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THE

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A

MONTHLY EDUCATIONAL JOURNAL.

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IS IT TRUE OF YOU.

Charles Sumner said of Justice Story: "Besides learning unsurpassed in his profession, he displayed other qualities not less important in the character of a teacher—goodness, benevolence, and a willingness to teach. Only a good man can be a teacher, only a benevolent man, only a man willing to teach. He sought to mingle his mind with that of his pupil. He held it a blessed office to pour into the souls of the young, as into celestial urns, the fruitful water of knowledge. * * * He well knew that the knowledge imparted is trivial, compared with that awakening of the soul under the influence of which the pupil himself becomes a teacher. All of knowledge we can communicate is finite; a few chapters, a few volumes will embrace it. But such an influence is of incalculable power; it is the breath of a new life; it is another soul. In Story the spirit spake, not with the voice of an earthly calling, but with the gentleness and self-forgetful earnestness of one pleading in behalf of justice, of knowledge, of human happiness. His well-loved pupils hung upon his lips, and as they left his presence, confessed a more exalted reverence for virtue, and a warmer love for its own sake."

We commend to our readers, and to teachers particularly, the careful study of the above quotation. Indeed, were we disposed to sermonize, we would like to take it as a text, and if properly used we believe by it we could produce a general *revival* among the profession. Think of it teachers, "Learning unsurpassed in his profession." How many aspire to this? How many are content, not with the *maximum*, but with the minimum qualification required by law. How many are Third Class that would be anything more, were it not for the necessities of the law?

"Goodness, benevolence, and a *willingness to teach*." We have italicised the words *willingness to teach*. We think even *goodness* and *benevolence* can be found in some cases, where the "willingness to teach" is wanting. Is it not true that many teach reluctantly—that the little they do is done with a struggle—and that conscience is often smothered to allow indifference to be gratified? "Willingness to teach;" give us that in some of our Public Schools, even with the present literary attainments of many teachers, and we would work wonders. Instead of the lethargy now so apparent both in scholars and teachers, there would be a mental quickening—a *revival* that would be

marvellous. What now appears to be *dull*, *inert* matter, would be found to be that sub-'lest of all things—MIND. Where now we see the vacant stare, we would have the kindling glance and intelligence—beaming eye. "Willingness to teach"—"Jew, I thank thee for that word."

"He sought to mingle his mind with that of his pupil—to pour into the souls of the young, as into celestial urns the fruitful water of knowledge." That is teaching *par excellence.* No book work about that. No cramming or rote work. It was mind mingled with mind. It was the cultivated intellect unsurpassed in his profession for learning, coming into contact with the expanding active minds of his pupils, imparting to them its own magnetism and fire. Do you think such a man would be found standing before his class with a book, teaching any definitions in grammar, or listening to verbatim recitations of whole pages of English History. Not at all. There could be no mingling of mind with mind in such exercises—hence its absurdity. Teachers! think of the idea, "mingling mind with mind." How much like the answer given by a famous painter to one of his pupils who asked him, "If I may be so bold Sir, your colors surpass all others known to me, pray with what do you mingle them? "With brains," was the expressive reply.

But we do not purpose to comment upon the whole passage; commit it to memory. Think of it in your waking hours,and we will guarantee you greater success, and greater usefulness,the more you practice the method adopted by the talented Judge Story.

EDITORIAL NOTES.

—Mr. Porter, President of Yale College, in referring to the many evils existing in the preparatory course of American Schools, makes the following very pertinent remarks: "A very pernicious feature of our preparatory school, is a tendency to rely on system and method, and the various paraphernalia of a well regulated institution, to the exclusion of individual and personal effort. Easy indeed is it to ask routine questions, to record the result in a marking book, to clinch the week's work by a weekly examination, and a term's and a year's work in like manner; far easier than to put questions in such fashion as to find whether the scholar has got at the essence of knowledge, or in such fashion as not only to reach the ear of the questioned pupil,but to thrill with subtle and suggestive power the whole class. But the real power lies in oral instruction; in the living and vivifying force of the contact of mind with mind. I would never be a teacher, if that meant only to turn the handle of never so delicate an organ that went by machinery I would not be a teacher, if all my work was to preside at recitations, put well-rounded questions, and conduct skillfully questioned written examinations."

—The *National Teacher* refers to an interesting editorial in the October number of the *Popular Science Monthly*, giving deductions from some experiments conducted with the design of ascertaining the comparative educability of children of different races. It says: "These experiments did not indicate that difference of race implies difference of natural capacity; but they strikingly illustrated a general fact of great significance,—the fact that the progress of a pupil at school is measured by the culture maintained in the family in which the pupil dwells. Intelligent homes make successful schools. The youth who lives in an atmosphere of thought and refinement, who hears instructive conversation at the fireside, and is accustomed to the use of books from his earliest years, how great is his advantage over a classmate, who, though of equal

native power, has not enjoyed the benefit of home culture and intellectual stimulation. What teacher has not observed the marked progress which the children of educated parents are apt to make in advance of children of ignorant parents? In view of the difference here considered, a question might be raised as to the justice of testing all classes of pupils, irrespective of home advantages by competitive examinations based upon school work alone. Is it fair to demand of the boy whose home influences are antagonistic to study, the proficiency of the boy whose home is another school?

—The Maryland *School* Journal strongly opposes compulsory education. The grounds taken are, (1) it is not needed and (2) it would not be enforced if enacted. We doubt that the first objection is a correct one. According to his own shewing only one-half of the school population of the State is enrolled as attendingany school at all, and the average attendance for the whole year only amounts to one-half the number enrolled. With such a state of affairs, we think compulsory education or anything else that would secure a fuller attendance at school would be a great boon—We feel somewhat humiliated in Ontario by being compelled to admit that 41,000 children of school age do not attend any school at all. That is about 8 per cent. of our school population absent from school, as compared with 50 per cent. in Maryland. To remedy this comparatively small evil we have adopted compulsory power—and yet, where the evil is six times greater, the principle is repudiated. That hardly looks like keeping up with the age, and we would like to see our colleague of the Journal revise his theories on educational matters. His second objection that the law would not be enforced, we cannot discuss. We would hope, however, that public opinion properly educated by an intelligent *press* would soon correct this unhappy state of affairs. Maryland certainly needs a little more light.

THE TEACHER'S RESPONSIBILITY.

ADDRESS READ BEFORE THE LANARK COUNTY TEACHERS' ASSOCIATION, BY MR. MCCARTER, HEAD MASTER, ALMONTE PUBLIC SCHOOL.

Mr. President and fellow-teachers, I trust you will not think it presumption in me to say a few words to you on this weighty subject. Deeply impressed with it myself, I have taken it up in hopes of saying something at least to induce you to reflect upon it.

When I look at the fifty or sixty children before me, and consider that they are weak, ignorant and dependent, exposed to evil influences and temptations on every side; and that I am expected to lead them on through the devious and dangerous paths of childhood and early youth, and in a great measure equip them for the battle-field of life, true-hearted and intelligent, richly furnished with those traits of character which will nerve and strengthen them to act well their part, I cannot but feel deeply the responsibility laid upon me. And this feeling is greatly intensified when I further consider the potency of example—consider that my every word, and deed, and even look, are making indelible impressions on the minds of my pupils, all tending powerfully to mould their characters,and influence their minds and deeds, yea, even the words and deeds of those yet unborn. The veriest trifles influence the character of children. Whatever they see and hear they unconsciously imitate, and soon come to bear the image of those around them. How solemn

the thought that there is not a word uttered or an act done but carries with it a train of consequences the end of which we never can know. I do not believe in the transmigration of souls, but I do believe in the transmigration of words and deeds. The good word and deed shall live, so also shall the bad ; and what appals me is that none of them are so unimportant as not to become the cause of momentous consequences.

"The pebble in the streamlet scant,
Has turned the course of many a river:
The dew-drop on the infant plant,
Has warped the giant oak for ever."

We hear much in those days of the indestructibility of matter, but the words and deeds of men, and most emphatically those of the school master, are as indestructible Think not, fellow-teachers, our words and deeds shall die. Our words and deeds shall live in the words and deeds of our pupils long after we are in the dust ; live and bring forth fruit after their kind, influencing the generations yet to come. Every atom, says Babbage, impressed with good or ill, retains at once the motions which philosophers and sages have imparted to it, mixed and combined in ten thousand ways with all that is worthless and base as well as with all that is true and noble ; the air itself is one vast library on whose pages are written forever, all that man has ever said or whispered. There in their immutable but unerring characters, mixed with the earliest as well as the the latest sighs of mortality, stand for ever recorded vows unredeemed, promises unfulfilled, perpetuating in the united movements of each particle, the doings of man's changeful will. But, if the air we breathe is the never failing historian of the sentiments we have uttered, earth, air and ocean, are in like manner, the eternal witnesses of the actions we have done. No motion impressed by natural causes, or effected by human agency, is ever obliterated.

"Oh ! let not then unskillful hands attempt,
To play the harp whose tones, whose living tones,
Are left for ever on the strings. Better far
That heaven's lightnings, blast his very soul,
And sink it back to chaos' lowest depths.
Than knowingly by word or deed, he send
A blight upon the trusting mind of youth."

Particularly, then, we say, that the teacher is responsible for his temper.

No man who has not learned to govern himself, can successfully govern others. Without self command a teacher can literally do nothing. He can carry out no settled plan either for his own good or the good of others. If he allows himself to be carried away with every wind of passion, every now and then becoming the miserable victim of ill-temper and weak caprice, he may rest assured his influence for good, is gone. His own irritated spirit kindles a spirit of irritation in every bosom, and obstacles insurmountable block up every entrance to the hearts and heads of those over whom he has been placed. Rest assured the impatient, irritable, ill-natured, cross-grained, crabbed teacher will have a legion of sorrows, perplexities and difficulties. Those possessed of such a spirit would better make up their minds to one of three things :— conquer themselves, spend a life of misery, or give up the profession.

The teacher is responsible for his personal appearance. Perhaps I shall better say a little on this point. It is a delicate one. Many present may entertain opinions on it differing widely from mine. Allow me to say, however, that I for one have no sympathy either with the beau or the belle ; neither have I any sympathy,—I was going to say respect—with the person of slovenly appearance. The teacher, in this respect, above everybody, must observe the golden mean. He must, on the one hand, avoid everything that savors of dandyism or gaudy nonentity ; and on the other, everything that savors of slovenliness. Dandyism

is the sign hung out by pride, conceit, emptiness; slovenliness,indicates coarseness impoliteness, vulgarity. Both degrade a man in the eyes of sensible people, and fail to command respect, especially from children. Were I to describe a teacher's dress, I would say it ought to be of good material, neat, clean, and plain. Such a dress is always a good letter of introduction. The man is greatly mistaken who thinks that rank, station, strength of mind or great attainments will ever excuse vulgarity, rudeness, dirt. The teacher is responsible for his own improvement. Many of our teachers think when they passed their examinations, and obtained a license to teach, that all further effort to improve themselves is unnecessary. This a very great mistake. The teacher who feels aright on this subject, will be far from being satisfied with present attainments. If he wishes to keep up a lively interest in his work, he will do two things: he will be continually revising what he has already attained,and he will earnestly and vigorously seek to widen his field, and add new stores to his present possessions. To this end he will avail himself of every opportunity, every facility, within his reach; the teachers' meeting, the Teachers' Institute, books on Education, visiting the schools of others, &c.; all his studies, all his reading, will be taxed to contribute their quota to make him a wiser, stronger and better teacher.

I might go on to enumerate other responsibilities of the teacher, but I purposed that my paper should be short; I will therefore leave you to think out the others for yourselves.

But there is another point on which I beg to say a few words.

It has long been a settled conviction in my mind that the younger the pupils the greater is the responsibility of the teacher. It is, in my humble opinion, a most absurd and fatal error to suppose that any sort of a person is good enough to take charge of young children. Yet people in general have fallen into this very error. Our Boards of Trustees act on the principle that the younger the children the worse may be the teacher. But the very reverse of this is the truth. To manage young children properly is work demanding a combination of endowments possessed by very few. The farmer shows more wisdom in training his colts than he does in training his children. If he has a colt to break and wishes him to become a true and useful animal he knows that everything depends on the manner in which he is at first handled; and accordingly puts him into the hands of the most experienced horseman. But if he has children to break he gives himself little or no trouble about the qualifications of the breaker providing he will do it cheap enough. I hesitate not to say that this absurd and miserable system is the cause of many and great evils—evils which I have not time to specify, or for which to suggest a remedy; but I do trust our leading educationists will have their eye upon it, and as far as possible show their unqualified disapprobation.

