ignorant, whatever he might have known of its various mechanical mixtures, and we also discovered that he really knew nothing of the elements, whose properties he was to unfold that day to an audience thirsting for information. We have a great many similar Chemists in Ontario, and the amount of practical knowledge they impart, can only be estimated by the profundity of their acquirements.

It will occupy too much space to make detailed remarks on each of the Sciences seriatim; we shall therefore merely call attention to the fact, that none of the eminent men who have distinguished themselves in the paths of Science, ever acquired their elementary knowledge on scientific subjects at school. Watt and Arkwright did not acquire Elementary Nat. Philosophy and Mechanics there, nor did Davy, Johnson, Faraday or Liebnitz owe to that source their first insight into Chemistry. Linnæus gathered not there his Elementary Botany nor Cuvier his first acquirements in Natural History. The Boston schools gave Franklin no knowledge of Electricity, nor did the Scotch schools afford to Hugh Miller any glimpses of Geology.

The Superintendent further argues the subject from "the Dominion or National stand-point of view;" he remarks, "No one can visit any of the industrial centres which have sprung up in different parts of the country, and in our larger towns, without being struck with their value and importance, and the number and variety of the skilled laborers employed. Inquiry into the source of supply of this industrial class reveals the fact, that, from the youngest employees up to the foreman of the works, they are almost entirely indebted to England, Ireland, Scotland, the United States, and other countries for that supply." Here again is a fallacy. As Canada is

young in manufactures, in starting these, she must naturally have recourse at first to foreign artisans, if indeed we are justified in applying the term foreign to the English, Scotch and Irish. But did these skilled artisans acquire their elementary knowledge in the Arts at school? Most assuredly not!

We contend that if a pupil, by the time he is 14, can write a good hand, read and spell well, and is tolerably proficient in Arithmetic, Grammar, Geography and History, he is fitted to commence in any ordinary occupation not requiring a knowledge of other languages than that of his mother-tongue. We admit that Drawing would be advantageous to any mechanic, or, for that matter to all, but it requires special instruction, and our Teachers have never learned the art. In fact, both Drawing and Vocal Music, as taught in our Schools, are only delusions, though they look grand on the Programme. By looking at the Report of the Rev. G. Crithbertson, Inspector of St. Thomas,* we find the following is the method of teaching those branches there: "Drawing, by furnishing copies to imitate. The pupils are not taught the science of music, but are allowed to vary their studies by occasionally singing, led by some pupil who is acquainted with some simple piece of music." As every Inspector we believe would have to give similar testimony, and as such a system has been in vogue for the past 25 years, we do not consider it too harsh to pronounce it a farce. Enquire of any city or town merchant his opinion of Book-keeping, as taught at school, and rest assured his answer will be condemnatory, and he will inform you that the Counting-house is the place to acquire a practical knowledge of it. The knowledge of History has greatly declined since Thos. Jaffray Robertson's time, owing partly to the great loss experienced in the withdrawal of the old Fifth Book, (which contained an ex-

* See appendix B of Dr. Ryerson's Report for 1871.

cellent synopsis, far preferable to the present text book,) and partly to the fact that not so much prominence is assigned at Head Quarters to the subject as formerly, particularly in Ancient, Mediæval, and Modern, which will fully account for the "Globe's Historical Gems." Arithmetic also is skimmed over; hardly any of the pupils in a country School are well up in the Compound Rules, and a large number of teachers (so-called) shirk the difficulty of imparting a knowledge of factoring, by instructing their pupils to multiply by large numbers in one line. We remember hearing of a youth who had gone through Practice, unable to compute how much $17 \frac{1}{2}$ lbs of beef would come to at $3 \frac{1}{2}d.$ a lb., half fat and half lean, and upon giving up the calculation in despair, remarked, "I could have done it, if it hadn't been for the darned fat."

Even our High Schools are deficient in Analysis, and more than 95 per cent. of the pupils are unable to solve the most simple sums.* If our youths can acquire a substantial knowledge of the foregoing subjects, including drawing and Nat. Philosophy, it will sufficiently occupy their "school-boy days," but if the whole range of the Nat. Sciences be attempted, a miserable failure will be the result, and a smattering of all the only reward. In after life they can acquire instruction in such of the other branches, as either their tastes may suggest or their wants demand. For the above reasons, we deem the host of subjects required for the 5th and 6th Class by the Programme as "unnecessary," because impracticable, agreeing most heartily with the Doctor, that "the thorough teaching of a few subjects within practical limits, will do more for intellectual development, and for the purposes of practical life, than the skimming over a wide range of topics." Moreover there is the additional stumbling block

in the way that our teachers themselves know next to nothing about them.

In allusion to Township Boards, the Chief Superintendent says, "The law, in 1871, was wisely altered, so as to leave the question to the decision of the rate payers, in a majority of the school sections of a township." This statement is incorrect, as the law specifies the number of sections required to be "two thirds, at least." Passing by this error, we remark that the arguments in favor of the Township system are fairly stated, though an ominous silence prevails as to its working in Enniskillen, the only Township in Ontario, where it has been tried. Why not lay the result of its working there before the public, as a Canadian example would have more effect than Yankee references? Will the Inspector for Lambton furnish the *ONTARIO TEACHER* with full particulars; they would doubtless prove extremely interesting to its readers, and confer a public benefit.

The Doctor does not seem to be conscious that he is furnishing an argument in favor of the sectional system, when he says, "The average time of keeping the schools open, including the holidays, was eleven months and six days, in 1871. This is nearly twice the average time of keeping open the Public Schools, in the States of Pennsylvania and Ohio, and about three months more than the average time of keeping them open in the States of New York and Massachusetts," which States, let it be borne in mind, have adopted the Township system. True it is, the Doctor assigns the cause as "arising chiefly from our making the apportionment, not according to population, but to the average attendance and the time of keeping open such schools," but the explanation is not satisfactory; at all events, if Township Boards can not keep the schools open for more than six months in a year, then they also will prove a failure in the States. We highly approve of the Township system,

* See the High School Inspectors' Report in appendix C of Dr. Ryerson's Report for 1871.

and the Inspectors, at their late meeting in Toronto, unanimously recommended the proposed change, and Dr. Ryerson himself announced to the Inspectors, when addressing them, that the amendments to the Public School Bill would include this, but when the proposed amendments lately appeared in Mr. Mowat's Bill, not only was this omitted, but nothing that the Doctor had sketched to his audience was to be found embodied in it. It was merely a shell—"Hamlet with the ghost left out." We were also promised an increase of pay to the Board of Examiners, and Town Inspectors were also to be paid at the rate of \$10 for every fifty pupils, but alas! it has all ended in a fizzle, though means could readily be found to increase the Deputy Superintendent's salary by \$200 per annum. Let us hope, however, that, as the proposed amendments have been laid over till the next sitting of the Ontario Legislature, a Bill more worthy of support may then be presented, that timid counsels will no longer prevail, but an effort be made to carry out the deliberate suggestions of the Inspectors.

With regard to the recommendation in the Report to establish Teacher's Institutes, we most cordially concur, but the difficulty will be to find, in each county, competent persons to conduct them. The Inspectors are supposed to be capable of

doing so, but unfortunately owing to the peculiar nature of some of the appointments to that office, by means of special certificates of eligibility, a few are deficient in the necessary attainments. In conversation with many of the Inspectors at the Toronto meeting, we gathered from them the opinion, that it would be better to have a few thoroughly efficient Teachers employed for this special purpose, to travel through the different Counties, as Messrs. Robertson and Hind did in 1850, rather than run the risk of failure in some counties. The man required to conduct an Institute is thus aptly described by the State Supt. of Iowa. "He should be a well-known, practical, tried educator, a man of experience in all departments of Public School work, conversant with the details of school organization in schools that are graded and schools that are not, with the advantage, if possible, of a thorough normal training in his profession,—in short he should be an approved Public School man. If he can bring to his task the implements which the higher ranges of culture will provide him, so much the better. But it is insisted, that he should at least be a man who has devoted himself *durante vita*, to the profession of teaching." That such men may be the conductors of our Institutes, (*when they are started into life*) will doubtless be the wish of every true friend of education.

THE CLASS IN THE A, B, C's.

BY WILL. HENRY GANE.

Coming to school in the morning,
As glad and as happy as birds,
Chasing the golden shadows,
And driving the lazy herds ;
Faces as bright and joyous
As the sunshine over the trees,
Are the little folks I love so well,
My class in the A, B, C's.

