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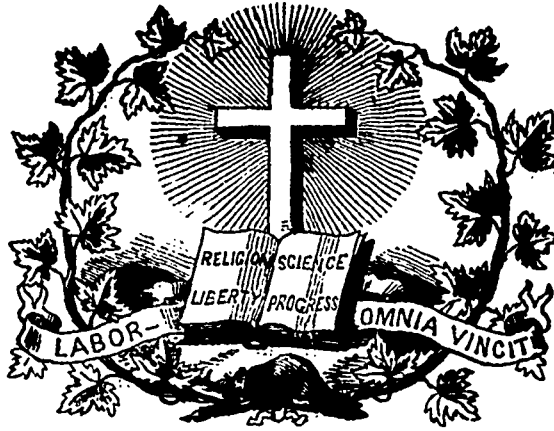
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SUMMARY.—**EDUCATION:** The Colleges of Canada.—The McGill University. by Hon. Pierre Chauveau, (continued from our last).—Infants' schools. a lecture by professor Hicks.—Remarks on penmanship.—Catechism on methods of teaching. (to be continued).—**Lessons in arithmetic:** Fractions.—**SCIENCE:** Things to be observed in the vicinity of Montreal, a lecture by professor Dawson.—**LITERATURE:** Anglo-Canadian literature.—A review of several canadian poems by professor Wilson.—**OFFICIAL NOTICES:** Appointment of school inspectors.—Diplomas granted by boards of examiners.—Quebec and Montreal, (catholic); & terbrooke and Stanstead.—Erec-

tion of a school municipality.—Library of the department.—Teachers wanting situations.—**MONTHLY SUMMARY:** Educational intelligence.—Scientific intelligence.—Literary intelligence.—Artistical intelligence.—**OFFICIAL DOCUMENTS:** List of teachers inscribed on teacher's pension fund (continued).—Statement of monies paid by the department since the 1st January to the 31st March.—**ADVERTISEMENTS:**—Wood Cuts: View of McGill College near the mountain.—View of Burnside Hall.

THE COLLEGES OF CANADA.

II.

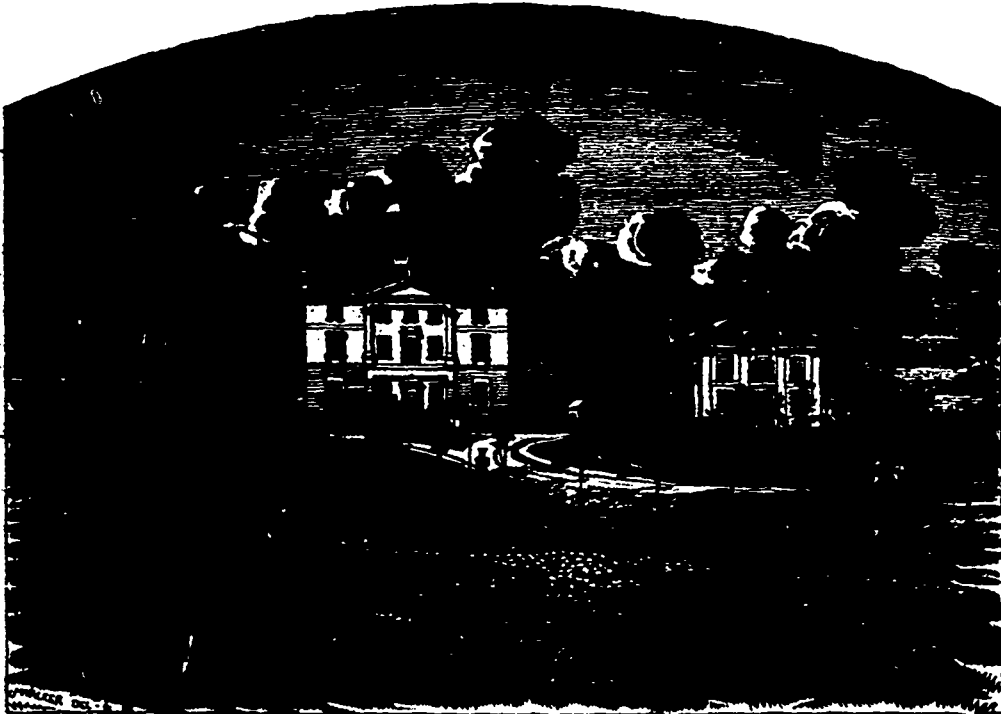
The McGill University.

(Continued from our last.)

Other causes will also account for the slow progress of the institution. The distance from town of the site selected for the erection of the buildings was a serious impediment to the attendance of days scholars, and the unsuccessful attempt at a boarding house which was then made, was equally injurious to the whole undertaking. But probably the greatest obstacle in its way, was the want of a junior department or preparatory school connected with it. All our other institutions have gradually raised from the teaching of almost

purely elementary instruction to that of the highest branches; and it is obvious that in a country like ours, it is difficult to start otherwise. For many years back (and it will be the same perhaps for many years to come) few parents could be induced to follow the more regular course of sending

their children first to a primary school, and next to the higher classes of institutions. The school to which they had first been sent, had every chance of being their first and last station; and if the parents changed the child from one place to another, they little dreamt of allowing him to remain to



the age of fifteen or sixteen in a high school, so as to enter a university immediately after. The second school they went to, was sure to be the last however limited

the age of fifteen or sixteen in a high school, so as to enter a university immediately after. The second school they went to, was sure to be the last however limited

its programme might have been. A high school equivalent to the lower and middling classes of the old colleges of the country, would have materially helped the McGill University in its infancy; and it is a remarkable fact that the commencement of its present prosperous era coincides with the incorporation with it of the Montreal High School.

