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The Canada School Journal.

Vol. IV.

TORONTO, MAY, 1879.

No. 24.

GEORGE WRIGHT, M.A., M.B.,
CHAIRMAN OF THE PUBLIC SCHOOL BOARD, TORONTO.

There are no public bodies, whose duties are of a local or municipal character, on whom the future well being of a country depends to so large an extent, as upon Boards of School Trustees. Unfortunately, it too often happens that little interest is shown in the selection of the men to whom are to be entrusted the educational interests of a community. Men are frequently chosen for the positions of School Trustees merely that they may serve the interests of their personal or political friends, or to gratify their own ambition for public life. It is to the credit of the majority of the cities and towns of Canada, that the people residing in them do not allow improper motives to influence them in the choice of those who are to decide in a great measure the nature and extent of the education their children are to receive. Toronto has shown a laudable ambition not to be behind her sister cities in this respect. The gentlemen who have filled the high and honourable position of Chairman of the Board of School Trustees have been chosen from among her most prominent citizens. The present chairman is in all respects a worthy successor of those who have preceded him.

Dr. Wright was born in Brampton, in the county of Peel in Aug., 1838. He spent the early years of his life on a farm near his native place, and obtained his primary education in a Public School. He afterwards attended the High School in Streetsville, and matriculated in Victoria University in 1858. He graduated in Arts in 1862, and was immediately afterwards appointed Head Master of the Streetsville High School, in which he had prepared himself for his University career. He remained in this situation for two years and a half, during which time the progress of the school was very marked.

He decided, however, like many others, to give up the profession of teaching, because at that time the inducements held out were not such as to cause many men of first-class ability to remain in it. He entered upon his medical course in the Toronto School of Medicine in 1864, and received the degree of M.B. from the University of Toronto in June, 1867.

After spending a season in New York for the purpose of acquainting himself thoroughly with the methods of treatment practised in the Hospitals and Public Charities of that city, he commenced the practice of his profession in Toronto. Since that time

he has continued to rise in the good opinion of his fellow-citizens. He has taken an active part in connection with the moral and intellectual progress of the community. He is President of the St. James' Cathedral Young Men's Association, and is also a prominent member of the Young Men's Christian Association. He holds the position of Demonstrator of Anatomy in the Toronto School of Medicine, is one of the medical staff of the Childrens' Hospital, and an associate editor of the *Canadian Journal of Medical Science*.

He was first elected to the Board of School Trustees in January, 1875. He became chairman in 1878, and was unanimously re-appointed in 1879. His course as a member of the Board has in all respects been an enlightened one. It has been characterized by a due regard for economy on the one hand, and a full recognition of the just rights of teachers and pupils on the other.

The School Board over which Dr. Wright presides with such dignity and success consists of eighteen members. They have twenty-four schools under their control, in which there are one hundred and forty-one departments. No teacher holding lower than a second-class certificate is employed, and one-fifth of all the first-class Provincial teachers of Ontario are in the service of the Board. The Toronto Board sets an example worthy of imitation in its method of dealing with its teachers. No teacher loses his situation after being engaged except for incompetence or misconduct. Every one knows that his position is secure for life, or until he wishes to make a change, if he does his duty faithfully. Promotions are based on fixed principles, and made in an equitable manner. Every teacher receives justice without the necessity of resorting to any means to bring pressure

upon the members of the Board. The Trustees are faithful friends of the earnest teachers, and this is eminently true of the subject of this sketch.

The enlightened course pursued by the Board during the past few years has had the effect of popularizing the Public School system to a great extent. This is evidenced by the fact that, while the daily attendance only increased from 1,194 in the year 1844 to 2,810 in the year 1868, it had grown to 7,467 in 1878. During the administration of Lord Dufferin alone, as was stated in the address presented to him by the Board on the eve of his departure from Canada, the number of teachers was more than doubled.

The total number of pupils registered in 1878 was 11,487,



(From a photograph by Hunter & Co., Toronto.)

Gleanings.

EDUCATION VERSUS KNOWLEDGE.

Plato has profoundly defined man "the hunter of truth;" for in this chase, as in others, the pursuit is all in all, the success comparatively nothing. "Did the Almighty," says Lessing, "holding in his right hand Truth and in his left Search after Truth, deign to proffer me the one I might prefer, in all humility, but without hesitation, I should request—Search after Truth." We exist only as we energise. Pleasure is the reflex of unimpeded energy; energy is the mean by which our faculties are developed; and a higher energy the end which their development proposes. In action is thus contained the existence, happiness, improvement, and perfection of our being; and knowledge is only precious as it may afford a stimulus to the exercise of our powers and the condition of their more complete activity. Speculative truth is, therefore, subordinate to speculation itself; and its value is directly measured by the quantity of energy which it occasions—immediately in its discovery, immediately through its consequences. Neither, in point of fact, is there found any proportion between the possession of truths and the development of the mind in which they are deposited. Every learner in science is now familiar with more truths than Aristotle or Plato dreamt of knowing; yet, compared with the Stagirite or the Athenian, how few among our masters of modern science rank higher than intellectual barbarians! Ancient Greece and modern Europe prove, indeed, that "the march of intellect" is no inseparable concomitant of "the march of science"—that the cultivation of the individual is not to be confounded with the progress of the species. * * The comparative utility of a study is not to be principally estimated by the complement of truths which it may communicate, but by the degree in which it determines our higher capacities to action.—*Sir Wm. Hamilton.*

SCHOOLS AND SCHOOL CHILDREN.

Great risks and great exposure to the body are involved in sending a child to school. It may mean merely such mind work as is too much of a tax upon the brain and nervous system. It often means indigestion, from a hurried lunch at noon or a fast until 2 o'clock. It often involves sitting in constrained positions too long, too close confinement in ill-ventilated or ill-heated rooms, and other experiences inimical to vigorous growth. A recent book says the first right of a child at school is to feel happy. One element in this is left out if the conditions are not such as favor his good health. Indisposition is a word of double meaning. That of the mind and temper are affected by that of the body.

There are most cogent reasons why children at school should be so provided for as that all their surroundings tend to a comfortable physical condition. Simon, speaking of artisans, says that "it is their right that whatever work their employer assembles them to do should, as far as in his power, be divested of all unhealthy circumstances." It is a poor economy, too, for the State to present to all its children a free school system, if the perils of the school room are excessive.

No school should commence without a thorough knowledge on the part of its trustees as to the adequacy of the building, its desks, its heating apparatus, its general fitness for the conduct of the work proposed to be done in it. We wish the parents of the children would just now form themselves into a committee of the whole, and wait upon each board and find out just what they know as to sanitary inspection. All the more so because lately our New York boards have certified their competency to superintend all this matter. We happen to know something about school infections, school temperature, school air, school draughts, &c.

Let him find a faucet of water near a bowl where he may rinse his hands and wipe them on a paper towel, which he will use up himself, and which will cost the trustees about one dollar a bushel. The room and building must have had excellent janitorship, so that it has been well dusted, cleaned and aired in the hours of emptiness. How imperfectly is this work done in most schools. There is poor housekeeping, and that always makes trouble.

Have the boys and girls fitted to their respective desks, not only with a view to convenience, but size. Often the blackboards are so located that a child must face a glare of light. Often the desks are so close to them that they cannot adjust distance to capacity of vision. Virchow, Loring, Agnew, and others have well pointed out some of these defects.

Laws of posture, both in sitting and standing, are greatly overlooked in schools, and slight spinal deflections from the natural line give future aids to one-sidedness. Brown-Sequard has noted and explained how the use of one side too much and the other too little often disturbs bilateral sensibility and leads to nervous trouble.

Dr. Seguin read an interesting essay on "Nervous Diseases as fostered by School Life" before the last National Medical Association, and claims that physical considerations must enter far more largely into our system of instruction. Anemometers and thermometers can now tell us much as to air currents and the heat and degree of moisture of the air, while chemistry has ready aids to show us whether it is contaminated. Pale faces and puny forms, and the tired look of the homeward group, sometimes make us stand aghast when they tell us: "This is education." We ask all parents, all school boards, and all teachers to put on their thinking-caps at once, and keep them on all this term in the school health interests of the boys and girls.—*N. Y. Independent.*

READING ALOUD.

It is strange that, in a country whose language is stored full of the choicest works of the human mind, and whose population is, as a whole, so well educated, reading aloud as a source of amusement and means of enjoyment is so little resorted to. There are many families, we dare say, where a book, or a chapter of a book, is never read to the family circle from one end of the year to another. The individual members of the family read, but all reading done in the family is silent reading: Father has his paper; mother, her tract; Mary, her novel; Johnny, his story of wild adventure. Reading, there is enough of it; but each one reads for himself. There is no reading for the whole, and no grouping of the family into an audience for an evening's enjoyment, such as comes to people who hear a good thing well read.

Only those who have visited in families where the gift of reading was cultivated as a source of family enjoyment, and the custom of reading aloud to the family practised, can imagine what a help and a blessing to the family life such a habit is. Music is well enough in its way, but its range of expression is far narrower than that of reading, and for that matter far less practical in its adaptation to the family wants. Then, too, singing requires an instrumental accompaniment, and a piano costs money, and requires too much practice on the part of the performer to be available for the many. The art of reading well is easily acquired and cheaply taught, and the expressions of literature are abundant and varied. If sorrow has fallen on the family, the needed antidote can be found both in prose and in poetry. If fun is called for, then fun can be had at the asking; for the language is so full of humor, so quaint and subtle, that the bare recital of the author's words brings the point out and "sets the table in a roar." History, tragedy, comedy, wit, pathos, sublimity, every spring at which the human mind loves to drink can be opened, and the sweet waters be freely given to everyone.

How cozy these home readings may be made! Warmth, light, companionship, culture, happiness, are all included in them. How much you are missing, if reading is not cultivated as one of the means of happiness and pleasure in your family circle! For, in such an exercise, there is quickening for the imagination, appeal to judgment, elevation of feeling, opportunity for criticism, which shall teach the children more of literature in three hours than they can learn at school in three weeks. Next to the impulse of love as a means of drawing families together, is the influence of intellectual companionship. Cultivate this, and see how satisfactory will be the result.—*Golden Rule.*

HOME LESSONS.

It is the custom in many private and not a few public schools to assign long lessons to the pupils for home study in the evening, and for recitation at school next day. It is the custom of many conscientious mothers to sit down with their children and assist them in learning their lessons. In fact, it is only the children who have some help of this kind that make good recitations. The others fail, more or less, and are punished, more or less. It seems to us that this is a very unfair division of labor. The parent does the hardest part of the work, and the teacher gets all the credit—and the pay.

Now we propose, in good faith, to reverse the arrangements. Let the teacher see that the lesson is learned, and let the parent hear the recitation. Then the parent can judge whether or not the pupil has been industrious and attentive. If he has been remiss, let the punishment be administered in the proper place and by the proper party—at home, and by the parent.

What a reformation this would work! It would make the parent the judge of the teacher's ability, and supply him with the means of judging correctly. How careful would teachers be not to give long lessons! How patiently they would explain all the hard points! How diligently would they work to make crooked paths straight and rough places smooth! What a close and amicable partnership there would be between the teacher and the taught, both being jointly responsible for the quality and quantity of the work done!

It may be objected that it would be unreasonable to hold the teacher to account for defects which might be due solely to the incapacity or the perverseness of the learner. But incapacity is not a good excuse. Every child can learn something, and one part of a teacher's duty is to proportion the task to the ability of the pupil. If he errs here, he is deficient in one of the most important requirements of his profession. As to perverseness or obstinacy, such vices of temper have but little development under a good teacher. It is the incompetent practitioner that brings them out in full force. But granting that, as an exception, the progress of a scholar may be retarded by such adverse currents, the work of the teacher will, in the long run, be judged by the results obtained in a majority of instances; and the majority of pupils are neither perverse, obstinate, nor otherwise incapacitated. They are willing to learn, and able to learn, from those who are able and willing to teach them. So let us have a reform. Let the children learn their lessons at school, and recite them (if they must be recited) at home.

EVENING ART SCHOOLS IN BOSTON.

There are now five of these schools in Boston, and another is soon to be opened in Roslindale district. They were imitated in other cities, one having been formed in Worcester, one in New Bedford, and also in Lowell, Haverhill, and Cambridge; but the last-named has not been kept up. The Boston schools are open four evenings in each week, but no pupil can attend on more than two. It is a fine sight, that which you obtain at the Appleton Street School between seven and nine at night. There, in three spacious rooms at the top of the solid, quiet, well-lighted building, a silent troop of absorbed workers—men, women, boys and girls—are bending over their boards, pencilling away softly, carefully, happily. One of the apartments is given up to those who are drawing from flat copies. Here is a young man striving to catch the lasting yet elusive grace of some old sculptor, say the Riccardi Sappho; here a woman in a cheap figured shawl, who patiently studies the play of muscles on the Vatican torso. Yonder black boy, rubbing out vigorously, and then applying himself again to his outline, seems very much in earnest. Then there are young girls with a womanly seriousness resting on their foreheads, and eyes that glance at you a moment with the calm passion of art, then turn back to the copy. In the other two rooms half the occupants are made of plaster, and those who are not are hard at work making portraits of those that are. Curious, to see these dumb, white, lifeless figures receiving so much reverent attention from the living, the young forms, colored palpitatingly with inflowing breath! It is human, conscious clay studying worshipfully that other beautifully fashioned dust, and growing the better thereby, even ministering to the expansion of the soul through this process. What interests one much is to trace the same concentrated, dignified repose in all the faces of the pupils, different as they are among themselves, because they are all turned toward some aspect of one common ideality. A small class who model in clay as well as draw from the antique has been formed here, and some of the most meritorious efforts of the pupils have been cast and hung up on the walls for their encouragement and that of their fellows.

"That is a very good frieze indeed," says a member of the committee, pointing to an original cast among these, as we go through the room together. "Who did that?"—to the teacher.

"The young man who did it is here," says the teacher; "over there in the corner."

In fact, there has been a quick glance from the corner, which shows that the young modeller is delighted, though he is now bent

over his drawing-board again assiduously. The committee member, whose word of praise (owing to his high character in art as well as other things) descends like a sort of crown on the young man's brow, goes up and congratulates him directly. Everybody in the room feels happier after that fortunate little incident.

Looking into the list of two hundred and fifty pupils at this school, I found among them the following occupations, coming exactly in this order: Fresco painter, student, salesman, errand-boy, grocer clerk, sail-maker, cabinet-maker, bell-man. Among others, taken at random, were a switchman, an artist (lady), box-maker, cigar-maker, housework servant (a woman), a shoe-cutter, tinsmith, tailor, upholsterer, engraver, lithographer, machinist, clerk, marble-cutter, carver, decorators, apprentices, a scenic artist, a merchant and his wife.—G. P. LATHROP, in *Harper's Magazine* for May.

—It was in the same old Bethel school-house, about the same time, that the master, one Benfield, called out the spelling class, of which my mother, then a little girl, was usually at the head. The word given out was "onion." I suppose the scholars at the head of the class had not recognized the word by its spelling in studying their lessons. They all missed it widely, spelling it in the most ingenious fashion. Near the foot of the class stood a boy who had never been able to climb up towards the head. But of the few words he did know how to spell, one was "onion." When the word was missed at the head he became greatly excited, twisting himself into the most ludicrous contortions as it came nearer and nearer to him. At length the one just above the eager boy missed; the master said "next," whereupon he exultingly swung his hand above his head and came out with, "O-n, un, i-o-n, yun, ing-un.—I'm head, by gosh!" and he marched to the head while the master hit him a blow across the shoulders for swearing.

—Let the teacher constantly bear in mind that habits are always more valuable than facts; that it is not the quantity of knowledge acquired that constitutes a criterion of the mind's improvement, but rather the modes of employing the mental faculties—the *habits of thought* into which the mind has settled in making its acquisitions or applying them. In view of this fact, it was judiciously remarked by Erasmus that, "at first, it is no great matter how much you learn, but how well you learn." In such useful arts as require a mixed exercise of the muscular system and of the mental faculties, such as penmanship, drawing, elocution, &c., this principle has a most important application. Elegant hand-writing, distinctness of articulation, correctness of intonation, ease and grace in deportment, may be all made to rest so firmly on thoroughly fixed habits as to become almost instinctive, "a kind of second nature."—Henry Kiddle, *Supt. Schools of New York*.

—The real cause of the apathy in the public mind towards a just honor and emolument for the teacher, lies in the apathy of the teachers themselves; and of their total neglect of those commonplace means of elevating their profession a body so intelligent ought to have adopted long since. It is now but a respectable mob aiming at good things, but unequipped and unofficered. Nor is it easy to organize on account of a want of *educational spirit*.

—Behind the work [of every great orator, artist, or poet, there hangs the shadowy prophecy of something nobler unaccomplished, something sublimer unwritten. So in the life of every good teacher there is something better than the lesson he has taught, something nobler than the words of instruction he has spoken. Who has ever walked through the close at Rugby, or seen the oak pulpit rising above the seats in the little chapel, that has not felt the silent presence of one whose life was far better than any lesson in classic lore he ever gave, grander than any sermon he has ever preached. Ah, my friends, this magnetic sympathy is more than intellectual attainment, better than culture, higher than genius. It lies between the divine and the eternal.—J. F. Blachinton, *Pres. Mass. Teachers' Association*.

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TORONTO, MAY, 1879.

PUNISHMENT IN SCHOOL.

During the past few weeks two cases of injudicious punishment by teachers have been reported in Ontario. One of them resulted fatally. A teacher in a moment of anger slaps a child on the head with his open hand, and the child dies. We fear that too many unfortunate children both at home and at school are punished in a similar manner. Angry people usually punish children in a cruel way. Passion deadens the sensibilities of the soul, and the teacher or parent for the time being ceases to realize the amount of suffering he is inflicting. Punishment should not be given by a teacher when angry. The other case was of a different nature. The teacher had not the plea of anger to justify his cruelty. He made a circle on the black-board, and caused a pupil to stand with his nose touching the board in the centre of the circle. The only excuse that can be offered for such a course is, that the teacher was totally ignorant of the very serious injury it would do the eyes of the pupil to stand as directed.

Corporal punishment is resorted to by inexperienced or indolent teachers too frequently. We do not urge its prohibition. It has a place as a reformatory influence. Its effects in decreasing juvenile criminals has been proved to be better than confinement in prison. If whipping was only used in schools as an aid in reforming serious offenders, there would be little of it done.