What a noise in the school-room !
Some of them playing bo-beep ;
Another with slate and pencil,
Has created a flock of sheep.
You may think my little fellows
A most unbearable tease ;
I never do, for I love them so,
My class in the A, B, C's.

When I call them to their classes,
They march as the soldiers do ;
They come to me, light and cheerrily,
For they know that I wish them to.
Despite their little failings,
They study ever to please ;
God bless the dear little fellows !
My class in the A, B, C's.

Only a few years longer,
And they'll leave me every one,
To run o'er the rugged race-course,
The race that all must run.
I shall hear their little voices,
As songs on the evening breeze ;
I can never forget them, never,
My class in the A, B, C's.

I send them home in the evening,
When the work of the day is o'er ;
I think, as I hear their farewell shout,
I may never see them more.
If not, my dearest treasure,
In the land o'er the golden seas,
Around my Father's throne will be,
My class in the A, B, C's.

THE RELATION OF THE VARIOUS RELIGIOUS DENOMINATIONS TO HIGHER EDUCATION.

BY REV. R. A. FYFE, D. D., PRINCIPAL CANADIAN LITERARY INSTITUTE, WOODSTOCK.

This is a subject which has not been largely discussed in Canada, and consequently there is less interest felt in it than there should be. In a country growing as rapidly as this is, the various religious denominations must grow with the country, in numbers and intelligence, in wealth and social influence. And no thoughtful person can overlook the fact that higher education has a religious value, as well as a social and economical one. God claims the mind of every man as his. He made it and preserved it for himself. And this wonderful instrument should be presented to its author and preserver, in its best condition—cultivated and disciplined. I do not propose to discuss this aspect of the question in this paper, but simply to state this great truth as one which all religious bodies firmly believe, and make it the foundation on which I propose to build what I have farther to say at this time. I assume, then, that every religious denomination will readily confess the obligation to provide for its young people, or to see that the government provides the best education possible. None will question the binding nature of this obligation. It is not necessary to refer to Common School education at present. In this country there is now no controversy in regard to the general principles, which must regulate this fundamental provision. But when we come to Grammar Schools and Colleges, very many new elements intrude themselves, to complicate the discussion of the subject. The great question of moral and religious oversight, so essential to the welfare of the young, settles itself in regard to Common Schools, for the children remain under the parental roof while they attend the District School. But how is this in our Grammar Schools and Colleges? This is only one of many questions, which have as yet found no answer, which can at all quiet the fears of parents and guardians. In the United States, no strictly uniform plan prevails in regard to providing a higher education than the Common Schools furnish. In New England, for example, out of the cities, they rely upon Academies raised, and partially endowed, by religious denominations. A large number of very superior schools of this grade, exist in New England; and a gentleman, thoroughly competent to speak on this subject, remarked to me, "These Academies have been the saving of the youth of New England." They are conducted by thoroughly devout and earnest Christians, who anxiously watch over the young committed to their care, to correct their habits, and to impart to them right impulses. And who can measure the good which may be done by conscientiously giving heed to these, and kindred things! In most of the States, they rely upon the various denominations to furnish both the Academies (or High Schools) and the Colleges. In Michigan, on the other hand, the State furnishes the High Schools, and one University. But this provision has not been found satisfactory at all, and hence the various denominations are raising, as fast as they are able, Academies and Col-

leges of their own. What is the provision among us? We have our Grammar Schools and Collegiate Institutes, provided by Government. I have not one word to say against any of them, nor do I wish them diminished in quantity. Admit them *all* to be *first class*, if need be, (and this is a very great admission,) the question still arises, are they sufficient for the wants of the country? Do they make adequate provision for our boys and girls? These Grammar Schools, are located, generally, in our county town, and they provide for the children of the town in which they are located, and for those who live two or three miles out of town. Those boys who are thus situated, can remain under parental oversight, and attend the Grammar School. But the *majority of our boys are not so situated*, and hence, if they are to receive any better education, than that furnished by their own District School, they must leave home for it. Where are they to go? If they have become men and women, they may go where there is a Collegiate School, and board in private families, perhaps without permanent damage. But what is to be done with boys and girls? And if we are ever to have first class scholars, we must provide for their early initiation into what we are now calling higher studies. Have our various religious denominations provided for this class of their young people? Many have settled down with the notion, the Grammar Schools are sufficient; but that is a manifest error; they never will be sufficient. I would lay it upon the various denominations to provide for this deficit. A large number of men in all denominations are becoming wealthy, and how can they better dispose of a portion of their superfluous wealth, than by providing a better education for the young people of their country, where they made their wealth. If we have no schools raised and endowed by voluntary means, we shall have no outlet for such munificent contributions,

as have been made to Academies and Colleges, in the United States, even within a few years. The people of Canada are a very diversified people, and education itself is not a fixed quantity; why then should the very same types of education be insisted upon throughout the country? Let Denominational Schools be raised up, and enter into a healthful competition with the Collegiate Institutes. It is notorious that when there is no rivalry, such is human nature, that men engaged even in that which is good, become remiss and lazy. What a change for good came over the National Schools of Scotland, after the Free Church organized her various schools! At present our Collegiate Schools are only beginning, and have yet to make their reputation, hence they will, for a time, be vigilant; but this will soon slacken, if there be no competition in the *kind* and *quality* of the education imparted.

Similar remarks may be made in regard to University College. Let that go on, and give to the country models of complete and generous culture. But Denominational Colleges may be required for all that, to furnish a *different type of training*, and send out men who can do a different work. The very existence of such Denominational Colleges, would tend to keep the National College up to the mark; while the latter would stimulate the Denominational Colleges to aim higher. We can see this effect on the other side of the lines. A number of the Denominational Colleges there, are munificently endowed, and no State University can quite come up to them in these and other respects. I ask again, why should not our schemes of higher education in Canada be so moulded as to give free scope for diversities of ideas about education, and to create a necessity for the fine contributions of our rising men of wealth to shape and modify the future character of this young country? More especially is this desirable, because it would

favour generous competition, and help to secure the best results of the various modes of training which might be adopted.

According to my views, it is not essential that every Denominational School should aim at a University standard, at the outset. Let the school be organized to do that part of higher educational work, which the particular denomination cannot get satisfactorily done elsewhere, and let the school grow in breadth of aim, just as the wants of the body with which it is connected, may increase, and as means may be furnished to sustain it. I regard it as an axiom, that if a school is really required, and is well conducted, it will grow, and no opposition can prevent it from doing so. Does any one ask what will be the measure of its growth? I answer, its growth will be measured by the requirements of the people for whom it was organized. In nothing is the law of supply and demand more clearly seen than in the matter of education.

Finally, the changes contemplated in the new University Bill, will fit it to do just the work indicated or required in a broad scheme, such as I have sketched. The Denominational Schools, which I have supposed might become affiliated to the University, and then their pupils might be examined by the University Examiners. If any of the schools were prepared to do only first year's or second year's University work, the amount and quality of their work would be recognized by the University, and thus all the standings and degrees would be measured by the same standard, and be of equal value. But whether suggestions like the foregoing are carried out in all their details, or not, it seems to me unquestionable, that no government can provide a scheme of higher education, fitted to meet all the wants of a country like Canada, and that religious people cannot, and ought not to be satisfied to send their young boys and girls to schools where there is no religious supervision at all, over the pupils.

SHOULD PARENTS VISIT THEIR SCHOOL?

BY D. A. STEWART, TEACHER, MOTHERWELL.

We certainly answer in the affirmative. It has been proved to satisfaction, both by nature and also by experience, that old and young alike are pleased to know that their labors are taken notice of by their friends especially; and many parents are most sensible of this fact in many particulars; yet in many sections parents and guardians are most recreant to the importance of noticing and encouraging the growth of the intellectual faculties of their children.