It was not before the year 1843, that statutes were framed for the government of the college; and in the same year a chair of divinity and two professorships in the faculty of arts were established.

The buildings which had been commenced in 1839, were then completed and although parts of them are still in an unfinished state, they were ready for the reception of students on the 7th of September.

The original plan of these buildings embraced a center building and two wings connected by corridors. Only the center building and one wing on the left side have as yet been erected. Since the erection of Burnside Hall, they have been occupied as residences by several of the officers of the college, and Mr. Fronteau, the professor of French receives in one of them a certain number of pupils as boarders. Young men from the country or from Upper Canada have the advantage under that arrangement of a very comfortable boarding house, together with that of learning the French language from one who is highly conversant with all its niceties and difficulties.

As may be seen by the accompanying engraving the College buildings are placed in a commanding position and are surrounded by a large space of ground, containing some fine trees and which has been much improved recently by planting and the formation of a central avenue. It is expected that the College authorities will ere long complete the original design of the buildings, and hold in them the classes of the faculty of arts as intended at the time of their erection. When completed the whole front of the edifice will be 350 feet, and elevated as it is on a terrace, and surrounded by ornamental grounds, it will have a very imposing effect. Even in its present state, the McGill College is one of the most remarkable objects in the scenery of the mountain of Montreal, and never fails to attract the attention of the tourist.

The huge wall in rear of the College is the terrace or embankment of the reservoir of the city water-works, deserving attention and which draws many visitors to that spot. The site of the College buildings as we have said was for many years at a very inconvenient distance from what was then the city of Montreal; but it must be admitted that the directors cannot be blamed for its selection, particularly if they then had in view the rapid development which the city is acquiring every day.

We were much amused a few days ago, in looking at the engravings in a book published the very year in which the foundations of the College buildings were laid. (1) Most of the edifices, which are seen in the plates, have disappeared and are replaced by others of much greater dimensions and of much better appearance. Tracts of land which were then

gardens and fields are now covered with elegant houses; in fact, are the handsomest wards of the city.

In these engravings the General Hospital, in Dorchester street, seems to stand in the middle of a field, and the McTavish house, which is near the McGill College buildings at the mountain, has the appearance of a castle built in a forest. Now, Sherbrooke street and the mountain itself to a great distance beyond the priest's farm, are covered with some of the most beautiful residences of the country, which are daily springing up in every direction. If we may judge of what will take place during the next twenty years by what we have seen since 1839, we can say without fear that the present site will then be a very central and eligible one. At all events it affords a most delightful view of this elegant and glittering city, which is perceptibly growing under our eyes, and a distant glimpse of the blue waters of the St. Lawrence with its many verdant islands.

To return to the early history of the College, we find that the first professors appointed in 1823 were: Principal and professor of Divinity, the Revd. G. J. Mountain, D. D. of the University of Cambridge; professor of moral philosophy and learned languages, the Revd. J. L. Mills, D. D., of Oxford; professor of history and civil law, the Revd. J. Strachan, D. D., from Aberdeen; professor of mathematics and natural philosophy, the Revd. J. G. Wilson, A. M. from Oxford; professor of medicine, Thomas Fargues, M. D., from Edinburgh. The first degree conferred by the College was that of M. D. on Mr. W. L. Logie, 24th May 1833.

In 1839 the only professors that were connected with the institution were those in the medical department; they were as follows: Dr. Holmes, professor of chemistry and pharmacy; Dr. Robertson, of the theory and practice of medicine; and Dr. Stephenson, of anatomy and physiology. There were besides two lecturers, Dr. George Campbell, on surgery and Dr. Archibald Hall, on materia medica.

From the opening of the buildings in 1843 to the year 1850, there does not seem to have been great progress made, if we judge of it by what is said in the written address presented by Judge Day, president of the board of governors, to His Excellency the Governor General, on the 7th of October 1856, on the inauguration of the new building of Burnside Hall. "The institution thus started was not successful, it received no general support and dragged on a languishing existence from year to year without apparent hope of improvement. Its utterly prostrate condition at length attracted attention and in 1850 the provincial government was moved by a number of public spirited gentlemen to aid in an endeavour to place it on a better footing."

In the year 1853 the High School of Montreal was incorporated with McGill College, and became a distinct department of the institution. The first building of Burnside Hall was erected the same year and opened to the pupils in March 1854. It contained the College department, the offices, library and museum of the University, and the High School. From that time, the whole of the operations of the institution were carried on in the city in a most central position, and the result was immediately felt by a large increase of students in every department.

(1) *Hochelaga depicta*, by N. Bosworth, Montreal, 1839.

One sad peculiarity in the history of our Colleges which our readers must have already noticed in that of the Laval University is their frequent destruction by fire. It is so with almost every public building in Canada. There is hardly a church of some importance which has not been rebuilt three or four times; and the country has suffered in an intellectual as well as in a financial point of view to an immense extent by the repeated conflagrations of our houses of parliament, national libraries and national archives. The cause is obvious. The cheapness of timber in this country is such that, with the exception of the outside walls, every building is almost exclusively composed of combustible materials. This may answer for private individuals who can compensate their losses by paying a premium to an insurance company; but the case of public institutions having invaluable books, documents and collections is a very different one. In the United States most of the public collections have been placed in buildings where a stick of wood is not to be found, and among others, the library of the state of New York in Albany, has been made altogether fire proof at an additional expense of about one third of the cost of an ordinary building.