While some parents severely criticise the use of the cane in school, there are many who mourn the fact that it is not used so thoroughly and so frequently as when they went to school. It is a common occurrence for a teacher who is trying to avoid the use of corporal punishment in his school, to hear parents born in the old world refer in terms of the highest commendation to the schools they attended when children; not because they learned anything at them, but because they were "well punished by their masters." They make unkind comparisons between the English and Canadian schools in this respect, often in order to avoid doing the punishment which properly devolves upon themselves.

It would be very unfair to the English public schools to imagine that many of them are of the "Dotheboys Hall" kind. Whipping, it is true, had a long and lively reign in English schools. Whipping is even yet in a few schools the

universal remedy for every school disease. We are glad to be able to inform those parents who seem to have been more impressed by the whipping they received at school than by the lessons they learned, and those teachers who attempt to justify their cruelty by saying "flogging is practised universally in England," that English schools have changed since they were boys.

The following condensed report of a part of the proceedings of a meeting of the London School Board may startle some. We insert it for that purpose. It is taken from the New England Journal, whose editor, Hon. Mr. Bicknell, was present at the meeting.

A series of public meetings had been held to discuss the question of corporal punishment, and a deputation had been appointed to wait upon the Board in reference to the matter.

Mr. Soutter, the leader of the deputation, said that three public meetings, attended by from 400 to 900 persons, had been held in Southwark on the subject of the abolition of corporal punishment in school. They had resolved that the time had come for the discontinuance of the practice of corporal punishment—a relic of a barbarous age. It had been abolished in the army, and it was a sign of great backwardness on the part of the Board to seek to perpetuate it as a means of maintaining discipline among children. One strong objection to the use of the cane in schools was, that it prevented the Board obtaining the services of the best teachers, for the best teachers did not inflict the punishment.

Several members of the Board then questioned the deputation. The following is a portion of the dialogue that ensued:

Mr. Mark Wilks—Were the public meetings to which you refer informed that this Board has unanimously declared its wish for the abolition of corporal punishment?

Mr. S.—No; we are not aware of that.

Mr. W.—Are you aware that there was no member of this Board in the recent debate on the subject, who advocated corporal punishment as a permanent institution.

Mr. S.—We were not aware of that.

Prof. Gladstone—The memorialists are in error on one point. It was stated that they believed that the Board sought to "perpetuate corporal punishment." It has also been hinted that the teachers who do not agree with the administering of corporal punishment would not be likely to come under the Board. Now the Board does not force the teachers to inflict the punishment; they rather discourage it.

Mrs. Miller—Was the Board regulation with reference to corporal punishment explained at the Southwark meetings?

Mr. S.—It was understood and stated that the punishment could only be inflicted by head-teachers, and that the time and occasion of every flogging should be recorded.

Mrs. Miller—Do the deputation imagine that the Board compels their teachers to administer corporal punishment?

Mr. S.—What I intended to say was, that so long as the system is in force in schools, it will be an encouragement to lazy and indolent teachers to stay, and it will be a hindrance to the Board obtaining the best possible teachers.

EDUCATIONAL NOTES ON THE TARIFF.

Although carefully avoiding the discussion of all political topics in this publication, yet occasions sometimes arise when it is necessary to say a word or two on questions of a semi-political aspect. Such a one is the new tariff and its educational effects; and yet our remarks have not the slightest political animus or design in them.

Looking at the tariff as it will affect the education and enlightenment of the people, we are painfully impressed with the

conviction that no more fatal blow has for a long time been aimed at the progress of both among us than that involved in the imposition of the new duty of from 15 per cent. to 20 per cent. (instead of 5 per cent.) on the healthy popular literature of the day.

Had the new duty on books been imposed on the general principle of the probation of a special industry which did exist, or could, for many years, exist in Canada, we could have understood the policy of the impost. But we deny that it is possible for many years to come for Canada to take the place of the great religious and popular publishing houses in Britain in supplying us with the almost inexhaustible variety of 10c., 20c., 30c., 40c. and 50c. books now imported. With few exceptions the mental pabulum of our young people is diverted almost exclusively from the two sources named. They have hitherto been obtained almost as cheaply as in England, and in as great variety; but the imposition of a duty nearly four times greater than that hitherto paid will have the effect of almost entirely checking the circulation of a most healthy class of literature among the youth of our land.

It is idle to talk of a few publishers in Canada taking the place of the great publishers of Britain in supplying the literary and educational wants of our people for pure, healthful, popular reading. They cannot even attempt it. They produce an excellent kind of literature in its way, but it entirely lacks the element so essential to its popularity among juvenile readers. And even should publications of that kind issue from the Canadian press, they can only be either original books, prepared in the country, or reprints of English books. In the one case we would soon exhaust ourselves, or be content with a large percentage of commonplace mediocrity; and in the other we would fail to secure any variety worth naming. In neither case would the demand at the necessarily higher prices of our Canadian books warrant any extensive production.

What will our Sunday Schools do under the operation of the new tariff on books? They will be the first sufferers. The cost of their supply of library books will be increased at least 50 per cent. This will be to them "a sore blow and a great discouragement." Conducted as these schools always are on the "voluntary" principle, pure and simple, the slightest additional cost of maintaining them will fall largely upon those less able to bear it. This will not, however, be the worst effect of the new tariff on Sunday Schools. It will almost have the effect of prohibition in regard to the great variety of the juvenile illustrated papers now so extensively used in Sunday Schools. These papers, including the "Band of Hope," "British Workman," and kindred publications, have been printed on large and attractive sheets at a nominal price. The impost of six cents *per front* on such publications will almost entirely prevent their continued use in the Sunday Schools—especially mission schools and those in new and poor neighborhoods,

Another objection to the book tariff deserves notice. While it imposes a high duty on large pictorial publications and juvenile books bound in cloth, it virtually affords a premium on the importation of the "Dime" and "Nickel" class of pernicious literature. The circulation of this class of books is already unfortunately too large for the well-being of our young readers. But the effect of the new duty, while it discourages the circulation of a pure, healthy literature, will have the effect of unduly stimulating the purchase of this pernicious stuff.

Ontario is almost the only province which will be materially affected, intellectually and morally, by this new impost on books. The importation of books in the other provinces is almost *nil*. Hence it is a matter of indifference to them. But to Ontario it is different. We regret that her representatives have failed in their duty to her, in getting the impost modified.

SHALL INTERMEDIATE CERTIFICATES BE EQUIVALENT TO SECOND-CLASS NON-PROFESSIONAL CERTIFICATES?

The Teachers' Association for the County of Waterloo at its last session passed the following resolution:

Resolved, "That we, the members of the Waterloo County Teachers' Association, strongly deprecate the training of candidates for third-class certificates in our Public Schools, believing it to be detrimental to the best interests of our schools, and we further recommend that the age of candidates be not less than twenty years for males and eighteen for females."

It has been sent to the other Associations throughout the Province, that action may be taken by them also in relation to the same question.

Without taking a decided position either for or against the resolution quoted, we would advise all Associations who may deal with the matter to give it a very careful consideration in all its bearings before arriving at a decision. The following facts are given to aid teachers in the intelligent consideration of the subject:

1. The last report of the Honorable Minister of Education shows that of 6,468 teachers in the Public Schools of Ontario, 3,926 hold third-class certificates.
2. Third-class certificates are valid for only three years.
3. Of those teachers whose third-class certificates ran out before 1878, less than 20 per cent. secured second-class, or permanent certificates.
4. It follows that about 80 per cent. of them had to leave the profession, after gaining an experience of three years and give place to inexperienced teachers. This assumes that nearly all who received third-class certificates became teachers.
5. Only twenty-four per cent. of the teachers of the Province held Provincial certificates in 1877. This is certainly to be deplored.
6. Only one Intermediate Examination per annum is to be held in future. This will barely supply enough teachers to take the places of those who leave the profession.

7. Twenty per cent. may seem to be a small minimum in some subjects; but if a candidate only makes 20 per cent. on any subject, he must average 50 per cent. on the two other subjects of its group. If he makes only 20 per cent. for instance, in Algebra, he must average at least 50 per cent. on Arithmetic and Euclid, to receive the minimum of 40 per cent. on the group.

—There are two sections in the Annual Report of Sir Charles Reed for 1878, to which we desire to call the attention of teachers and school officers in Canada. He says:

1. "Singing is taught universally with good results, both as regards the ability to read music and the quality of voice. We have also re-affirmed our decision to teach Drawing to all our pupils, from a conviction of its great value in every branch of industry."

2. "The Kindergarten system is coming to be better understood by the teachers, one of our Inspectors saying: 'Perhaps the most marked advance during the year is shown in the more intelligent method of teaching adopted in the Infants' schools. I attribute this very much to a better understanding of the principles of the Kindergarten; the best Infants' schools are those where the *spirit* of the Kindergarten has been infused into the whole teaching of the schools.'"

—The California *School and Home Journal* says: "The teachers of California may congratulate themselves that our last legislature so kindly ignored the public schools. They did but little when they might have done much; and what was done, were far better undone." California, it appears, has other advantages besides its salubrious climate.

—We are pleased to publish in another column a letter from Rev. Father Stafford, of Lindsay, which was addressed to the editor of the *New England Journal of Education* in consequence of some remarks which appeared in that Journal concerning the Roman Catholic Separate Schools of Ontario. The editor of the *New England Journal* undoubtedly wrote without a thorough understanding of the relations existing between the Public and Separate Schools of Ontario.

Contributions and Correspondence.

THE INFLECTION OF THE INTERROGATION.

BY RICHARD LEWIS, TORONTO.

Professor A. M. Bell, who may always be regarded as a high and safe authority in elocution, asks in one of his excellent books, when discussing the subject of inflection, "Can the reader discriminate when his voice rises and when it falls? Does he apprehend these differences when he hears them? * * Experience tells us that very few speakers know with certainty when the voice makes the one and when the other inflection, if the tones are of limited extent." I have no hesitation in saying that this is the experience of every practical elocutionist. Hence every successful teacher of

the art aims at facility in this important quality of expression. Theory is utterly useless where the ear and voice have not been thoroughly drilled and cultivated to give instantaneously, and distinguish in others, every variety of inflection and pitch. Especially is this power necessary to teachers, to whom the finest spun and most original theories are utterly worthless unless they can, with their own voices, guide their pupils, and with quick perception of inflections detect and correct defects. Indeed I may safely advance the opinion that if all theory were neglected, and the pupil—especially if otherwise educated and intelligent—made by daily drill accomplished in voice power, the rest of the business would be comparatively easy. The principles of correct expression are instantly appreciated when the student has mastered the nature of the thought, its logical and grammatical relations, and formed a just conception of its spirit. Hence, no text-book is of any value if it does not, above all other subjects, abound in systematic drill on articulation, vocalization, inflection and modulation. Until the teachers of the country have mastered these first and all-important branches of elocution we shall make no progress in its cultivation.

It is not my purpose, therefore, in this paper to explain the principles of inflection. But there are a few doubtful points which demand the attention of skilled teachers and students of the art, and these I propose briefly to discuss, especially with the hope that my views may elicit opinions from other readers of the *SCHOOL JOURNAL*. The first of these points is the *interrogation*. All writings of dramatic form abound in interrogative expressions; and the Bible, and the plays of Shakspeare as well as of other dramatic writers are distinguished for their frequent interrogations. It may safely be advanced as a rule, with rare exceptions, that when the question begins with an adverb or an interrogative pronoun, it must end with the falling inflection. The difficulty lies in the management of questions guided and governed by the verb—questions that can be answered by *yes* or *no*. The general and best rule when the questioner is doubtful of the kind of reply, is to give the rising inflection to the ending word. But in literature where dialogue appears or prevails, there are aspects of feeling and doubt as to the purpose in view which really demand acute exercise of judgment. For example, it has been laid down as a rule that if we are sure the answer will be *yes* or *no*, the question is equivalent to a declaration and must end as an affirmation does. On this principle I have seen it advanced that the following question should end with a falling inflection.

"Have ye not known? have ye not heard? hath it not been told you from the beginning? have ye not understood from the foundations of the earth?" Isaiah xl. 21.

Now the strongest objection that I have to this inflection is that it carries with it an intonation marked by stern rebuke, quite opposed to the tender appeals that pervade the whole chapter. The prophet addresses a people overwhelmed with doubt and despair, many of them probably fallen or passing into idolatry or indifference. These questions, therefore, should be marked by the *tenderness of appeal, which always ends with a rising inflection*, rather than with the falling inflection, which would be equivalent to saying "Ye have known all this and must suffer the penalties." Besides, a series of questions commences in the 12th verse which from their structure must have the falling inflection: "Who hath measured the waters with the hollow of his hand?" &c.; "To whom will ye liken God?" &c.; "Have ye not known?" &c. Now the very contrast of the rising inflection on the questions of the 21st verse seems to me to give a touching beauty to this verse, which the falling inflection would destroy. Let the reader reflect how a mother rebukes her child who has told a lie in the question, "Don't you know it's very wicked to tell a lie?" Give "lie" a

falling inflection, and it becomes a stern rebuke; but give it a rising inflection and it has all the tenderness of a maternal appeal. The prophet *appeals*, he does not rebuke. "Comfort ye my people" is his first utterance, and throughout the spirit of consolation and appeal, not of harsh rebuke, marks the chapter. It is one of the many examples in sacred and secular literature which show that iron rules framed by mere theorists are not infallible guides; but that the reader must be influenced chiefly by the spirit of the composition and his own good sense.

The rule, however, that if the answer *must* be "yes" or "no," we give the falling inflection, is good, when it is in accord with the general spirit of the passage, and I submit three extracts from Shakespeare as illustrations.

In Mark Antony's great speech, after he has stated that Cæsar had given the ransoms received from captives to the public treasury, he asks: "Did this in Cæsar seem ambitious?" Now Antony has not yet advanced his greatest argument. The crowd before him is yet in a state of doubt, and therefore it is more than probable that many of them would regard this liberality of Cæsar as an act of policy, as a trick to bribe the people. Hence there is no certainty what the answer would be; and in view of that mental aspect of his hearers, he would end the question with the rising inflection. But finally Antony brings unanswerable evidence of disinterestedness and patriotism: Cæsar had refused a crown, was that ambition? Here the falling inflection is most appropriate, and by its very contrast with the method of the preceding questions tells with irresistible force on the minds of his ignorant audience.

My last quotation is from Antony and Cleopatra. Antony is dead and Cleopatra is conquered, and Cæsar desires to take her alive as a captive to grace his triumphs at Rome.

"For her life in Rome
Would be eternal in our triumph."

But dreading

"Lest in her greatness, by some mortal stroke
She do defeat us,"

he sends his friend Proculeius to dissuade her from this extremity. Clearly then Proculeius believes he will succeed. The interview takes place, and Cleopatra, after attempting her life, is seized and disarmed. But Proculeius does not despair; he still exhorts her to patient submission, and in that spirit Cleopatra addresses him:

"This mortal house I'll ruin,
Do Cæsar what he can. Know, sir, that I
Will not wait pinioned at your master's court;
Nor once be chastised with the sober eye
Of dull Octavia. Shall they hoist me up
And shew me to the shouting varletry
Of censuring Rome? Rather a ditch in Egypt
Be gentle grave unto me." Act V., sc. 2.

Dr. Rush classes the italicized sentence under the head of thorough intonation: "The repulsive indignation of the question cannot be fairly represented without a high degree of interrogative coloring," that is, the rising inflection must pervade the entire question. Cleopatra understands the purpose of Proculeius and knows that her enemies hope she will submit. She is therefore indignantly interrogating Proculeius and all who hear. It is as if she said: "Do you think I will submit to the indignities of captivity? Rather a ditch in Egypt be gentle grave unto me!" and the rising inflection strongly marking every word to the end of the question, sets in deeper and fiercer contrast her resolution to die rather than submit. Let any one read the passage, as any one not seizing its spirit might, with the falling inflection, and then read it as Dr. Rush suggests, and not only will his reading be found to be more effective in mere sound, but owe its best effect to the fact that such a delivery is in perfect harmony with the experiences of passion and life under similar circumstances.

HOW TO DEAL WITH INDOLENT PUPILS.

BY WM. SCOTT, M.A., HEAD MASTER MODEL SCHOOL, TORONTO.

II.

Read before the Toronto Teachers' Association.

In the foregoing remarks I have outlined generally some of the means which a skilful teacher employs to correct this evil; let me be somewhat more explicit, and call your attention to the following points:—

1. Only such lessons should be given as can be prepared by the pupil, i.e., the lessons should not be too long nor too difficult. A teacher who assigns long lessons defeats his own aim. The pupil cannot get them up thoroughly, and as a natural consequence becomes dissatisfied with school, and unless carefully managed will do his best to shirk all preparation. If long lessons have a demoralizing effect on a well-disciplined, hard-working class—as they undoubtedly have—how much more disastrous will they be to a pupil who, it may be, is struggling hard to break away from his own indolent self. Hence, in dealing with a lazy pupil, I would give him only such lessons for home preparation as I know he can get up with ease.

2. The teacher must be sure to show the pupil that all the care bestowed upon him is to further his interests. It will be of little use to tell him this if the teacher's manner does not convey it. "Actions speak louder than words." There must be a genuine interest manifested in the welfare of the pupil by the teacher, else there will be a very slender bond of union between the two, and where there is no such union, indifference or even open antagonism is apt to supervene. Sympathy, "that intuitive feeling of interest in and affection for others which prompts to corresponding emotions," should be largely cultivated in dealing with a really indolent pupil.

3. All the teacher's efforts should be put forth patiently as well as perseveringly, i.e., these efforts should be made in that equable temper which it is so desirable that every teacher should possess. A teacher must not worry, or fret, or fume over such a pupil, but patiently and perseveringly do his best to correct the evil. He may, at times, almost despair of success, but let him continue in his efforts, and sooner or later he will be abundantly rewarded.

4. Let the teacher remember that to secure the attention and to get the most work out of a pupil possible he must be on good terms with his teacher. There can be no satisfactory attention and no continued effort where there is antagonism between the teacher and pupil. Fear may induce the pupil to attend and get up a lesson, but fear is a weakening force, and the result is to associate in his mind with the subject taught feelings of dislike and disgust, so that at the end there is no interest in the subject, but, on the contrary, a desire to have nothing to do with it again. Associate pain with the wrong done and not with the duty omitted. In punishing a child for negligence and indolence do not say to him: "I'll teach you to be more careful and hard-working for the future," but let him know that negligence and punishment go together. Punish for negligence and carelessness, and soon these become associated with punishment in the mind of the pupil.