One word more. Let us be up and doing. We are conscious of being engaged in a great and noble work, honorable and useful, a work deserving all the learning, all the intellect, all the moral worth we can bring to bear upon it—a work meriting the energies and the talents of the most gifted and the most accomplished. Let us then make conscience of doing this work. Conscience is the great fly-wheel of the human soul, giving steadiness and regularity to its every motion. All other motives fail to keep us steadily, patiently, energetically to our duty. Conscience can do this. Conscience never fails. It can be cultivated till it calls up every susceptibility, every faculty of the soul, into constant and vigorous action. Let us but fix the impression that we are responsible to God for all we do, and our power for good will be neither small nor unfelt. Up then to the work. Let us be faithful, and in due time we shall reap our reward.

PER CONTRA.

BY DR. D. CLARK, PRINCETON, ONT.

It is impossible to find two things exactly alike in nature. The leaves on the same tree differ. The sands on the seashore are nòt alike. The dewdrops which sparkle in the morning sunbeams are only similar. The stars, that shine in the blue immensity of heaven, have only a family resemblance. No two human beings of all the myriads of humanity have exactly the same appearance; and no two minds are alike. One man is so phlegmatic that *inertia* is his normal condition. Were a bombshell to burst at his ear, he would scarcely wink. He believes in a division of labor, his part, however, is not to work, but to inspect. Like the Indian, his delight is to sit on the fence and see white man mow. Old or young Mr. Sluggish would delight to personate the patient fisherman, and allow cobwebs to grow between his nose and the adjacent bushes, rather than take the trouble to move near the next ripple. His mind is semi-dormant, and to make him useful would require a new creation. His neighbor is, on the contrary, all life—a sort of perpetual motion. He is wound up by sleep, once in 24 hours, and then runs the rest of the time, with a sort of jerky motion —irregular and spasmodic. He is full of all sorts of plans and projects, each of which is sure to give fame or fortune. The initiatory steps are taken to secure the riches of some El Dorado, but ere success is reached, a new project draws a glamour over his eyes, and away he goes after his new love, leaving the first and each antecedent one, to wreck and ruin. The golden cup is where the rainbow touches the ground, but the spot where "The Holy Grail" can be found ever recedes, until old age comes on apace, and nothing is left but sad reflections over fragmentary projects never completed, from want of stern resolve, and sound judgment. Between these two extremes are many phases of changeful and diversified humanity. Thoughts, affections, desires, and emotions, all present, but in diverse proportions. The English alphabet can produce its 100,000 words and not be exhausted. The eight notes of the musical scale can vary their combinations from lyric to anthem, and from simple melody to the intricate grandeur of the Oratorio. The tinsels of the kaleidoscope are few, but the views are forever new. The changes are endless, although the substratal instruments are few. Thus it is with the human mind. The cardinal motive powers are not many, but only eternity can unfold their diversity. This is seen by every observant teacher, in the routine duties of the school-room. His scholars are as various as their fancies, in mental bias, or aptitude for certain studies. The one delights in figures, unravelling arithmetical, or mathematical problems, with little effort, and as a labor of love. Another looks upon the work with horror, and sees only mazes of intricacy, which make the dizzy brain reel. The next neighbor on the same form, glories in the construction of wheels, pullies, triangles, and all kinds of machinery, and can construct with a pocket-knife marvels of mechanism, whether ships, or mills, or images, or clocks. Some one unexpectedly develops a talent for drawing, or painting, or sculpture of everything seen, with pencil, or brush, or chisel, and with almost intuitive artistic skill. The soul-longings, the idiosyncrasies, the peculiarities, and natural outcroppings break out in multifarious forms. A fellow-traveller and the writer once went

up an Alpine ridge from a Swiss hamlet, to gaze upon the Matterhorn at sunrise. When the day broke, and the sky became all ablaze with the rays of the rising luminary, the scene was transcendantly grand and glorious. We were in the gloom, but mountain peak after mountain peak was bathed in floods of light. Each icy pinnacle acted like a prism, and sent in all directions the varied colors of the rainbow. The most beautiful forms were seen in cloud and mountain top. It was a panorama which might justly represent the apocalyptic vision of the new Jerusalem, with its battlements, domes, minarets, and golden gates. I uttered an exclamation of delight at the wondrous sight, but my friend gave a prodigious yawn, and drove my poetic frenzy into oblivion, "by the expulsive power of a new affection," in the prosaic exclamation, "Yes! I suppose its very fine, but I'm cold, and hungry for my breakfast." The toes of my right foot were itching for employment of a battering ram kind, at that particular moment, so quick was the transition from bliss to belligerency; but let my friend hear the click or rattle of machinery, or see the fine outlines of a bridge, or building, temple or mosque, and the unpoetic genius, would never long after a breakfast, in the midst of his admiration. This diversity of tastes and talents incites to its totality the full and wide range of human knowledge, and prevents the *dwarfage* of the different factors of the useful and the beautiful. Now, in our Public Schools there are cast iron rules. Classes are assigned stated tasks, uniform and unalterable. The likes and dislikes of pupils are never consulted. They must in squads and platoons go through the same routine, *nolens volens*. The fitness of the studies—the prominent likings of the scholars—and the aptitudes of each are never consulted. They have no rights, no privileges, and immunities which our educational Council has ever respected or consulted Every pupil, in this *omnium gatherum*, of a dozen subjects of study, may learn something suited to each capacity and taste, but *must* necessarily labor through much which he cordially hates, and which naturally he can never succeed in. These remarks do not apply to those who are lazy, and have no desire for mental effort of any kind, but to those who are active and anxious to learn what their heart and intellect finds to do. It is evident to any one who has studied human nature in juxtapostion to our school system, excellent as it may be in many phases, that our classification needs revision, in this respect. The twig bent down, out of natural shape, by artificial manipulation, becomes dwarfed throughout its vegetable life, but its constant tendency is to repair the mischief, and rebound upwards to its natural position. If not, its offshoots, at least, seek a heavenward direction. When the restraints of the school, with its non-elastic discipline in studies are removed, and manhood or womanhood reached, the bound into a natural element of activity, is the result, and the latent fires of genius, or of plodding industry in a congenial labor, converts the supposed numbskull into the wonder of a country side, or a nation, by the exhibition of powers never dreamed of, by relations or friends. This history of many of the renowned of earth, whether statesmen, or orators, poets or painters, sculptors, or mechanics, tells of mis-directed studies, and violent attempts to turn the pent-up stream of intellection and passion, from its natural channel, but all in vain, after years of cruel and despotic toil, in weary fields where "love's labor" erects no abiding monument. The writer lays down no rules, nor propounds any plans to rectify this evil in our schools and colleges. He knows from experience the many weary hours spent in attempts to master those studies in which his soul had no delight, and the forced neglect of those equally important, in which he would have taken great pleasure, and

might have excelled. The time almost uselessly spent could not be recalled, but the congenial objects of educational pursuit, were voluntarily learned, after the Medo-Persian laws of the Colleges had no power to victimize. This is a subject worthy of consideration, and if our educators would enlarge the curriculum of *optional studies*, and mercilessly ostracise from the compulsory all those which are not fundamental, a great boon would be conferred on society, especially on the rising generation. The Kindergarten System is a step in the right direction, as far as juvenile instruction is concerned. It excites healthily diverse faculties, and develops to a greater extent, capacities not reached by the usual methods. Form, color, perspective, number, proportion, analytical observation, the principles of adaptability, and the reason why, are imperceptibly instilled into the youthful mind, without wearysome toil, or high pressure effort. The natural takes the place of the artificial. The perceptive comes in its natural order as the antecedent to just conceptions of nature and its phenomena. The leanings of mind in its primal growth are not toppled by symbols, signs, and artificial appliances, before the things signified have a local habitation, or a stable foundation. Barnum's speaking *automaton*, or the parrot—have counterparts innumerable, in this respect. This principle of experiment, sight-teaching, and unrestrained indulgence in harmless pursuits would enable parents and teachers to note the tendency of the youthful mind. The high gradation of our advanced schools, would then have as a substratum, not similarity of studies only, but similarity of tastes, and a keen relish for explorations in elected fields of knowledge. The artificial stuffings, and the unreasonable demands of the uniformity educators of our country, would be, to a great extent superseded, by a system having some respect for "the eternal fitness of things."

HARMONY IN SCHOOL SECTIONS.

BY GEO. B. ELLIOTT.

If our Public Schools were all that they should be, if they always secured to the masses the benefits which we have been wont theoretically to expect of them, as their legitimate fruit, we should not need to trouble ourselves farther than to keep the machinery in motion and repair. But it must be evident to all that even in cases in which the evil is in no way traceable to either scholar or teacher, schools have often signally failed to meet the expectations of their patrons. Hence the very great necessity of investigation into the causes of failure, with a view to the application of proper remedies. Usually in cases of ill success, we find those interested inveighing against the Public School system in general, and school officers in particular. Now, while we admit that the present system has many defects, and that many officials are wholly unfit for the position they occupy; while we see and deplore this state of things and labor for reform, let us not lose sight of another source of mischief, right in our midst, and not the less important because less a subject of remark.

Often the principal source of the ill success of schools may be found within the district, and depending on the will of the inhabitants alone for its removal or perpetuation. It is simply a want of harmony among themselves, a spirit of selfish, partizan opposition, which is so common in school sections as to have passed into a proverb, and so much a matter of course, as to be considered in a manner inevitable.

Petty factions arise and are kept up, which become so violent, that whatever may be done by the one, is sure to displease the other.

Teachers and their arts are lauded beyond their deserts by the one, while they are as readily and as blindly condemned by the other. Misrepresentations are indulged in and encouraged, met by over zealous recriminations, and a general "muss," about nothing, is the result, in which the teacher often becomes more or less involved. It is needless to particularize. Those interested know just how it is. If such a state of things is suffered to continue, a permanent want of harmony ensues which is incompatible with the perfect success of schools. And not only does the section suffer the consequent temporary injury, but a loss of credit which must permanently affect its interests both pecuniary and educational.

Is there no remedy for this? If there is, it must be in the possession of the inhabitants of the district themselves, and to such the following desultory hints are addressed:

With a view to the removal of this evil it will be necessary to ascertain its causes in each particular instance. Perhaps it may be the result of outside interference, official or otherwise. For example, there is sometimes an unwarrantable exercise of the arbitrary power vested (perhaps unwisely) in the Superintendent for the purpose of attaining some personal end, or gratifying some personal pique, against a certain section or an individual thereof. To meet such a case, requires the united action of all the well-disposed in the Section, and a commendable "pride in the interest of the section will effect much in this direction. The section must be allowed to manage its own affairs in its own way," subject to such higher law, as it is incumbent on all sections to submit to. This kind of "popular sovereignty" if it should fail to prevent all impertinent interference from without will, at least, make it less feared, and afford one bond of union promotive of harmony within.

If the evil originates in the section, whatever may be the especial cause, no effort should be spared on the part of those interested to effect its removal. If the interests of particular individuals have been wantonly disregarded, or warred against in the past acts of the sections, in employing or refusing to employ certain teachers, in arranging the school terms, or in any other respect, a change of policy must be made; for in a matter of such vital importance, it is not worth while to insist on minor points, if thereby serious offence be given to any, or the efficiency or usefulness of the school be in the least degree impaired. The *Public School* is not for one, but for all. Except in rare cases, a spirit of prudent concession on the part of those having control of the matter will go far toward conciliating the remainder, and without any sacrifice of principle or utility either. Very much may be effected if there is an honest desire to promote the best interests of the whole district and such desire is properly made apparent.

But it occasionally happens that the whole trouble arises from the *natural* and *unprovoked* perverseness of one or more in the section who, if they cannot have their own way in everything that is done, are determined to throw obstacles in the way of measures instituted or proposed by others, whether right or wrong. Their wants, too, are exceedingly capricious so that whatever course may be taken by the section, they are never willing to be suited. Though it may be impossible to remove this difficulty entirely, in some cases, a detetmined, yet moderate course will tend to diminish, if not counteract successfully its most obvious ill effects.