The floors are paved with tiles, the beams, window-sashes, &c., are all iron, and the shelves are a kind of porcelain like that in use for the ornamental parts of the Russian stoves in this country.

However, Burnside Hall, having been built on the principle universally adopted in Canada, there was no reason why its libraries and collections should not share in the common fate, and on one cold winter evening, in a few hours the greatest part of them was reduced to ashes. This was on the 2d of February 1856. The government immediately placed the old High School (Belmont street,) at the disposal of the directors, and the classes were continued in that building almost without interruption. The activity displayed by the Board of governors was such that on the 7th of October a new Burnside Hall was solemnly inaugurated.

It is a brick building on the site of the old one, at the corner of Dorchester and University streets. It is two stories

high, 106 feet in length by 60 feet in breadth with a projection in the rear, and an adjoining building for the secretary's office and porters residence. Its style is plain but symmetrical and in its internal arrangements and furniture it is well deserving of the attention of persons engaged in the direction of educational institutions. The lower story consists of a large hall seated with single chairs and double desks, on the modern plan, for 200 pupils, and five large recitation rooms. This part of the building accommodates the High School department. The second floor contains a convocation hall, capable of seating 300 persons and used for the public meetings of the University and for popular lectures, four large class rooms fitted up to seat the classes of the faculty of arts, and a library and museum. Every room in the building is provided with ventilating flues terminating in two large Emerson's ejectors, in the roof, and heat is supplied by two of Chilson's furnaces in the basement.

(To be continued.)

P. J. O. CHAUVEAU.

INFANTS' SCHOOLS

A lecture made before the Teachers' Association in connection with the McGill Normal School, by PROFESSOR HICKS.

The Infant School and its system, although intended for the training of a large number of children assembled under one roof,

must not be considered as only deserving the attention of those professionally engaged in instructing the young. They have claims upon all. The mother who desires to train up her children mentally and morally in such a manner as to ensure, in a great degree their future happiness, the sister who has her duties to perform towards the younger branches of the family, the father, brother, indeed all may profit by investigating the principles upon which infant instruction is based. Infant teaching, then, is based upon the fact that the dispositions, or impulses of the mind are accessible in early life to training, and as the neglect of these leads invariably to grave errors, the sooner we begin this education judiciously the better. Precept, although full of importance, will not always protect the young from evil example, which operates in a contrary direction, it therefore becomes important to add something to strengthen the precept, and that we find in good moral and religious training, which forms the second prominent feature in every well conducted Infants' School. As far as intellectual training is concerned, one of the first faculties of the mind brought into play is perception, or that power of the thinking part of our being by which cognizance is taken of objects presented to the senses. By the aid of the senses we ascertain the shape, colour, size, &c., of objects, and it is the training of the judgment in making use of these senses that constitutes one great feature of our infant system.

The third part has reference to the physical training of the child, and as this forms so obvious a portion of the daily routine of the



school, I need not take up much of your time in speaking of it. Nature herself has happily provided for the maintenance of this part of education by implanting in the child an intense desire to keep constantly in motion. Its curiosity is unbounded. We, who have reached an age that has allowed us much past time to inspect the nature, qualities, and uses of most of the objects daily presented to our notice, pass with indifference thousands of things that meet us in our daily path, but the young child just beginning to notice the objects that meet him at every step, has an untried field before him; curious appliances meet him at every step; the simple opening of the lid of a box is an unsolved mystery over which he spends a long five minutes; and a new toy presents to his view, combinations of colours, newness of form, and a variety of beauties, which absorb all his attention. These keep him constantly in motion; and under proper training the physical development of the limbs proceeds with daily accessions of strength and freeness of motion.

It appears then that the training of the infant can be divided into three parts:

1st. Religious training;—2nd. Mental training, and 3rd. Physical training.

RELIGIOUS TRAINING.

In this part of a teacher's duty the first care should be to lay an early foundation for the love of God, with such illustrations of his goodness as present themselves to the child in daily life. His goodness and mercy in supplying our daily food—in clothing the beasts of the field—in sending the sun to ripen the corn, and to give us light; and the rain from heaven to water the earth—all these things should be brought forward to confirm our statements; and where opportunities admit, texts of scripture of a suitable nature should be added.

MENTAL TRAINING.

The mental training, or the developing of the mental faculties, of which perception is the earliest and most important, demand much care and study. Its object is to enable the child in its enquiry after truth to arrive at just conclusions. Another great purpose answered by this important part of the infant teacher's labour is to excite in the child a disposition to investigate every object that comes before its eyes in such a manner, that in its search after knowledge, it may be led to take a road that will lead to a successful result. This can be best carried out by lessons on objects that are calculated to arrest the attention of the infant mind.

It must not however be supposed that this has reference only to those objects which are occasionally seen arranged on the shelves of Infants' Schools; very often covered with dust, and used merely as ornaments. Almost everything of a portable nature may be brought under the notice of a class of infants. A simple leaf from a neighbouring tree may afford a subject for a gallery lesson replete with food to strengthen the expanding mind. An apple, or a pear, or a beautiful cherry with its ruddy hue, may excite the enthusiastic teacher to exert all his eloquence to win the attention of his listening flock, and to pour instruction into the ready ear. The qualities of objects, their differences of form, the surfaces of objects, the length, breadth and depth of common things, may all be invested with interest, and act the useful part.