5. Remember that diligence can only be artificially engendered by connecting the subject with pleasing emotions that are not foreign to it. Induce the pupils to take a lively interest in the study for its own sake, and not for the desire of the approbation of the teacher and the parent—for the hope of rewards or the fear of punishments. Such an interest will arouse into active exercise all the best powers of the mind, and thus, in an educational sense, lead to the most effective and salutary discipline. On the other hand, the habit of relying upon external incentives, such as the

love of praise, of pleasure, of gain, &c., necessarily produces selfishness, and thus narrows and debases the mind which a generous, earnest zeal in the pursuit of any worthy object would expand and ennoble.

6. Study the temperaments of all your pupils, but more especially of those who give an unnecessary amount of trouble. A teacher who discerns the character of a pupil knows how to approach him to accomplish a given object, to what motives to appeal, what influences to bring to bear on him. Such a teacher as does this is always a considerate teacher—one who thinks of his pupils first and himself last—one who is always ready to weigh the motives of his pupils, and, however frivolous they may appear, to give them due importance. He is also ready to consider the present state of the mind. He knows that a child who has his mind strongly exercised over some occurrence cannot at once give his attention to his lesson; that the pupil must have time to calm down, and that the most ready means of doing this is to start with something the pupil knows, and is interested in, and insensibly his mind reverts to the subject.

7. It is of little use to attempt to show such pupils the uses and advantages of learning; in other words, lecturing them is of little avail, and scolding of less. A lesson, within the capabilities of the pupil, has been assigned and must be got up. In dealing with such pupils the teacher must be prepared to put up with a great deal of personal inconvenience. He must exercise the greatest amount of patience. An angry man should never attempt to deal with any case of discipline, far less one requiring so much tact on the teacher's part as the one in point. Firmness, patience, and tact will, I am convinced, cure the most obstinate case.

8. Diligence is as much a habit as order, truthfulness, or attention, and is subject to the same law of formation as any other habit, i. e., by repetition or exercise. That practice makes perfect is as true of diligence as of any other habit. Hence every teacher should look carefully after his pupils, not merely for the purpose of getting them to do a certain amount of work for a specific purpose—as to excel at the coming examinations; but for a nobler purpose—that this habit may be thoroughly formed, that it may become like other habits "second nature," that the pupils may become in after life diligent, punctual, persevering members of society.

Hence, too, in dealing with this evil, the teacher should make all due allowance for the force of habit. He cannot overturn old habits at once, and by violence. As time is an important element in the formation of bad habits, so it is also in their cure.

9. We must not forget that indolent habits of the mind may be acquired by a too early presentation of mental pursuits to faculties not yet sufficiently developed to undertake them. It may also be acquired by the child being unable to select out of many things which one to do, or doing a little of each accomplishes nothing of consequence, a condition equivalent to indolence. This condition of the mind becomes habitual, and in process of time the child becomes a lazy, indolent, patience-trying pupil. In such a case a daily routine in which the teacher works with the pupil, giving him thus the powerful stimulus of his example, will in most cases, instil into his mind ideas of order, method, and constancy of exertion. The example of the teacher, the desire to emulate his fellows, the enthusiasm which such a teacher inspires in his class, in a short time overcomes the laziness of this pupil, and he is carried triumphantly along with the others.

Let me now for a short time indicate what punishments are judicious in such cases. All punishment, considered by itself, being an evil, should only be inflicted to prevent a greater evil. Hence punishment should be as rare as possible. Cases will, however, arise, where the negligence of the pupil is so marked, and

its occurrence so frequent, that some sort of punishment is necessary, in fact there are pupils who only begin to realize that they have been transgressing when undergoing punishment. In every case the kind of punishment should be that which, from the character and disposition of the pupil, will be most effective.

1. *Private reproof.* This allows the teacher a good opportunity of arousing the sympathy of the pupil. I think it is of very little use to talk to such a pupil before the class. He cares very little for the good opinion of his schoolfellows, and perhaps less for that of his teacher; but an earnest talk with such a pupil in private can do no harm, and if conducted in the right spirit by the teacher may and must do good eventually by leading to a better understanding between the two.

2. *Performance of the neglected duty.* This must never be overlooked in reforming a pupil of this evil. Whatever other punishment may be inflicted, this one must not be neglected. If the pupil comes to school with his lessons unprepared or carelessly done, he must be kept in till he prepares them properly. This will entail some extra labor on the teacher and put him to some inconvenience, but an indolent pupil cannot well be reformed without these. When such a pupil finds that he has to get his work up, if not at home, at school, while the others are at play, he will soon discover it to be to his advantage to come prepared; and if the teacher is patient and enthusiastic, in a short time he will be reformed, become a leader in the class, a surprise to himself and to his parents.

3. *Deprivation of privileges.* As such cases of continued negligence as I have referred to would not likely be committed by a pupil of any high standing in the class, I need say nothing about this mode of punishment further than to suggest that, after having got such a pupil on the right track, the granting of certain privileges to him is a good plan to keep him there. It shows him that his teacher still has his eye upon him, and, what is of more importance, the position he now fills serves, to a certain extent, to rehabilitate him in his own good opinion. A pupil should be encouraged to have a fair opinion of himself, and a permanent cure of such pupils as are under discussion will be difficult till they regain their own self-respect.

4. *Flogging.* I shall say nothing as to this mode of punishment for such offence, as in all my experience I have never yet met a pupil out of whom I failed to get a fair amount of work by other means than this.

In conclusion, let me summarize these few suggestions. A teacher finds that one of his pupils habitually comes to school with lessons unprepared or work carelessly done. He should set himself to discover the ins and outs of his character, the nature of his disposition, who his companions are—for here very often there is a key to the whole situation. The pupil would be all right if left alone. He should advise with him kindly, attempt to get on as good terms with him as possible, and show him by his manner and conduct towards him that he really cares for him. He should also secure the co-operation of the parents. In the meanwhile, by his earnestness of manner, simplicity and thoroughness of instruction, and enthusiasm of character, he has aroused such a tone in the class that the indolent pupil is insensibly drawn away from himself and is carried on with the rest, and, in a comparatively short time, to the great delight of the parent and the infinite credit of the teacher, he becomes one of the foremost members of the class.

NATIONAL TEACHERS' ASSOCIATION OF THE UNITED STATES.

To the Editor of the Canada School Journal.

DEAR SIR,—I have received the following note from the President of the American National Association;—

"We are making such preparations for the meeting of our Association at Philadelphia, July 29 to 31 inclusive, as we think will insure a great meeting. We should be glad to have you and the other Canadian educators, and the people of Philadelphia will extend a most hearty welcome to such as may be prevailed on to cross the border."

I trust that our County Associations will be able to send some delegates. The meetings of the Association which I have attended have been most interesting and instructive.

Believe me, very sincerely yours,
J. GEORGE HODGINS.

EDUCATIONAL PROGRESS IN JAPAN.

To the Editor of the Canada School Journal.

SIR,—The other day I received the following letter from the Hon. Jushii TANAKA-FUJIMAKO, Vice-Minister of Education in Japan (who visited Toronto in 1876), accompanied by the two volumes to which he refers, together with the last published report of the Minister of Education for the Empire. The letter is dated Mono Cusho, Tokio, Nippon, 15th March, 1879:

"During my sojourn in the United States in the year of the Centennial Exhibition I had gathered the school laws of the several States at different places. Since my return they were translated into the Japanese and recently published in two volumes, under the name of the American School Law, and distributed throughout the country.

"I have now the honor to send you these books, with my best compliments, and if you will accept them it will give me great pleasure."

From the report we gather the following interesting facts:

The number of elementary schools in the seven grand school divisions of the Empire is 24,947, including 1,460 private schools. The number of teachers is 52,262, or more than two on an average to each school. Of these teachers 49,294 were males and only 983 females. This fact indicates how great is still the social inferiority of women in the Empire. The number of pupils is 2,067,801—1,493,588 male and only 501,887 female, and this further indicates the low social status of women in Japan. The average proportion of girls is vastly greater in the private schools (many of them being foreign missionary schools, which would account for the difference). In these schools there are 47,258 boys and 25,073 girls. The average number of pupils in each elementary school is 82, and of teachers 2.09, being less than 40 pupils to each teacher, which is about the true standard of average for each teacher in our public schools.

Much yet remains to be done to diffuse the benefits of popular education in Japan. For of the school population of the empire (5,160,918) not one half (2,067,801) are enrolled as pupils.

In regard to the progress of female education in Japan it is gratifying to observe that during the year cited the increase of female pupils reached 18 per cent., while the increase of the male pupils was but 9 per cent.

For the training of teachers Japan has made thus far satisfactory provision. There are 102 Elementary Normal (equivalent to our County Model) schools. There are two normal colleges and four female normal schools, which is a very hopeful sign. The Japanese Minister of Education evidently favors this idea, for he says:

"The education of children should be so conducted as to develop grace and gentleness in their manners and deportment. If they are brought up under the gentler natural qualities of female teachers a much better result may be expected to be attained than if trained entirely by men. *It may safely be said, therefore, that as the number of females being educated is increased, so the future happiness of the people will be promoted.*" This testimony in favor of female teachers from an eastern source of great antiquity is exceedingly valuable and interesting.

Amongst the educational institutions of some national importance which are mentioned in the report, I may name the 92 "foreign language schools," devoted to the instruction of pupils in various European languages. Of these 87 are for instruction in the English language, and 5 for instruction in French, German, Russian and Chinese. There is also a college for special science. There are 21 students in foreign countries under the control of the Education Department. Some are in England, France and Germany, and the remainder in the U. S.

Provision has also been made for the inspection of the schools, and for the regulation of text-books. Of the latter 60 are pub-

lished by the Education Department, 25 by other Departments of the Government, and 77 are private editions; total, 162 in the various branches.

The Minister lays considerable stress on the importance of establishing local libraries and museums, of which a few only exist. But these are regarded with considerable favor.

Your obedient servant,
J. GEORGE HODGINS.

"AS" AND "THAN."

To the Editor of the Canada School Journal.

SIR,—In looking over the February number of your valuable publication I chanced to notice the answers to inquiries of "Subscriber" (from Pembroke, I think), and was pleased that you advocated the use of Mason's Grammar in preference to all others. Judging from this that you wish to lay before your readers Mason's rules—and Mason's only—I thought I would speak of the sentence given by you in explanation of the uses of "as," which is not exactly in accordance with Mason. The sentence given by you, as complete, is: "He did it as well as I could do it." Now, according to Mason, it is not complete. It should be: "He did it as well as I could do it (well)"; and, in reality, it could not be otherwise, for if we ask what the predicate in the dependent clause is, the answer is, doing it well; and, moreover, not *doing it well* simply, but doing it well in a certain degree, which is denoted by the relative adverb "as," which modifies "well" (understand) in the dependent clause, just as the demonstrative adverb "as" modifies "well" in the main clause. From this it is plain that the first "as" is demonstrative and modifies "well" in the main clause. The clause "as I could do it (well)" also modifies "well," and is co-ordinate with "as." The second "as" is relative and modifies "well" (understood) in the dependent clause. (Mason, 422.) For uses of "as" I would refer "Subscriber" to Mason, 264 note, 290, 584, 551, 552, 554, 555, 558, 561, 572, 167. "Subscriber" also asks an opinion on "than," asking, if Mason does not say it is "simple or conjunctive." I am not aware of Mason calling "than" simple in any form. He says it is a connective adverb. With a little modification in meaning we can make your sentence: "He did it better than I could do it," or, in full, "He did it better than I could do it (well)." The sentence beginning with "than" is in the adverbial relation to the predicate in the main clause, and "than" is in the adverbial relation to the predicate in the dependent clause (Mason, 422). The original and proper meaning of "than," according to Mason, was "when," which makes its meaning quite intelligible when kept in view. According to his explanation the meaning of this sentence would be, "When I could do it well, he could do it better." The "when" not referring so much to the time as to the circumstances of the case, Mason says: "It may be taken as a general rule that after the relative adverbs *as* and *than* we must supply a word of the same kind of meaning as the word qualified by the simple or demonstrative in the main clause"; also, in Anglo-Saxon we often find the word qualified by the relative expressed. See Mason, 548 note. For uses of "than," see Mason, 264 note, 549, 550, 553, 556, 559, 540, 567, &c.

Respectfully yours,
A PERTH HIGH SCHOOL BOY.

Perth, March 24, 1879.

THE "NEW ENGLAND JOURNAL OF EDUCATION" AND THE ROMAN CATHOLIC SEPARATE SCHOOLS OF ONTARIO.

To the Editor of the New England Journal of Education:

SIR,—The *New England Journal of Education* of the 23rd Jan., 1879, contains some remarks relative to Roman Catholic Separate Schools in Ontario, Canada, which admit of a slight revision, and, in one or two particulars, of a little modification.

The *Journal* says:—"Individual Roman Catholics in Ontario, whose consciences are very tender, have 'rights,' so called, but we deny that the Catholics of the Province, in their corporate capacity, have any special rights in Ontario that they do not possess in the Republic."

In reply to this, I beg leave to say that the Roman Catholic School Law is the same for all the Catholics in Ontario, whether their consciences are tender or not. They are secured in the right

to establish and maintain schools in which the principle of parental authority is in force. This right is not a so-called right, but a real and most sacred right, granted to them by their Protestant fellow-citizens of Ontario, and guaranteed to them by the Parliament of England in the British North America Act of Confederation. Roman Catholics, as such, have no corporate existence in Ontario any more than the members of the other denominations of its citizens; consequently what is denied to them in that capacity by the *Journal* is not a privation in any sense. In Ontario, every denomination is on a footing of the most perfect equality before the law. Until now, I was not aware that the Catholics existed in a "corporate capacity" in the United States.

It is not correct to call the Roman Catholic Separate Schools *private schools*. They are established by law; supported, taught, and inspected according to law; and in every way conducted like the Public Schools, and, like them, receive Government recognition and aid in proportion to the work they do; the only difference being the one already indicated. The Roman Catholic Schools in Ontario are as much and as perfectly a portion of the educational machinery of the country as are the Public Schools of the majority. Not only in Ontario, but in general throughout every part of the British Empire, parents enjoy the right to educate their children according to the dictates of their conscience and the teachings of their religion. And we American Catholics here in Canada cannot help regretting the absence of a similar privilege for our co-religionists in your great Republic, which we all so much admire in all respects save this one.

The *Journal* says:—"The right to establish Separate Schools was conceded *thoughtlessly* by the conquerors of Quebec, and cannot be accredited to the liberality of the Ontario Government, which, had it been left to itself, would have nobly refused to disfigure its educational system with Separate Schools."

To these assertions I may be permitted to say the certain things are brought together here and mixed up a little which must be kept apart. The Treaty of Quebec, subsequently ratified in Paris, secured to the French Canadian inhabitants of Canada all the rights and privileges—social, civil, and religious—then enjoyed by them in as far as compatible with British law. Nothing was then said or done, asked for or conceded, thoughtlessly or otherwise, in reference to Roman Catholic Separate Schools in Ontario. As a matter of fact, our first Catholic Schools in Ontario (then Upper Canada) were opened somewhere about the year 1830, under the Right Rev. and Right Honorable Bishop McDonald, first Roman Catholic Bishop in Upper Canada, and member of the Privy Council. He brought over a few Catholic teachers from Scotland, and at first supported them largely at his own expense. But it was in the year 1842 that Separate Schools were first legally established in Ontario (Upper Canada). The provisions in their favor have, from time to time, been extended, and at the time of Confederation were placed under the shield of British protection, with the consent and through the liberality of the Protestant majority of Ontario. And in doing so they have not at all *disfigured their own educational system*; on the contrary, they have done right nobly, and wisely, and well, in acceding to the conscientious demands of their Roman Catholic fellow-citizens, and allowing them to educate their children as they think proper. Not to the State, but to the parent, was it said:—"Train up a child in the way he should go, and when he is old he will not depart from it."

Further evidence of the enlightened liberality of the Protestants of Ontario towards their Roman Catholic fellow-citizens is to be found in the School Bill now on its way through our House of Assembly, in which further improvements are being made to our Separate School Law, bringing its provisions into more complete harmony with the Public School Law, and rendering it more efficient and more acceptable to the supporters of Separate Schools. This fresh concession has been made to us by the unanimous voice of our Legislative Assembly of Ontario, and must not be accredited to what was thoughtlessly done by the conquerors of Quebec.

In conclusion, I beg to enquire: 1st. Does the *Journal* think the Protestant majority in Ontario would do well now to force its school system on the Catholic minority? If so, would the Catholic majority of Quebec do right to force its system on the Protestant minority? 2nd. In France, in Bavaria, in the Catholic Cantons of Switzerland, in Belgium, in Wurtemberg, and in those parts of Prussia where Catholics are a majority, would they do nobly to force the Protestant minority into their schools?

A satisfactory reply to these questions will be found interesting

to educationists on both sides of the line, and to the friends of true liberty everywhere.

I am, sir, your obedient servant,

M. STAFFORD, Pt.

Lindsay, Ont., March 6th, 1879.

Mathematical Department.

Communications intended for this part of the *JOURNAL* should be on separate sheets, written on only one side, and properly paged to prevent mistakes. They must be received on or before the 20th of the month to secure notice in the succeeding issue.

ALFRED BAKER, M.A., EDITOR.

RELATIONS BETWEEN THE ROOTS AND THE COEFFICIENTS OF EQUATIONS.

It will be remembered that if a, b be the roots of $x^2 + px + q = 0$, then $a + b = -p$; $ab = q$; or if α, β be the roots of $ax^2 + bx + c = 0$, then $\alpha + \beta = -\frac{b}{a}$, $\alpha\beta = \frac{c}{a}$. These relations may be made use of to obtain the values of various symmetrical functions of the roots in terms of the coefficients, and to form equations whose roots are symmetrical functions of the roots of given equations, without actually solving the equations. We proceed to give some examples.

Ex. 1. If a, b be the roots of $x^2 - px + q = 0$, find the value of $\frac{a}{b} + \frac{b}{a}$ and of $a^3 + b^3$.