The first duty is to cultivate and sustain a lively interest in the subject of *Public Schools* in general, and your own in particular. Let all your communications on the subject, especially with the apathetic and faint-heart-

ed, be of such a nature as to conduce to this end. In a community deeply interested in the success of schools, all concessions necessary to such success will be readily obtained, and individual preferences readily sacrificed to the general good. Such an interest will tend to harmonize conflicting opinion, and to unite all in the one purpose of securing at whatever cost, the greatest good of the whole section. But if all *cannot* readily be thus united, avoid extreme measures, and such as would tend to exasperate, and do not forget to exercise charity and forbearance towards all. Things may not be as bad as they seem. Impartial investigation may show that motives have been misunderstood or misrepresented. Liberal concessions, such as will seriously harm no one, may conciliate the disaffected, and restore harmony to the section. But if there should still be manifest in certain quarters, a dogged opposition to proper and just measures, and a persistent refusal to acquiesce without interminable grumbling, an independent course without special reference to the resultant, is the only one for the district to pursue. If all *cannot* be accommodated, come as near that mark as will be consistent with the maintainance of a good and efficient school, "Be sure you are right then go ahead." Attend properly to school matters lest the schemes of the evil disposed prevail and thwart you at times when you can ill afford the time and labor required to set things to rights again. Attend all the school and section meetings. Get good officers, and while you are selecting such as are individually competent and proper, endeavor to get such as can act harmoniously in their official capacity. Nor will your duty end here, for your influence, if properly exercised, will tell in the policy of any board of trustees not entirely wrapped up in their own conceits, and such are not fit for the place; for though they are clothed with considerable discretionary powers, they are still but servants to execute the will of the people in the section. They should ever be mindful of this, and while they exercise their somewhat arbitrary powers, they should not lose sight of the fact that the responsibility is ever in proportion to the extent of power.

If the trustees can act as a unit, and they are sustained by a fair proportion of the inhabitants, wonders may be accomplished in the way of surmounting difficulties and removing obstacles, if the will is there. Encourage no unpleasant distinctions. Consult the interest of all; but if some must be disappointed, avoid giving unnecessary offence by any act that would aggravate the feeling of dissatisfaction. *Procure* as good teachers as the circumstances will permit, teachers for the whole section and such as will not be obnoxious to any, if such can be obtained, and when such have been procured, stand by and sustain them. Encourage no partiality on their part towards parents or children either in or out of school. Watch over their schools, give them advice and counsel and encouragement, bnt do not interfere in the management of the school, unless it is evidently necessary for you to do so, and then no further than is necessary. Visit the schools and encourage others to do so. Thus only will you be prepared to judge correctly of their character and peculiarities. No Board of Trustees having the interest of the Section at heart will forget that everything tending to promote harmony, and a community of feeling in the district on the subject of schools, is worth seeking after, and they will govern their actions accordingly. Perfect success can be attained only where there is perfect harmony, and the nearer the approach to the latter the more confidently may we look for the former. Whatever sacrifice may be necessary to attain this desideratum, if successful, it can hardly be too great for the recompense which it will be sure to bring. We have, however, not written this rambling article to point out all the "ways and means," but to induce

thought and action on the part of some who may be looking to reform in something nearly beyond their reach as a remedy for existing evils, while they lose sight of causes which lie at their own doors, and are therefore more immediately approachable.

READING AS AN ART.

BY RICHARD LEWIS, TORONTO.

Paper VI.

It would be a truism to say that it is impossible to read well what we do not understand. Of course every man who reads in the pulpit or on the lecture platform, believes he understands what he reads. The clergyman reads his hymns, his scripture lessons, and, if written, his sermon, with the full consciousness that he understands it, the whole matter, and, that if he pronounces the words according to the "authorities;" he has spoken well, and the public lecturer or speaker holds the same faith. The actor—that is, the *true* actor—is an exception to this universal rule. He STUDIES his part. His ear is as fastidious as that of the skillful and sensitive musician. He measures the power and sounds the depth, and meditates on the nature of every thought and utterance, which is to pass his lips; and then he attunes his voice to the nature of the thought and the force and import of the words, until his voice becomes the interpreter and echo of the sentiment and passion which he is to speak. And none of this is guess work, but art, judgment, taste, and conception, guided by science. A true actor would never be guilty of the rashness of simply committing his parts to memory, and then giving them to the public without the thoughtful analytical preparation for their just delivery. Yet this is the universal custom of all who have to speak to the public—outside of the theatre. The chapter and hymn are selected, the lecture or sermon is prepared; and if read loud enough to be heard the business is supposed to be completed. It is true that the author has often the advantage of delivering the thought and conceptions of genius, while the orator is limited to his own productions; but the preacher has always the Bible, with its sublime thoughts or its simple and natural narratives and dialogues; and often the sacred lyrics of his church, many of which abound in grand and beautiful thoughts. Yet, because he has never *studied the delivery* of sacred compositions, as the actor studies his part, the congregation listens to the divine inspirations of the Bible, or the poetry of religion, with listless indifference, while the audiences of the theatre, are awakened to excitement and roused to enthusiasm, by the delivery of secular poetry and the drama. As it has been more than once suggested in these papers, the reform must begin in the Public Schools of the country. The defects of manhood are often too deep-rooted to be changed. The bad delivery of public men, whether of the Scriptures or of their own compositions, does not arise from any want of earnestness, or ignorance of their subject, but from excessively bad habits, begun at home and confirmed in the school and in society. But the evil will not be removed until our public teachers have received the ear and voice culture for guiding their pupils in expressive reading and speech, which is now demanded in the study of grammar or the mathematics.

As the principles which make Reading an Art have been suggested in previous papers, let us now indicate the method of studying a selection for correct and expres-

sive delivery. It is difficult to find in our Canadian school books an appropriate selection. We have no authorized reading book especially adaped for the aims of a higher elocution. Such a book must contain selections from the works of fiction and poetry, and above all, from the great dramatic creations of our literature. These, and especially the last, demand analytical power and conception for true delivery, and give exercise to the mental faculties of the student of the highest order and importance. The study of poetry for reading calls into play the imaginative faculties, and cultivates that spirit of poetry which is implanted in every human being, but which is crushed out, as much by our unimaginative system of education as by the selfishness and hardships of real life. The reading of dramatic poetry has a special value in the incessant changes of character, thought, and passion, which mark its creations and its dialogues. The true reader of dramatic poetry transfers himself into another life and other beings; casters out their deepest sympathies, and makes them his own; and in this sympathy with humanity, strengthens the best emotions of his own nature and develops all the higher faculties of his mind. Such a book should also contain the best selection that the eloquence of the pulpit or the platform can provide—as preparations for the public life on which many of our pupils may afterwards enter. The true study of passages for reading demands a knowledge of the whole subject under consideration. There must not only be the subjects of the thought and of the construction of the sentence; the student must not only understand the "dictionary meaning" of every word; but he must have a full conception of the special thought or passion he is going to read, in relation with all the other thoughts and passions, related to it in the entire composition; and whether it be oratory or poetry, or the drama—all the circumstance related to that special production must be clear and familiar to his mind, to make his reading truthful and powerful.

Let us take then as an illustration of all these conditions, "Hamlet's soliloquy on Death," 5th Reader, page 488. Have many of my readers been made familiar in their school education with the history and character of this great tragedy? For it is impossible to read this brief extract with truthfulness, without that knowledge. Hamlet, a prince of noble and honorable character, animated by the highest sentiment of filial piety, with a pure and chaste mind, has seen his royal father suddenly and unaccountably cut off, with evidences pressing on his judgment that his uncle, the reigning king, is his father's murderer, and yet two months after that father's death, his mother marries the suspected uncle and lives, in his pure conception, an adulterous queen, wedded to the murderer of her husband and his father. His whole moral sense is perplexed and overwhelmed, and he lives only for vengeance and justice. But he is a type of the men of thought as contrasted with the men of action. "The craven scruples on thinking too precisely on the event." He has no clear evidences of his uncle's guilt, although his father's spirit has visited him and revealed the murder. In every form he finds excuses for his inertness, and yet urged by filial obligation, and horror for the crime, and the shame, which have blasted his life, he has no peace. Thus he contemplates suicide—and in this spirit he utters the soliloquy, "To be—or *not* to be;—that—is the question." In reading the word "be," the voice takes the rising, while "not" receives the falling inflection. The expressions are antithetical, and all antithetical forms must have contrary inflections. But besides the just inflection—the deep import of the momentous question demands a solemn, meditative, unimpassioned, but not unfervent tone of voice, trembling with feeling as "be"

passes the lips. "That," in this instance becomes a word of power, as if the mind dwelt in solemn consideration on *all* it represented; hence it receives the falling inflection and a longer time for its utterance; "question" takes a rising inflection as in the delivery of the sentence there is an inference that there is no other question like this; whilst it also refers to the clauses that follow ending at "there" which form an interpretation of the nature of that question. The principal terms of these succeeding clauses are "to suffer," "to take arms," in contrast, and finally "end there." In uttering the words "The stings and arrows of outraged fortune," the speaker sympathizing with Hamlet in his heavy perplexities, and also from his own consciousness and experiences of human life, naturally gives to his delivery the tremulous tones of mournful feeling; but instantly changes to tones of mingled defiance and despair as he approaches the dread alternative of suicide.

"To die,—to sleep,—no more."

The marked inflections on these words indicate the method of delivery. But we must now again enter into the state of Hamlet's mind before we can give the truthful delivery. He is a devout christian; but his faith in God and virtue has been shaken by the crimes and sins that darken his moral vision. Faith for a moment is shattered, and he reasons as a materialist.

It is, as if he said—"To die—what is it?

Let us consider; it is—to sleep; that is the

grand solution. No more—nothing more than that. End life and its woes with suicide, and there is blessed relief and nothing beyond." Then in that momentary relief which a gloomy skepticism seems to give, he rushes at the conclusion that "to end the heart ache, and the thousand natural shocks that flesh is heir to—is a consummation devoutly to be wished." In the utterance of these words the reader who sympathizes with Hamlet—and who does not?—who has felt "the heart ache and the thousand natural shocks which flesh is heir to," will again involuntarily garb his tones with the tremor of deep feeling which sounds like a wail of sorrow, until it reaches "the consummation devoutly to be wished." These words, too, are full of expression,—exultant and defiant,—but as men recklessly and contrary to their solemn convictions. The inflection also of "heir-to" is rising; as this is the climax of the thought—referential to—and dependent on what follows.

But now the mind recovers its strength. Reason and Faith assume their sway. The darkness of skepticism passes away and the grand responsibilities of humanity—and its destinies flood back upon his soul. He reconsiders the matter.

To die,—to sleep.

A world of thought and solemnity will naturally be thrown into that "to *die*,"—the voice taking a waving tone, dwelling on the word as if it could never cease weighing its vast import, and ending with the falling inflection. With the same measured solemnity and inflection is the "to sleep," re-considered and delivered. Then flashes on the mind the terrible reality, and in that re-action Hamlet utters the second "to sleep," with startling awakedness pervaded by terror, as the revelation rushes over his mind that that sleep is a dream—an *everlasting* dream—full of dark and dreadful realities, or bright with its gloriou visions of unfading peace. "To sleep" and "to dream" are antithetical, and while "to sleep" has a rising inflection of considerable compass expressive of terror and inquiry—"to dream," with still greater force sweeps along with the full downward inflection which expresses conviction.

Ay *there's* the rub.

"There" is powerful in expression, and is marked for the emphasis of feeling; while the rising inflection given to "rub," indicates by such intonation all the doubt and darkness attached to the ever... ing dream.

For in that sleep of *death*—what dreams may come,
When we have shuffled off this mortal coil
Must give us—*pause*; there's the respect,
That makes *calamity*—of so long life;

There is nothing special in the management of this passage, saving that it demands solemnity of tone, slowness of movement, and force according to the marks. "Calamity" will, however, be again an expression of the state of Hamlet's mind and receive its tones of tremor and wailing pathos.

But Hamlet is thoroughly human—no creation of Shakspeare is more a type of a man in his sorrows and ever wavering purposes—his high resolves, but utter failures—and it is these human characteristics that have made the tragedy one of such profound interest to all who have ever read or beheld it. When he commences the words—"For who would bear the whips and scorns of time, &c.;" it is with the bursting indignation with which men repel injustice. There is a defiance in the utterance of the starting interrogative, "who,"—while hatred of the "oppressor's wrong," merges into scorn and contempt for "the proud man's contumely," yet in "the pangs of disprized (or despised) love," no doubt Hamlet thinks of the unhappy Ophelia "——— of ladies most deject and wretched. That suck'd the honey of his matin vows;" and whose love he had classed with "all trivial, fond records," and flung away that he might devote himself utterly to vengeance. The tone of indignant repulsion of wrong will be sustained, until the question which is a summary of antecedents is reached; and then a deep solemnity again governs the delivery. In the passage "To *grunt* and scream, &c.," no standard reader ever uses *that* word. It is in the text; but when the Council of Instruction revises the book, let them for decency's sake, change the word to *groan*.