We will suppose a teacher standing in front of a gallery of 60 infants, from the age of three to six; the little creatures fresh, from the playground, where they have satisfied their desire to exercise their physical energies, bringing the mind in its turn, ready to undergo needful training. The teacher produces a flower-pot containing a flower in bloom, or just about to expand its lovely blossoms. Who that has had the gratification of drawing out the minds of children, does not feel the power of such a teachers' position, not only to arrest the attention of those before him, not only to develop the intellectual faculties, but to strengthen those good feelings of nature upon which the moral dignity of the future man may be built with a sure and certain foundation? The taste may be refined by the beauty of the form, the colour of the leaves, and the loveliness of the flowers; the "form of beauty" which is born in man may be fostered and excited by the entire object as an ornament of nature, but the intelligent teacher, who looks upon the little ones before him as so many immortal souls who are journeying towards a better land, where there are things which the ear has not heard, and which the eye has not seen, will not fail to centre all in the great truth that every trace of ornament is owing to His creative wisdom, of whom the christian poet beautifully says "Not a flower, but shows some touch, in freckle, steak or stain, of His unrivalled pencil. He inspires their balmy odours, and imparts their hues, and bathes their eyes in nectar, and includes in grains as

countless as the seaside sands the forms with which he sprinkles all the earth."

It would give me much pleasure to enter more fully into the advantages which the infant teacher has in thus bringing his charge into contact with objects skillfully treated, so as to draw out the tender mind, but I am afraid that I shall lengthen my paper beyond its limits, and leave no room for that discussion which will elicit the remarks of many able to give their experience in this important feature of wisdom, school education. It must however be apparent that every one who has this most pliant period of infant life entrusted to his care, occupies a position of the greatest moment; and the characteristics of such a one will afford us an opportunity of consideration, from which we may derive great and enduring benefit. He must have in the first place love of children; good temper and decidedly religious feeling; ability to study the human mind, and readiness of speech, which I feel more and more every day to be a great instrument in the hands of the intelligent man whether in a private or a public position. It is only those that have had much practice in schoolkeeping, and who have had daily opportunities of noticing school teachers, that can fully appreciate the advantage of the fluent teacher over one who has not had an opportunity by practice of bringing this important talent into play. Without this fluency no instruction can be successful in that picturing out of objects, &c., which forms so essential a part of infant teaching. In order to do this well it is essential that by careful study we should ascertain how far the minds of very young children reach in their endeavours to apprehend what is brought before them. Care must also be taken to use those terms which are simple yet applicable, that the words may so far convey an idea of the object which we desire to paint that the imagination of the child may readily realize it. This can only be done by great practice, and that careful watching of the children's countenances, which if properly studied will serve as a gauge to measure how far success has been attained.

This picturing out need not be confined to objects such as are generally used in schools, but it may be used to explain words, to describe events, paint natural scenery, and anything that the mind of the child is capable of grasping. I need hardly mention that in carrying out this system of word painting, the teacher must be well up, to use a homely phrase, in all that relates to the different methods of questioning, such as the elliptical method, the suggestive method, the place of simultaneous response, besides that occasional individual questioning which puts all the school upon the alert, and secures general attention. Immediate results are not to be expected in any school, much less in one where the gentle, but sure influence of affectionate training can only be resorted to in order to produce good discipline and perfect control. We have all read of the trials of Wilderspin, when he first began to teach his untrained flock, of the clamour that assailed his ears when the parents had left the school room, of the expedient he adopted by raising his wife's cap on a pole, and swinging it around the room (thus giving his first object lesson), of his after success, when his warmest wishes were realized; and who that has read this has not felt that it was merely one instance out of many such commencements, which by perseverance and diligence have become far more favourable to young teachers, than if their endeavours at the onset had been attended with less trouble and difficulty. There are several other points of interest connected with Infant Schools, which I should be happy to bring before your notice, but these I am afraid I must leave till some future opportunity when I shall be glad of an occasion to enter again upon a subject which I feel to be one of great importance to all, and to none more than to the elementary teacher.

Education of the Hand in Penmanship.

Of that august personage, a pedagogue in a district school, under whose inspection (and spectacles) we took our first lessons in the chirographic art, we have this distinct recollection: Whenever he announced the "time to write," and we were fairly at work with pen, rule, plummet, and copy, he seldom failed to add, with a good deal of emphasis, this special direction in regard to the exercise: "Let it be short, very short." A very judicious admonition indeed, and one that will apply equally well, perhaps, to any suggestions that may be made in regard to instruction in penmanship. At any rate we shall act in accordance with our appreciation of its appropriateness, and shall make this article short.

It is now quite common, and quite proper also, as it seems to us, for children to commence writing at an early age; hence it devolves

upon female teachers, in a great measure, to give the initiatory instruction in this branch,—a branch so variously, and, in many instances, so badly taught. The particular points to which the early teacher in this branch must give special attention, are mainly these: to aid the pupil in gaining a clear perception of the form of the letters to be made; to train the muscles of the hand and arm, that the execution of their movements shall produce a character strictly in accordance with the perception of its form; a knowledge of the elements of letters and their combination; and the correction and prevention of bad habits in the position and movement of the fingers, hand, &c.