Here $a + b = p$, $ab = q$;

$$\text{Also } \frac{a}{b} + \frac{b}{a} = \frac{a^2 + b^2}{ab} = \frac{(a+b)^2 - 2ab}{ab} = \frac{p^2 - 2q}{q}.$$

$$\text{And } a^3 + b^3 = (a+b)(a^2 + b^2 - ab) = (a+b)\{(a+b)^2 - 3ab\} = p(p^2 - 3q).$$

Ex. 2. If the roots of $x^2 + px + q = 0$, and $x^2 + qx + p = 0$ differ by the same quantity, show that $p + q + 4 = 0$.

Let k be this quantity, so that the roots of the first equation are $a, a+k$, and those of the second $b, b+k$.

Then $a + a+k = -p$ (1), $a(a+k) = q$ (2).

Also, $b + b+k = -q$ (3), $b(b+k) = p$ (4).

$$(1) - (3) \text{ gives } 2(a-b) = q - p,$$

$$(2) - (4) \text{ gives } a^2 - b^2 + k(a-b) = q - p;$$

$$\therefore a^2 - b^2 + k(a-b) = 2(a-b),$$

$$\text{or } a + b + k = 2.$$

Again, (1) + (3) gives $2(a+b) + 2k = -(p+q)$;

$$\therefore 4 = -(p+q),$$

$$\text{or } p + q + 4 = 0.$$

Ex. 3. If a, b be the roots of $px^2 + qx + r = 0$, form the equation whose roots are $a^2 + b^2, a^{-2} + b^{-2}$.

$$\text{Here } a + b = -\frac{q}{p}, ab = \frac{r}{p}.$$

$$\text{The required equation is } \left\{ x - (a^2 + b^2) \right\} \left\{ x - \frac{a^2 + b^2}{a^2 b^2} \right\} = 0,$$

$$\text{or } x^2 - (a^2 + b^2 + \frac{a^2 + b^2}{a^2 b^2})x + \frac{(a^2 + b^2)^2}{a^2 b^2} = 0.$$

$$\text{Now } a^2 + b^2 = (a+b)^2 - 2ab = \frac{q^2}{p^2} - \frac{2r}{p}.$$

Hence the required equation becomes

$$x^2 - \left(\frac{q^2 - 2pr}{p^2} + \frac{p^2}{r^2} \right) x + \frac{\left(\frac{q^2 - 2pr}{p^2} \right)^2}{\frac{r^2}{p^2}} = 0,$$

$$\text{or } p^2 x^2 - (q^2 - 2pr)(p^2 + r^2)x + (q^2 - 2pr)^2 = 0.$$

Our readers may work the following:

1. If a, b be the roots of the equation $px^2 + qx + r = 0$, form the

equation whose roots are $\frac{1}{a}$ and $\frac{1}{b}$.

2. If a, b be the roots of $mx^2 + x + n = 0$, show that $(1 + \frac{a}{b})$

$$(1 + \frac{b}{a}) = \frac{1}{mn}.$$

3. If a, b be the roots of $px^3 + qx + r = 0$, show that the equation whose roots are $\frac{a^3}{b^2}$ and $\frac{b^3}{a^2}$ is

$$p^3 r^2 x^3 + (5p^2 q r^2 - 5p q^3 r - q^6) x + p^3 r^3 = 0.$$

4. The roots of the quadratic $x^2 + px + q = 0$ are a and b . Form the equations whose roots are a and $-b$, b and $-a$, respectively, and verify by comparing with the biquadratic whose roots are $\pm a, \pm b$.

5. Form the equation whose roots are the squares of the sum and difference of the roots of $2x^2 + 2(m+n)x + m^2 + n^2 = 0$.

6. If a, b be the roots of $x^2 + rx + \frac{3}{16}r^2 = 0$, form the equation whose roots are $a^3 + b^3$ and $a^3 - b^3$.

7. If a, b be the roots of $x^2 + px + q = 0$, and a, c those of $x^2 + rx + s = 0$, prove that $b + c$, and bc , respectively, satisfy the equations

$$x^2 + (p+r)x + 2(q+s) = 0, \text{ and } x^2 + (q+s-pr)x + qs = 0.$$

It is a well-known theorem that if $f(x)$ be a rational integral function of x which vanishes when $x = a$, then $x - a$ is a factor of $f(x)$. Thus, if a, b, c be the roots of $x^3 + px^2 + qx + r = 0$, since $x^3 + px^2 + qx + r$ vanishes when $x = a$, or $= b$, or $= c$, therefore $x - a, x - b$ and $x - c$ are factors of $x^3 + px^2 + qx + r$; i.e., $x^3 + px^2 + qx + r$ is identically equal to $(x - a)(x - b)(x - c)$, or to $x^3 - (a + b + c)x^2 + (ab + ac + bc)x - abc$. Comparing this last expression with its equivalent $x^3 + px^2 + qx + r$ we see that

$$\begin{aligned} a + b + c &= -p. \\ ab + ac + bc &= q. \\ abc &= -r. \end{aligned}$$

Similarly if a, b, c, d be the roots of the bi-quadratic $x^4 + px^3 + qx^2 + rx + s = 0$, we may show that

$$\begin{aligned} a + b + c + d &= -p. \\ ab + ac + ad + bc + bd + cd &= q. \\ abc + abd + acd + bcd &= -r. \\ abcd &= s. \end{aligned}$$

And by a method similar to that used in establishing the Binomial Theorem where the index is a positive integer, we may show that, in the general equation $x^n + p_1 x^{n-1} + p_2 x^{n-2} + \dots + p_n = 0$,

$$\begin{aligned} \text{Sum of roots} &= -p_1. \\ \text{Sum of products of roots taken two at a time} &= p_2. \\ \text{“ “ “ three “ “} &= -p_3. \text{ \&c.} \\ \text{product of roots} &= \pm p_n. \end{aligned}$$

These results are made extensive application of in obtaining the values of various symmetrical functions of the roots in terms of the coefficients; and in forming equations whose roots are symmetrical functions of the roots of given equation. We proceed to give some examples.

Ex. 1. If a, b, c be the roots of the equation $x^3 + px^2 + qx + r = 0$, express in terms of p, q and r

(1.) $\frac{1}{a} + \frac{1}{b} + \frac{1}{c}$; (2.) $a^3 + b^3 + c^3$; $\frac{a}{b} + \frac{a}{c} + \frac{b}{c} + \frac{b}{a} + \frac{c}{a} + \frac{c}{b}$.

$$q = ab + ac + bc, \quad -r = abc:$$

$$\therefore -\frac{q}{r} = \frac{ab + ac + bc}{abc} = \frac{1}{c} + \frac{1}{b} + \frac{1}{a}.$$

(2.) $-p^3 = (a + b + c)^3 = a^3 + b^3 + c^3 + 3(a^2b + a^2c + b^2c + b^2a + c^2a + c^2b) + 6abc.$

$$= a^3 + b^3 + c^3 + 3\{(a+b+c)(ab+ac+bc) - 3abc\} + 6abc.$$

$$= a^3 + b^3 + c^3 - 3pq + 9r - 6r.$$

$$\text{or } a^3 + b^3 + c^3 = -p^3 + 3pq - 3r.$$

(3.) $\frac{a}{b} + \frac{a}{c} + \frac{b}{c} + \frac{b}{a} + \frac{c}{a} + \frac{c}{b} = \frac{a+b+c}{a} + \frac{a+b+c}{b} + \frac{a+b+c}{c} - 3.$

$$= (a+b+c) \left(\frac{1}{a} + \frac{1}{b} + \frac{1}{c} \right) - 3$$

$$= -p \times -\frac{q}{r} - 3 = \frac{pq}{r} - 3.$$

Ex. 2. If a, b, c be the roots of the equation $x^3 + px^2 + qx + r = 0$, form the equations whose roots are (1) bc, ca, ab ; (2) a^3, b^3, c^3 .

(1.) The new equation is $(x - bc)(x - ca)(x - ab) = 0$, or $x^3 - (bc + ca + ab)x^2 + (a^2bc + ab^2c + abc^2)x - a^2b^2c^2 = 0$, and it remains to express the coefficients of this equation in terms of the coefficients of the original equation. $bc + ca + ab = q$; $a^2bc + ab^2c + abc^2 = abc(a + b + c) = -r \times -p = pr$; $a^2b^2c^2 = r^2$; and the equation required is $x^3 - qx^2 + prx - r^2 = 0$.

(2.) The new equation is $(x - a^2)(x - b^2)(x - c^2) = 0$, or $x^3 - (a^2 + b^2 + c^2)x^2 + (a^2b^2 + a^2c^2 + b^2c^2)x - a^2b^2c^2 = 0$. And

$$a^2 + b^2 + c^2 = (a + b + c)^2 - 2(ab + ac + bc)$$

$$= p^2 - 2q.$$

$$a^2b^2 + a^2c^2 + b^2c^2 = (ab + ac + bc)^2 - 2(a^2bc + ab^2c + abc^2)$$

$$= q^2 - 2pr.$$

Therefore, required equation is $x^3 - (p^2 - 2q)x^2 + (q^2 - 2pr)x - r^2 = 0$.

Ex. 3. If a, b, c be as before, form the equations whose roots are

$$\frac{a}{b+c-a}, \quad \frac{b}{c+a-b}, \quad \frac{c}{a+b-c}.$$

These roots may be written $\frac{a}{a+b+c-2a}$, &c., or $\frac{a}{-p-2a}$, &c.,

and the new equation becomes $(x + \frac{a}{p+2a})(x + \frac{b}{p+2b})(x + \frac{c}{p+2c}) = 0$, or $\{x(p+2a) + a\} \{ \quad \} \{ \quad \} = 0$; or $x^3 \{ 8a$

$bc + 4p(ab + ac + bc) + 2p^2(a + b + c) + p^3 \} + x^2 \{ 12abc + 4p(ab + ac + bc) + p^2(a + b + c) \} + x \{ 6abc + p(ab + ac + bc) \} + abc = 0$; and the functions of a, b, c which appear in this may readily be expressed in terms of p, q, r .

It will be observed that in forming equations whose roots are symmetrical functions of the roots of a given equation, we express the required equation as the product of binomial factors whose second terms are the given functions of the root of the given equation, multiply out, and proceed to express the resulting coefficients of x (which will be symmetrical functions of the roots of the original equation) in terms of the coefficients of the original equation.

The following examples may be worked by our subscribers:

If a, b, c be the roots of the equation $x^3 + px^2 + qx + r = 0$, form the equations whose roots are

8. $b + c, c + a, a + b$.

9. $\frac{1}{b+c}, \frac{1}{c+a}, \frac{1}{a+b}$.

10. $\frac{a}{bc}, \frac{b}{ca}, \frac{c}{ab}$.

11. b^2c^2, c^2a^2, a^2b^2 .

12. $\frac{1}{2}(b+c-a), \frac{1}{2}(c+a-b), \frac{1}{2}(a+b-c)$.

13. $bc + \frac{1}{a}, ca + \frac{1}{b}, ab + \frac{1}{c}$.

Our readers will find that by working a few examples such as the above they acquire much additional power in the questions usually given relating to the roots of quadratics. The farther the student advances in mathematics, the more distinctly he sees not only the regions he reaches, but those also that he left behind.

PROBLEMS CONTRIBUTED BY SUBSCRIBERS.

14. A municipality borrows \$10,000, interest at 7 per cent., coupons payable semi-annually. What tax must be levied to pay the interest, and create such a sinking fund as will absorb the debt in 10 equal annual payments?

"A SUBSCRIBER."

15. Solve the simultaneous equations

$$\begin{cases} y^2 + x = 11 \\ x^2 + y = 7 \end{cases}$$

16. Given the distance of a point in an equilateral triangle from each of the angular points of the triangle, to construct the triangle.

A. B., Montreal.

17. Given the base of a cone 24 inches, the slant side 20 inches, required the perpendicular distance from the base of the highest point in the side of the cone through which a plane must pass, that the section may be the greatest parabola possible.

J. W. PLACE, Augusta.

G. H. B., of the Sheffield Academy, has sent in three different correct solutions of Prob. 6 of the March number.

J. W. P.—Your solution of Prob. 4, March number, was not correct. The difficulty you attempted to get over in your second communication is still the weak point.

G. S.—Your solution was not correct. In your first solution of the windmill problem you did not sufficiently appreciate the experimental basis on which a correct solution must rest. See Prof. Galbraith's solution in a back number.

J. P.—Your propositions were correct, but your attempts at the deductions were all failures. The lateness of the arrival of your first communication prevented us from noticing it in the April number.

Practical Department.

ATTENTION; HOW TO SECURE AND RETAIN IT.

BY JAMES HUGHES.

I. KINDS OF ATTENTION.

Attention may be of two kinds, *Negative* and *Positive*.

Negative Attention.—A pupil may look without seeing, listen without being conscious of hearing, and hear without comprehending. He may sit and dream. The mind has *inner* as well as *outer* gates. The outer gates admit merely to the courtyard of the mind. A great many pupils keep the inner doors closed to much of the teaching done by their teachers. We may perceive without receiving distinct conceptions. Thousands look at a store window in passing it without being able to name or even give the color of a single article in it.

We may hear also without taking in the thoughts of the person speaking. How often men sit in church and hear a preacher's voice without hearing his words. The sounds he makes get through the gates of the castle wall, but the castle itself is shut and filled with other tenants. The telephonic key has not been adjusted, and direct communication has not been established. We hear various sounds—the bell of the factory or the school, the whistle of the steam engine, the song of the birds, &c.—without

always being consciously impressed by them. Sometimes they influence or arrest our lines of thought, but more frequently, unless they convey a special message to us, we allow them to pass unheeded. Negative attention consists in the outward marks of attention merely. It is a form without reality; a seed without an active germ, from which nothing of life and beauty can ever spring.

Positive Attention.—A pupil who gives positive or *active* attention, is attentive not merely with his body but with his mind. He has the *inner* as well as the outer gates of his mind open. His mind must be *willing* to receive the thoughts his teacher has to communicate, and it must not be preoccupied, or *actively engaged with other thoughts*. He must for a time forget his personality, and turn from thoughts of his own plays and work and all that directly interests him. He must get out of his own current of thought and into that of his teacher.

Positive attention is the kind of attention which a teacher must have from his pupils if he wishes to impress them. If he secures only *negative* the minds of his scholars may be a thousand miles away whilst their bodies may occupy positions of most reverent attention. Careful attention is therefore directed to the following considerations:

1. **Positive attention is very difficult to obtain.**—This should not discourage the teacher, however. It is one of his highest duties to his pupils to train them to be able to fix their undivided attention on one subject. The extent to which a man can rivet his attention, and control the working of his own mind, decides the standard of his intellectual power. The force of a stream becomes resistless as its channel becomes restricted. The genial rays of the sun when brought to a focus have intense burning power. The mind which admits various subjects at the same time, and as a result becomes confused and full of but indistinct ideas, might, if all its energies were directed to the investigation of only one subject, mount with majestic tread from height to height in original investigation.

It is a difficult matter, however, even for adults to concentrate their attention on the one subject in hand. How often the thoughts which we hear uttered, or which we read, make no deeper impressions on our minds than the "shadows of the passing clouds do upon a landscape." A teacher should be patient when he finds that some active-brained boy or girl is in "wonder-land," when he is supposed to be revelling in the delights of complex fractions. It is often injurious to a very young child to startle it from its reveries. Mental links may thus be broken which will never be re-united. This remark should, however, be noted by parents and teachers of individuals, rather than by teachers of classes.

2. **Positive attention is a "result of good teaching rather than a condition on which the power to teach well depends."**—Those effeminate, or fossilized teachers, who weakly say, "Oh, dear! if my pupils would only give me their attention, I could teach them so well," should honestly say, "If I taught better, my class would attend to my teaching." It is of course true that the minds of the pupils may influence that of the teacher, but the extent to which this is true depends almost entirely on the teacher himself. Four things settle the question of mental control between the teacher and the taught.

1. The natural strength of the teacher's mind.
2. His force of character.
3. The interest he takes in his work.
4. The clearness of his conceptions of the subjects he desires to teach.

The weak, careless, indolent teacher, who has not thoroughly prepared the special lesson he has to teach, will not be a controlling power to a very large extent.

3. Positive attention cannot be secured by demanding it, or by coaxing, scolding, commanding, threatening, or reasoning.—The maxim, "One man may lead a horse to the water, but ten men cannot make him drink," applies with great force here. Negative attention may be secured by compulsion, positive cannot be forced. We can force order, and submission, but not active attention. It must be voluntary. He who demands something entirely beyond the limits of his control, demonstrates his own weakness and presumption. Coaxing, scolding, commanding and threatening very soon lose their influence, and, if indulged in after that point has been reached, they secure for the teachers who use them the disrespect of their pupils. Even reasoning with pupils cannot permanently secure attention. It will certainly be of service for the teacher to show his pupils clearly the necessity for attention, and the benefits arising from it. This will produce in them a mental attitude favorable to attention, and will thereby make it easier for them to do their part, but it does not relieve the teacher of his responsibility for sustaining the interest in the lesson.

4. Startling a class to make them attend is not a wise course.—Some teachers try an explosive method of securing attention. They first helplessly allow their classes to drift into a state of disorder and confusion, and then suddenly comes a thunderclap; the desk is struck violently with a ruler, or the floor is stamped upon heavily. Attention gained in such a way is only of a temporary kind. The noise of the pupils yields for a time, but very soon it re-asserts itself. Attention to be valuable must be fixed. Teachers should, of course, never forget that giving fixed, active attention is an exhaustive exercise, and that relaxation in some form—music, free gymnastics or both combined—should be given to pupils at frequent intervals.

II. HOW TO SECURE AND RETAIN ATTENTION.

We have seen that attention should have three characteristics. It ought to be:

1. Active, or Positive.
2. Voluntary.
3. Fixed.

In order that attention of this kind may be obtained five things are necessary:

1. The physical comfort of the pupils must receive careful attention.
2. The teacher must exercise control.
3. The teacher must stimulate the pupils' curiosity or desire to know.
4. The teacher should gratify the pupils' natural love for mental activity.
5. Full sympathy of thought, feeling and aim between the teacher and his pupils.

Physical requisites for maintaining attention.—1. *The room must be well lighted.* Children cannot be bright and happy in a room that is insufficiently or badly lighted. The light should never come from the front or the right of the pupils. It is best when admitted *only from the left*, but a left and rear light is admissible. All windows should reach well up towards the ceiling, and they should not extend too low down. It is better if all the light is admitted above the level of the eye.

2. **The room must be properly ventilated.**—Unless it is, the health of the children is injuriously affected, and their spirits depressed.