Let a person engage only to dig a ditch across a hundred acres of land, and not many hours will pass before his employer visits him, in order to satisfy himself that the laborer is faithful to his trust, and also

to encourage him in the work. The prudent father and mother appear to have no rest until they satisfy themselves that Willie's new coat fits him exactly; and a careful husbandman never delegates the work of feeding his sheep or lambs to another, for any length of time, without a personal inspection of the work. And yet the most precious of all lambs—children—are placed under the tuition of entire strangers, and remain in that capacity for a series of years, perhaps, plodding along the weary path to knowledge, without the favor of even one visit, by their venerable parents, to the "temple of learning," or any visible token of their anxiety about the prosperity

of the school, or the advancement [of the little ones in their studies, unless there is a proposal to repair the school-room, or furnish it with suitable apparatus, or a new book is asked for ; then, on such occasions, most unamiable remarks often escape the fond parent's lips. Do such consider education to be of so little importance, that while prudence dictates the propriety of personally encouraging the man who digs up mother earth, or throws a handful of hay before dumb animals, or while a desire for neatness and comfort demands an immediate inspection of a coat, parents should never encourage the children by their presence in the school-room? Surely not ; for many of those very parents are continually complaining that there is "no society" for their grown up sons and daughters. Such, however, should remember that our Public Schools exercise an immeasurable influence upon the tone of society, and instead of complaining of the rudeness of their neighbors—their poverty of expression—the barrenness of their style of conversation, and all that, their time and talents might be employed to greater advantage by striving to elevate the thoughts and ideas of those (the pupils of their own section) with whom their children come in daily contact, above the grovelling desires they complain of. And what place more suitable for this than the school-room, where the industrious

teacher is engaged in the same work ! A certain man became wealthy in a few years by his friend's (Cardinal Mazarin's) habit of tapping him on the shoulder, whenever they met in public, and might not children become the possessors of something infinitely more precious than gold and silver, by receiving the regular sympathetic tap of their parents, on the shoulder, while engaged in study in the school-room? Besides, it encourages the heart and strengthens the hands of the teacher, and gives an assurance of co-operation and sympathy, without which success cannot reasonably be looked for. Place a wheel of a threshing machine into the works of a clock, and the use of that time piece is at once impaired. Just such an effect has the large wheel of opposition, or of neglect, upon the working of any school in which it has been introduced. On the other hand, the very thoughts of the parents' dropping into the school-room unexpectedly, at any moment, would form a powerful incentive to study. The pupils would acquire a far greater amount of knowledge in a given time by studying with a cheerful heart, which the presence of their parents is calculated to impart ; and the parents would undoubtedly prosper ; because happiness and peace are sure to reign in that household on the evening of every visit, and when peace prevails, plenty must abound.

MEDICAL EDUCATION IN OUR CANADIAN SCHOOLS.

BY WM. CANNIFF, M. D., M. R. C. S., ENGLAND, TORONTO.

The method of teaching pursued usually in the Medical Schools of Canada, the United States and Great Britain, is that of lecturing upon a number of prescribed subjects, namely, Anatomy, Physiology, Chemistry, *Materia Medica* and Therapeutics, Botany, Medical Jurisprudence, Midwifery, Practice of Surgery, and Practice of Medicine, and in some schools Pathology, and other special subjects. Of these, Anatomy, Physiology, Chemistry, *Materia Medica*, Midwifery, Surgery, and Medicine are called the major branches, the other subjects being regarded as minor in importance, or forming a part of one of the major branches. In most schools the curriculum is divided into primary and final branches; although in some these are taught simultaneously. The subjects constituting the primary branches are Descriptive Anatomy, Physiology, Theoretical Chemistry, Toxicology, Botany, *Materia Medica* and Therapeutics. Those forming the final are Medical Diagnosis, Pathology, Surgical Anatomy, Practical Chemistry, Medical Jurisprudence, Sanitary Science, Midwifery, Surgery, and Medicine. In all of the Canadian Medical Schools, as well as those of Great Britain, there is only one session in each year, of six months' duration, which commences on the 1st of October. In most of the schools there are delivered daily, seven or eight lectures. The major branches are taught daily or nearly so, except on Saturday; the minor branches are the subjects of lecture, thrice, twice, or once a week. Each lecture is supposed to be

an hour in length; on an average, however, the time occupied by the lecturer is from 40 to 45 minutes. Upon some subjects, and especially with the less experienced teacher, the lecture is written out in full. Upon other subjects, as Anatomy, where demonstrations form the greater part of the work, the lecture is delivered without written notes. The practised lecturer will, upon all subjects, find it more satisfactory to speak with few, if any notes. With some, the custom is to take one hour each week for examinations; with others, a short time, ten or fifteen minutes, at the beginning of the lecture is used for the purpose of questioning the class upon the subjects of the previous lectures. Each lecturer, in the discharge of his duties, undertakes to present to the class the theoretical and practical points in connection with his branch, and he is supposed to be familiar with the latest views regarding the subject he lectures upon. The object of medical lectures is to instruct the student upon those subjects, a knowledge of which will prepare him for the intelligent pursuit of his profession. As the field of medical study is a large one, it is hardly possible to go over the whole, so that sometimes the lecture but little more than indicates to the student the course of reading he must follow.

The young student of medicine finds himself often, for the first time, a free agent. As a general thing, he may or may not, as he pleases, attend the lectures. Of course, if he fail to make a record of attendance

sufficiently good, he will not be entitled to a certificate ticket, without which he cannot present himself for examination. But, for the daily attendance upon lectures, the student must be influenced by a sense of personal responsibility, and a desire to acquire information, at least to secure the requisite certificate ticket. The ranks of the medical students are recruited, from year to year, from different sources—different ranks of life. The sons of professional men, of merchants, of farmers, and even of laborers, are brought together to compose the list. Not a few are industrious and ambitious young men who have as school teachers succeeded in acquiring the necessary means to pass through a course of medical education. It is hardly necessary to say that this class make excellent students, and almost invariably succeed well in their professional life. As might be expected under the circumstances, the degree of general education among the students, is found to vary. A few are graduates in Arts, some have only taken part of a course; some have been educated in the Grammar School, or the Normal School, and others have received their education at the Common School.

The standard of preliminary education for matriculation in Medicine is now almost uniform among the several Medical Colleges, and is mainly regulated by the Medical Council of Ontario. The following are the subjects in which the student must pass a satisfactory examination: English Language, including Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations, Latin Translation and Grammar; and one of the following, which the student has the option of choosing: Greek, French, German, Natural Philosophy including Mechanics, Hydrostatics and Pneumatics. The student is required to study medicine four years after passing this

examination. The class of young men which now present themselves, is much in advance of those who came forward ten or fifteen years ago, before the present Canadian School system of education had had time to bear fruit.

The teaching in Medical Schools is both theoretical and practical. In addition to the lectures upon the several subjects mentioned above, there is more or less of practical teaching at the bed side. Clinical instruction is essential to prepare the student for successful practice—to enable him in the first place to recognize disease in its various forms, and to extend such aid to the sick and injured as science and art may render possible. To provide this practical teaching, the presence of a hospital is necessary. The importance of this cannot be exaggerated, and the belief generally prevails, that more of clinical and less of theoretical teaching, would prove advantageous to the student. It is a matter of satisfaction that the hospitals in Toronto and Kingston supply excellent opportunities for clinical education.

With regard to the general lectures, it requires no little ability and tact, on the part of the teacher, to acceptably discharge the duties of his post. The time at the disposal of each lecturer, in the ordinary course, does not allow him to fully discuss the whole of the matter pertaining to his branch; and he has to exercise due discretion in the manner of treating his subject. A good lecturer will be able to command the attention of the class, during the hour he occupies the professorial chair. He will concisely, yet clearly, bring before them the views he desires to advance. He will so endeavor to impress upon the mind what he says, that no mere ephemeral impression will be made. As the lecturer cannot dwell upon details in every part of his subject, he will at times only intlicate the course of study to be pursued by the student, or suggest a train of thought which by

following, the student will reach important results.

Most of the students possess a large book for taking notes, and after a little practice they succeed in writing down enough of the lectures to enable them to

call to mind quickly the whole course of lectures. Many of the note books belonging to the senior students contain a very fair epitome of the more important lectures.

SELECTIONS.

PHYSICAL CULTURE IN SCHOOLS.

The beneficial influence of physical exercises in schools is now generally acknowledged. Indeed, every well-managed educational establishment, of whatever grade, is expected to bestow due attention upon this department. The teacher who neglects all considerations of health in the training of the pupils, while forcing them to the utmost mental acquirements, is justly considered an enemy rather than a friend of those committed to his charge. His excuse is the false standard of public sentiment hitherto prevalent, to which he defers, and which has offered its rewards for mental and perhaps moral forwardness at whatever bodily sacrifice. The "saints by spiritual law" have allowed, nay, almost expected to be "sinners against physical law."