It is to the second of these particulars that we wish to call attention in this article—the *training of the muscles*. It should not be inferred, however, that we pass over the first, and neglect to notice the other two, on account of their trivial or minor importance. Far from it. But we propose to do one thing only at a time, and we select this because we think it seldom receives the attention it deserves; and by many teachers, especially those who have themselves been badly taught, it is scarcely understood at all.

Neglect of an early and proper training of the muscles of the fingers, hand, and arm, will invariably result in giving the pupil a stiff, awkward, and undesirable handwriting, and one the execution of which is always irksome and unsatisfactory to the writer. It is equally true that such a style may be corrected and improved in proportion to the cultivation of proper habits and movements of the muscles.

The first steps, the elementary processes, which are so universally and so justly acknowledged to be the most important in all branches, are particularly and emphatically so in penmanship; and most of all in the manual part of the exercise—the education of the hand. This is true by virtue of a physical law of the muscular system. It is vastly easier to train the muscles correctly than incorrectly, because a correct movement, such a movement as is required for good penmanship, is a free, easy, and natural one, and one readily acquired, for the reason that the muscles are by nature adapted to just such a movement. Strictly speaking, it is simply developing the natural powers of the muscles; and development always gives increased strength to those powers, and additional facility for varied and difficult movements. But a rigid, cramped, and spasmodic movement is always executed with more or less difficulty, for the reason that the muscles are not adapted to such a movement; and if the habit is acquired, it will always be done at the expense of a very irksome effort. Another important fact to be borne in mind here is, that in youth, while the muscles are pliant, cushioned in fat, and abundantly supplied with nervous stimulus and nutritious blood, their movements are executed easily and rapidly. Not that they can, without instruction, perform difficult and artistic movements with the pencil or pen, but they can easily be trained, and their movements will soon become a matter of habit. Later in life the muscles are not so tractable. Even good habits cannot be so easily acquired, and bad ones are corrected only with great difficulty—so great, indeed, that, in a majority of cases, they are not corrected at all. You may train the young sapling and the tender vine-root; but the sturdy tree yields only when broken, and the full-grown vine holds even the giant oak in its strong embraces. Here will be seen the propriety of beginning to write at an early age, when we can avail ourselves of this superiority of youthful muscle. The vast importance of correct instruction at this time will also be seen, that there shall be in after life no necessity for unlearning or correcting, bad habits—a work, as we have said above, of so great difficulty.

In this matter of training the hand there is need of more specific instruction than teachers of writing in our common schools usually furnish. The directions frequently given are something like the following: "Keep the wrist and forearm free and move easily and freely across the paper. In all cases follow the copy *exactly*." Now how are the little chubby hands, unused as yet to act with precision, and wholly undisciplined, to execute those movements which require the trained hand of an expert, perhaps of an artist? Such a requirement is simply absurd. "Be careful," says the teacher, "be careful; make no stray marks, and don't write fast." The whole spirit of this injunction to the pupil, at the outset, is calculated to discourage him and to "stiffen the knuckles." What is a stray mark in the first attempts at writing? Any slight departure from the copy may, we suppose, be so considered, if close imitation is the first thing insisted upon and expected. But imitation is to be attained only after the pupil has by instruction and practice become capable of it. A person may laboriously imitate a pattern without knowing much of the powers of the hand, the use of the pen, or the best way of doing it; and we have sometimes known pupils who would imitate a copy when we were sure they had learned but

little or nothing of the art of writing. Again, must the pupil necessarily write slow? May not the movements of the pen be, comparatively speaking, rapid and quick? Are slow movements always enjoined in the mechanic arts, and in instrumental music?

The hand, if properly trained, is capable of executing rapid movements, even at an early stage of its education. If there is, beforehand, a clear conception of the letter, and the muscles are obedient to the will, the letter may be formed rapidly and accurately. If with an indefinite purpose, or scarcely no purpose at all, the pen is placed upon the paper, and after its movement is commenced a pause is made, to cast the eye to the copy to study its form and pattern, and then the pen is again started, blindly, as it were, or by way of experiment, of course all its movements will be slow and uncertain, especially in their results. That rapidity in writing is desirable, none will deny. Those who are called upon to compose frequently and rapidly, and with a style of handwriting slow and difficult of execution, know what a hindrance a slow-moving and aching hand is to the current of thought. Many of our happiest spontaneous thoughts must be recorded at the instant they manifest themselves, or the train of ideas they would suggest is lost forever. A mechanical power in the hand equal to this current of ideas is absolutely necessary for profitable composition.

Rapidity of execution, therefore, in penmanship is, after legibility, the most important object to be secured. That it is attainable is no more than every professional or amateur teacher of penmanship maintains, and proves, if he is a skilful and successful instructor.

The old practice of giving pupils straight lines for the first copy is, we are happy to say, nearly obsolete. To draw such a line is a feat that an artist does not felicitate himself upon until his experience has been considerable. To draw it for the sake of practice, merely, is poor policy indeed; for it needs considerable judgment to begin with, and requires but little variety of movement in the muscles. Commencing with a copy-book that must be preserved, and every character of which must be "shown to the committee and visitors," is, we think, equally objectionable. What, then, it may be asked, shall be the first exercise? We will answer that question.