In uttering the words,

But that the dread of something AFTER death,
The undiscovered country,—from whose bourne
No traveller returns—puzzles the will,

The voice becomes deep and solemn. Special emphasis must be given to "after"—for it is not death—but the dark "after" that fills his, as it fills all reflecting minds with awe. The voice grows in intensity and grandeur of tone and depth as it utters the appositive line that follows—and reaches its climax on "no traveller returns." Great care must also be shewn in connecting by similar pitch and tone the subject of the sentence "the dread" and its attribute of "of something after death," with the predicate "puzzles the will." All that is necessary to sustain this emphatic tie, is that the subject and predicate shall be delivered in a higher and in the same pitch of voice. In the delivery of two succeeding lines, the second one in harmony with the law, which suggests that all thought expressive of fear and doubt should be uttered in deeper tones will be read slower and lower than the first. "Have" and "others" are contrasted and received greater force to distinguish them.

Finally comes the consequence, the cause too, why Hamlet and all of us dare not, even with skeptical creed on the lip, rush recklessly to meet that dreaded after life.

"Thus *conscience* does make cowards of us all." "Conscience" here receives marked force, but a rising inflection to indicate its reference to the predicate that follows; but as "cowards" is a new form of thought, representative of all that makes us fear self-destruction, and expressive at once of our weakness and blindness it receives the em-

phasis of feeling, while "all" receives a certain force to indicate that none are exempt from this universaal dread.

This analysis of this solemn soliloquy may serve to indicate how any passage of equal or superior meaning, has to be studied before justice can be done to its thoughts and lessons. The analysis may appear too elaborate and critical. It is well, however, to assure the student, that when these habits of examining passages are cultivated, the power of seeing the "point" as it is called of a thought becomes a sort of instinct. The mind no doubt weighs every passage and word of other compositions, as an endeavor has been made to analyze this passage; but the habit of doing this frequently, as in fact, it ought to be *always* done when reading, for the sake of reading, would soon give the necessary facility. A practised reader finds no great difficulty in discovering the *point* of a thought, and in applying the principles of a correct elocution to its delivery. It only appears difficult, when there has been no previous culture.

In concluding this series of papers, I again urge the importance of commencing at the fountain head. Vocal culture forms the preparative step and it may commence with the lowest classes just beginning to learn to read. There must be the flexible and expressive voice for the truthful utterance of thought and feeling. All the elements of power and success are there before the teacher. It is true, he will have to battle with outside influences; but fidelity to a scientific method of vocal culture, and perseverance in its practiee, will produce as great results in reading as in music culture. Childhood is one fountain head. The other lies in the Normal Schools of the country, and when these shall make daily and scientific practice on *Reading as an Art*, a part of the Teachers' studies, and success as a Reader a high qualification in his certificate, Elocution will become the rule and not the rare exception; and whether in the common intercourse of family and social life, or the pulpit, or the platform, which instructs and elevates the people, the expressive delivery of speech will form one of the established charms of civilized life.

EXAMINATION FOR FIRST-CLASS CERTIFICATES, NORMAL SCHOOL FOR ONTARIO, DECEMBER 1874.

SOLUTIONS TO QUESTIONS, BY J. C. GLASHAN, ESQ.

ALGEBRA.

1. Show now to find (when possible) the square root of $x+\sqrt{y}$ in the form $\sqrt{a}+\sqrt{b}$, where x, y, a, and b, are rational. Extract the square root of $2\frac{1}{4}-\sqrt{5}$.

Book-work. $\frac{1}{2}\sqrt{5}-1$.

2. A, B, and C are in Harmonical Progression; A, 4B, and 9C, in Arithmetical Progression; and if a series in Geometrical Progression be formed, having A for its first term, and C for its common ratio, the sum of this series continued to infinity shall be 3B. Find A, B, and C.

$$A : C :: A-B : B-C \quad - \quad - \quad - \quad \text{(i)}.$$
$$A-4B = 4B-9C \quad - \quad - \quad - \quad - \quad \text{(ii)}.$$
$$3B = \frac{A}{1-C} \quad - \quad - \quad - \quad \text{(iii)}.$$

From (i) $2A-B : A-B :: B : B-C$

(ii) $A+B = 9(B-C)$

$\therefore 2A-B : 3(A-B) :: 3B : A+B$

$\therefore A-2B : 3(A-B :: A-2B : A+B$

$\therefore A-2B = 0$ or $3(A-B) = A+B$

$\therefore A = 2B, = 3C$

Substituting in (iii) $A=1$, $B=\frac{1}{2}$, $C=\frac{1}{3}$.

3. Given $\frac{1-ax}{1+ax}\sqrt{\left(\frac{1+bx}{1-bx}\right)} = 1$. Find x.

$$\frac{1+bx}{1-bx} = \frac{1+2ax+a^2x^2}{1-2ax+a^2x^2}$$

$$\therefore b = \frac{2a}{1+a^2x^2} \text{ or } x=0$$

$$\therefore x = \frac{\pm\sqrt{(2ab-b^2)}}{ab} \text{ or } x=0.$$

4. P and Q are two watches, each of which is going uniformly. When the hour and minute hands of P are together between 3 and 4 o'clock a.m., P's time is ahead of Q's by 12 m minutes; but when the hour and minute hands of Q, which has not yet overtaken P, are together between 3 and 4 o,clock p.m. of the same day, P's time is ahead of Q's by only 5 m minutes. The watches indicate midnight together. Find m.

(The hour and minute hands of a watch are together when the watch marks $16\frac{4}{11}$ mins. past 3 hours or $523\frac{7}{11}$ minutes from the next 12 o'clock.)

$\therefore$ While P's minute hand swept over 720 + $5m$ minute spaces, Q's swept over $720+12m$.

$\therefore$ While P's minute hand swept over $523\frac{7}{11}-5m$ minute spaces, Q's swept over $523\frac{7}{11}$.

Their rates of motion were uniform

$$\therefore 720+5m : 523\tfrac{7}{11}-5m :: 720+12m : 523\tfrac{7}{11}$$

$$\therefore 7m : 720+12m :: 5m : 523\tfrac{7}{11}$$

$$\therefore m=1\tfrac{1}{11}.$$

5. Find all the roots of the equation, $2(1+x^4)=(1+x)^4$.

$$\therefore (x-1)^4=12x^2$$

$$\therefore x=\tfrac{1}{2}(1\pm\sqrt{3})(2\pm\sqrt[4]{12}).$$

6. A, B, C, and D, are four stations, taken in order, on a railway line; the distance A B being 11 miles; B C, 14 miles; and C D, 20 miles. A train leaves A for D; and 25 minutes afterwards, a train starts from D for A; each proceeding at a uniform rate. Had they gone on without stopping, they would have met at C; but, as the first train is delayed for some time at B, they pass one another (the second making no stoppage at C) half way between B and C. At this point, the train which is proceeding to D increases its rate by 3 miles in the hour, while that which is proceeding to A diminishes its rate by 2 miles in the hour. Making no further stoppages, they reach D and A respectively at the same time. Find how long the first train stopped at B.

The first train is delayed while the second runs $\frac{1}{2}$BC = 7 miles.

Let R and r be their rates in miles per hour

$$\frac{25}{R}=\frac{5}{12}+\frac{20}{r} \quad \therefore \quad \frac{5}{R}=\frac{1}{12}+\frac{4}{r}$$

$$\frac{27}{R+3}=\frac{18}{r-2} \quad \therefore \quad \frac{3}{R}=\frac{2}{r-4}$$

$$\therefore r=12$$

At one hour for 12 miles requires 35 minutes for 7 miles.

7. If $q-n$ be a mean proportional between $p-m$ and $mq-np$, prove that the expressions, x^2+mx+n, and x^2+px+q, have a common measure.

1° If $q=n$ $\therefore$ $p=m$ and the expressions are identical, and consequently the proposition will be true.

2° If q be not equal to n

$$\therefore \quad x+\frac{q-n}{p-m} = x+\frac{mq-np}{q-n}$$

$\therefore$ the quantities $(p-m)x+(q-n)$ and $(q-n)x+(mq-np)$ will have a common measure linear in x

$\therefore$ n times the former added to x times the latter and the sum divided by $q-n$ (which is independent of x and therefore *prime* to the common measure) will contain the common measure, but this quantic is x^2+mx+n.

Similarly q times the former added to x times the latter of the above quantics and the sum divided by q—n will give a quantic containing the common measures of the quantics, but this is x^2+px+q.

$\therefore$ if q—n be a mean proportional, &c.

8. A and B run a race of 4 miles. A's rate is, for the first mile, r_1; for the second, r_2; for the third, r_3; for the fourth, r_4. B's rate is, for the first mile, R ; for the second, R_2; for the third, R_3; for the fourth, R_4. If the expressions,

$$r_1, R_1, R_2, r_2, r_3, R_3, R_4, r_4,$$

be in Geometrical progression, the common ratio being less than 1, inquire who wins the race.

Lemma I. Reciprocals of the terms of a geometrical progression are themselves in geometrical progression. Lemma II. If any four equidistant terms of a geometrical progression be taken, the sum of the 1° and 4° is greater or less than that of the 2_0 and 3° according as the common ratio of the selected terms is positive or negative.

Since the "spaces of uniform rate" are

equal, the times of description will be as the reciprocals of the rates; therefore, B runs the first two miles in less time than A does, also he runs the last two miles in less time than A runs them; therefore, B wins the race.

9. Given, $x+xy+xy^2=6$, - - - (i.)
and $x^2+x^2y^2+x^2y^4=84$. - (ii).
Find x and y.

$$(i)^2 \div (ii), \quad \frac{1+y+y^2}{1-y+y^2}=\frac{3}{7}$$

$$\therefore \quad \frac{1+2y+y^2}{1-2y+y^2}=\frac{9-7}{21-3}=\frac{1}{9}$$

$$\therefore \quad \frac{1+y}{1-y}=\pm\frac{1}{3}$$

$$\therefore \quad y=-1 \text{ or } -\tfrac{1}{2}$$
$$x=\ \ 2 \text{ or } \ \ 8.$$

Notes.

4. The $12m$ minutes is in Q's time, the $5m$ minutes is in P's time.

7. Note the difference between the proposition and "If the expressions x^2+mx+n and x^2+px+q have a common measure, then $q-n$ will be a mean proportional between $p-m$ and $mq-np$." One proof of the latter proposition runs thus,—

If these expressions have a common measure it will measure their difference, or $(p-m)x+(q-n)$

It will also measure q times the former less n times the latter, or $(q-n)x^2+(mq-np)x$

$\therefore$ it will measure $(q-n)x+(mq-np)$

$\therefore$ it will measure $(q-n)$ times the former of these, less $(p-m)$ times the latter or $(q-n)^2-(p-m)(mq-np)$.

But this expression does not contain x while if the original expressions have a common measure, it will contain x, and also as just stated will measure $(q-n)^2-(p-m)(mq-np)$

$\therefore (q-n^2)-(p-m)(mq-np)$ must $=0$,
$\therefore q-n$ will be, &c.

It will be seen the above is merely proceeding by the method for finding the G. C. M. until a remainder is found no longer containing x (this remainder is called *the resultant*), and then equating this remainder to zero.

If the given expressions rise above the second degree the method for the G. C. M. is extremely laborious, and besides frequently introduces extraneous factors. Recourse should then be had either to Bezout's method or to Sylvester's method, neither requiring more than the solution of linear equations.

(Let any of our readers try the method for the G. C. M. on three quantics of the form $ax^2+bxy+cy^2+dy+e+fx$.)

8. Let the reader satisfy himself of the following:

A runs the second and third miles in less time than B runs them.

During the first mile A gains on B and passes the first mile-post first.

During the second mile, B gains on A and passes the second mile-post first.

During the third mile, A gains on B, *but B passes the third mile post first.*

During the fourth mile B wears away from A, and wins the race.

On what condition could they have been at the third mile-post together;—on what condition could A have been at it before B? (Describe the race on the latter condition.)

EXAMINATION QUESTIONS.

NORMAL SCHOOL FOR ONTARIO, DECEMBER 1874, FOR FIRST CLASS CERTIFICATES.

ENGLISH GRAMMAR AND ETYMOLOGY.