It is only an exaggeration of the same principle which induces the Hindoo mother to immolate her offspring in the waters of the Ganges. She throws away the body of the child for some fancied higher good to come in consequence. She has not learned that the Creator's laws are so perfectly balanced that the highest good of the soul is connected with the highest good of the body. And there are many, even among us, who seem not to admit that mind and body are mutually dependent; that we can not secure the best development of the one at the expense of the other. It is lamentable to see the evils that have insidiously crept upon us as a result of this error—evils which we will not here particularize, but which are only too obvious.

The ancient Greeks paid the same attention to physical as well as mental training.

Their gymnasia were schools for the body and mind, and the office of Gymnasiarch was one of honor and repute. The monuments in art, science, and language which have come down to us more than confirm the wisdom of their educational methods. Is it not a strange inconsistency on our part that, while we pay such tributes to their excellence, we ignore the means by which that excellence was attained? We praise and copy their statuary, but seem to forget that the models for these classical figures were furnished by their system of physical training. We go back to-day for our great exemplars in oratory. But which of our institutions will carry us through the drill which made these men such consummate masters of their art.

The reaction has fairly begun, and it is to be hoped that out of the re-awakened interest in physical culture will grow a system of exercises which will serve as a substitute for, if it does not make good, the training of the Olympian days. It is true that in our time the requirements for physical strength and endurance are not the same as of old. But a sound mind in a sound body must be as important now as it ever was, while the danger of neglecting to keep up the proper balance, with our labor-saving machines, our changed modes of locomotion, of warfare, and of everything requiring manual dexterity and bodily strength, is greater than ever.

It devolves upon teachers more than upon others to see that the impetus recently given to this subject be not lost. They should seek to render the interest already felt stronger, more general, and more in-

telligent. Let them make the most of their opportunities for information upon the subject. And although the amount of instruction afforded in our institutions of learning and in literature be at present most insufficient, it will not long remain so. An increased demand will bring an increased supply. Meantime something should be done, and that something should lead to practical results.

What practical results can we reasonably look for? What are the ends to be obtained by a system of school exercises? Nothing, of course, comparable with the benefits to be derived from a thorough course in a well-furnished gymnastic establishment, such as to be found in Germany or France. But enough can be accomplished to fully repay the time and effort bestowed. And that this end may be secured, the teacher should have a definite aim in prescribing each movement. It is not sufficient that the pupil is taking physical exercise. He must absolutely be gaining something. The teacher should learn to distinguish between essential and unessential exercises. We repeat, let every exercise chosen have a definite aim and practical value.

We here suggest the main points to be kept in view in prescribing practice. If a given exercise does not tend to promote one or more of these ends, it may be set down as comparatively useless. We wish to promote :

1. Symmetry of form;
2. Proper position and carriage of the body;
3. Right habits of breathing;
4. Good voice;
5. Health.

We might have included Strength, Endurance, and Agility; but these can not be made prominent in a school course. They require an amount of room, apparatus, and time which can not be afforded.

I. SYMMETRY OF FORM.—Teacher and pupil should have in the mind a true ideal of a perfect human form, and they should seek to bring their own forms as nearly to this ideal as possible. It is as important for them as for the sculptor. True, flesh and bones are not so plastic in our hands as the clay model; still, our forms will yield more or less in obedience to well-directed efforts.

The commonest faults in the forms of the

present generation are: One-sidedness,—an unequal development of the two sides of the body. 2. Hollow chest, which involves a pitching forward of the shoulders, projection of the shoulder-blades, crooking of the collar-bone, and drooping of the head. 3. Slender waist, especially in women.

These peculiarities are neither healthful nor beautiful, and only an ignorant mind or perverted taste would ever regard them as such. On the score of health, the distorted feet of the Chinese or the deformed skulls of the Flathead Indians are less objectionable than the cramped waists of our devotees of fashion. As regards beauty, it is hard telling which infringes most upon a true ideal. Certain it is that a sculptor who should attempt to rival the *Venus de Medici* by presenting a figure in marble modelled after the forms shown in a modern fashion-plate would be derided. No portrayal can easily exaggerate the evils which follow in the train of these deformities. Teachers can not perform a higher service for their pupils than by leading them to see that a beneficent Creator has framed them according to his own idea, and that any willful distortion of their bodies is a sin as well as a folly.

II. PROPER POSITION AND CARRIAGE OF THE BODY.—Under this head we include the habits of the pupil in reference to sitting, standing, walking, and the movement of the body and limbs generally. Ease, dignity, and grace of carriage should be cultivated. All exercises which do not tend to these ends are of questionable utility. The drill motions can not, from the necessity of the case, be all of them intrinsically graceful; but they should in a degree satisfy our æsthetic sense, and should tell favorably upon the habitual bearing of the pupil. No exercise is desirable which requires awkward and unnatural movements.

III.—RIGHT HABITS OF BREATHING.—Good air is one of the first essentials in physical and vocal exertion. No one can keep the body and mind vigorous for any great length of time in impure air. And the most impure air is that which is filled with the emanations from the human system.

The lungs should be trained to free, full, and vigorous action. They are, so to speak, the very springs of vitality. The

more immediate importance of the lungs in the animal economy will be brought to mind when we recollect that a person may live for days without food; but to deprive him of air, even for a few moments, is to deprive him of life itself. If our breathing is imperfect, all the functions of the body and mind are impeded. In fact, the manner of breathing at any particular time is almost as good a test as the pulse itself of the general state of the system, physical and mental.

One of the commonest faults in the use of the lungs is the habit of breathing as it were from their surface, not bringing sufficiently into play the costal and abdominal muscles. By watching the domestic animals—a horse or cow, for instance—we may learn a lesson in breathing. We perceive that there is very little motion near the fore extremities, but the breath is impelled from the flanks. So should we have the main action at the waist and below the waist. Any form of dress or belt, therefore, which constrains the base of the lungs and presses upon the stomach and intestines, must do serious harm.

IV. GOOD VOICE.—Intimately connected with the function of breathing is that of vocalization. And it is perhaps because the culture of the voice involves the training of the lungs, that vocal exercises are so generally acknowledged as contributing to health. So great importance did the Greeks attach to this feature of human development, that the tyro passed through the hands of at least three different masters in this department alone before completing his course. One master developed the power and range of his voice; another improved its quality; a third taught modulation and inflection. And when we consider the bodily functions brought into play and the all-important service rendered to the mind by the voice, we shall not think that they overrated this branch of culture.

The production of voice is a muscular operation. It calls into action many organs directly related to the vital economy; and consequently, every step taken toward permanently improving the voice is so much done toward building up the health and vitality of the general system. When teachers feel that they are improving the reading and singing of their pupils while they give them healthful exercises, they will not be so likely to consider physical exercises a repulsive

drudgery or the practice of them so much lost time.

The faults in voice are too numerous to be specified here. The one most prevalent in schools is the hard, unnatural, half-screaming tone in which both teachers and scholars carry on their recitations. The natural, easy, musical quality of voice which marks refined society should be cultivated in the school-room from the beginning. Imagine a polite person asking a visitor to take a chair in the tone used by scholars in reciting their arithmetical lesson? Yet the forced and stilted tone is as fitting in the one case as in the other. It is true, scholars must often speak loudly in the school-room; but the tone may be loud and pleasant at the same time.

V. HEALTH.—This is, humanly speaking, the pearl of great price, beside which, no other earthly blessing can be placed, and without which everything else loses its charm. Nowhere in our educational system is there so great a defect as the failure to secure attention to hygienic laws. To cultivate the brain while we neglect the vital system is as absurd as to furnish a powerful engine to a frail boat. The more we increase the steam power, the more should we make sure that the hull is staunch. We rush to destruction when we force the engine unduly. Nervous diseases and frail constitutions are becoming every day more abundant; and they will continue to increase, till an intelligent hygiene shall furnish the true preventive. Proper habits of dress, diet, sleep, cleanliness, and exercise are of infinitely more importance to a child than the geography of Siberia or the history of the Dark Ages. Yet the latter absorb a large share of time in schools where not a word is said of the former. May it not be asked with solemn emphasis, what shall it profit a child to gain a whole world of book knowledge, if, in gaining it, he forfeits the chief condition of earthly welfare—bodily health?—*Murroe's Manual of Physical and Vocal Training.*

The first condition of success in conducting a recitation is a thorough mastery of the lesson to be recited. The teacher's knowledge must not only be thorough but fresh, and this requires special daily preparation—a preparation wider than the textbook used by the class.

CHOICE MISCELLANY.