Place a sheet of paper before the pupil, and with a pen execute a few plain movements, such as letters, parts of letters, or simple "flourishes." Do this in the presence of the pupil, and not at home in your own room, nor in the school-room after school is dismissed, where copies are usually "set." Let it be seen how you do it. Then require the pupil repeatedly to do the same, or something similar—not necessarily the same, however. Be very sparing of criticism, and let one object simply be before the mind, namely: to induce the pupil to use the pen freely and without restraint. If he is inclined to make other characters than the copy, or to make "flourishes" *ad libitum*, it is equally well. Not that a handwriting abounding in flourishes is desirable. It is not. But the first movements of the pen will have very little to do with the style of the handwriting yet to be formed.

This exercise is to be considered as a *muscular discipline*. Insist upon its being a frequent one, and if it is done pretty much regardless of copy, or of the lines upon the paper, make no objection, provided there is discernible an improvement in the free swing of the muscles, and the off-hand movement of the pen. Young pupils often have a fancy for a particular letter, or letters, as written by a seatmate, or some friend, and are quite inclined to imitate them. Let it be done, and done freely. If the whole exercise is treated as one merely to give free play and development to the muscles, and is not cramped by arbitrary rules, there will soon be noticed an improvement, and one of which the pupil himself will be fully aware—a matter of no small moment, as consciousness of success stimulates to greater and more careful effort. Teachers cannot have failed to observe that this same principle and result of free and easy practice is almost daily exemplified in particular cases under their notice. In most schools there are pupils, more or less, who are much employed with the pen, or pencil, in writing, drawing, and scribbling. It is done at the expense of prodigious quantities of paper, and is frequently accompanied with an amount of scratching and noise that is quite annoying. Moreover, the practice is incessant, unless checked or prevented. But the result of the whole matter is, such pupils almost invariably acquire an easy, elegant, and uniform hand-writing.

Let this practice of the muscles be continued until there has been acquired a facility of movement in the hand, and a command over it, that shall make the pupil fully conscious of considerable executive power with his pen. It may require many days, perhaps some weeks; but in all cases the skill acquired will amply repay the effort and time required for its attainment. This having been accomplished, the pupil is now prepared to give attention to the details of the elements of letters, and also their particular form,

which he will soon be able to execute with great ease, rapidity, and exactness. Of this latter branch of the subject, however, it is not our present purpose to speak.

That a course of training like the above, thoroughly and judiciously practised, will accomplish a good purpose, we have the best of evidence—the evidence of entire success wherever it has been faithfully tried. Many who are now successfully testing their powers as skilful and rapid writers, in the office, counting-room, and elsewhere, can bear ample testimony to its utility, as a course eminently calculated to commence well the initiatory steps of accomplished penmanship.—*Massachusetts Teacher.*

Catechism on Methods of Teaching.

TRANSLATED FROM DIESTERWEG'S "ALMANAC," (*Jahrh. h.*) FOR 1855 AND 1856,

BY DR. HERMANN WIMMER.

(Continued from our last.)

III. ARITHMETIC, (*Rechen-Unterricht*), BY A. DIESTERWEG.

1. What has brought arithmetic into the common school?

The wants of daily life—material necessity. Its introduction was historically the first of those which caused a change in the organization of schools. (Rabanus Maurus, in the ninth century, recommended arithmetic and geometry, because they open mysteries, because the Bible speaks of cyphering and measuring, because we learn by it to measure the ark of Noah, etc.)

2. Is this the only reason why the present common school teachers retain this instruction, and consider it indispensably necessary?

Not at all. They have recognized in the right treatment of number, and of its application to daily life, an excellent discipline of the mind; the formal object is added to the material one.

3. How do they compare in value?

The formal object has the preference; in no case is it to be subordinate; the development of the mental powers is in every school the chief point. But they do not exclude one another; quite the contrary. The formal end is attained just so far as the matter to be understood is worked through.

4. What motives decide on the choice and arrangement of the matter?

First, the "formal" motive; i. e., regard to the mental nature of the children, the laws of human development; and especial regard to the individual nature of the learner; next, various external circumstances—differences of place and time, and of schools. The first motive is universally the same; it dictates the management of the number; the second directs the application of the number, or calculation.

5. How far ought all to advance in arithmetic?

The maximum can not be stated; nor the minimum either, at least in regard to the degree of formal development. It remains to point out the material minimum, and this requires every child to be able to solve the common problems of every day life. It is neither necessary nor possible, that all scholars should reach the same point.

6. What is to be thought of prescribed rules and formulas?

They are to be entirely annihilated. No operation, not understood in its reasons, should be performed, or learned. The scholar must be able not to demonstrate mechanically each operation, but to give the simple reasons which justify it to the mind. The right deductions from the nature of the number and of its relations, are to prove its correctness.

7. Wherewith must instruction in arithmetic begin?

With the numbering of real objects, (cubes, little rods, fingers, etc.)

8. What inductive means are next employed, and how long is their use continued?

The teacher next proceeds to the use of artificial means, as lines, points, cyphering rods, Pestalozzian tables, etc., and continues to practice the simple changes of number with them, until the pupil has a perfectly clear idea of the numbers and of their quantities.

9. What next?

The teacher advances to the use of figures.

10. What is the treatment of the number, with and without figures?

The latter always precedes the former; the written or slate arithmetic every where follows mental arithmetic. Not only does the cultivating power of arithmetic lie in the insight into the relations

of number, but also the wants of practical life demand preëminently skill in mental arithmetic.