"*Verse*, a breeze mid blossoms straying,
Where Hope clung *feeding*, *like* a *bee*—
Both were *mine!* Life went *a-maying*
With Nature, Hope and Poesy.
5. When I was young!
When I was young?—Ah, *woful when!*
Ah for the change 'twixt *now* and then!
This breathing *house* not built with hands,
This body that does me grevious wrong,
10 O'er aery cliffs and glittering sands,
How lightly then *it* flashed along,
Like those trim *skiffs*, unknown of yore,
On winding lakes and rivers wide,
That ask no aid of sail or oar,

15 That fear no spite of wind or tide!
Nought cared this body for wind or weather
When youth and I lived in't together."
—*Coleridge*

1. Parse the seventeen words in Italics.

2. Divide the extract into propositions, state their kind and connection, and fully analyze the first five.

3. Define any five figures of speech that may be found in the extract, and point out where they occur.

4. Explain the allusion in line 9, and in line 12, and the meaning of line 1, of 'both' in line 3, and of the interrogation mark in line 6.

5. Write a brief account of the life of Coleridge, and explain how he came to apply the epithet 'winding' to 'lakes' in line 13.

6. Give the derivation of 'verse,' 'May,' 'nature,' 'poesy,' 'change,' 'then,' 'lake,' 'river,' 'nought,' and 'care,' tracing the history of the meaning where you can.

7. Correct any grammatical errors contained in these sentences, showing in each case what rule of syntax has been violated:—

"Just to thy word, in ev'ry thought sincere,
Who knew no wish but what the world might hear.'

"There are many faults in spelling which neither analogy nor punctuation justify."

"If he understands his work and attends to it, he will succeed."

"Several alterations and additions have been made to the paper."

8. Lay down the rules to be observed in using the comma, the semicolon, the colon, the period, the mark of exclamation, the dash, and the parenthesis.

9. Give a full account of the different constructions of the form of the verb which end in 'ing,' discuss the correctness of the following expressions, and parse the words in Italics where you consider the form of the expression correct.

"My *being* here it is, that holds thee hence."—*Shakespeare.*

"The very chin was, modestly *speaking*, as long as my whole face."—*Addison.*

"The steamboats commenced *running* on Saturday."—*Newspaper.*

"I remember *meeting* him."

"They left *beating* of Paul.—*Acts* xxi. 32.

"*Lady Macbeth walking* in her sleep *is* an *incident* full of tragic horror."

"What do you think of my horse's *running* to-day?"

"*His teaching children* was necessary."

EUCLID.

1. If two angles of a triangle be equal to one another, the sides also which subtend or are opposite to, the equal angles, shall be equal to one another.

2. From a given circle to cut off a segment containing an angle equal to a given rectilineal angle.

3. Triangles of the same altitude are to one another as their bases.

4. Parallelograms which are equiangular to one another, have to one another the ratio which is compounded of the ratios of their sides.

5. Parallelograms about the diameter of any parallelogram are similar to one another.

6. It is required to bisect a given triangle by a straight line drawn parallel to the base.

7. ABCDE is a regular pentagon; and AD, BE, intersect at O; show that a side of the pentagon is a mean proportional between AO and AD.

8. Let AB be a diameter of the circle described around the triangle ACB; and let CD be the chord of the circle bisecting the angle ACB. Prove that CD is equal to the sum of the perpendiculars let fall upon it from the points A and B.

BOTANY AND AGRICULTURE:

1. Give a botanical description of the Pine Family, and name the species which occur in Canada.

2. To what family does the following description apply?

"Herbs with a 2-lipped more or less irregular monopetalous corrolla, and four stamens in pairs (2 long and 2 short,) or only 2 perfect stamens; rarely all five present; style 1—the ovary 2-celled, and making a many-seeded pod (few-seeded in some Speed-wells and Cow-wheat.) Flowers often showy. Two lobes always belong to the upper lip, three to the lower.

3. Draw a raceme, a corymb, a stipulate auricled truncate leaf, and a palmately compound leaf.

4. Describe fully how the plant receives and assimilates its food, and explain how the sap is conveyed from one part of the plant to the other.

5. Refer the following plants to the

families to which they belong, and give an account of the best modes of cultivating them :—

(i) Barley.
(ii) Parsnips.
(iii) Flax and
(iv.) Clover.

6. Enumerate the injurious effects arising from the destruction of the forests, and suggest means by which they may be obviated.

7. What is the chemical composition of pure clay, pure lime, and pure sand?

GEOGRAPHY.

2. Mention the leading characteristics of (a) Cranitic, (b) Trappean, (c) Conglomerate Rocks.

2. Show by examples the principal agencies which modify the configuration of the land.

3. State the general Laws of Motion, and apply them to explain the curvilinear motion of the planets.

4. Describe the physical features of Eastern Asia.

5. Sketch a map of the Province of Ontario, exhibiting its chief lake and river systems.

6. Mention the chief causes which occasion the difference in the annual rainfall of different regions. What districts are rainless, and why?

7. Describe the course of the Ohio, the Rhone, and the Indus, naming their chief affluents, and the cities on their banks.

8. Enumerate the extra-European possessions.

9. Define, as closely as you can, the position of the following, and state for what each is noted: Archangel, Liege, Singapore, Adelaide, Lahore, Palermo, Cayenne, Valetta, New Caledonia.

10. State what you know of the geographical distribution of gold, coal, and iron, in the Dominion of Canada.

ENGLISH LITERATURE.

Note.—The third question has not been taken into account in determining the maximum value of the paper, but candidates who answer it will receive credit for it.

1. Give a full account of the life and literary career of Shakespeare and of Macaulay, and point out any evidence afforded by their writings of the influence which the times in which they lived and the circumstances by which they were surrounded, exerted over them.

2. Name the authors of the following works, and give an account of the plan of any one of them:—"The Areopagitica," "The Dunciad," "Tom Jones," "Love's Labor Lost," "Childe Harold," "The Canterbury Tales," "Hyperion," and "Marmion."

3.

"Cyriac, this three years' day these eyes, though clear,
To outward view, of blemish or of spot,
Bereft of light their seeing have forgot,
Nor to their idle orbs doth sight appear
Of sun, or moon, or star throughout the year,
Of man, or woman. Yet I argue not
Against Heaven's hand or will, nor bate a jot
Of heart or hope; but still bear up and steer
Right onward. What supports me, dost thou ask?
The conscience, friend, to have lost them overplied
In liberty's defence, my noble task,
Of which all Europe talks from side to side.
This thought might lead me through the world's vain mask
Content, though blind, had I no better guide."

(i) Name the author.

(ii) State the characteristics of the peculiar poetical form of which the poem quoted is an example, and name the principal English authors who have successfully written this kind of poetry.

(iii) Explain the allusion in lines 10—12, and that in the words "better guide" in the last line.

PHYSICS.

1. What is the cause of the depression of temperature, or the production of artificial cold by dissolving saltpetre in water; and how can the liquefaction of snow or ice by strewing salt upon it, be reconciled with the circumstance that the cold resulting from the contact of these bodies, is considerably below the freezing point of water?

2. In fixing the boiling point in graduating a thermometer, explain why it is needful to take account of the purity of the barometer; also whether it is needful to take account of the purity of the water, or whether spring water will do.

3. Define the co efficient of expansion for a liquid. A solid body has a specific quantity of ·96 compared with water at its maximum density; at what temperature will it just sink in water taking the mean co-efficient of expansion of water at $\frac{1}{2000}$ for 1° C, and neglecting the expansion of the solid.

4. What is understood by the capacity of a body for heat? Describe some method of measuring this capacity. If a pound of mercury at 100° C. be mixed with a pound of water at 15° C., what will be the temperature of the mixture.

6. If a beam of the sun's rays be refracted through a glass prism, in what part of the Spectrum (defined by the color) will the effect be greatest, (1) upon a thermometer, (2) upon a piece of paper coated with chloride of silver?

6. The focal length of a convex spherical mirror is 6 inches, find the nature, magnitude, and position of the image when the object is 3 inches from the mirror.

7. If the rays from a candle are incident on a common looking glass in an oblique direction, one faint image is observed before the principal image, and a row behind it diminishing rapidly in brightness – explain this.

8. When you wish to charge a Leyden jar, do you place it on an insulating stool? If not why is this objectionable? How are Leyden jars combined to form an electric battery.

9. A Leyden jar with moveable coatings is charged with electricity; the coatings being thus removed with proper precautions no electric charge is discovered in them; how is this explained, and what is the use of the two metallic coatings of the Leyden jar.

10. If copper remains immersed in sea-water, as for instance when applied as a coating to a ship's bottom, it speedily becomes corroded; can you name any metals which, if pieces of them are fixed upon the copper will protect its surface in their neighborhood from corrosion by the salt water? Give a full explanation of the cause of the protective action which they exert, and describe an instance in which a corresponding effect to that above named is more rapidly produced.

CHEMISTRY.

1. In what important properties does the product of the combustion of sulphur in oxygen differ from that obtained by burning potassium in oxygen? What are the names and symbols of the two products? By what tests can you most readily distinguish them?

2. Two specimens of water which, when evaporated, furnish equal weights of solid matter, are boiled for a short time; it is found that the interior of the vessel containing one specimen is coated with a deposit, while no such result is obtained from the other; of what may the deposit in question be composed? Why is it formed on boiling water? Could its production be prevented? Of what may the solid matter in the second specimen consist?

3. Pure hydrogen gas is passed over a known quanity of heated oxide; the product of the resulting reaction is carried by the excess of gas into a tube filled with dry calcium chloride, and accurately weighed; this tube is found at the close of the experiment to have increased in weight 1·6 grammes; state to what this increase is due; give the quantity of copper oxide employed in the experiment, and the number of litres of hydrogen which have been involved in the chemical change.

4. By heating Coal in a retort, a mixture of the following gasses is obtained—olefiant gas, light carburetted hydrogen, carbonic oxide, carbonic acid, hydrogen, hydrogen sulphide, and ammonia; give the composition and a brief statement of the properties by which each of these gases is distinguished.

5. State which of the above gases are the most valuable components of the mixture, and what you regard as objectionable in its application as an illuminating agent, giving your reasons. Suggest some simple method of removing the carbonic acid, and hydrogen sulphide from the mixture.

6. Describe and explain how to prepare hydrochloric acid. State its chemical action with each of the following substances—iron, rust of iron, nitrate of silver, carbonate of ammonia.

7. State the chemical nature of the following substances, and the changes effected in the common modes of producing them—quick lime, plaster of Paris, red lead, chloride of lime, glass, soap.

8. By what test may magnesia, lime and baryta be distinguished from one another?

9. Write down the formula for potassium

chlorate. Describe its preparation, explaining also the preparation of each of the substances used.

ZOOLOGY.

1. Give the names and distinguishing characteristics of the sub-kingdoms adopted by modern zoologists.

2. Contrast Bimana and Quadrumana physically and psychically.

3. Give an account of the life-history of a Tape-worm.

4. Define class and order, and refer each of the following animals to the class and order to which it belongs:—The Ostrich, the Rabbit, the Crab, the Tape-worm and the Frog.

5. If you were to discover a new marine mammal how would you determine to what order it should be referred?

PHYSIOLOGY.

1. Tell what you know about (*i*) the constituent parts of blood, (*ii*) Its quantity, (*iii*) Its chemical composition, and (*iv*) the sources of loss and gain to the blood.

2. Describe fully the structure, parts, connections, and actions of the heart, and explain how the supply of blood to the different parts of the system is regulated.

3. Describe the position of the spinal cord, explain its functions, and give the names of the two sets of nerves and nerve-centres which exist in the body.

4. Tell what you know about the structure and nourishment of bones.

EDUCATION.

1. What is comprehended in the expression " A well educated person "?

2. Show the importance to the Teacher of some knowledge of the law of thought; and state what methods you would adopt to cultivate the thinking powers of your pupils.

3. Upon what foundations may the obedience of children be most securely based, and what expedients would you employ to secure it?

4. Describe (*a*) Elliptical, (*b*) Socratic, (*c*) Simultaneous Questioning; and point out the advantages and dangers of each

5. How would you organize a rural school of 50 pupils assembled for the first time?

6. How would you deal with the following cases:

(*a*) Inattention has become habitual in a class. (*b*) A boy's spirit has been crushed by undue severity at home. (*c*) The girls are boisterous and rude?

7. How may the conscience of young children be trained?

8. Give notes of a lesson to the school on "Truthfulness."

BOOK-KEEPING.