THE BIBLE.—Of all books the Bible is undoubtedly the king. For powerful reasoning, sublime poetry, accurate and entertaining history, clearness of expression, and almost unfathomable depth of thought, take the Bible. It is like the sun compared to the stars when placed side by side with man's production. It is a staff to the lame, a lamp to the blind, knowledge to the ignorant, and wisdom to the learned. It works upon the mind as softly and gently as the breathing of a zephyr. It convinces as quickly as an electric flash illumines the storm-girt sky. Let it exert its influence among the children, and let not a school in our fair country be without its presence.
—*Will. Henry Gane.*

A WORD TO TEACHERS.—Fellow laborers,—I have lately attended the deathbed of one of my pupils, and it has been a solemn era in my life. For a week I visited him daily and sat for two nights with him. He would recognize me when he knew no one else, and it was very touching to hear him say, "you are very kind to come to see me all the time, when I used to tease you so often when in school." I can not think of our last meeting without tears. It was only a few hours before he died, and I was leaving. He threw his arms around my neck and said, "kiss me once before I die." Teachers, ours is a solemn work, and one that requires our whole heart, if we wish to be able to meet our pupils in the last day with joy and not with sorrow.—*Written for Ontario Teacher by Miss C. Mustard, Teacher, Brewster.*

THE TEACHER'S KNOWLEDGE.—A teacher whose acquirements are limited to the text-books he uses, can never achieve real success in conducting his recitations. "A good school-master," says Guizot, "must know much more than he is called upon to teach, in order that he may teach with intelligence and taste." It is a question

worthy of consideration whether the ambition and love of study inspired in a class by a scholarly, skillful and enthusiastic teacher are not worth more to the pupils than all the studying they are able to do. What is more contagious than example? What is more glorious than a noble example as an inspiration to worthy deeds? The teacher who does not show that he can go beyond the text-book in his search after truth, and enrich the knowledge which his pupils have acquired by copious additions to it from his own well-furnished storehouse, is lacking in the first element of power in his great work. This is, in fact, one of the true secrets of power of teaching. It secures the confidence, it arouses the interest, it commands the respect and admiration of the class, and supplies the most needful conditions to its progress. Hence, let the teacher ever go before his pupils in the class room full of his subject, all aglow with its spirit, ready to meet every difficulty, to answer every objection, and supply every omission which may arise in the course of the sharp drill that is to follow.—*Minnesota Teacher.*

COMPOSITION.—The following is a brief synopsis of the Essay on this subject read by Mr. W. H. Gane, at the recent meeting of the Oxford Teachers' Association:—Composition is a very important adjunct in the training of the intellect. Having ideas, without the power to express them, is very like the uncombined wheels and pinions of a locomotive, harmless and useless. As a study in our schools it is where it should be. It fosters a taste for study, brings to view the latent powers of the mind, enables the pupils to express themselves more logically either orally or in writing. I would commence the practice of it as soon as the child can write, read and define, common words, those with which their circumstances render them capable of becoming ac-

quainted. According to the new programme the Third Class ought to be sufficiently advanced. The reason why so many fail in teaching this subject, is, because they aim a little too high. Subjects should be assigned them with which they are perfectly familiar. One of the first steps would perhaps be, dictation, then paraphrasing or changing poetry into prose. In any ordinary reading lesson, instead of reading difficult words, read their definitions, without destroying the sense. As they advance in the practice, give them the leading topics in their history, geography, or any other lessons to be written, without any reference to text books. It is an excellent medium through which to practically teach spelling and the other parts of grammar. The practice of writing letters is very useful. A very good way is to encourage the pupils to write to the teachers. It would not be beneath his or her dignity to answer them, thus supplying correct models. All errors, however small, must be faithfully corrected.

HINTS FROM PRACTICE.—Monthly Examinations.—We find monthly written examinations as much of a necessity as the compass is to the mariner. Classes may drift from the track. The work may be imperfectly understood by the pupil, and the teacher may not know it. These examinations disclose the true condition of things as nothing else can. They are more of a necessity to the teacher than to the pupil, if he would do thoroughly honest work. Examinations make work, and some teachers would shirk them on that account. Teachers do not spend more than six or seven hours in the schoolroom per day. They should make the time up to eight or ten hours out of school, as other employees do. While some would shirk, others do their whole duty, and sometimes go to the extreme of overwork.

Written Reviews.—We find that a semi-monthly written review of our classes is a most valuable aid in our work,—taking only the time of preparing and reciting a recitation for it. This prepares for monthly examinations; takes a new reckoning. This review is conducted by the teacher for her guide for the month's work.

Written Recitations.—Unless care and attention are given to oral recitations, there will be much looseness in answers, much

taken for granted, much indirect aid, etc. Written recitations will put pupils upon their own resources, and frequently reveal to the teacher better methods of oral recitation. Our regulations require "at least one written recitation, review, etc., per week." This requires work, but it can be done in less than ten hours per day. It may take eight; it ought to take that much.

Reports.—We do not make monthly reports to parents. Some appreciate such reports; many do not. It requires much labor on the part of the teacher that can be better employed. When a pupil falls below the required standard of 80 per cent., parents are informed of the fact by filling out a blank for the purpose, stating that the pupil will fall into the class of the next lower grade unless the parent will assure the teacher that one hour per day out of school will be spent upon the study in which there was a failure, preparatory to a re-examination. The pupil who has failed, is required to hand to the teacher each morning a written statement of the time studied and the particular subject studied until re-examined. This does not take much work in practice; but with written lessons, written reviews, thorough work, and fair examination-tests, few need to fall below the standard. If, after all, pupils fall below 72 per cent., they should be put back without further trial,—except in special cases when no general rules can apply,—subject to the common sense of the teacher. —*National Teacher.*

FORESTALLING EVIL IN THE SCHOOLROOM.—When trees are cut from the banks of rivers, and the soil is left untilled, we hear of freshets, inundations, and destructive floods, because there are no leaves and rootlets to gather up the superabundant moisture and work it into living forms. So in the school-room: if overflowing drops of fun, mischief, and naughtiness are not caught up, but are left to trickle into one common stream, teachers may well stand aghast at the ruinous consequences. As all the mud, debris, and slime, is borne on the surface when the river is disturbed, so all that is hateful and ugly in the child's nature works out when he is thoroughly roused. The best results of weeks of patient labor are apparently swept away, and even after the excitement subsides, injured

and angry feelings pervade the whole school. The one who finds himself equal to such crises is strong and wise, but he who prevents them is wiser still. Once in a while a little active exercise answers this purpose well. Rob is restless, and eyes you furtively; if you suspect pop-guns and spit-balls, send him out to sweep the steps. Very likely he will snow-ball a while, but the pump and guide-post are used to it, and by the time he comes back he will have discharged from his finger-ends much trouble and mischief. Perhaps he is inclined to stir up his neighbor by various entertaining and familiar little devices of pinching and pricking—will he run home for the keys you have forgotten, and be back in five minutes? His activity finds a natural outlet; afterward the child sits quietly down to his books. Many a teacher has proved incidentally the success of this little manoeuvre, then why not give him something of real importance to do. For this reason it may often be found useful to keep a list of little repairs and improvements which can usefully employ ten minutes of a rogue's time. Nothing softens or refines an ugly boy more than trusting him and allowing him to do real favors. Through the chivalrous element of his nature which is easily quickened, a strong hold can soon be gained upon him—interest and affection often replacing the old indifference and churlishness. Or again, perhaps Katie is inattentive and listless in the class. Don't wait until it is a habit—nip it in the bud. Let *her* place the exercise on the board. If she is stupid and dull, think of some way to rouse her; try rearrangement; if her name begins with "A," let her stand at the head, placing the others alphabetically; if she is the oldest, let age decide the rank—if neither, think of some way to make two lines, giving her the head of one, allowing each to choose sides and have competition. This can be done in spelling, parsing, map questions, arithmetic, and other recitations. Almost any girl will succumb under some process of this kind and may show intelligence, pride, and self-respect, which you think entirely wanting. No one will be harmed by this emulation if, as soon as you have gained your point, you adopt some other plan. Annie is playful, and laughs; before the others have time to catch her spirit let her bring you a book from the table down

stairs—if that does not take the fun out of her, it must be that you need the other one too. Two journeys over the stairs make quite a reduction in a funny mood. Much trouble can be prevented by keeping work ready to put in idle hands. The boy who is marking his desk can draw some nice geometrical figures for you, if you give him pencil and card board; the one who is whittling his chair, might be better employed in cutting them out, and all another can print the name on each. After doing so much good they are then ready for your use. These are only a few of the leaves and rootlets by which the teacher can draw into healthful and useful channels the overflowing energies of children. It may be objected that the child loses valuable time by this method. Perhaps he does—but is it not better for *him* to waste five or ten minutes of his own time occasionally, than for *you* to spend the same number of minutes or more in reproving him when the mischief is done? It may also be objected that there are times when the scholar should feel the teacher's authority in compelling obedience. When that point is reached, each teacher does better to use his own discretion. These suggestions are thrown out as preventives merely, and do not apply to such cases. Be assured they are not the theories of leisure hours; accept them rather as the matured products of actual experience.—*Connecticut School Journal.*

IN SCHOOL.