11. Upon what chiefly depends that skill?

First on the ability in handling the decimal principle, (*Zehner-gesetz*;) then on the ability to compare and analyze numbers.

12. How do the exercises with so-called "pure" and with applied numbers, compare?

The former always precede; application presumes ability in treating the pure number. This being attained, questions, problems and exercises follow; together with denominate numbers, and their application to life.

13. Are the exercises with numbers from 1 to 100 to come in order after the four rules, addition, subtraction, multiplication, division?

No. All operations ought to be performed successively with these numbers; the regulated uniformity of the operations comes later. (Grube, Schweitzer, etc.)

14. Shall fractional arithmetic be entirely separated from instruction in whole numbers?

No. No. 13 forbids it, and makes it impossible; even considered in itself it would be improper.

15. Which points must be distinguished in practical problems?

First, the understanding of the words.

Second, the relation of the question to the statement, or of the thing required to the thing given.

Third, the understanding of the way in which the unknown number depends on the number given.

Fourth, the finding of the unknown number from the given number; that is, the calculation, oral or written.

16. What has the teacher to do in these four processes, when the pupil can not proceed of his own strength?

In the first, the understanding of the words and things in their relations must be explained, and often directly given.

In the second, what is required must be well distinguished from what is given; the propriety of the question must be accurately considered.

The third point is to be brought out by means of questions, from the teacher.

The fourth is an affair by itself, and is the pupil's concern.

An exercise is not complete and satisfactory, until the pupil is able to explain these four points, one after another, orally, and without any aid.

The teacher leads by questions, (by analysis;) the pupil proceeds by synthesis. The former proceeds from what is sought, the latter from what is given.

17. How is talent for arithmetic to be recognized?

Besides what has been said in No. 16,—by the independent invention of new methods of solving the problems, of peculiar processes, etc.

18. In what way may uniformity in arithmetical instruction be gained?

By solving each problem rationally, according to the peculiar nature of the numerical relations occurring in it, and consequently, without admitting any external rule or formula, which on the contrary ought to result from the subject itself. Uniformity lies in the rational, transparent treatment, and, therefore, in the mind, not in the form. Good rules, etc., are not indifferent, but they must follow the observation of the thing.

19. Which is the most simple, natural and appropriate form of managing the problems externally?

Not the doctrine of proportion; it is too artificial, and too difficult for the common school; nor the chain rule, etc. The best form in slate arithmetic for the common school is the so-called "*Zweisatz*," the fractional form, (*bruchform*), which every where requires reflection. (Scholz.)

20. What is the value of the so-called "proofs" and abbreviations?

The proofs are, with a rational method, superfluous; the latter are of little value. A well guided pupil finds them out himself, and if, in the highest class, some of them are pointed out to him, their origin, and thus their correctness, must be demonstrated at the same time. (1)

IV. GEOMETRY, (*Raumlehre*), BY A. DIESTERWEG.

1. Is Geometry required in the common school?

No doubt, for it teaches the forms in which every thing appears; the shape of matter and the laws of those forms; the laws of space and of extent in space; the dependance of magnitudes and forms on each other.

(1) No school can do without an arithmetical text-book. Hence it sufficed to give here the principles. These contain the measure by which we have to judge of the value of the text-book.

2. *Why is such knowledge considered as a requisite for general cultivation?*

Because the whole mass of bodies, the universe, as well as man, exists in space; because without the knowledge of the qualities of space, man would be ignorant of that appearance of things which belong to their inmost nature; because geometry teaches how to measure lines, surfaces and bodies, which knowledge is very necessary; because without it man could not divine, that the distance and size of the sun, moon and stars, could be determined; and because he would even have no idea of the extent of his own abode, and of the mathematical, i. e., fundamental qualities of the same. All this is consequently requisite for general human cultivation, not to speak of its practical value, as well for female as male education, and therefore for the common school, the school of the people. Without it, not the most indispensable part, but an essential part, of education is wanting.

3. *What elements of geometry are to be taught in the common school? and in general what parts of it may be considered there?*

Space admits of "intuitive," (*anschauliche*), and a demonstrative, (*begriffsmaessige*), observation.

The intuitive faculty of man perceives immediately objects in space, bodies in their qualities and forms; with the sense of touch he perceives what opposes him in space, the body and its external form; the sense of sight assists him, by determining extent and distance, and by comparing and measuring them. These are operations of *external* intuition. The intellect abstracts the *differentia* of the bodies, and fixes the pure, mathematical form; and thus aids the *interior* pure, or mathematical intuition. Moreover, the logical intellect, perceiving the dependence of magnitudes on each other, their mutual conditions, the inference of the one from the other, deduces and concludes.

The intuitive part of geometry is that elementary part which is proper for the common school. But thereby is not meant, that the pupils should not learn the dependence of one thing on the other; this even can not be avoided, it comes of itself; but according to the degree of ability, quicker and deeper with one than with another, and one school will make more progress in it than another. But the power to be immediately employed is the faculty of observing—first, the exterior, and then, and preëminently, the interior. The conclusions connected with that observation result therefrom spontaneously; the intellect works without being ordered. Therefore, in geometry, as every where—a fact, ignorance of which, causes much merely repetitions and lifeless teaching, as well as intellectual dependence and immaturity—the teacher ought to lead the scholar to immediate, true and vivid perceptions.

The strict or Euclidean geometry, with its artificial proofs, is not fit for the common school, nor does it prosper there.