3. **The temperature must be regulated.**—Pupils cannot be quiet and studious if their toes and fingers are cold. They become tired and indolent if the temperature rises too high. Cold feet and hot heads at the same time are bad for the health in many respects. The normal temperature is about 65 degrees.

4. **The pupils must be seated comfortably.**—The two essentials for comfort are—

1. The seats must not be *too high*.

2. The back should fit the pupils' spine curvature.

A child's feet should rest on the floor, so that no part of the weight of the leg is borne by the thigh bone. Many seats have backs *too high*, others are *too low*, and sometimes the seats in galleries have no backs at all. Either arrangement is a cause of pain to the children who sit on such seats.

5. **Pupils should be allowed to change their posture frequently.**—The body tires sooner than the mind. Even if supplied with comfortable seats, remaining in one position too long causes injury to the body, and compels the withdrawal of the mind from the lesson, to note the necessities of physical comfort.

If the teacher notices that his class is unusually restless and inattentive, he should allow them to spend say half a minute in simple physical exercises. Even standing up and sitting down will aid in removing listlessness and the disorder resulting from nervous restlessness. Exercises should always, if possible, be performed in time with music. They then form the most powerful and, what is of more importance, the most natural disciplinary agent a teacher can employ.

DIFFICULTIES IN PRONUNCIATION.—No. VIII.

BY JAMES HUGHES.

C (hard), G (hard), and K.

There is a common pronunciation of *calm, calf, cart, guard, &c.*, which is regarded as vulgar. By some means general attention has been directed to the subject in Canada, and in many places a speaker's reputation for correct speaking depends on his manner of pronouncing this class of words. Strangely enough, too, those teachers and others who are so strong in their condemnation of the "vulgarity," uniformly give incorrect directions for removing it. They do not make a correct diagnosis of the case.

"Change your vowel sound from the short to the grave," is the instruction given. One writer says, "To one who has pronounced c-a-l-f, *käf*, for many years, the change to *käf* may make him feel not unlike that animal for some time." Attention is uniformly directed to the vowel as the source of error.

Did any one ever use the short sound of the vowel in such a word? It is not probable, except as an experiment. Would any person say *alm* exactly like *am*, or *alf* like *af* in the word *African*? Certainly not, yet the *l* is not sounded in either case, nor does the *m* or the *f* change its sound. The difference—and it is a very marked one as uttered by even careless speakers—arises entirely from the *a*. The *l* is introduced for the purpose of modifying the *a*. *L* and *R* exercise kingly power over the vowels. The word *stopped* is a more expressive name for the sound of the vowel which we call *short*. *R* and *L* do not stop the sounds of the vowel which precedes them when the *r* or the *l* is not the final letter in a syllable. It is true that the sound given to *a* in the words quoted may not always be exactly *ä*, but it is certainly not *ä*.

The mistake made by teachers renders it very difficult for any one to correct his erroneous pronunciation of such words. Children under eight years of age, and a few over that age, will make corrections by mere imitation, without difficulty. Older people must have the error pointed out more clearly, and usually require the formation of the vocal organs to be given. It follows, therefore, that if the mistake made is not properly defined, the learner will have to guess at the right sound; and he will not always be certain that he utters it correctly. The following is a

specimen of the evil results of bad teaching in connection with the class of words under discussion.

A literary society in one of our cities in Ontario, where the young gentlemen take a proper pride in using correct English, both in structure of sentence and pronunciation of words, heard that it was "vulgar" to pronounce these words in a certain way. They heard also that it was the vowel sound which was slighted. They determined to remedy the evil. The society had among its members some practical teachers who had been trained to change the vowel sound. Soon the society had rid itself of its vulgarism, and were startling their friends by saying, "cawm evening, Miss —," &c. Whether they "felt like the animal" or not when saying cawf, is not on record.

The great difference in the two ways of pronouncing these words is not in the sound of *a* at all. The change is made before the *a* is reached. Are there then two sounds for *c* (hard), two for *g* (hard) and two for *k*? Yes. They have different powers before the different sounds of the vowels. The letter *k* has two sounds in the one word kick. The first may be expressed by *ke*, the second by *ku*, both the *e* and the *u* being obscure. If any one will carefully sound *cat* and *cot*, and pause before *a* and *o*, he will see clearly that he does not place his vocal organs in the same position in order to form what precedes the *a* and the *o*. The tongue lies farther forward in the mouth, and its body is pressed more close to the roof of the mouth in commencing the word *cat* than in the word *cot*. In the former the sound before *a* is nearly *ke* (long *e* obscure) or *ky* (*y* consonant shortened).

The two formations for the gutturals are recognized by a Gaelic grammar, and called the *broad*, as in *cot*, &c., and the *close*, as in *cat*. Professor Bell, the king of phonic analysts, names the two formations the *posterior* and the *anterior*.

Smart also indirectly accounts for a double power of *k*, *g* and *c* by saying that "between them and some vowel sounds must come a slight sound of *e*."

It must be noted that in using the anterior formation before a vowel, great care must be taken not to introduce between the two a full *y* (consonant) sound.

To distinguish the *anterior* from the *posterior* more clearly, the former may be fully made with the point of the tongue pressed against the lower teeth, while the latter requires the tongue to be drawn well back and the "point may even be curved backwards." It is better, however, in speaking, not to curve the point of the tongue in the latter, nor drop it into the lower jaw in the former formation.

There is no doubt about the existence of two sounds for *k*, &c.; the only question is when to use one and when the other

In America good usage is as follows:—

The *anterior* formation nearly equal to *ky* or *gy*, with the *y* sound very slight, is usual before the following vowel sounds.

A long, as *Kate*, *gale*, &c.

A short, as *cat*, *gad*, *cash*, &c.

A long before *r*, as *care*, &c.

E long, as *keep*, &c.

E short, as in *get*, &c.

I long, as *kind*, &c.

I short, as *king*, *give*, &c.

U long, as *cure*, &c.

The *posterior* formation, *ku* or *gu* with a very obscure *u*, is given before;

A *Italian* or *grave*, as *calm*, *garb*, &c.

A *broad*, as *call*, *gall*, &c.

O in all its sounds, as *cot*, *coat*, *cogt*, *corn*, *come*, &c.

U in all but its long sound, as *cub*, *curl*, &c.

Usage is divided as to the formation to be used before *E* and *I* short and obfuse, as *kernel*, *kern*, *kirk*, *girl*, &c. The balance of good usage is in favor of the *anterior* formation.

The mistake commonly made in sounding the words *calm*, &c., is that the *anterior* formation is used instead of the *posterior*. This leads to a slight corruption of the vowel sound which follows it. The error may be corrected by omitting the *y* that is sounded between the *c* and the *a*.

CALISTHENIC EXERCISES WITH APPARATUS.

Many teachers and students desire to obtain some light apparatus, which is cheap, and easily used in exercising. Nothing has been invented which is more simple, and which at the same time can be used in such a variety of practices as "Goodyear's Pocket Gymnasium."* It consists of a strong rubber tube, with wooden handles inserted at the ends. Different sizes are prepared to suit persons of various degrees of strength. It is so small that it can easily be carried in the pocket. For students taking exercise to relieve the brain and send the blood to all parts of the body freely, or for those private or public schools which desire apparatus, this apparatus is strongly recommended. Every muscle in the body can be exercised with its aid. The following are given as specimen exercises. They may be varied to an almost unlimited extent. In performing any new exercises the teacher should avoid those which strain the muscles of the lower part of the abdomen:

EXERCISES

With "Goodyear's Pocket Gymnasium."

These exercises commence with the hands, and gradually advance to the arms, shoulders, neck, head, chest, body, legs and feet, until every portion of the frame is brought into complete action.

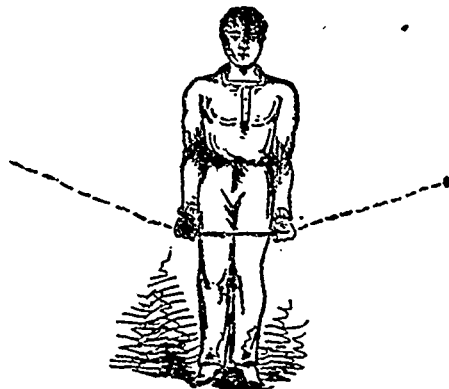


FIG. 1.

HANDS AND ARMS.—Grasp the handles with tube across lower limbs. Brace left hand without touching the body. Pull strongly with *r. h.* to + at *r.* three to five times. In the same way with *l. h.* Then alternately. Finally, both hands to full extent to + +. Then turn the palm of hands with thumbs at ends of tube, and repeat the preceding exercises. To vary this, use *r. h.* with back and *l. h.* with palm forwards: then change to *l. h.* Be sure to breathe well, and to be in earnest.

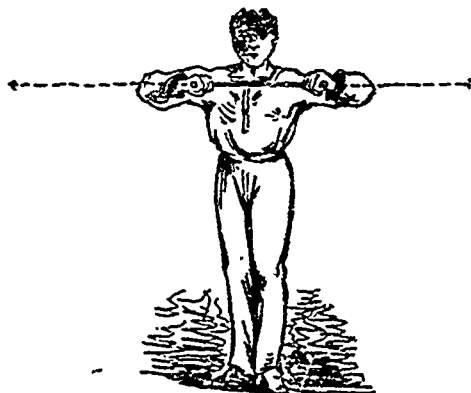


FIG. 2.

ARMS AND SHOULDERS.—With raised arms pull with r. h., then l. h., then both to +, each five times. Now change the grasp of the hands as in Fig. 1., and repeat the exercises. Then change the grasp again, with one back of hand and one palm forward, and give again all of the exercises. Now turn the backs of both hands to the chest, the elbows pointing front, and use first r. h., then l. h., then alternately, and then both. Add others to these.

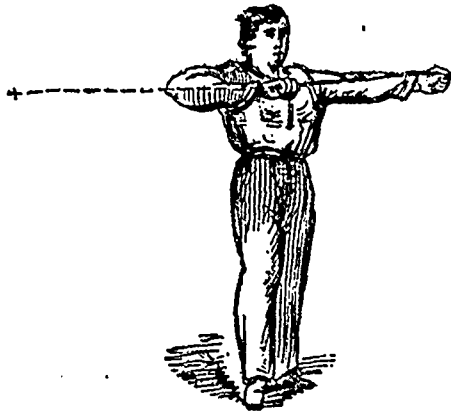


FIG. 3.

Pull with r. h. to +. Then change, and with l. h. resting on chest, pull as when using the r. h. Put the palms front and pull first with r. h. then l. h. Then one back of hand, and one palm, fronting, and pull as before. Then alternate hands, and repeat all.



FIG. 4.

Pull with r. h. up to +, then in a like manner with the l. h. Change grasp with palms out. Then one back and one palm. Then alternate grasp. Add exercises.

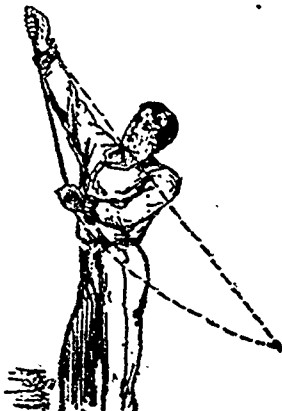


FIG. 5.

Raise l. h. and pull down with r. h. to +. Then place r. h. on shoulder and pull. Then place r. h. above head and pull down with l. h. Now change with palms as before, and pull, making up different exercises at will.

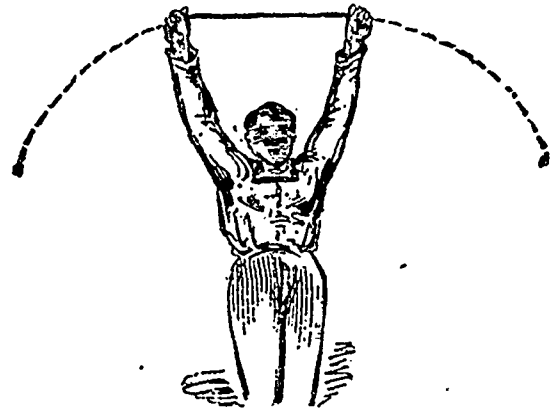


FIG. 6.

Hands high above the head. Pull r. h. only, then l. h. Then alternately, then both. Change one palm and repeat exercises; change the other, then both and repeat. Add more exercises to these.

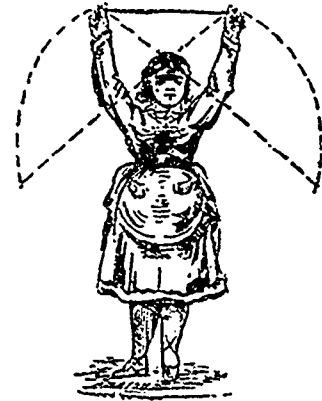


FIG. 7.

Hands above the head. Pull with r. h. to l. + and back to position five times. Hands as at first, and follow curve dotted line to r. in front of the face. Alternate the movement by carrying hands as before, but back of the head. Change the exercise to l. h. and repeat, front and back, and alternate, five times.

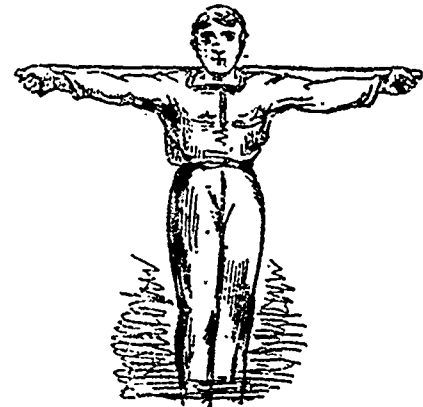


FIG. 8.

ARMS, CHEST, AND LOINS.—Place tube back of the neck, r. h. on the shoulder. Stretch to extreme, five times. Then with l. h. Then alternate. Then both. Change grasp with thumbs resting on ends of handles, and repeat the exercises. Then alternate the

grasp and repeat. Now extend the tube with both hands and swivel about from r. to l. and back. A capital exercise for the chest and loins.

NORMAL EDUCATIONAL CONFERENCE.

Many educators of the United States and Canada have felt the desirableness of having an Educational Conference in which they could meet for more extended fraternal and personal acquaintance, and where they might discuss freely all matters relating to Education and to Teaching. Teachers have wished for a meeting in which they might enjoy the largest freedom for the expression of honest convictions—those which are founded upon "reasoned opinions" concerning educational affairs. It is proposed to establish a Normal Educational Conference which shall meet these wants; where each speaker shall be responsible for his opinions; where each shall be subject to thorough discussion, after being placed before the meeting; and whose motto shall be "Neither Propagandism nor Victory, but Truth."

The lectures delivered at the Conference will be pedagogical in character, professional in nature, historical and thoroughly philosophical in treatment. The investigations will be comprised within the following limits: The Science of Education; the Art of Education; the Profession of Teaching, which includes both the Science and the Art—the former relating to discovering methods of Teaching, the latter to inventing Modes of Teaching. In detail, these lectures will present studies in Education as related to individual, to State, and to National growth; in Psychology; in Physiological Psychology; in Methods, or Principles, of Teaching; in Modes of Teaching special subjects; in Principles of School Government; in Economics of the School Room; and in School Supervision and Modes of Licensing Teachers. The effort will be to present the ripest thought and experience of the times.

It is not designed that the meeting shall be one for teaching and drill, but a Conference for expounding principles, for presenting facts, and for suggesting improvements relating to matters comprised within the scope of Education and Teaching. This will be done in single lectures, or in courses of lectures, according to arrangements previously made with the Conductor.

This will be a rare opportunity for teachers of all grades and classes of schools to learn the advanced thought on educational affairs, to engage in discussions for the purpose of arriving at truth, and to enlarge their professional knowledge.

The public generally will also find the sessions of the Conference thoroughly enjoyable and profitable; the meetings will be open and free to all who desire to attend.

The Conference will convene in the Tabernacle Pavilion, at Thousand Island Park, situated on Wellesley Island, in the River St. Lawrence, on Monday, August 11, 1879, and continue through the week, closing on Saturday evening, the 16th.

It is expected that there will be four lectures and discussions daily—at 9.00 a.m., at 10.30 a.m., at 2.30 p.m., and at 8.00 p.m. If deemed desirable, an extra session for discussion can be held at 4.00 p.m.

The "Thousand Island Park Association" have decided to make their beautiful grounds an educational resort—a place where the wearied teachers of the United States and Canada may retreat from the busy world, and enjoy rest, and receive culture at the same time. Doubtless many teachers will avail themselves of the privileges they offer. Professor J. H. Hoese, Principal of Cortland Normal School, favorably known by his writings to many Canadian teachers, will act as Conductor.

Mr. James Hughes, of Toronto, will give further information to Canadians who may desire it.

The full programme will be given in the JOURNAL for June.

RECREATIONS IN ARTICULATION.

PRACTICE FOR THE CURE OF LISPING.

Shrewd Simon Short sewed shoes. Seventeen summers' storms and sunshine saw Simon's small shabby shop standing staunch; saw Simon's self-same sign swinging, silently specifying: "Simon Short, Smithfields's sole surviving shoemaker." Shoes sewed and soled superfinely." Simon's spry, sedulous spouse, Susan Short, sewed shirts, stitched sheets and stuffed sofas. Simon's six stout sturdy sons—Seth, Samuel, Stephen, Saul, Shadrach and Silas—sold sundries. Sober Seth sold sugar, starch, spices; simple Sam sold saddles, stirrups screws; sagacious Stephen sold silks, satins, shawls; sceptical Saul sold silver salvers, silver spoons; selfish Shadrach sold shoe strings, soaps, saws, skates; slack Silas sold Susan Short's stuffed sofas.

Some seven summers since, Simon's second son, Samuel, saw Sophia Sophronia Spriggs somewhere. Sweet, sensible, smart Sophia Sophronia Spriggs! Sam soon showed strange symptoms. Sam seldom stayed at the store selling saddles, but sighed sorrowfully, sought Sophia Sophronia's society, sang several serenades slyly. Simon stormed, scolded severely, said Sam seemed so silly, singing such shameful, senseless songs.

"Strange, Sam should slight such splendid summer sales," said Simon, "strutting spendthrift! shatter-brained simpleton. "Softly, softly, sire," said Susan; "Sam's smitten—Sam's spied a sweetheart."

"Sentimental schoolboy!" snarled Simon, "Smitten! Stop such stuff!"