BY SUSAN COOLIDGE.

I used to go to a bright school
 When Youth and Frolic taught in turn,
 But idle scholar that I was,
 I liked to play, I would not learn;
 So the Great Teacher did ordain
 That I should try the school of Pain.

One of the infant class I am,
 With little, easy lessons, set
 In a great book; the higher class
 Have harder ones than I, and yet
 I find mine hard, and can't restrain
 My tears while studying thus with Pain.

There are two teachers in the school,
 One has a gentle voice and low,
 And smiles upon her scholars, as
 She softly passes to and fro;

Her name is Love ; 'tis very plain
She shuns the sharper teacher, Pain.

Or, so I sometimes think ; and then
At other times they meet and kiss,
And look so strangely like, that I
Am puzzled to tell how it is,
Or whence the charge which makes it
vain
To guess if it be—Love or Pain.

They tell me if I study well
And learn my lessons, I shall be
Moved upward to that higher class
Where dear Love teaches constantly ;
And I work hard, in hopes to gain
Reward, and get away from Pain.

Yet Pain is sometimes kind, and helps
Me on when I am very dull ;
I thank him often in my heart ;
But Love is far more beautiful ;
Under her tender, gentle reign
I must learn faster than of Pain.

So I will do my very best,
Nor chide the clock, nor call it slow ;
That when the Teacher calls me up
To see if I am fit to go,
I may to Love's high class attain,
And bid a sweet good-bye to Pain

—*Congregationalist.*

EDUCATIONAL INTELLIGENCE.

CANADA.

—A meeting of Teachers will be held in the village of Lucan, on the 4th of July, to form a Teachers' Association.

—The Educational Association of East Durham will meet in Millbrook, on Friday, June 6th, at 10.30 a. m., and continue two days. Several very interesting and instructive discussions are expected of which we hope to be able to give a synopsis in a future issue.

—The Ontario Government have appointed William McCabe, Esq., L.L. D., and H. M. Deroche, Esq., M. A. and M. P. P., members of the Board of Public Instruction, in the stead of Dr. Barclay, who is no longer a resident of the Province, and Rev. Professor Young, resigned. Both gentlemen have been engaged in the active work of teaching, and retain a lively interest in their late profession.

—UNIVERSITY OF TORONTO.—The election of fifteen members of the Senate of the above-named University resulted in the following gentlemen being chosen:—Thos. Moss, 365 ; J. Bouden, 337 ; J. M. Gibson, Hamilton, 313 ; J. H. Richardson, 285 ; E. Blake, 259 ; J. A. McLellan, 228 ; Thomas Kirkland, 225 ; W. Mulock, 197 ; Judge Boyd, 167 ; W. R. Meredith, London, 127 ;

Dr. McFarlane, 117 ; T. W. Taylor, 116 ; Dr. Oldright, 116 ; W. Caven, 105.

FIRST BOOK OF EUCLID FOR FEMALE TEACHERS.—Notice is hereby given that the Council of Public Instruction, at a meeting held on the 10th inst., directed that the First Book of Euclid be a subject of examination for female candidates for second and first class certificates, the subject of Domestic Economy being omitted. This regulation will take effect at the July Examinations, 1873. Candidates for third class certificates will be required in arithmetic, to solve ordinary questions in simple interest.—*Journal of Education.*

—We have before us the very interesting and concise Report of G. D. Platt Esq., Inspector, County of Prince Edward, from which we glean the following figures : Total No. of schools 80 ; average salary of male teachers \$338, of female teachers \$223 ; average time the schools were kept open 10 months and 14 days ; total names on Registers 4,852. No. of children not attending school 77 ; No. of public examinations 140 ; new school houses built 4. The schools are classified as follows : excellent 6 ; good 19 ; fair 33 ; poor 21. Mr. Platt takes pleasure in saying that notwithstanding drawbacks, the schools at the close of 1872 were more prosperous than at any former

period, and gives the rate-payers of Prince Edward credit for having raised, outside of Picton and Wellington, the "noble sum of nineteen thousand dollars, during 1872 for the support of Public Schools."

—The Union Teachers' Association of St. Mary's was held in the central school on the 19th ult. A great interest was manifested in the several exercises. The teaching of a class in Grammar, by Mr. Goodbow; a class in Geography, by Mr. D. A. Stewart; discussions on the above subjects, by Messrs. Moir, Scallion, Stewart, Donaldson, Goddow, Blatchford, the President, and others; a reading by Mr. J. H. Donaldson, "Fitz James and Roderick Dhu;" an essay, "The Teacher's Mission," by Mr. J. W. Stewart. The next meeting takes place on the 21st of June. The following is the programme: 1st, teaching grammar to an advanced class, Mr. Tytler; 2nd, an essay by Mr. Goodbow; 3rd, teaching algebra to beginners, Mr. Geo. Moir; 4th, a class in history by Mr. Scallion; 5th, a reading by Mr. McNeil; 6th, an essay by Mr. Doupe.

SCHOOL EXAMINATIONS.—Wallacetown, Elgin Co., May 9th, Mr. George Duncan principal teacher, Miss Brooks assistant teacher. The examination was conducted by the teachers assisted by Drs. Ruthven, McColl, Ling, Rev. Mr. McDiarmid, A. J. Leitch, and D. A. Kennedy teachers. The answering of the pupils was highly creditable, and the school is in excellent condition.—No. 6, Bertie, Miss Sarah Hobson teacher. Passed off very successfully. The school has been eminently prosperous under her care.—No. 1, East Williams April 8th, Miss M. J. Henderson teacher. The examination was most successful, and at the close speeches were delivered by Rev. J. Rennie and Messrs. Baird and Hutson, teachers.—Morpeh, Mr. G. W. Sheldon teacher. An exhibition in the evening is said to be superior to anything of the sort ever held in the village. The Town Hall was densely crowded, and the programme consisted of dialogues, readings, recitations, and select pieces of music. The success of the entertainment was largely due to Mr. Sheldon's unwearied care and assiduity.

—We have before us the Report of D. Fotheringham Esq., Inspector North York, for the year 1872, and we would certainly be inclined to call it a "model report,"

both as regards the large amount of useful information it comprises, the clear, methodical, and concise manner of its arrangement in tables, and the accompanying remarks and suggestions. Table No. 1 gives a general statement of "School Property," from which it appears that there were 17 brick, 53 frame, and 4 log school houses in the Division, and the total value of school property is \$73,269. From Table No. 2, "Teachers" we learn that there were 85 teachers employed, of which 60 were males and 25 females; the average salaries were, males \$391.33, females \$243.25. From Tables 3 and 4 we learn that the school population was 9,210, or including those from 5 to 21, 11,548, of whom 8,830 names were entered on the registers, while the average for the first half-year was only 3,405, and for the second half-year 2,335. Mr. Fotheringham mentions as the great evils with which he has to contend, irregular attendance, frequent changes of teachers, and inadequate and distant accommodation. A very striking fact to which he gives prominence is, that at least FORTY FIVE PER CENT. of the school population, either do not attend school at all, or attend so little that they derive no benefit.