1. Are all the Real Accounts closed to or by Profit and Loss? Give reason for your answer.

2. Explain how the following accounts are closed: Profit and Loss, Stock, Balance.

3. Define Bill of Lading, Bonded Goods, Bill of Entry, Consignment, Manifest, Letter of Credit, Salvage.

4. Show with example how "to average an account."

5. Show how to journalize in the following cases;—When I sell goods of one sort for part goods of another sort, part cash, part bills, part credit. When I buy goods of one sort for part goods of another sort, part credit, part cash, and part bills. When I receive a legacy in houses, or lands, or goods. When I buy a bill of another for ready money and receive discount. When I sell a bill for cash and give discount. When goods bought on credit are sent to sea for my sure account. When goods are sent to sea for my Factor's account, which were formerly entered in my books. When the goods of another person are insured by me, and I receive the money, (1) presently, (2) not presently. When goods of my own that were insured are cast away at sea. When the insurance is paid to me after I have entered the circumstances in my books. When goods of my partner are brought into Company.

HISTORY.

1. What was the origin of Feudalism? Shew its connection with the Salic Law. What traces of it still in England? In Scotland? In Canada?

2. "The necessities of the Sovereign were always an opportunity for Parliament to exercise its strength." Give instances from English History to confirm this statement.

3. Who was lady Jane Grey? Describe, concisely, the attempt to place her upon the throne.

4. Give a summary of the principal events of the reign of Elizabeth.

5. (*a*) Enumerate the chief causes, proximate and remote, which led to the union of England and Scotland. (*b*) State the terms of the Union. (*c*) What have been the chief benefits to the two kingdoms respectively?

6. Write short explanatory notes on the Triennial Act, the Peace of Amiens, the Berlin decree, the battle of Victoria, the Battle of Navarino.

7. Briefly describe the close of French rule in Canada.

8. What do you mean by "the age of Pericles?"

9. Give some account of Phillip of Macedon.

10. For what were William the Silent, Gustavus Adolphus, and the Emperor Henry IV of Germany, respectively remarkable?

SCHOOL LAW.

1. What is the law of Ontario in regard to "the right of children to be educated?"

2. For what offences by the Teacher does the law impose a penalty? What is that penalty?

3. What persons are entitled to vote at a Section School meeting?

4. In what cases do Trustees incur personal pecuniary liability?

5. What is the law with regard to the right of residents and non-residents respectively, to attend the School of a Section?

6. What are the duties of Trustees with regard to the compulsory attendance of absentees?

7. How are County, City, and Town Inspectors, respectively, appointed? How may they be dismissed?

8. Specify the duties of Inspectors as to (1) apportioning and paying the School Fund; (2) suspending a Teacher's certificate.

9. With what restriction is an Inspector empowered to grant a temporary certificate?

10. What persons, inhabitants of Canada, are precluded from obtaining a certificate to teach a Public School?

11. In what cases may trustees collect a fee from parents?

12. Specify the provisions of the Act in reference to religious exercises in schools.

13. What power does a teacher possess in regard to the suspension of a pupil?

SELECTIONS.

THE SEVEN LAWS OF TEACHING.—III.

"The truth to be taught must be related to truth already known, as we can only reach the unknown through the known."

Our fourth laws takes us at once to the very centre of the teaching work. The first three laws did but define the teacher, the pupil, and language, their medium of communication. This describes that valuable possession which it is one of the chief ends of all instruction to transmit—the knowledge which the teacher seeks to give, and the pupil studies to gain. To make the unknown known; to give knowledge as a new possession to the learner; to place it as an active force in his mind; to plant it as a growing germ in his heart; to kindle it as a light in his understanding; to mingle it as a new element with his practicel purposes and principles; and thus, by its aid, to enlarge, illumine, strengthen, and discipline the soul,—this is the core of the teacher's work. All teaching converges to this; all true education demands this as one of its indispensable conditions.

Philosophy.—All teaching must begin at some point. Where can it properly begin but at the point to which the pupil's knowledge already extends? The new knowledge is but the enlargement and continuation of the old. It is the old that makes the new possible. Again, all teaching must proceed in some direction. Whitherward shall it march but to that which is as yet unknown, that it may enlarge the field of the pupil's vision and increase the amount of his knowledge? Teaching must move by some steps. How obvious that it must pro

ceed by such steps as the pupil is able to take, and that these steps must be along that natural order and pathway of intelligence in which simple facts lead to more complete facts, premises conduct to logical conclusions, and phenomena come at last to all explaining philosophy. The natural connections of truth are the necessary and easy pathway of the intelligence. Finally each step must be thoroughly conquered and comprehended before taking the next, else at the second step the pupil will be moving from unknown to unknown, and thus violate the law. Thoroughness is the essential condition of all successful teaching. Partial knowledge is only disturbed ignorance; or, worse, it is sometimes positive error. The half-known reveals nothing, and soon relapses into the unknown. The meaning of our law, then, is plain and obvious.

But there is a deep philosophy in it which will help to impress its importance. This philosophy has two answering terms or aspects: *First*, Knowledge consists not of isolated and independent fact, but of facts and relations. Facts stand in groups and classes, associated and combined by their several relations of resemblance, causation, or contiguity. Each fact is linked with many other facts; each truth with other truths, which limit, complete, or explain it. Thus knowledges are mutually illustrative. Each one leads to and explains another;—the known leads to and explains the unknown; and the unknown, when discovered reflects new light on the before-known. Every new fact or truth must be brought under the light of facts and truths already known before it will fully reveal itself and take its proper place in the ranks of knowledge. Like fresh fuel, it must be cast into the kindled fire before it will give out its light and heat. Like a new timber, it must be fitted to its place before it can lend its strength and bulk to the building. Thus, by the very nature of knowledge, we are driven to seek the unknown through the aid and avenues of the known, and must also link it to the known before it can be counted and used as knowledge. The proofs and illustrations of these truths abound everywhere, and are too common and too easily reached to require them to be cited here.

Second, The mind itself moves only along the lines of associated ideas, and attains its knowledge by a series of comparisons and judgments in which one of the terms always belongs to the known. We have no mental power by which we can gain knowledge otherwise. Even the facts which come to us by the eye, that openest of all the channels of intelligence, fall under this same condition. Any new object shown us remains strange and nondescript till we recognize in it some resemblance to some other object already known, and then we pronounce it a stone, or a flower, or whatever else the resemblance allies it to, and we know it better and better as we, by farther search, detect new resemblances. If a friend relates to us an experience or an adventure, we constantly interpret his statements and descriptions by calling to mind what, in our own experience and adventures is most like that described; and when his story runs to things utterly without likeness to all we have known, our conception refuses to follow, and we stop him to ask explanations and comparisons which may again connect our knowledge with his unknown. Tell a child something entirely novel and differing utterly from all his previous apprehension, he will struggle in vain to understand you. He asks you, in significant perplexity, "What is it like?" and gropes in the dark till he finds or fancies a resemblance or analogy between the new fact you present and some old and already familiar fact. The whole system of illustrative figures of speech—tropes, metaphors; similes, comparisons, examples, etc.—is but a graceful compliance with this fundamental law of mental action. They are but an attempt to reveal the unknown through the known.

The teacher who hopes by the mere urgency of his earnest instructions, or by the simplicity and plainness of his speech, to carry his ideas into the center of the pupils' understanding, and to rouse him to the grasp of totally new truths, without any reference to his previous knowledge, seeks to violate a law of nature as inevitable as that which forbids vision without light and hearing without sound, or the growth of seeds without soil, sunlight, warmth, or moisture.

Thoroughness has this additional philosophy to explain its importance and advantage: The mind uses only its familiar and clearest conceptions in the interpretations of new ideas. A fact or truth but partly and imperfectly known is only rarely and re-

luctantly used as a term in the judgments by which we seek to discover the character and value of new facts, and if used, it carries all of its own vagueness and imperfection into the new knowledge. A cloud left upon the lesson of yesterday flings its shadow over the lesson of to-day. On the other hand, the thoroughly mastered lesson throws its illuminating light over each succeeding one. Hence the value of that practice of some of the best teachers, to make the elementary portions of a new study familiar as household words—a perfectly conquered territory from which the pupil goes on to new conquests, as from an established base, with the feeling and power of a victor. The thoroughly known affords the facile key to all the unknown.

But it must be carefully noted that thoroughness is only relative. What would be thoroughness in a child would be but shallowness in a man. The child's thought-pictures are but sketches and outlines; the teacher's are paintings in colors, full of lights and shades, and minutely representing each figure with all its accessories as nature herself shows it. That of the child may be, as far as it goes, as true as that of the teacher. Indeed, it is the foundation for the teacher's more perfect view which can only come with riper years and larger information. Thoroughness is correctness in the first sketch, as well as completeness in the final effect. Young teachers, unobservant of this fact and urged on by the constant exhortations to thoroughness given them by older educators, attempt to hold their little pupils to each subject studied till they know it with the same fullness of knowledge that the teacher himself possesses. As well demand that the child shall march with a man's stride and speak his thoughts with a man's voice.

And as thoroughness is relative, so also is knowledge itself. It is a thing of stages and degrees. We may know in outline, or our knowledge may be in full color or finish—the complete representation of the truth or fact known. And it is just in the proportion of the fullness and accuracy of the knowledge already possessed that one is able to grasp and comprehend any new knowledge in the same department. Knowledge is the one essential condition for greater knowledge. "To him that hath shall be given." The expert in any art learns faster than the apprentice. An Agassiz gathers more in an exploring expedition than his pupils who accompany him. So in the school, the ignorant pupil gathers little where his better informed classmate learns much; but the wise teacher will respect that little, and not measure his praise by the different acquisitions of the two.

Our best and largest acquisitions of knowledge consist, not in the new facts added to our store, but in the deeper insight gained into the profounder meanings and wider and subtler relations of old facts. Our first view of any truth gives us, almost necessarily, only the surface of it. Longer and more thorough study is required to enable the eye to penetrate its grander depths, and discern its inner powers and glories. The first view is only phenomenal and elementary; the final view is essential and philosophic. The first is of the "letter which killeth"; the last is of the "spirit which giveth life". But the first must go before and prepare the way for the last. It is only the profoundest students of science who come to feel its great inspirations, and are nourished, guided, and sustained by them.

Thus our law is seen to be written in the very forms and relations of knowledge, as well as in the knowledge-attaining movement of the mind. From the known to the unknown; from the elementary to the higher and essential; from the simple to the complex; from phenomenon to philosophy; from the mere body of truth to its spirit and life;—this is the sole possible pathway in knowledge.

RULES.—The practical application of this law gives these useful rules for teaching.

1. Ascertain carefully what your pupil already knows of the subject you propose to teach.

2. Ripen as much as possible this knowledge by securing a clear statement of it, and labor to increase the clearness and completeness of the pupil's conceptions.

3. Begin instruction with the facts which lie nearest and the truths which are most clearly connected with those already known. Thus, begin geography with the door-yard, and history with one's own experience.

4. Whatever the lesson, seek at the outset to connect it with some previous lesson, or with some familiar fact or truth.

5. Study carefully the order and sequence of the steps to ascertain the natural con-

nection, and make this connection obvious to the pupil.

6. Use for illustrations the most common and familiar objects and scenes which are suitable for the purpose. They will carry something of their own familiarity into the truth they are used to illustrate.

7. Proceed slowly, and by short steps, and make sure that the pupil follows and fully comprehends each step. Each new fact, premise, or proof is a step; and each subordinate idea or thought may, if necessary, be treated as such.

8. Multiply illustrations till the new step is made familiar and its connection is clearly seen with the preceding steps. Thus linked together, knowledge abides and becomes mutually illustrative.

9. Seek, at proper intervals, without too much disturbing the order and progress of the thought, to enter into the higher spirit, the beauty and uses of the truths taught. All teaching should look to this as its ultimate aim.

10. Lose no opportunities of showing the connection of the new truths or facts with others already known and familiar. This will enlarge the scope of the old, and help to familiarize the new.

Some experience may be required to apply readily these rules, but the very effort to use them will reveal to the observant teacher some of the richest secrets of the teacher's art.

Violations.—The most common violations of this great central law of teaching are, 1, the sudden introduction of pupils into new subjects and strange sciences remote from all their previous thoughts, without any preparation and without any attempt to connect the new with the old by proper transition steps; and, 2, the assignment of lessons utterly disconnected with previous lessons, and out of the common range of the pupil's thoughts and observations. To these may be added, 3, the common failure to master and make sufficiently familiar the elementary truths and definitions, and, 4, the common neglect to link the new to the old by a distinct study of the connection between them. The failure of thoroughness in the complete mastery of the new might be added as a fifth violation.