Simon sent Susan's snuff box spinning, seized Susan's scissors, smashed Susan's spectacles, and scattered several spools. "Sneaking scoundrel! Sam's shocking silliness shall surcease!" Scowling Simon stopped speaking, starting swiftly shopward. Susan sighed sadly. Summoning Sam, she spoke sweet sympathy. "Sam," said she, "sire seems singularly snappy; so, son, stop strolling, stop smoking segars and spending specie superfluously; stop spracing so; stop singing serenades—stop short; sell saddles, son; sell saddles sensibly; see Sophia Sophronia Spriggs soon; she's sprightly, she's staple, so solicit and secure Sophia speedily, Sam."

"So soon? so soon?" said Sam standing stock still.

"So soon! surely," said Susan, "specially since sire shows such spirit."

So Sam, somewhat scared, sauntered slowly, shaking stupendously.

Sam soliloquizes:

"Sophia Sophronia Spriggs Short—Sophia Sophronia Short, Samuel Short's spouse—sounds splendid. Suppose she should say—she sha'nt."

Soon Sam spied Sophia starching shirts and singing softly.

Seeing Sam she stopped starching and saluted Sam smilingly. Sam stammered shockingly.

"Sp-pp-splendid summer season, Sophia." "Somewhat sultry," suggested Sophia.

"Sar-sartin, Sophia," said Sam, (silence seventeen seconds).

"Selling saddles still, Sam?"

"Sar-sar-sartin," said Sam, starting suddenly. "Season's somewhat soporific," said Sam, stealthily staunching streaming sweat, shaking sensibly.

"Sartin," said Sophia, smiling significantly.

"Sup some sweet sherbet, Sam?" (silence sixty seconds).

"Sire shot sixty sheldrakes Saturday," said Sophia.

"Sixty? shot," said Sam, (silence seventy-seven seconds).

"See sister Susan's sunflowers," said Sophia socially, scattering such stiff silence.

Sophia's sprightly sauciness stimulated Sam strangely; so Sam suddenly spoke sentimentally: "Sophia, Susan's sunflowers seem

saying 'Samuel Short and Sophia Sophronia Spriggs stroll serenely, and seek some sequestered spot, some sylvan sport. Some sparkling spring shall sing; soul-soothing strains; sweet songsters shall silence secret sighing; super-angelic sylphs shall—

Sophia snickered; so Sam stopped.

"Sophia," said Sam, solemnly.

"Sam," said Sophia.

"Sophia, stop smiling. Sam Short's sincere."

Sam's seeking some sweet spouse, Sophia, speak Sophia, speak! such suspense speeds sorrow.

"Seek sire, Sam, seek sire."

So Sam sought sire Spriggs. Sire Spriggs said "sartin."

Seven short sabbaths later saw Sophia Sophronia Spriggs the smiling spouse of Simon Short's son Samuel.—*Shoemaker's Practical Elocution.*

The following answer was lately given at an examination in drawing. The question was, "How would you begin to teach Inventive Drawing?"

"I would cause the pupils to draw some familiar animal, say the mule, the picture of which I would show them, thus making it an exercise in object drawing. Then I would ask them to draw the picture of say a horse; now they have before them the picture of the mule, and they will, from being thoroughly acquainted with the horse, draw a picture of that animal." The answerer will make a strange teacher!"

PERSONALS.

We regret that Mr. McCallum, P. S. Inspector, of Hamilton, has been compelled to rest a while on account of ill health.

Mr. Thomas O'Hagan, President of the Catholic Teachers' Association, has received the position of Principal of Belleville Separate schools.

The pupils of Napanee Model School presented Mr. Osborne with a writing desk, on his retiring from the position of Principal of that Institution.

The following candidates obtained second-class certificates at the recent professional examinations at Toronto and Ottawa:—

TORONTO NORMAL SCHOOL.

GENTLEMEN.—Messrs. Baskin, Callaghan, Campbell, Clubine, Cosgrove, Dickie, Elliott, Fraser, Gibson, Holmes, Hunt, Jenkins, Killman, Lannin, Laycock, Munro, Newman, Rogers, Spence, Thompson, Turner, Watts, Whyte.

LADIES.—Misses Alexander, Armstrong, Barclay, Baxter, Blair, M. S.; Blair, M.; Brown, Burrows, Butters, Calder, Cameron, Davidson, Dick, Ellis, Hoskins, Langton, Lawson, Long, McCool, Main, Smith, Strang.

Seventeen candidates were rejected.

OTTAWA NORMAL SCHOOL.

GENTLEMEN.—Messrs. Balfour, James; Haight, Milton; Holman, G. W.; Hutchinson, James; Jacques, Marcus; Kniewasser, Andrew; Dangford, William E.; Odell, Albert; Ptolemy, Henry; Ross, George; Smith, Allan C.; Spafford, Thomas F.; Watson, R. H.; Weeks, H. A.

LADIES.—Misses Brown, Sarah A.; Fair, Carrie; Foley, Mary C.; Fortune, Jacqueline L.; Haggart, Elizabeth A.; Hetherington, Edith E.; McKean, Sara; McKee, Arabella; McKee, Frances; McKinnon, Mary A.; Murphy, Kate A.; Phillips, Phoebe, Z.; Ross, Jennie; Sang, Isabella; Sang, Mary J.; Shannon, Kate F.

Twelve candidates were rejected.

Notes and News.

ONTARIO.

The London School Board having made a slight movement towards suspending the teaching of music in the Public Schools, a workingman on behalf of his fellow-laborers strongly objects in the *Free Press* to the proposal.

Twenty-nine out of 104 candidates failed at the recent professional examinations for second-class certificates.

The village of Markham is discussing the question of erecting a new High School building.

Ingersoll High School Board proposes to establish a library in connection with the High School.

There were 36 applicants, several of whom were University graduates, for the position of Assistant English Master in the Stratford High School. The salary attached to the position is \$500 per annum.

The attendance at the Ingersoll Public Schools is 628, and at the High School 87.

The Sarnia Public Schools have 693 pupils in attendance, and the High School has 81.

Bowmanville Public School Board is about to plant trees around its school premises. Trees, flowers, &c., are appropriate for school grounds.

London High School has been recognized by the Government as a Collegiate Institute.

We are pleased to note that several of the Institutes and High Schools have lively literary associations. Those in Brantford, St. Thomas, Whitby, Oshawa, and Hamilton are reported as doing excellent work.

The new High School Building at Barrie has been opened.

The medals in connection with the Competitive Examination for the County of Durham have been awarded as follows: Special Class, Herbert Barber, Orono School, Clarke; Senior Class, Annie Carveth, Leskard School, Clarke; Intermediate Class, Harry Needler, Millbrook School, Cavan; Junior Class, Wm. Muldrew, Newtonville School, Clarke.

We clip the following from the annual report of Mr. G. D. Platt, Public School Inspector, Prince Edward:—"Eighty-five teachers were employed, 50 males and 35 females, at an average salary of \$311. The salaries of male teachers averaged \$390, and of females \$250. Nineteen of the teachers had attended a Normal School—17 held provincial certificates of the second class, 7 first class (old county board), 56 third class, and 5 special or interim certificates. There were 18 changes of teachers during the year, four less than the previous year. It is only fair to state, however, that though there were changes of teachers in only 18 sections during the past year, there were no less than 45 changes at the end of the year. We cannot offer any congratulations upon this state of affairs. * * * The beautifying of school grounds has not received that attention from trustees generally that is desirable. Shade trees are convenient and abundant in this County, and there is nothing but the want of disposition to prevent trustees, by this means, from adding greatly to the appearance of school premises. It is only fair, however, to give full credit in this connection to the great improvement made in school yards and buildings during the past few years, but I would be very glad if trustees will make an effort to complete the work so well begun, by making their respective school premises as pleasant and attractive as possible."

A highly successful literary and musical entertainment was given on April 18th by the pupils of the High School, Weston. Eagle's Hall was crowded to its utmost capacity by an appreciative audience. G. Wallace, B. A., Head Master, presided, and opened the proceedings with an address on education. Dr. Bull, President of the Board, was present, and complimented the Master on the condition of the school and the prominent place it occupies among the Educational Institutions of the Province.

CHATHAM HIGH SCHOOL.—This school is in a more efficient state than ever before, the average daily attendance exceeding a hundred. Military drill, under the command of the Mathematical Master, Mr. D. F. H. Wilkins, B.A., B.A.S., has been introduced. Mr. W. is well qualified for this purpose, having been attached to the volunteer force for over sixteen years. Until lately he held a captain's commission in H. M. 49th Hastings Rifles, having raised and drilled the company in January, 1878—a position he resigned on receiving his appointment here. Music and drawing have also been added to the catalogue of studies, and a large number of the students are preparing for third-class and intermediate certificates.

QUEBEC.

The annual meeting of the McGill University for the conferring of degrees in law and medicine was held in the William Molson Hall, on 31st March. The Hon. C. D. Day, Chancellor, presided. The total number of students in the Faculty of Medicine for the past year was 116, of whom 87 were from Ontario; 53 from Quebec; three from Nova Scotia; seven from New Brunswick; three from P. E. Island; one from Newfoundland; and 14 from the United States. Forty students passed their Primary Examinations. Thirty-seven fulfilled all the requirements to entitle them to the degree of M.D.C.M. from the University. The Holmes Gold Medal, awarded to the graduating student who obtains the highest aggregate number of marks for the best examination, oral and written, was carried off by Mr. J. B. Lawford, of Montreal. The prize of books for the final examination was won by Mr. A. W. Imrie, of Spencerville, Ont. The Sutherland Gold Medal for Theoretical and Practical Chemistry was awarded to Mr. W. L. Gray, of Pembroke, Ont. The degrees were conferred by Principal Dawson, assisted by Dr. Osler. The Graduates' Valedictory was read by Mr. J. McCully Oscar, of Sussex, N.B. Referring to the custom of note-taking, he stated that one-half the students' time is worse than wasted, and suggested that the Professors should have their lectures printed in order to save the valuable time of the students. Professor Freewick congratulated the graduating class, pointing out to them the great importance of the profession they were entering upon, and the arduous nature of the duties which belonged to that profession. He warned them against the evils of intemperance, and dwelt upon the duty of keeping pace with the rapid progress of medical science and discovery.

Professor W. H. Kerr, Q.C., then read the Prize and Honor List of the Faculty of Law. One gentleman obtained the degree of D.C.L. Twenty passed the examination for the degree of B.C.L. The Elizabeth Torrance Gold Medal, awarded to the student of the graduating class who, having passed the Final Examination and composed a thesis, obtains the highest marks in a Special Examination, which shall include Roman Law, was carried off by Mr. A. D. Nicolls, who obtained 650 marks out of a possible 700. Mr. R. D. McGibbon, who obtained 646 marks, was recommended to the Governors of the University for a duplicate medal. The prize for the best thesis was awarded to Mr. L. J. Ethier. Twenty-one students passed in the second year, and twenty-two in the first year. The valedictory was delivered by Mr. Fleet. Professor Kerr then addressed the graduates in law; stating that the profession of the law was one of the noblest, if not the noblest, in the world; that the liberties and lives of every man and woman depended upon the law; and that by the struggles of lawyers in the past have been chiefly obtained the constitutional rights of the subjects in the empire to which we belong. Dr. Buller of Point St. Charles was admitted *ad eundem gradem*, and the convocation was brought to a close, Rev. Dr. Wilkes pronouncing the benediction.

On December 5th, 1878, the Protestant committee of the Council of Public Instruction met for the transaction of business. There were present the Lord Bishop of Quebec, Rev. Dr. Cook, Mr. R. W. Heneker, and Hon. G. Ouimet, the Superintendent. As no quorum was present, a sub-committee was formed with Rev. Dr. Cook in the chair. Messrs. Emberson and Weir were re-appointed to inspect the Protestant Model Schools and Academies. Stansfield Ladies' College, Compton Ladies' College, the Academic Department of St. Francis' College, and Lachute College were ordered to be embraced in the same inspection. On the 26th February the sub-committee met again, when lists were submitted, showing the geographical distribution of academies and model schools, the amounts of grants made last August, their order of merit according to the Inspectors' reports, together with a map of the Province, showing the position of each institution. Directions were given to procure for the information of the Committee: (1) the Protestant population of each county; (2) the proportion of model schools and academies per 1000 of the population. Dr. Dawson moved a renewal of the application to the Government for an additional grant of \$1000 annually to the McGill Normal School. On 27th Feb., with Hon. Judge Day in the chair, the following notices of motion were submitted: (1) That the regulations for granting diplomas to teachers be revised; (2) That in addition to the reports of the Universities of McGill and Bishop's College, and that of McGill Normal School, annually laid before the Committee, returns be requested of the annual examinations of these institutions, as well as of any Colleges affiliated to the Universities, or schools con-

nected therewith, and also of the Montreal and Quebec High Schools. It was also resolved that a financial statement showing the revenue and expenditure for Protestant education made up to the 30th of June in each year, be laid before the Committee; that all correspondence relating to Protestant schools be submitted to the Committee, as well as the returns of the Inspectors of Protestant and mixed schools, and that the sum of \$50 be granted to the Clarendon Model School. Some of the local Boards of Examiners give full marks for reading. Others seem to find some of the candidates defective in that branch of education. It has been whispered indeed, that the Superintendent has on one occasion, if not more, been compelled to suspend a teacher on account of not knowing how to read. This might have been an interesting fact for the Paris Exhibition last year, along with other results of our educational system. Local Boards are required to give special attention to the examinations in the Art of Teaching, and in Canadian and English History. It is suggested that copies of the examination papers be printed in the *Journal of Education*; and that the Secretary of the Committee have for distribution 1000 extra copies.

A teacher in the Quebec High School was fined \$1 and costs by Dr. Marsden, for striking a boy on the head with a walking cane, and inflicting a scalp wound.

NOVA SCOTIA.

Mr. Malcolm J. T. McNeil, 9 River Bourgeois, has been appointed Inspector of Schools for the County of Richmond. Mr. McNeil is a teacher of experience and success, holding a First Class License.

The *Journal of Education* for April contains quite a number of departmental notices of interest. It republishes in full the Revised Regulations and Syllabus of Examination adopted and published last autumn. The text is given of an amendatory Education Act passed at the recent session of the Legislature. Most of the amendments seem designed to simplify the law and render easy its practical working. Others touch matters of mere form. The essential principles of the system are unchanged.

The *Journal* also contains Regulations of Council on the following subjects:

1. Summer Vacation—allowing certain discretionary power to Boards of Commissioners in relation thereto.

2. Grade E License—discontinuing it entirely after Oct. 31st, 1879.

3. Teachers' Associations—providing for the formation on principles substantially analogous to those prevailing in Ontario and New Brunswick.

4. Examination of College Graduates, as follows: Graduates in Arts of all Chartered Universities and Colleges in Her Majesty's Dominion, whose graduation bears date subsequent to January 1st, 1866, shall receive the Academic License known as that of Grade A. on passing the regular examinations upon professional subjects, viz.: those embraced in "Requirements common to all Grades" in published Syllabus of Examination.

The Convocation of Dalhousie College was held April 23rd, in the Assembly Room of the Province Building, Halifax. Very Rev. Principal Ross opened the proceedings with prayer, after which he briefly addressed the meeting on the events and results of the College Session just closed. Among other occurrences, he referred in terms of fitting regret and eulogy to the lamented demise and brilliant career of Professor McKenzie. The various University prizes were presented by the Professors. The Sir William Henry prizes for Elocution, and the Dr. Avery prize were duly given by the respected donors, who are the two oldest Governors of the College. The valedictory oration was pronounced by Mr. Robert R. J. Emmerson, after which brief addresses were delivered by the Superintendent of Education, Dr. Allison, and the Chief Justice, Sir William Young.

The annual Examination of candidates for Teachers' Licenses will commence at the usual stations on Tuesday, 22nd of July.

NEW BRUNSWICK.

The Annual Report of the Chief Superintendent of Education, laid before the Legislature a few weeks since, contains as usual a large amount of valuable information with respect to the progress made under the operation of the school system, and the actual condition of the schools throughout the Province. The following extracts will be read with interest.

Under the head of *regularity of attendance*, a table is given covering the past twelve years, from which we take some of the figures for 1878.

Half-yearly percentage of enrolled pupils daily present on an average :-

	Winter Term.	Summer Term.
Whole Province	58.04	54.93
St. John	61.25	66.86
Fredericton	72.05	70.00
St. Stephen	79.00	78.91

The report goes on to say, in reference to the whole table:— These figures indicate some improvement. It is to be borne in mind that the above percentages are reckoned on the entire enrolment of pupils at school during each half-year. No allowance is made for pupils withdrawn from school during the half-year, from whatever cause—removal, sickness or death. The figures above given represent, therefore, the attendance as less regular than it actually was on the part of those really belonging to the schools throughout the term. This may be seen more strikingly when I state that the average monthly percentage of pupils daily present each half of the past year was for the winter 75.58, and for the summer 72.88, throughout the Province. It will be seen that the Secretary to the Board of Trustees of St. John reports the average monthly percentage for the city schools as 88.26 for the winter, and 90.95 for the summer. Having made these remarks by way of preventing any misconception of what the half-yearly percentage really represents as obtained in our school statistics, I wish to express my conviction that it is possible to bring this percentage up to 75 for the whole Province.

The following are the average salaries of teachers, as exhibited in the tables: 1st Class, male, \$653; do., female, \$368; 2nd Class, male, \$350; do., female, \$253; 3rd Class, male, \$243; do., female, \$185.

In the average salary of male teachers of the First Class, the salaries of the Principals of the Grammar Schools, and the extra grants to teachers of superior schools, are not included.

Grammar Schools.—In previous reports to the Legislature, I have emphasized the importance of Secondary Schools, not only in the interests of the higher education, but especially in the interests of our Common Schools. * * * I am persuaded that it is illusory to expect to reach through County Grammar Schools the end desired. It requires a complete and extensive outfit of house accommodation and apparatus, and a superior teaching staff. Provision is needed not only adapted to prepare pupils for a Collegiate or University course, but for commercial or industrial pursuits as well. The schools established, as a guarantee that secondary instruction shall not be left merely to the voluntary efforts of the Districts, require to be brought more directly under Provincial control, and to assume more of a Provincial character before the public.

I am confirmed in my opinion that the establishment of three Division High Schools for the Province, each having an English and Classical Course, would furnish the guarantee desired. These schools should be located at Fredericton, St. John and Chatham or Newcastle, and each should be open to pupils from one-third of the Province.