EXAMINATION OF PUBLIC SCHOOL TEACHERS.—In accordance with the General Regulations adopted by the Council of Public Instruction, an Examination of Candidates for Public School Teachers' Second and Third Class Certificates, will be held (D. V.) in each County Town of Ontario, commencing on Tuesday, 15th July, at 9 a.m. But Candidates who intend to take the optional subjects in the Curriculum for Second Class, *i. e.* Natural History, Botany, and Agricultural Chemistry, must present themselves at two o'clock on Monday, 14th July. The Examination of Candidates for First Class Certificates will be held at the same place, commencing on Monday, 21st of July, at 2 p. m. As intimated in the *Journal of Education*, a Gold Medal (granted by Wm. McCabe, Esq., L.L. B.,) will be awarded to the most successful Candidate for a First Class Certificate of the highest grade (A). Forms of the notice to be previously given by the Candidates, can be obtained on application to any Inspector. It is indispensable that Candidates should notify the presiding County or City Inspector (as the

case may be) not later than the 24th of June, of their intention to present themselves for examination. The presiding Inspector will inform the Department not later than the 1st July, of the number of Candidates in each class, as the Examination Papers cannot be printed until this information shall have been received from every one of the presiding Inspectors. An omission of any one of these Inspectors in this matter, beyond the time specified may delay the printing and despatch to the Inspectors, of the Examination Papers. The Examination Papers will be sent to the presiding Public School Inspector (who will be responsible for the conduct of the examinations according to the regulations). The presiding Inspector will, immediately after the meeting of the Board of Examiners, at the close of the examinations, and not later than the 3rd of August, transmit to the Department the report of the Board of Examiners, and also the whole of the answers of the candidates. The surplus Examination Papers are also to be returned for binding. The presiding Inspector will please give sufficient public notice respecting the Examinations, and obtain from his co-Inspector (if any) the names of Candidates who may happen to send their applications to him.—*Journal of Education.*

UNITED STATES.

—In Kansas, the new State Normal School at Emporia has just been opened.

—In Pennsylvania, the Cumberland Valley State Normal School of Pennsylvania has just been opened with 300 pupils, and the prospect of 300 more.

—At Cornell University. S. Campbell, of Oneida, has been chosen a Trustee, to succeed Horace Greeley. Frederick Law Olmstead has also been chosen a Trustee in place of Judge Charles J. Folger, resigned.

—In South Carolina, a private citizen has opened a school for the gratuitous education of the destitute orphans of Confederate soldiers, and to the institution is attached an agricultural and mechanical department.

—A bill which provides that women, married or single, shall be eligible to all school offices in the State of Illinois has passed the Lower House of the Legislature

of that State by a vote of House 101 to 30, and the Senate by a vote of 29 to 6. Governor Beveridge has signed the bill, and it is now a law.

—A new Catholic University, giving full classical, theological, scientific and commercial courses is to be established immediately near St. Joseph, Mo. One hundred and fifty acres have been given for the site, and a delegation of brothers from the famous Notre Dame University in Indiana are in St. Joseph making preliminary arrangements. The institution will be opened in September.

—The corner-stone of the College for Women at Cornell University was laid at Ithaca, N. Y., last week. It will be called the Sage College, in honor of Mr. Henry W. Sage, of Brooklyn, N. Y., who has given the building (to cost \$150,000) an endowment of \$100,000, and \$30,000 for a chapel. The entire superstructure of the college is complete. It is noteworthy architecturally as being the first reproduction in this country of the Oxford and Cambridge quadrangular college, although its style is an Italian rather than an English Gothic.

BRITISH AND FOREIGN.

—The Japanese Government is about to establish in Yeddo a College of Engineers, to which are to be attached a technical workshop and a technological museum.

—M. Jules Simon, Minister of Public Instruction in France, has authorized the publication of the important series of Gascon Rolls contained in the British Record Office, and M. Francisque Michel has had the task specially confided to him of superintending the work, which promises to be a long labor, considering that the Rolls occupy 1,847 skins of parchment, closely written on both sides.

—Women in England (says the *London Spectator*) are beginning to show how much they value the new opportunities offered them for higher education. One student of Girton College, Miss Woodhead, has passed the same mathematical examination at Cambridge as the graduates in honors, and has reached the level of a Senior Optime. Two students of the same college (Miss Cook and Miss Lumsden) have passed the examination for the Classical Tripos in a manner satisfactory to the ex-

aminers; and Miss Cook's answers in Aristotle were said to be among the best sent in. The late Mrs. Somerville has bequeathed her mathematical library to Girton College.

—The latest item of news is to the effect that the King of Siam has established two schools, under English masters, at Bangkok, for the sons of the nobles.

—The Minister of Public Instruction in France has prohibited the use of tobacco by students, as injurious to physical and intellectual development.

—The professors of Trinity College, Dublin, propose that American professors should exchange work with them for a few months at a time, thus establishing an international exchange of thought.

—It is said that the Mohammedan University is about to be established in North-western India, in which western science is to be taught in connection with the tenets of the Koran.

—In Denmark, since 1814, a system of compulsory and free education has been in operation, requiring children to be sent to school from their seventh to their fourteenth year. It is now proposed to extend the school age an additional year.

—The Prussian Ministry of Education has notified the educational authorities that in addition to the ordinary fines imposed on parents, the accepted code of compulsory education authorizes them to have defaulting children forcibly conducted to school by the police, and that when gentler measures fail they are expected to resort to this measure.

—A truly gigantic system of education is planned in Japan, and the machinery to work it is preparing. The empire is to be divided into eight grand divisions, in each of which there are to be a university and thirty-two middle schools. Then there are to be in the empire 210 academies, and 53,760 common schools. From the middle schools and academies there are to be sent abroad for education, 180 young men.

—The patriotism of German students is illustrated by the statistics of a volume just published in Leipsic by one of their own number, in which an interesting account is

given of the part taken by members of the different German universities in the late war, of the services performed by those of the medical profession under the red cross, and biographical notices of 248 students who fell in action. The University of Leipsic suffered the greatest loss, 63 members in all. The losses of the other universities were as follows: Berlin, 30; Gottingen, 23; Munich, 21; Halle, 19; Heidelberg, and Jena, each 13; Breslau, 11; Bonn, 9; Tubingen, 8; Rostock, 6; Griefswald, Kiel, Konigsberg and Wurzburg, each 5; Marburg, 4; Giessen, 3; Freiburg and Munster, each 2; Erlangen, 1. Out of the 13,765 German Students matriculated in the summer term of 1870, 4,510—that is, a third—went through the campaign, about 3,500 of whom were in the ranks, and 1,000 attached to the ambulances. Out of 1,505 university professors, 15 were under arms, 253 devoted themselves to the care of the sick and wounded, and 120 worked for the national cause by speech and pen.

—The first annual report of the School of Practical Engineering in the Sydenham Crystal Palace shows that that interesting experiment is a success. But this is only one of the numerous evidences of the value of technical schools, and of the growing favor with which such enterprises are regarded in Europe. The latest foreign mails bring us news of other movements in the right direction. The British Educational Department has just issued a thick pamphlet containing the prospectus of Sir Joseph Whitworth's Scholarships for Mechanical Science. These Scholarships are of the value of £100 a year, and are tenable for three years, and the competition is open to all Her Majesty's subjects at home, in India and in the Colonies who have not completed their 22d year. The Scholarships will be competed for this year, at an examination which will be partly in practical workmanship, and partly in theoretical subjects. We hear also from Cornwall, England, that at the late annual meeting of the Miners' Association, at Redruth, it was stated that about 100 working miners were receiving instruction in science in its classes, and that Mr. J. Arthur Phillips offers two prizes for the best essays on the conditions of mineral lodes.—*New York School Journal*.

TEACHER'S DESK.

J. C. GLASHAN, ESQ., EDITOR.

—Contributors to the 'Desk' will oblige by sending answers with their questions and solutions with their problems. Attention is called to 'Young Teachers' Queries'; other questions of like practical character are solicited, as also are *essays* and *discussions* in answer. The latter should be on separate sheets from any matter intended for the 'Desk' as they will be handed to the General Editors for insertion among "Contributions."

MR. STEWART MOAG. The words *simple* and *compound* seem to have been interchanged in the notice to you in the April No. In the problem the interest is not made payable annually, (mathematically equal to compound interest) but the total interest on each debenture is paid with the debenture. Your view of payment and solution is commercially correct.

CORRECT ANSWERS AND SOLUTIONS RECEIVED.

Tena. 12, (in part) A. F. B. 4, 6. Jacqueline Fortune and Maggie M. Calder. 4, 10, 11 (sith) 14. Wm. Coutts, Hamilton. 2, 3, 4, 14. A. McIntosh, Pinkerton. 3, 4, 5, 10, 11 (sith) 12 (in part,) 14. Ed. Rowland, Strathroy. 2, 3, 5, 6, 9, 11. Alex. Stewart, Caradoc. 2, 3, 4, 5, 6, 9, 10.

ANSWERS TO PROBLEMS &C., IN APRIL NO.