As a consequence of these violations, how meager, fragmentary, and fleeting is much of the knowledge so laboriously studied. Instead of constituting one structure, raising from a common foundation and growing with each new truth added, it lies in little scattered heaps, like the stone heaps which boys pile by the wayside; without order and without use. It ought to be a growth, increasing by regular and living accretions, tree-like sending its roots ever deeper and wider into old familiar soil, shooting its branches always higher and farther into the upper air, and gathering continually, both with root and leaf, nourishment and substance for sublime and more solid growths, filling all eyes with the sheen of its beauty and all hearts with the joy of its fruitage.—*Dr. Gregory, in National Sunday School Teacher.*

BUSY.

If there is a golden rule for a pupil in school it is this: *Mind your own business.* Let the teacher keep it before himself, too, and while observing it as his own rule, keep the pupils to it.

My text presents several points.

1. It means *business.* Remember the old saying,

> "Satan finds some mischief still
> For idle hands to do."

An unemployed pupil is one who is ready for temptation, for mischief. Keep them all busy. Is it a recitation that you are conducting, and you find that Peter and Julia and Herbert are no longer busy in watching Tilly Slowboy while she is prosily stumbling over an example or a sentence? Pounce upon Peter suddenly with the question what Tilly was trying to say or should have said; bring Julia into line and attention with a question about some point in the last preceding lesson which she did not give well; make Herbert feel that to be off duty is to expose himself to a surprise. Or, if you are giving an explanation, and the little folks seem dull, behold yourself mirrored in their listless faces; rouse yourself to a new illustration, a livelier statement; ask Jeffrey what you were just saying; tell an apt anecdote; somehow control their atten-

tion once more before you go on. Remember, however, that it is impossible to any young mind to be always on the strain; and take care that relaxation and rest be sometimes the *business* for awhile.

We do not use our blackboards and slates enough. They afford to an ingenious teacher the means of employing pupils in a variety of ways. Study to invent varieties, novelties that shall make attention and *busi-ness* easier. It is better to tire yourself at that than in enforcing a tyrannous order and quiet.

2. The business must be *one's own.* Alfred has enough to do; but he much wants to see whether George is doing his work right; Florence looks after Gertrude; George and Gertrude return the compliment; disorder is the result. Curiosity is a natural feeling; it is only the desire to learn, coming up in a form that is offensive; but it is better than mopish dullness. It is a feeling to be guided and used rather than repressed. It is to be met by showing that it is mean and hurtful to steal another's solutions or work; and that it is foolish to be busy about the affairs and lessons of others when one's own are neglected and unknown.

3. My third point is "*Mind!*" Imperative mode present tense. Pupils often suppose they are engaged on their lessons or business, when they are not giving their minds to them, but listlessly dreaming over them, seeking to get into memory what they should try and labor to understand first, and thus remember. Their way of going about and about and around and around a lesson, all the while keeping a respectful distance from it, is most discouraging. They are like the people of Israel at Jericho, going around a thing for a week with a perpetual blast of ram's horns, but with no chance of a miraculous capture of the city at the end of the circumferential march. If you can get them to *mind* their business, to have a mind in it, to make up a mind (that is, a will) to learn and to think, happy are you, and happy are they, too. Here is really our great work; it is to make these little ones approach the tasks of life by beginning to use their wills in directing their thoughts; the things taught are of less importance than the trained power. A trained horse is worth more than an unbroken one, however strong the latter may be; so a trained mind can work and win results with moderate power which the most forceful genius shall miss because it cannot use its might. "Learn to *mind!*" is the word for the pupil; "Train him to *mind!*" is the word for the teacher; but don't suppose that *mind* means merely *obey;* let it mean "to use the thinking power wisely and well."

Finally:—Those to be excepted from this rule are of two classes: First, those who have no mind. Second, those who have no business. The first class have no place in school; the second must have business provided for them.

—*Dr. Willard.*

MISCELLANEOUS CONTRIBUTIONS.

THE CHRISTMAS TREE.—BY R. MCCLELLAND, ESQ., ST. CATHARINES.

O, the Christmas Tree!
The Christmas Tree for me;
Every member of the church,
As busy as a bee,
Has worked, as it were, for life and death,
To load the Christmas Tree.

O, the Christmas Tree!
The Christmas Tree for me;
The youth of the School, with joyful glee,
Will to the basement flee,—
Each anxious to behold his prize,
Hung on the Christmas Tree.

O, the Christmas Tree!
The Christmas Tree for me;
Would that I were a youth again!
(But that can never be),
I'd gladly join the eager throng,
To share the Christmas Tree.

December 25, 1874.

PRAYER IN SCHOOL—BY JOHN IRELAND, TEACHER, GUELPH.

There is a universal desire in man to be considered good, just as there is a universal desire in them to become rich and wise.

We, therefore, see them seizing the most facile means to acquire this consideration. This desire is not without its good effects; for it prompts men to act consistently with pretensions, and maintain appearances. Prayer is a ceremony which every one can do, nearly every one does do, and nearly every one can be advised to do. But show me a man that can be advised to pray and I will show you one that can be advised to quit praying. Prayer is a sign of goodness; and the difficulty in proving it not to be so, together with the unprofitableness of the proof and the prevalence of its custom, renders it safe, so far as detection is concerned, to employ this sign. Since words are the signs of ideas and emotions, if these are absent in prayer, it is plain, that the prayer is formal, forced, false and hypocritical. Since our ideas necessities, and emotions are not only unlike, but do not recur at 9 in the morning and 4 in the evening, it is plain that we cannot *all* pray at these times. But it is said that we are recommended to pray:—prayer should never depend on a recommend:—to tell a man what to say, and when to say that what to God, is, of all absurdities, the maximum. But are we not enjoined to repeat the Lord's prayer? No: Christ says, "*after this manner* pray ye;" plainly imp'ying that we may vary its form to suit conditions. "Give us this day our daily bread" should never be said in the evening; as it is absurd to ask for what we have just had:—it is a morning prayer. "Forgive us our trespasses *as* we forgive them that trespass against us." Now, if, while reciting this part of our Lord's prayer, we still hold enmity against our fellow man, are we not asking God to withhold His forgiveness? Considerations like these show to any one wanting to see, that prayer requires reflection.

"Then when thou prayest enter into thy closet and when thou hast shut the door, &c." How is it that we seek publicity for all the good we say or do? There is not the least danger of our goodness, remaining too long unknown; a man can no more hide his goodness for a long time than he CAN hide his badness for a long time.

ADDRESS OF THEODULE GIRARDOT, SCHOOL INSPECTOR, NORTH ESSEX, ONTARIO.

To the Teachers, at a meeting held at Sandwich on the 26th of October, 1874.

LADIES AND GENTLEMEN,—It affords me indeed, a great pleasure to meet you here all together for the first time, and to have the honor of discussing with you the best method of teaching the different branches required in our public schools. We will also for the first time, have the pleasure of communicating to each other the best means for the bringing up of our young people (the hope of our beloved country) so that they may become christians, respectable citizens, and the pride of their families and of their native land. Your task, ladies and gentlemen, is one of the noblest that can be devolved upon a community. Allow me to cite to you the words of one of our greatest modern writers concerning your profession; "If I were a teacher," says he, "I would esteem my condition above any in the world, and I would thank the Almighty every day that I am permitted to form hearts and minds. I would love my duty, and above all I would strive to enlighten the ignorant and moralize the vicious; I would assemble about me my pupils, study their dispositions, their propensities in their studies, their plays, their fellow-feelings, their little quarrels, their reconciliations," etc. The teacher has not only for his mission to instruct the children, but also to educate them; that is to make men of them; religious and moral as well as physical and social men. He must employ at the same time the means of giving the soul all the perfections it may be susceptible of, and the body all the strength it may need, in order to bear all trials of life. Although the position of a school teacher is limited to a small sphere of action, his labors are highly important for the benefit of society; he constitutes one of the most useful parts of the great machinery which sets the state in motion. Just as a tree lingers and pines away when the sap stops its motion, so as the foundation of the social edifice to its summit must freely circulate this sap of life, this harmonious intercourse of the rights and duties of which the school master inculcates in us the principles at the age of deep and lasting impressions, when the organs are most pliant, the heart most pure, the memory most faithful. This important and useful functionary, destined by the nature of his profession to a painful and monotonous labor, condemned to struggle with ignorance, ingratitude, and very often with injustice, would sink under his painful task if he were not supported by religion and patriotism, gathering strength

in the prospect of the good which he can accomplish. Penetrated with the moral importance of his mission, the true teacher draws all the energy necessary in the accomplishment of his duties. It is to his conscience that he must demand the sweetest rewards: that is, the satisfaction of contributing to the welfare of generations, who grow under his guardianship, and are the pride and hope of their country. His greatest pride is to devote himself entirely to the duties of his profession, to make sacrifices for those who know not how to appreciate them; to work incessantly for the happiness of men, in proving himself the true disciple of Christ, with the only hope of gathering in the next world the reward of his devotedness and of his humble virtues. The schoolmaster who understands his mission, and who strives to perform his duty conscientiously, will devote his whole care and attention to the children confided to him. He will never forget that he must share the tender authority of parents; that he must exercise it with the same affection and vigilance; that one day these parents will claim from him dutiful sons, and the country honest and devoted citizens. He must not honor knowledge alone, that is to say, intellectual developments, which unless accompanied by moral developments, based on a truly religious education. The education of a man, his advancement, that is the first duty of a teacher; and he must from the beginning of his administration inculcate in the tender hearts of his pupils the seed of christian virtues. so that, being well developed, well ripened, this good seed cannot be devoured by the tempestuous breath of passions. For that reason your relations with parents must be frequent, and above all fortified by their confidence and esteem, otherwise you will lessen and lose your authority, the influence of which you need so much to educate your pupils. You must also be prudent and dignified in your relations with the parents, avoiding familiarity, which would expose you to lose their good opinion; remaining too a stranger to these party struggles, but taking great care not to be haughty and cold, which would only show vanity and what is still worse rudeness. It would be alienating the esteem, the indispensable confidence in the success of your mission. Now concerning your knowledge, it must be solid and extended enough without aiming to the title of "savant," and especially without pretensions to pedantry. This solid knowledge is an essential condition, in order that you may transmit to your pupils sound and lasting ideas. Let us work together and show the parents that we are worthy to be entrusted with their most precious treasures. Let us show them that we do not work for the sake of money only, but for the benefit of society and of the country. For my part rest assured, ladies and gentlemen, that, as your inspector, I will always heartily side with those teachers who have their noble duty at heart, and who really work for the good of their pupils. Concerning those who work for their salary alone, who are indifferent to the advancement of their pupils, they need not expect anything from me but contempt and abandonment to their own fate. Since the teacher is destined to live in a modest position, he must, however, by his intellect and instruction, prove the value of the moral dignity of his profession. His character must be dignified: with such a disposition, he will be able to unite firmness to mildness; be polite without meanness; calm without coldness; reserved without mystery. A good teacher will say to himself; I must be what I wish my pupils to be some day. Consequently give the examples of virtue and industry. Do not mistake this. The happiness of your sphere will be the reward of your conduct, a high and noble happiness indeed, for it assists in doing good and a lasting good, which will please men on earth and be rewarded by the Almighty in Heaven.

EDUCATIONAL INTELLIGENCE.

—We curtail our educational intelligence this month in order to make room for contributions, and examination questions.

—In consequence of the December Examinations having been discontinued by the Legislature, the teachers whose certificates will expire in December, 1874, can have them specially renewed by the Inspectors. The holders of such certificates can thus be regarded as legally qualified teachers till the July Examination of 1875, as such teachers will have no earlier opportunity of obtaining new certificates from the County Boards.—*Journal of Education.*

—We learn from the Perth *Expositor* that the County Competitive Examination of Public Schools Lanark Co., came off on Wednesday, 23rd December. All prize pupils of the recent Township Competitive Examinations were eligible for competition; and of these there came 103 out of twenty-four Schools in eight Townships, as will be seen by the accompanying list. Considering the remoteness of some of the Townships from the town oi Perth where the Examination was held, the turn-out may be considered to be very satisfactory. No less than ten schools succeeded in carrying off the prizes and the five medals went to two schools only.

The Examiners on the occasion were Mr. McGregor, of Almonte; Messrs. McNab and Beer, of Carleton Place; Mr. Moag, of Smith's Falls; Mr. Stewart, of Lanark; and the Rev. Messrs Bain, Burns, Chisholm; Dr. Thornton, and Mr. Slack, of Perth.