The Provincial Normal School.—This institution is doing admirable work in preparing teachers for the duties of their profession. The Principal and his coadjutors are enthusiastically devoted to a high discharge of the difficult and laborious duties assigned to them. A spirit of harmony and co-operation pervades all departments of the school, and in respect of teachers and accommodation there is little to be desired.

The course of instruction in the institution is now progressive for three sessions, and embraces some subjects not hitherto taught—English Literature and Natural Science. The latter subject was commenced in May last, when Mr. James Fowler, A.M., a gentleman well known as possessing eminent scientific attainments, was appointed instructor. During the same session, Miss M. Alice Clark, a graduate of the Boston University School of Oratory, was appointed instructor in Reading and Vocal Culture. The institution is therefore now prepared to offer to its students even a literary course of no ordinary character.

Examinations of Teachers.—The number admitted to examination in 1878 was 292, of whom 265 received provincial license of some class, viz., 5 of the Grammar School class, 16 of the first class, 142 of the second class, and 102 of the third class. 249 of the candidates were admitted to the examination as being student-teachers of the Normal School.

Cities and Towns.—The Secretary of the Board of School Trustees of St. John states in his report that:

“The work of reorganizing the City Schools, commenced in the

autumn of 1877, has been vigorously pressed forward during the year 1878, until the pupils are again all provided for in comfortable buildings with suitable furniture and apparatus, and under the direction of teachers who appear to be earnestly endeavoring to do their duty in the work to which they have devoted themselves. Although the effects of the Great Fire of 1877 are still more or less apparent in the absence from the schools of many of the children who formerly attended, and in the unevenness of some of the grades, caused by the necessity of filling up the departments to a given number rather than in accordance with the attainments of the pupils, the city is to be congratulated upon the rapid manner in which the difficulties caused by the destruction of so many school buildings and the dispersion of the people, have been overcome. Indeed, in the matter of accommodation and material for efficient work, the city is in a better position to carry forward the education of its youth than at any former period. The numbers in attendance have also gradually increased, until they have reached those of the term immediately before the fire.”

The schools of Fredericton are, generally, in excellent condition, and the Board of Trustees is resolved to ply every available means for the removal of everything which in any way retards school progress in the city. The Board reports that:

The schools of St. Stephen are second to none in the Province, and the percentage of attendance exceeds that reached in any other of the large school districts.

The schools of Moncton are steadily improving.

The winter session of the Provincial Normal School was closed on Friday, March 14th, with a public oral examination of the student teachers, occupying about seven hours. A large number of visitors were present, including the Lieut.-Governor, several members of the Legislature, the Chief Superintendent, and the President of the Provincial University. The exercises were of a highly satisfactory character.

During the succeeding week, the semi-annual examination for licenses was held by the Chief Superintendent. There were 159 candidates, working for the several classes as follows: for the Grammar School Class, 3; for First Class, 14; for Second Class, 98; for Third Class, 44.

To the candidates already mentioned for the vacant chair of Classics and History in the University of New Brunswick must now be added Mr. Eugene Lafleur, B.A., of Montreal, a recent graduate of McGill University, whose testimonials of scholarship and fitness for the position are certainly of the highest order. Mr. Lafleur gained extraordinary distinctions during his academic and collegiate career, and is spoken of as an enthusiastic student and a successful teacher.

In our New Brunswick “Notes and News,” of last month, the figures in the last paragraph were unintentionally misrepresented. The qualifying word “estimated” should relate only to the number given for 1874.

The Legislature, which adjourned on the 15th April, had several Bills under consideration referring to school interests. One introduced by Robert Marshall, Esq., of St. John city, proposed so to levy and disburse the county school fund in the county of St. John as practically to dissociate the county districts and the town of Portland from the city. The Bill received no support in the House, and was dropped. Later in the session a Bill, prepared by the City Council of Fredericton, was introduced by G. A. Blair, Esq., of Fredericton, providing that the City Council should have power to remove any of its appointees on the Board of School Trustees, as it might deem proper, even though the period of service (four years) should not have expired. The House very properly refused thus to place the Board of School Trustees at the mercy of the City Council, and the Bill was dropped. The Government introduced the following Bill relating to Inspection, and Superior Schools, which was passed:—

1. In view of the provisions of Section thirteen of Chapter sixty five of The Consolidated Statutes, relating to Schools, the Board of Education is hereby empowered to decrease the number of Inspectors, and revise and enlarge the Inspectorial Districts as the requirements of the School service may in its judgment permit; and to appoint specially qualified Inspectors for the Districts in respect to which Section thirteen aforesaid shall as hereinafter provided be brought into operation, to prescribe their duties, and to determine the salary of each Inspector, not exceeding, for salary, travelling expenses, and contingencies of office, the sum of twelve hundred dollars.

2. The Board of Education shall announce through the Royal Gazette the erection of any Inspectorial District, with a view to the

operation therein of Section thirteen aforesaid; whereupon the provisions of said Section, except the word "semi-annual" which is hereby repealed, shall be in force therein, but the provisions of Section twelve of the Chapter aforesaid shall be operative meanwhile in other Inspectoral Districts.

3. Upon the provisions of Section thirteen aforesaid becoming operative in any Inspectoral District, Section eighty-nine of the Chapter aforesaid shall cease to be in force therein; but in lieu thereof there shall be paid by the Chief Superintendent to any legally qualified School District and Teacher, one half to the Board of Trustees and one half to the Teacher, a superior allowance according to the number of pupils who shall be duly certified by the Inspector as possessing a satisfactory knowledge of the branches of study embraced in such grades of the course of instruction as shall be publicly designated for this purpose by the Board of Education; provided that the School accommodation and appliances of the District are sufficient, in the judgment of the Inspector, and that the aggregate amount apportioned annually under Section eighty-nine aforesaid, and hereunder, shall not exceed seven thousand dollars.

The above enactment embodies recommendations which have been earnestly pressed upon the attention of the Legislature by Dr. Rand, Chief Superintendent, in several of his annual reports. It is generally supposed that the erection of the first of the new Inspectoral Districts will not be declared before next October.

MANITOBA.

Each of the sections of the Board of Education has the power, subject to the sanction of the Lieutenant Governor in Council, to erect its own school districts or readjust them, without reference to the other section; and it sometimes happens that both a Protestant and a Roman Catholic district will cover the same territory wholly or in part. This arrangement has worked well so far, but the Protestant section of the Board of Education having to deal with a rapidly increasing population, and to establish school districts in townships which one year or two, or in some cases only a few months ago contained but few settlers, find it somewhat difficult to ascertain the exact needs of these localities, since the minutes of meetings or petitions are sometimes sent in which, while purporting to represent a majority of the parties concerned, only represent an interested minority, who care more about controlling educational matters in their neighborhood than for the education of its children. In order to meet such cases, and to obtain as much information as possible to enable the Board to deal in a satisfactory manner with all such applications, the Superintendent at the last meeting of the Board introduced the following resolution, which was unanimously adopted, viz.:

"That whereas it has sometimes happened that petitions addressed to the Protestant section of the Board of Education, praying for the readjustment of school districts already in existence, or the erection of new school districts, have not represented the wishes of the majority of those chiefly concerned, and that the Board has frequently experienced great difficulty in ascertaining what ought to be done in the premises, Resolved, that no petition for the re-arrangement or the formation of a school district be hereafter taken up for consideration unless a copy of it, with the names of the petitioners attached, has been posted up for a fortnight in the parish or township post office, or if there be no post office within the limits of the proposed district, then in the nearest post office; and a declaration made before a Justice of the Peace by at least two of said petitioners, stating that the petition has been posted up for that period, must always accompany such petition."

At a meeting of the County of Selkirk Teachers' Association, held in the Central School, Winnipeg, the election of officers took place with the following result:—President, Rev. W. C. Pinkham, Superintendent of Education; 1st Vice-President, Rev. Mr. German, Inspector of city schools; 2nd do., Mr. J. B. Ferguson, Principal; corresponding secretary, Mr. P. C. McIntyre; recording secretary, Mr. Geo. Munroe; treasurer, Miss M. Shore.

The following, on motion of Rev. Mr. German, seconded by Mr. Munroe, were appointed a management committee: Messrs. Ferguson, McBeath, Corrigan, Mrs. Chisholm, and Miss Affleck.

At the afternoon session, in addition to those present in the forenoon, there were a number of citizens and others in attendance, several of whom took great interest in the proceedings, which was shown by the part taken by them in the various discussions which came up during the afternoon. The Rev. Mr. Pinkham opened the meeting with an address. The Rev. Mr. German also spoke briefly.

The Rev. Prof. Bryce then favored the meeting with a comprehensive address on Grammar, which was very warmly received. The thanks of the association are due this gentleman for the interest he has taken in it.

The subjects of Regular Attendance and Reading were introduced by Messrs. Munro and McIntyre respectively. The discussion that followed, in which the President, Rev. Mr. German, Rev. Prof. Bryce, Miss Shore, Messrs. Ferguson, Mulvey, Newcombe and others took part, was lively, interesting and instructive.

Miss Shore then read a carefully prepared essay on Music, claiming its right to a place on the school programme.

Arithmetic was next taken up by Mr. Ferguson, who gave an able paper on the subject. An animated discussion followed.

It was moved by Mr. Ferguson, seconded by Mr. McIntyre, and carried unanimously, "That all the members of the Board of Education of the Province shall be honorary members of this association."

On motion of Mr. Mulvey, it was resolved to have the President's address, together with the papers given by Miss Shore and Mr. Ferguson, published.

The meeting then adjourned to the call of the management committee, the Rev. Mr. Pinkham pronouncing the Benediction.

Science Notes.

The commonly received theory of dew is that it results from the condensation of the moisture of the air by contact with surfaces of a lower temperature. This theory is rejected by Professor Stockbridge, of the Massachusetts Agricultural College. He holds dew to be the vapour from the soil condensed by the cooler air, and states as follows the results of his experiments: 1. The vapour of the soil is much warmer at night than the air, and would be condensed by it. 2. Vapour from the soil is soon diffused and equalized in the whole atmosphere, but in the largest proportion when evaporation is taking place near the surface of the soil; and, other things being equal, plants nearest the earth have the most dew. 3. Dew under haycocks, boards, and like objects on the ground, could receive it from no other source.

The telecroscope is a new apparatus invented by Senlecq, and designed for the purpose of reproducing telegraphically at a distance the images obtained in the camera obscura. The sensitiveness of selenium to light of various shades is taken advantage of in its construction.

Mr. E. A. Cowper is credited by London *Nature* with the invention of what may prove to be a remarkably useful telegraphical writing apparatus, which was shown in operation at a late meeting of the society of Telegraphic Engineers. "A writer in London, for example, takes up the pen, and simultaneously at Brighton another pen is moved, as though by a phantom hand, in precisely similar curves and motions."

Quite a number of interesting new minerals have been named and described within the past few months. Dr. Wurtz has found two new species in the silver ores of Silver Islet, and which he has named respectively *huntelite* and *animikite*; König has presented to the Philadelphia Academy a description of a new species under the name of *randite*; Frenzel describes a new hydrated sulphate from the Caucasus by the name of *urusite*; Helm has named a new fossil resin, occurring with the amber of the Baltic, *gedanite*; and Hedde, in England, described *pilolite* at the last meeting of the Mineralogical Society.

WHY FLOWERS TURN TO THE SUN.—Wiesner has presented to the Vienna Academy a monograph upon heliotropism and geotropism in plants. After an historical sketch, the author treats of the influence of light on heliotropism, and shows that with decreasing intensity of light the strength of the heliotropic effect increases to a certain point, and beyond this point decreases. The lower limit of light intensity coincides with the lower limit of heliotropic effect for the stoppage of growth in length. In the case of very sensitive heliotropic plants, the upper limit of light intensity for stoppage of growth lies higher, and in less sensitive plants lower, than the upper limit for growth in length. He next considers the relation between the refragibility of rays and their heliotropic effect, and shows that portions of very sensitive heliotropic plants, as *Vicia sativa*, curve in all lights, even in the ultra-red and ultra-violet, except the yellow. Experiments on the joint action of heliotropism and geotropism are next described, and the author

concludes that the phenomenon of heliotropism is due to unequal growth upon unequally lighted sides of the plant.

RELATIONS OF MIND AND BODY.—Whatever that thing, fact, function, or idea which we call mind may be, or whether the brain, as is generally believed, is or is not its sole organ of manifestation, it is universally admitted that varying bodily conditions are accompanied by related variations of mental states. Aphasia, insanity, imbecility, are so often found accompanied by certain definite pathological alterations in the brain-substance that they are generally held to be symptomatic of such local changes. So, also, though in a more general way, melancholia and depression, as well as exaltations and excitements of the mind, are known to depend largely on corresponding general conditions of retarded or accelerated physiological processes. It is also held, though in a less definite manner, that the health of the body may be affected, beneficially or injuriously, by certain states of the mind, as of hope or despondency. Or, more in detail, medical men have observed that certain mental states affect certain functions in certain definite ways. As, for instance, sudden anxiety, as of the non-arrival of a friend when expected, may cause an increase of the peristaltic action, while prolonged anxiety is apt to cause the contrary effect. Joy over good news or at the return of long absent friends diminishes gastric secretion and causes loss of appetite. The feeble hold on life of the suicidal, and the surprising recoveries from serious diseases and after apparently fatal injuries, in persons whose mental characteristics are hopefulness and determination, are often-recurring facts, familiar to all.—From "*Bodily Conditions as related to Mental States*," by DR. CHARLES F. TAYLOR, in *Popular Science Monthly for May*.

Readings and Recitations.

PAPA'S LETTER.

I was sitting in the study,
Writing letters, when I heard,
"Please, dear mamma, Bridget told me
Mamma musn't be 'isturbed.

"But I'se tired of the kitty,
Want some ozzer fing to do,
Witing letters, is 'ou, mamma?
Tan't I wite a letter, too?"

"Not now, darling, mamma's busy;
Run and play with kitty now."
"No, no, mamma, me wite letter,
Tan if 'ou will show me how."

I would paint my darling's portrait
As his sweet eyes searched my face—
Hair of gold and eyes of azure,
Form of childish, witching grace.

But the eager face was clouded,
As I slowly shook my head,
Till I said, I'll make a letter
Of you, darling boy, instead.

So I parted back the tresses
From his forehead high and white,
And a stamp in sport I pasted
'Mid its waves of golden light.

Then I said, "Now, little letter,
Go away and bear good news."
And I smiled as down the staircase
Clattered lend the little shoes.

Leaving me the darling hurried
Down to Bridget in his glee.
"Mamma's witing lots of letters;
I'se a letter, Bridget—see!"

No one heard the little prattler,
As, once more, he climbed the stair,
Reached his little cap and tippet,
Standing on the entry chair.

No one heard the front door open,
No one saw the golden hair,
As it floated o'er his shoulders
On the crisp October air.

Down the street the baby hastened,
Till he reached the office door.
"I'se a letter, Mr. Postman;
Is there room for any more?"

"Cause dis letter's doin' to papa;
Papa lives with God, 'ou know.
Mamma sent me for a letter,
Does 'ou flink 'at I tan go?"

But the clerk in wonder answered,
"Not to-day, my little man."
"Dess I'll find anozzor office,
'Cause I must go if I tan."

Fain the clerk would hav' detained him,
But the pleading face was gone,
And the little feet were hastening,
By the busy crowd swept on.

Suddenly the crowd was parted,
People fled to left and right,
As a pair of maddened horses
At the moment dashed in sight.

No one saw the baby figure—
No one saw the golden hair,
Till a voice of frightened sweetness
Rang out in the autumn air.

'Twas too late—a moment only
Stood the beauteous vision there,
Then the little face lay lifeless,
Covered o'er with golden hair.

Reverent they raised my darling,
Brushed away the curls of gold,
Saw the stamp upon the forehead,
Growing now so icy cold.

Not a mark the face disfigured,
Showing where a hoof had trod;
But the little life was ended—
"Papa's letter" was with God.

—*The Pacific Baptist.*

THE ZULU DISASTER.

For THE CANADA SCHOOL JOURNAL.—TUNE: "THE DEATH OF NELSON."

O'er heroes Britannia weeps to-day;
She sighs and groans, and turns her face away;
From Zululand comes throbbing o'er the sea
An anguished cry—"England, we died for thee!"

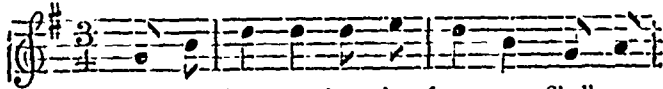
The lion howls with pain;
He shakes his shaggy mane,
And with impatient roar
Rouses himself for war;
His prey he sniffs afar
On Africa's tragic shore.

Zululand's king ne'er more shall tell
He conquered those who fighting fell
For England and for duty!
O'er every grave our flag shall wave
For England and for duty!

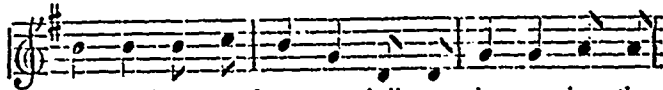
Crowd on both steam and sail,
Outrun the swiftest gale.
Fly quickly o'er the sea;
Beside your brothers stand,
Scatter the Zulu band,
Set every captive free;
Justice maintain, defend the right,
Retrieve our honour, bravely fight
For England and for duty!

Acquit you well, like those who fell
For England and for duty!
—Robert Atwe, Toronto.

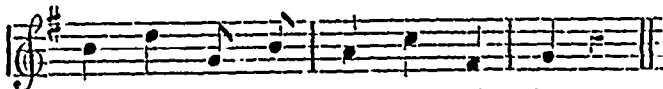
No. 3. THE FARMER.



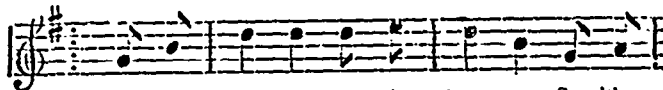
1. Shall we show you how the farm - er, Shall we
2. Shall



show you how the farm - er, shall we show you how the
show



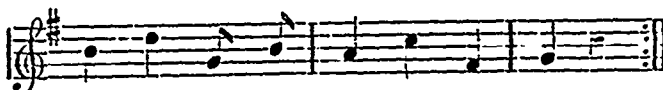
farm - er sows his bar - ley and wheat.
farm - er reaps



See 'tis so so that the farm - er, See 'tis
See



so so that the farm - er, See 'tis so so that the
so



farm - er sows his bar - ley and wheat.
farm - er reaps 2

3. Shall we show you how the farmer
Threshes barley and wheat? See, &c.
4. Shall we show you how the farmer
Sifts his barley and wheat? See, &c.
5. Shall we show you how the farmer
Sports when labor is o'er? See, &c.