Apply the following arithmetical definitions from 'Sanderson's Pelicotetics':

2. "If any thing and any other thing be put together, and to the group thus made another thing be put, and so on, other groups being made successively in the same way by putting to each group made, another thing to make the next following group; and if the things that make up the several groups be viewed only as distinct individual members of the groups, leaving utterly unheeded what the things are, how they are arranged in the groups, and all else; still the groups differ from one another and from the things that make them up, as to what is called the *number* of things in each of them. Accordingly groups so viewed are spoken of as *Different Numbers of Things*, or as *Different Numbers* simply."

(A Fraction will therefore be a group of submultiples of a magnitude.)

3. "A magnitude estimated numerically in reference to a magnitude of the same kind as unit, is called a *Quantity*. The numerical representative of

the ratio of a magnitude to a magnitude of the same kind being the very same as the numerical expression of the former magnitude in reference to the latter as unit, is called a *Numerical Quantity*. A numerical quantity then can only be said to be either a number or a something akin to a number from which there are numbers that differ by less than any assignable number. A numerical quantity is called *commensurable* if a number, and *incommensurable* if not." The square root of 2 is the ratio of the diagonal of a square to a side of the same taken as unit.

4. The gain per cent. means the number of units gained for every hundred units of cost. Here there were not any units of cost, so a hundred units of cost cannot be obtained, or *the problem cannot be solved*. Absolute infinity has been proposed as the gain per cent., but this expression has no place in mathematics except to indicate that the problem has assumed an insoluble form from the vanishing of an essential datum.

5. Equal and opposite horizontal velocities are impressed on the ball, and hence it will have no forward or backward velocity in the line of the train's motion. If gravity is taken into account, the ball will fall vertically.

6. In abstract numbers the unit is absolute, hence the supposition that 6 is 8, (i. e. that 6 is not 6) is impossible, and from such a conditional premise no conclusion can be drawn. Again putting aside this difficulty, the problem is indeterminable, for by the law of the conversion of an arithmetical equivalence, if 6 be 8 then 8 will be 6, and thus every other number (11 included) is undeterminable. The commonly proposed solution by proportion is really that of a very different problem, which in its most general form may be thus stated: If 6 a—units equal 8 b—units, how many b—units will equal 11 a—units? Mr. Alex. Stewart, of Caradoc, was the only contributor who noticed the failure of the problem to fulfil *both* the conditions of such a question.

8. No correspondent has caught the full meaning of this query. It was proposed with the view to call attention to two subjects: The equivalence of forms grammatically distinct, and the verbal identity of orally distinct sentences. The former subject, under the name Changes of Construction, is slightly touched upon in our common grammars, the latter

silently passed over. Let our contributors compare with the proposed proverb, "Spare the rod, and spoil the child."

9. A train of thought respecting the mummy, its condition, appearance, and history has been passing through the author's mind, and the first thought given expression to, viz., "Thou hast walked about," is connected by *and* to the preceding thoughts; and therefore is a conjunction. ALEX. STUART.

And is a rhetorical conjunction, as clearly explained by Mr. Stuart, used to throw the reader into the position of a listener to a soliloquy, which in itself assumes the form of an address.

10. After adverbialized quasi-comparatives. When the adverb has lost its adverbial force the article precedes the adjective, as it did in all cases in Early English. We cannot now say with Chaucer, 'He hath overgreat a wit,' or with Shakespeare, 'What poor an instrument.'

11. Prince John addresses Locksley in the second person singular, then the language of inferiority or contempt, while Locksley addresses Prince John in the second person plural, at that time used towards equals or superiors. ED. ROWLAND.

In proof of this compare many passages in Shakespeare, but especially the advice given Aguecheek about to write a challenge. "If thou *thouest* him some thrice, it shall not be amiss." Twelfth Night iii. 2. 48. For an examination of the use of *thou* and *you* see the preface to Rev. H. H. Skeat's edition of *William of Palerne*.

Sith is derived from the Anglo-Saxon word *sith*, which meant late or later, and was used for *sith-than*, meaning after that. In the passage referred to, it is metaphorically used for because. The word frequently occurs in Shakespeare, and in both meanings in Hamlet ii. 2. 6 and 12. The word has no connection with seeing-that.

Horne Tooke, who had but a superficial knowledge of the Saxon and kindred tongues, derived it from the imperative of *annan* to grant, and he has ever since been servilely followed by our Spelling-Book compilers, who had not his excuse of a hobby to ride. An is simply the short form of

and (old Swedish *aen*) which in Early English had the meanings *and, if, even, also, and that too*. Chaucer almost always used *and*, not *an*, so did Shakespeare, as proved by the Folio. An seems, in fact, to have been the printers' abbreviation.

13. Either 1494 or 1497. The authority for the former date is very strong. Can any of our readers give the *original* authority for the latter date?

14. If 1494, Cape Breton (not known to be an island;) if 1497, Labrador or Newfoundland.

PROBLEMS AND QUERIES.

29. "And the Fox stands crowned mourner by the Eagle's hero-clay." Fifth Reader, p. 288. Who is meant by the Fox and whence the name? Ditto Eagle? JAQUELINE FORTUNE.

30. Is the answer to Quest. 7 p. 143, Elementary Arithmetic, correct? Do.

31. "But what strange art, what magic can dispose
The troubled mind to change its native woes?
Or lead us willing from ourselves to see
Others more wretched, more undone than we!"

(a.) What is the meaning of *dispose*

(b) What place does the phrase *willing from ourselves* occupy in the analysis of the sentence to which it belongs? ROBERT COCHRANE, ERAMOSA.

YOUNG TEACHERS' QUERIES.

1. My Inspector, on his last visit, after examining one of the classes, turned to me and said, "Teach this class in your usual way how to study the lesson you purposed setting it to-day." (Subject, Geography.) Will some of your readers be kind enough to give me a model lesson? MCGILLIVRAY.

2. I have some thirty children in the First Book, how can I keep them busy? LOBO.

3. I would like to get some hints on how best to use a black-board. R. T., LONDON.

4. How shall I begin to teach Geometry? S. F. M.

EDITOR'S DRAWER.

TO CONTRIBUTORS.—The poem, "To a Child Sleeping in School," will appear in our next number.

GEORGETOWN ACADEMY.—We would direct attention to the advertisement of this excellent educational institution, on the second page of cover. Every facility is afforded for Teachers, Matriculants &c., as well as for those wanting a good business training. We are also happy to say that the very efficient Principals, Messrs. Tait & Campbell have kindly consented to become contributors to the ONTARIO TEACHER.

TEACHER'S DESK.—We are much gratified with the interest taken in this department of the TEACHER. We solicit answers to problems and queries, and, when correct, they will be duly acknowledged. Mr. Glashan has opened a department for "Young Teachers' Queries," and we hope to receive contributions in reply to the practical and useful questions there given. We aim, so far as possible, to make our journal of practical value to teachers, and they can themselves greatly aid us in accomplishing so desirable an object.

SCHOOL OF TELEGRAPHY.—We would direct the attention of Teachers and all others interested to the advertisement of the Hamilton School of Telegraphy, on the second page of cover. Mr. Givin, the Principal, has had fifteen years' experience as a practical operator, and has excellent testimonials from H. P. Dwight, Superintendent Montreal Telegraph Company, and others. Mr. W. K. Muir,

General Superintendent Great Western Railway, as a proof of the high estimation in which Mr. Givin is held, states that in engaging operators the Company will give the preference to those who graduate in the Hamilton School of Telegraphy, over all others.

THE NORMAL SCHOOL.—We regret to notice in the Toronto Press serious charges of incompetency preferred against the Principal of the Normal School—Dr. Davis. Although the force of the charge may be somewhat weakened by the fact that it is made by a discharged student, yet from information that has reached us recently, we are compelled, in the public interest, to admit the possibilities of its correctness. Our own personal connections with Dr. Davis were not of such a nature as to lead us to join in denouncing his conduct as a Teacher. True, we never entertained the idea that he was eminently qualified for the position he now holds. On the contrary we often regretted the exhibition of those very weaknesses which are now reported so flagrant, yet as Second Master, he was not in the position to indulge his temper nor destroy the comfort of the students to the same extent as in his present position. We trust a full examination of the case will be made by the Council of Public Instruction, and that while doing justice to Dr. Davis, the greatest possible care will be exercised in guarding the interests of the only Institution in the Province to which we can at present look for that training so essential to our educational interests.