Very great satisfaction was expressed by all the Examiners at the keen interest manifested in the proceedings, and the proficiency displayed by the competitors. As an evidence of this might be cited the fact, that there were numerous ties—both double, treble, and quadruple—which, after repeated attempts, could not be worked off; as also the high general standing of the marks. In the second (or lowest) class every candidate, thirty in number, obtained over fifty per cent. of the aggregate value of all the questions; in the third class, 21 out of 31 the same proportion; in the fourth class, 17 out of 20; and in the fifth class, the whole 22 in number.

The number of prizes to be given were limited, viz: one only in each subject, and three for General Proficiency; so that many competitors, though entitled to almost equal distinction with the prize pupils, were forced from circumstances, to go unrewarded.

In the competition in spelling for the Inspector's medal, great interested was manifested—about 60 pupils of all classes venturing their chances. After three successive trials in words of difficult orthography, the contest dwindled down to two competitors—Peter McNaughton and John Bothwell, both of the Balderson's Corners School—the latter of whom lost the medal merely by the ommission of *one letter* in 60 words.

H. L. Slack, Esq., M.A., the Inspector deserves very great credit for his efforts, for the advancement of the schools in his District.

CHOICE MISCELLANY.

Simple addition—adding to one's family.

The only perfect epic—the multiplication table.

The bored of education—Children who hate school.

The greatest bet that was ever made.—the alphabet.

To make a dog add, multiply, or subtract, tie up one of his paws, and he will put down three and carry one.

An Indiana teacher says that the reason "he" may sometimes be used for both genders is because the men embrace the women.

A school-committee man writes: "We have a school-house large enough to accommodate four hundred pupils four stories high."

In giving geography lessons down East, a teacher asked a boy what State he lived in, and was amused at the reply, drawled through the boy's nose, "A state of sin and misery."

A clergyman, advocating corporal punishment for children, said, "The child, when once started in a course of evil conduct, is like a locomotive on the wrong track—it takes the switch to get it off."

At the State Teachers' Institute in Traverse City, Michigan, a question arose about Sir Thomas More; and a committee was appointed to consult an encyclopædia. The committee did so, and reported that the encyclopædia made no reference to the famous gentleman whatever. They spelled it with two "o's."

At an examination lately of applicants for schools, the following good joke was perpetrated: County Superintendent—"What is the meaning of 'theorist'?" Applicant—"A theorist is one who proposes plans which he is himself unable to carry out." County Superintendent—"Give an example of a theorist—a theorist in teaching, say." Applicant—"Why, you!"

SCHOOL DISCIPLINE.—The following things aid in securing good discipline and preventing disorder:

1. See that the school-room is well warmed, ventilated, cleansed, and lighted, and adorned with pictures, mottoes, and flowers. 2. Give pupils plenty to do. 3. Approve work when well done. 4. Carefully inspect the pupils' work. 5. Keep up an interest in work. 6. Few rules, uniformly executed. 7. Frequent changes of exercise. 8. Control by kindness. 9. Make the school and all its exercises popular. 10. Pile on motives.

A boy will learn more true wisdom in a public school in a year than by a private education in five. It is not from masters, but from their equals, that youth learn a knowledge of the world.

No great man ever had a fool for his mother. In the history of men of all departments of society, distinguished for intellectual power, brilliancy, and extraordinary mental capability, their mothers, and not their fathers, as far as ascertained by philosophical investigations, were invariably superior in brain force. If women are physically feeble, all the system is fully and healthfully in perfection. To have great men there must first be excellent women; their deterioration by the debilitating frivolities of fashionable life is perpetuated by puny children, incapable of sustaining themselves prominently when the inheritance is gone.

We do not half do that which comes to our hands to be done. Suppose you are a teacher: what kind of a teacher are you? Have you studied all the methods and intelligently selected your own? Have you a method suggested by a careful and loving study of the young minds placed in your care, and by such experience as you have been able to secure? Have you idealized your calling, and seen in it the angelic work of training and building the human mind, and leading it to its highest and finest issues? Does the work absorb you, fill you with the conscious crown of a great responsibility, and call forth from you the most skillful, the most conscientious and careful, and the most self-forgetful exercise of all your powers? Or is your work drudgery, which you dislike, and which you are content to do poorly, provided you can get your pay and keep your place.—*Dr. Holland.*

The faith in lesson-books and readings is one of the superstitions of the age. Even as appliances to intellectual culture, books are greatly over-estimated. Something gathered from printed pages is supposed to enter into a course of education; but, if gathered by observation of life and nature, is supposed not thus to enter. Reading is seeing by proxy—is learning indirectly through another man's faculties instead of directly through one's own faculties, and such is the prevailing bias that the indirect learning is thought preferable to the direct learning, and usurps the name of cultivation.—*Herbert Spencer.*

ORTHOGRAPHY.—In the teaching of spelling, the teacher is compelled to adapt his work to circumstances. Of course, it is now generally admitted by our best educators that the eye, rather than the ear, should be appealed to; that we should learn to spell by writing, instead of oral practice. Still, in a large number of our schools, the Boards of Education insist on the use of old-time spelling-books, and continue to examine pupils from a certain number of pages at the end of every term—so compromising seems to be the best thing the teacher can

do. The old method of numbering the members of a class, the "going down" for misspelling, the occasional "choosing sides and spelling down," may still be used to advantage; but I should frequently use—perhaps as often as twice a week,—a dictation exercise which pupils must write on the board or slate. Save the common words wrongly spelled in the monthly examination papers as compositions, and place them on the board correctly, a few at a time. Use them for drill in addition to the book work. Copying paragraphs of prose or stanzas of poetry also may be used to advantage now and then, and thus the art of punctuation be learned incidentally, as well as the construction of words.

The cultivation of the voices of children is sadly neglected. A few minutes spent each day in a drill upon the elementary sounds of our language, would give the power of reading and speaking in a pure and natural tone, instead of the harsh and high key so commonly heard in our schools. Prof. Shoemaker, of Philadelphia, remarks: "No other agency within the compass of our natural power is so adapted to the communication of happiness to others as the human voice. It should be taught as an agency of moral culture. A voice of dignity and elegance will attract to purity and truth, to virtue and religion. Correct sounds should be taught as a preservation of the language. Sounds erroneously pronounced during school days will so develop the organs in that direction as to be corrected with difficulty. The habit will often prejudice the ear against that which is correct."

Every teacher, as soon after the commencement of his term of school as practicable, should make it a sacred, binding duty to visit all the families in the district having children to be educated, seek the co-operation of the parents, and secure, if possible, the regular attendance of the children at school. By an early acquaintance with the people, frequent friendly visits to the parents, and the manifestation of a warm personal interest in the educational welfare of the children, the teacher gains a prestige that can not fail to produce the best results. Absenteeism, truancy and tardiness, the bane of all schools, may, in a measure, be broken up through this system of visitation.

TEACHERS' DESK.

J. C. GLASHAN, ESQ., EDITOR.

Recent Publications.

The year 1874 has been comparatively poor in English Mathematical works. In January was published "The A B C of Arithmetic by Sonnenschein and Nesbitt, Teacher's Book No. II'; this with No. I should be in the hands of every one who *aspires* to teach very young children. Those desirous of an excellent collection of examples in arithmetic will find such in Lupton's 'Test an Arithmetic Papers given for the Civil Service, Army, Navy, and Control Examinations' or in Kimber's 'Mathematical Course for the University of London, Course for Matriculation' 3°ed. The latter contains all the questions in Arithmetic and Algebra set for Matriculation in the University of London up to the present year. In Euclid certainly by far the best work issued these many years is 'An Introduction to the Elements of Euclid, being a Familiar explanation of the First Twelve Propositions of the First Book; by the Rev. Stephen Hawtrey, A.M., late Assistant Master at Eton.' This should be made a companion volume to Sonnenschien and Nesbitt's works. The Society for the improvement of Geometrical Teaching has printed six reports on Book IV of their syllabus (proportion) but as they are for private circulation we are hardly at liberty to discuss the views advanced in them. It is to be regretted that the Society did not collect them in a general report issued to the public. Such a report containing a complete development of the 'Introductory Remarks' of the several private reports and presenting each writer's whole course of deduction would have far more value to thinkers than any final selection of ideas can possibly have.

In connection with these reports may be noticed 'Algebra Identified with Geometry, in a Series of Five Tracts' by A. J. Ellis. The first tract is a defence of Euclid's conception of ratio and a pædogogical exposition of that conception; the second is on 'Carnot's Principle for Limits.' Apart from

these tracts containing by far the best discussion of their subject matter we have ever met with, we know of no finer example of how to teach than the first one exhibits to him who reads it for its *method.* A few such lessons on the different sciences bound in a volume would be worth more than a whole library of the common collection of platitudes called works on education. The remaining three tracts are devoted to 'The Laws of Tensors,' 'The Laws of Clinants,' and 'Stigmatic Geometry.' The sketch is but the merest outline, yet it is fully enough "to justify the author's confidence that Clinants and Stigmatics are a New Power in Mathematical Analysis, a New Instrument for Geometrical Investigation, and a New Form of Life for Algebra."

For those preparing for examination for teachers' certificates, Twisden's 'First Lessons in Theoretical Mechanics' will certainly be a boon. Unlike most English works on the subject, it requires no higher mathematical knowledge than Arithmetic and a little Algebra, Geometry, and Mensuration. It is questionable whether this teaching of mechanics first and mathematics afterwards (if ever,) will or can be successful; but it seems to be the system at present adopted for our teachers, and such a work as Twisden's was needed. (A few hours study of such a work as Todhunter's Trigonometry, for Beginners, or of McDowell's Trigonometry required for the Additional Subjects for Honours at the Previous Examination, would open to our teachers almost any elementary work on mechanics. Would it not be well to put the Elements of Trigonometry among the 'First Class subjects?') Goodeve's 'Principles of Mechanics' meets a want many of our teachers have felt. Let any who cannot see the practical value of thoretical mechanics procure it. (Longmans, Green & Co. p.p. 313, $1.05.)

English, Elementary.—Cowper's Task, Edited with Life and Notes by H. F. Griffith; pp 256: Milton's Il Penseroso, with Notes, pp. 16: Shakespeare's Tempest, with Notes, by W. A. Wright: Milton's Areopagitica, with Notes, by J. W. Hales. These are all worthy of their place in the *Clarendon Press Series* and need no recommendation. With them may be placed Goldsmith's Traveller, by J. W. Hales; Milton's Lycidas and Epitaphium Damonis, by C. S. Jerram; and Twenty of Bacon's Essays, by F. Starr.

No teacher of English can afford to be without Morris's Elementary Lessons in Historical English Accidence, and Abbott's How to tell the Parts of Speech. Add Bain's Companion to Higher English Grammar.

Of works for the student and general reader are, The Sources of Standard English, by T. C. K. Oliphant; Characteristics of English Poets from Chaucer to Shirley, by Wm. Minto; and a Shakespeare Lexicon, by Dr. A. Schmidt Vol 1. Part IV of A. J. Ellis's unrivalled work 'On Early English Pronunciation' although promised for December we have not yet seen. This volume will be of special interest.

In the teaching of *French,* two works mark decided progress,—the publication as a school-text of Emile Souvestre's 'Un Philosophe sous les Toits' with Notes, by Leonce Stievenard, and Breymann's 'French Grammar based on Philological Principles.' 'A compendious Dictionary of the French Language by Gustave Masson' takes rank by itself far in front of all other French-English Dictionaries. Amongst other features peculiar to it is the giving of derivations. These have been taken chiefly from the works of Littre, Scheler, and Brachet.

In *Classics* there has been issued the usual number of texts and several excellent translations. Part II of Roby's Grammar of the Latin Language completes the work and is certainly a monument of the author's scholarship, acuteness of observation, and power of thought. Mayor's 'Guide to the Choice of Classical Books' is a most useful book for reference. (Bell & Sons, 1873).

In *General Philology* 1874 gives T. H. Key's Language, its Origin and Developement, A. H. Sayce's Principles of Comparative Philology, and Part I of a translation of Schleicher's Compendium of the Comparative Grammar of the Indo-European Languages.

EDITOR'S DRAWER.

—A valuable letter on Prizes will receive attention in a future No.

—A review of a new book, prepared for this issue is laid over till next month.

—Though we take great care in mailing the "Teacher," irregularities occasionally occur. We always remail a copy when notified promptly, but cannot promise to do so after several months have elapsed.