The above is one of Froebel's Kindergarten songs, or plays. The music is simple, and the calisthenic exercises necessary are light and easily performed. Like all Froebel's games, these exercises are especially attractive to little children. They get the benefits arising from the exercises without feeling that they are performing them for the mere purpose of strengthening or developing their muscular systems. They sing and play for the enjoyment they have in doing do. The benefits come imperceptibly to themselves. This is one of the best features of the Kindergarten. The development of the mind as well as the body is incidental. The child is not told that he is learning. He is merely doing something, either work or play, in which he takes an intense delight.

DIRECTIONS FOR ACTION.

The first four lines are sung without action; the children standing up, and if the space admits, in a circle. They can always stand in a circle if the play is performed in the yard.

When the word "See" is reached in each verse the action begins.

In the first verse the action of the farmer in scattering seed must be imitated. Before the word "See" every child should curve the left arm across the breast to represent a seed box, and place his right hand in this box. The girls may fold their aprons and hold them with their left hands, as though carrying something in them. On the word "See" the right arm is swung backwards, the hand being firmly clenched so as not to drop the seed. The seed is scattered with a strong graceful sweep of the arm forward, the fingers being widely extended as the hand moves forward. The hand at once dips again into the box and the motions are repeated. The seed is scattered twice in singing each line of the chorus. The sweep of the arm forward should be done when singing the emphasized words as follows: See tis so so that the FAR-mer (three times) Sows his BAR-ley and WHEAT.

In the second verse the action of cradling grain should be imitated. The arms are drawn back at the word "See" and the cut is made at the syllables so and FAR, as in verse one.

In the third verse threshing with a flail is imitated. The hands are raised at "See" and the strokes given at the same syllables as before. It adds to the effect if the right foot is raised with the hands, and brought down with moderate force when the strokes are given.

In the fourth verse the fingers of both hands are interlaced so as to form a sieve, and the arms are swung from side to side, and shaken as if sifting something. The motion of shaking continues through the chorus.

In the fifth verse various plans may be adopted. If in the playground, the children may join hands in couples, and hop around trippingly in time with the music, the couples following in regular order. If in a room where there are desks, the pupils may turn towards each other in lines and bow, or some simple calisthenic movement may be performed in time as indicated in the first verse.

Official Department.

JULY EXAMINATIONS, 1879, FOR CERTIFICATES TO PUBLIC SCHOOL TEACHERS.

In accordance with the Statute and the General Regulations, the July examination of candidates, for the year 1879, will be held as follows:—

For First Class—At the Normal Schools, Toronto and Ottawa, on Thursday, July 10th, at 8 a.m.

For Second Class—At the County Towns and High Schools, on Tuesday, July 8th, at 2 p.m.

For Third Class—At the County Towns and High Schools, on Monday, July 14th, at 2 p.m.

Forms of the notice to be previously given by the candidates can be obtained on application to any County Inspector.

It is indispensable that candidates, whether from a county or a city, as the case may be, should notify the presiding County Inspector, not later than the 1st of June, of their intention to present themselves for examination. All notices to the Department of intending candidates must be sent through the presiding Inspector.

The subjects for Second Class and Intermediate Examination will be grouped in the following manner:—(a) Arithmetic, Algebra and Euclid; (b) English Grammar, Composition and Dictation; (c) History, Geography and English Literature; (d) Natural Philosophy, Chemistry and Book-keeping; or Latin; or French; or German; and candidates who obtain 40 per cent. of the total in each group, and not less than 20 per cent. in each subject, shall be considered as having passed the examination for Grade B, the marks required for Grade A are 50 and 30 per cent.

Programme of Second Class and Intermediate Examination:—Tuesday, July 8.—2 to 2.15 p.m., reading the Regulations; 2.15 to 4.30 p.m., English Literature. Wednesday, July 9.—9 a.m. to 12 m., English Grammar and Etymology; 1.30 to 3.30 p.m., Geography; 3.35 to 4.05 Dictation. Thursday, July 10.—9 a.m. to 12 m., Arithmetic; 1.30 to 4 p.m., History. Friday, July 11.—9 to 11.30 a.m., Algebra; 1.30 to 4 p.m., Natural Philosophy; 1.30 to 4.30 p.m., Latin, or French, or Ger-

man. **Friday, July 12.**—9 to 11.30 a.m., Euclid; 11.35 a.m. to 12.50 p.m., English Composition; 2 to 2.30 p.m., Chemistry; 3.35 to 4.50 p.m., Book-keeping.

The Entrance Examination will be held on July 8th and 9th. Candidates should notify Inspectors before May 24th.

ANSWERS TO QUERIES.

1. "The people all stood still." If we regard "stood" as a verb of *incomplete predication*, then "still" will be the *subjective complement*, and must be parsed as a "predicate adjective" in *predicative relation* to "people." See Mason's Grammar, § 393.

2. "Three times five are fifteen." At the outset we may say that we do not consider the form of expression correct. The meaning clearly is this. "Five repeated three times produces fifteen." The *abstract number* has to be looked at; the plural term *times* has nothing to do with the *number of the verb*. "Five" must consequently be parsed as a *noun*, and "times" will be an example of the *adverbial object* following the participle "repeated," "taken," or something equivalent.

T. H., Markdale. Lord Dufferin reached Canada in June, 1872, and left in October, 1878. See "Canada under the Administration of Earl Dufferin," Rose-Belford, Toronto.

D. B., Rockton. See page 286, Compendium of School Law. Your Trustees have it.

N. G. R., Russell. See Compendium of School Law, page 175. It is not yet decided whether Latin may be substituted for some other subjects for First Class Teachers' Certificates in 1880. It may be for the higher grades.

H. L. C. Roscoe's Chemistry, or Miller's Inorganic.

T. H. C., Man. The sound of *I* should not be changed in poetry, except to make such a word as *wind* rhyme with some other in which *I* has its long sound.

G. V., Norwood. Your certificate is valid for three years. You will have to attend a Model School in some other county, if none is established in your own.

Student, Collingwood. You must go to the County Model School and teach a year before being admitted to the Normal School, even if you pass the Intermediate Examination.

Student, N. B. The rule you refer to is of great value in explaining the decimal system thoroughly. It has no other practical value. The correct pronunciation of Manitoba is Man-i-tó-ha.

Subscriber, Copetown. Davies' Grammar Blanks and Jeffers' History of Canada (Primer).

Teacher, Clarendon. Two conduct marks per day, one for the forenoon and one for the afternoon. Perfect lessons are decided according to the nature and difficulty of the lesson. Sometimes a mistake may be allowed, sometimes none.

J. B. You should receive your salary for the holidays.

Student, Guysboro', N. S. You had better write to your Inspector.

W. J. S., Wallaceburg. Beatty & Clare's Book-keeping; Kirkland's Statics and Hamblin Smith's Statics; Mason's Paradise Lost; and Hachette's Grammar.

Teachers' Associations.

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

DURHAM.—The next half-yearly Meeting of this Association will be held in the High School building, Port Hope, on Friday and Saturday, May 16th and 17th, 1879.

PROGRAMME.—Friday—10 to 11 a.m., Election of Officers, and Report on Competitive Examinations; 11 to 12 m., Mistakes in Teaching, D. J. Goggin; 2 to 2.30 p.m., Teaching Classes in First Book, Miss Watson; 2.30 to 3.30, Courtesy in the School Room, W. G. Mills; 3.30 to 4, Teaching a Class in Grammar, J. Staples; 4 to 5, Solutions in Arithmetic for 2nd Class Teachers, J. C. Harstone,

B.A. At 6 p.m., a Lecture will be delivered in the Town Hall by G. W. Ross, Esq., M.P., Inspector of Model Schools. Subject: Progress and Defects of our School System. Saturday—9 to 10 a.m., Teaching a Class in Fractions, J. J. Tilley; 10 to 10.30, a paper on some Educational Subject, Miss Gillin; 10.30 to 12 m., School Routine, G. W. Ross; 2 to 3 p.m., Algebra, W. E. Tilley, M.A.; 3 to 4, Question Drawer (Questions to be handed in by Saturday morning), J. Gillfillan and J. Crawford.

This programme has been arranged with the view of making the work of the Association as practical and interesting as possible, and to this end classes will be taught in Reading, Grammar and Arithmetic. It is hoped, therefore, that the attendance will be large. Arrangements will be made for reduced rates at hotels and on the railways.
JOHN SQUAIRE, Secretary.

A. PUNSLow, B.A., LL.B., President.

REVIEWS.

CORONATION HYMNS.—New York: A. S. Barnes & Co.; 35 cents. Dr. Deems and Theodore E. Perkins have succeeded in making a very fine collection of hymns suitable for Sunday School and Church music. The publishers claim that the book contains "more hymns that the world will not suffer to die, and more new hymns that deserve trial, than any other book." Everything is good, and it will no doubt prove a valuable addition to the large number of music books now before the public.

THE BRITISH READERS.—One of the strongest recommendations that could be given in favor of the British Text-Book system is that it causes a brisk rivalry between the numerous publishing houses in the production of good school books. As no particular series is authorized, each must stand on its merits. It is not a matter of surprise, therefore, that a marked improvement has been made in the Readers. The British series is published by Messrs. Gall and Inglis, and edited by Professor Morrison, whose excellent work on Composition is largely used in Canada. They are adapted to the Lork and Say and Phonic Methods. They have no peculiar feature except the carefully prepared lists of words for phonic drill. These are excellent.

HIGHER EDUCATION AND A COMMON LANGUAGE.—New York: Messrs. A. S. Barnes & Co. It deals vigorously and emphatically with upper schools, universal education, university systems in Europe and America, the study of the classics, technical school and industrial art education, the necessity of reform in university methods of teaching, and the value of the universal language for international communication at the present time. These several subjects are treated by an equal number of eminent writers, among whom may be mentioned Philip Gilbert Hamerton, the greatest living teacher of art; President McCosh, of Princeton College; Professor Angelo de Gubernatis, of Florence, Italy; Eaton S. Drone, author of the recent work on "Copyright Law," and others. This volume is one of extraordinary interest and value to all educated men, whether graduate or non-graduate, and will be likely to find its way into the hands of every educator. It contains 128 pages, and corresponds in fine quality of paper, bold type and paper covers, with the preceding numbers of the Atlas Series. Price 50 cents paper, and \$1.25 cloth.

MOFFATT'S EXPLANATORY READERS.—Moffatt and Paige, London. *Standard I.* This is a very good selection for children who have mastered the phonic elements. The printing and pictures are better than is usual in British Readers.

GRAMMATICAL ANALYSIS.—Ross. This is one of Laurie's Kensington Series of School Books. It contains a series of forms for analysis, with exercises similar to those which are included in Canadian Grammars.

TEACHER'S MANUAL OF MUSIC.—Edited by Luther W. Mason and H. E. Holt, of Boston. This work is designed to accompany and explain how to teach the second and third series of musical charts used in Boston and several other United States cities. It is published by Ginn & Heath;

AMERICAN HEALTH PRIMERS.—*Lindsay and Blakiston, Philadelphia*; 30 and 50 cents. This series is written from the American standpoint, and with especial reference to our climate, architecture, legislation, and modes of life; and in all these respects we differ materially from other nations. Sanitary legislation especially, which in England has made such notable progress, has barely begun with us, and it is hoped that the American Health Primers may assist in developing a public sentiment favorable to proper sanitary laws, especially in our large cities. The subjects selected are treated in as popular a style as is consistent with their nature, technical terms being avoided as far as practicable. The authors have been selected with great care, and on account of special fitness, each for his subject, by reason of its previous careful study, either privately or as public teachers.

The following volumes are in press and will be issued about once a month:—I. Hearing, and How to keep It; II. Long Life, and How to reach It; III. Sea Air and Sea Bathing; IV. The Summer and its Diseases; V. Eyesight and How to Care for It; VI. The Throat and the Voice; VII. The Winter and its Dangers; VIII. The Mouth and the Teeth; IX. Our Homes; X. The Skin in Health and Disease; XI. Brain Work and Overwork. Other volumes are in preparation, including the following subjects: "Preventible Diseases," "Accidents and Emergencies," "Towns we Live In," "Diet in Health and Disease," "The Art of Nursing," "School and Industrial Hygiene," "Mental Hygiene," etc., etc. They will be 16mo in size, neatly printed on tinted paper, and bound in paper covers. Price, 30 cents; flexible cloth, 50 cents. Lindsay & Blakiston, Publishers.

GUIDES FOR SCIENCE TEACHING.—*Boston: Ginn & Heath.* The Boston Society of Natural History, desirous of aiding in making the study of Natural History what it ought to be, a series of *object lessons*, taught in a true "objective" manner, are issuing a series of Primers on the subject for teachers *only*. They are edited with much ability. The science of Natural History is in each case placed second to the science of teaching. They would form for teachers who deserve the name the best possible text-books on Object Lessons. So far as issued they are "About Pebbles," by Alpheus Hyatt, Custodian of the Boston Society of Natural History, &c.; "Concerning a few Common Plants," by Geo. L. Goodall, Professor of Botany in Harvard; "Commercial and other Sponges," by A. Hyatt; and "A First Lesson in Natural History," by Mrs. Agassiz. The first costs 15 cents, and each of the others 30 cents.

FORBRIGER'S DRAWING TABLETS.—*Cincinnati: Jones Bros. & Co.* As a series of drawing books graded for use in schools, this is only equalled by Walter Smith's. For the use of teachers who have not been trained to teach drawing it is probably simpler than even Mr. Smith's. It is not by any means so exhaustive or complete, but it is natural in its gradation and exceedingly simple. It leads most clearly to inventive drawing. For use in schools the tablets seem to be much superior to the present style of drawing books. A manual accompanies each of the seven tablets. Half tint is used to a large extent in the drawings.

THE MULTUM IN PARVO MUSIC LEAVES.—*John J. Hood, 603 Arch St., Philadelphia*, 40 cents. This is a collection of 195 Melodies, Rounds, &c., suitable for schools and the social circle, prepared by Mr. John Bower, formerly musical superintendent of the Philadelphia schools. Many of the pieces in the book are sold in sheet form, each costing more than the price of the book.

SHAKESPEARE'S TRAGEDY OF HAMLET.—*By Henry N. Hudson. Boston: Ginn & Heath.* The preface contains some of the best advice as to the mode of teaching English, and especially Shakespeare, that we have ever seen. We quite agree with the author that "teachers are to be found attending very disproportionately, not to say exclusively, to questions of grammar, etymology, rhetoric,

and the mere technicalities of speech; thus sticking for ever in the husk of language, instead of getting through into the kernel of matter and thought." The author, in his valuable introduction and throughout the foot-notes, has evidently kept this view of the subject before him, as he has not overburdened his text with much useless explanation of what needed none, but has been careful to add only such notes as would be of service in elucidating obscure passages. His introduction is especially valuable as giving what to many will be a new interpretation of this "Tragedy of Thought." The notes explanatory and critical are excellent, and the latter are wisely placed at the back of the book.

TWO MONTHS IN EUROPE.—*Syracuse: Davis, Bardeen & Co.* This is written by O. R. Burchard, M.A., one of the professors in the Fredonia Normal School, N. Y. He has twice spent his vacation in Europe, and this little work shows clearly how to do this most cheaply and completely. It is a guide-book for the man of culture, naming everything of most intense interest in connection with Art, Literature, History and Science, and Commerce, which one ought to see in each place, and yet it is as interesting as a novel. Mr. Burchard is organizing a teachers' excursion this year.

THE JOURNAL OF SPECULATIVE PHILOSOPHY for April, 1879, opens with a translation of Hegel's chapter on "Romantic Art," as found in the second part of his "*Æsthetics*." In this chapter he discusses (a) The Religious Circle of Romantic Art, (1) The History of Redemption through Christ, (2) Religious Love, (3) The Spirit of the Church, showing how these themes have been treated in art, and their significance. Mr. D'Arcy continues his translation of Von Hartmann's essay on "The True and False of Darwinism"—this time giving us the remainder of the strictures on the theory of heterogeneous generation and the theory of transmutation. Professor John Watson (of Queen's University, at Kingston, Ontario) discusses the question of the theory which makes force the ultimate principle of the world. In a former article he had considered the theory which made matter the ultimate principle. The first half of Hegel's essay on the life and philosophy of Jacob Boehme is translated by Edwin D. Mead (at present residing in Leipsic). It is one of the most interesting parts of Hegel's "History of Philosophy." Mrs. Morgan translates the ninth chapter of Schelling's lectures on The Method of University Study, in which he discusses the study of theology. Two-thirds of this work of Schelling have now been given in the *Journal of Speculative Philosophy*. In answer to an article contained in the January number of this journal, Mr. J. E. Cabot makes some strictures on Dr. Wm. James's ideas of the cognition of Space. Mr. Cabot holds that Space is the first appearance of the category of quantity in the *feeling* (not yet in the discursive thinking). The first part of Miss Brackett's paraphrase of "Rosenkranz's Pedagogics" is completed, with an Analysis and Commentary. In the "Notes and Discussions" there is a reply to Dr. J. H. Stirling's article on "Kant and Schopenhauer," published in the January number, so far as that article attacked the position of Professor Caird, of Glasgow, as taken in his recent work on Kant. It is Professor Caird himself who replies, and he exhibits some feeling at the uncalled-for roughness of Dr. Stirling. His vindication is complete, however. Notwithstanding, we shall be surprised if Dr. Stirling does not return to the charge in the next number. Among the Book Notices we see a commendation of "Elmendori's Outlines of the History of Philosophy." The *Journal* is published in St. Louis, by Dr. Horris, Supt. of Schools.

—The recent discoveries in Electricity have been numerous during the past few years, but none of these have been of greater importance than the new method of healing disease by galvanic treatment. In our advertising columns may be found a small illustration of what has grown to be an extensive institution. Although its physicians are graduates of Allopathic schools, they have tried long enough to know that diseases which cannot be remedied with medicine not unfrequently yield readily to Electropathic or Hydropathic treatment. Upon this basis only can the popularity and extraordinary growth of this establishment be accounted for.