4. *What is more particularly the subject of geometrical instruction in the peoples' school?*

The qualities of (mathematical) lines, surfaces and solids.

5. *What method is to be pursued with it?*

The point of starting is taken in the physical body; and from this the mathematical one is as it were distilled.

The order of single precepts or propositions is, as has been said, as much as possible *genetical*. Pedantry and anxiety are here, as every where, prejudicial. The method, always intuitive, requires originality, i. e., the evolving of every thing learned from some thing preceding; aims at immediate spontaneous understanding of one thing *through* the other.

6. *What is the immediate purpose of this instruction?*

To understand the qualities of lines, plains and bodies; to measure and calculate them.

7. *What instruments are used by the pupil?*

Pen and pencil, for drawing; compass and scales, for measuring; the usual measures of lines, surfaces and bodies, for calculating.—(*Barnard's, American Journal of Education.*)

(To be continued.)

Lessons in arithmetic.

ON VULGAR FRACTIONS.—No. 2. (1.)

V. Addition and subtraction of fractions:—Addition has been defined as the process of finding *one number*, called the *sum*, which shall be exactly equal to two or more numbers. From this definition it follows that in order to add numbers representing objects, they must be of the same *kind* or *denomination*; for example it is evident we cannot express in one sum 3 oranges x 5 apples; before

the addition can be effected, but no difficulty exists in the following cases 3s. x 6s., = 8s., 10 marbles x 15 marbles = 25 marbles.

Now let us endeavour to apply the above in the case of the addition of two fractions. Suppose an apple to be divided into 9 equal parts, 3 of these parts will be *3-ninths* and 5 parts, *5-ninths*, and it is plain that the sum of *3-ninths*, and *3-ninths* is *8-ninths*; for as in each case unity is divided into the same number of parts, each part is of the same size or value, and we wish to find the sum of 3 and 5 of those parts. Therefore when the denominators are alike, we simply add the numerators and retain the same denominator for our new fraction. Again, let it be required to find the sum of $\frac{2}{3}$ and $\frac{3}{4}$. Here the denominator of each fraction is different, and consequently the size or value of the part is different; that is, 2 parts of unity of a certain size are to be added to 3 parts of a different size. Therefore, *2-thirds* and *3-fourths* cannot be added while the fractions remain respectively *thirds* and *fourths*, any more than £2 and 3 crowns can be added, so long as the £'s remain pounds, and the crowns remain crowns. In the latter case however the addition can be effected by expressing the value of the pounds and crowns by an equivalent number of some common coin, as the shilling, of which the pound and crown are both multiples. In like manner $\frac{2}{3}$ can only be added together, when they are expressed as fractions, whose denominations are some *common part of unity* of which *one-third* and *one-fourth* are respectively multiples. Now we have shown that any fraction may be expressed in a variety of forms by multiplying the numerator and denominator by the same number, and it is easy to select two numbers one of which multiplied into the numerator and denominator of the first fraction and the other into the numerator and denominator of the second, shall reduce the fractions to a *common denominator*.

Thus the L. C. M. of 3 and 4 = 12

and $\frac{2}{3} = \frac{2 \times 4}{3 \times 4} = \frac{8}{12}$ also $\frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$

therefore $\frac{2}{3} + \frac{3}{4} = \frac{8+9}{12} = \frac{17}{12}$

Or it may be demonstrated by taking a line and dividing it, that $\frac{1}{3} = \frac{4}{12}$ and therefore $\frac{2}{3} = \frac{8}{12}$; also, that $\frac{1}{4} = \frac{3}{12}$ and therefore $\frac{3}{4} = \frac{9}{12}$. Hence to add fractions, reduce them to a common denominator add the numerators, and retain the common denominator for the new fraction. In the same manner it can be proved that to subtract one fraction from another they must be reduced to a common denominator. For it is evident we cannot compare quantities referring to different things. Hence the rule will be similar to that for addition, viz.—Reduce the fractions to a common denominator, subtract the numerators, and retain the common denominator.

VI. Multiplication of fractions.

We have already considered the case of the multiplication of a fraction by a whole number, and it now remains to consider the general case of the multiplication of a fraction by a fraction. Take, for example, the two fractions $\frac{3}{4}$ and $\frac{5}{7}$, and let it be required to find the product of $\frac{5}{7}$ multiplied by $\frac{3}{4}$. Now multiplication is defined as the addition of a number to itself as many times as is indicated by the multiplier: thus, 3 times 4 means 4 added to itself 3 times, as it is impossible to add $\frac{5}{7}$ to itself $\frac{3}{4}$ times or $\frac{3}{4}$ of a time. To ascertain then, what is meant by $\frac{5}{7}$ multiplied by $\frac{3}{4}$, we must understand exactly what $\frac{3}{4}$ means as that is our multiplier. Now we have shown that every fraction has two meanings, and according to the second of these $\frac{3}{4}$ equal $\frac{1}{4}$ of 3; therefore $\frac{3}{4} \times \frac{5}{7}$ is the same thing as $\frac{1}{4}$ of $3 \times \frac{5}{7}$. But $3 \times \frac{5}{7}$ is $\frac{5}{7}$ added to itself three times or $1\frac{5}{7}$, and $\frac{5}{7}$ multiplied by $\frac{3}{4}$ or $\frac{1}{4}$ of 3 must give $\frac{1}{4}$ of this result, which will evidently be the required product, viz., $1\frac{15}{28}$. It will be observed that this result has really been obtained by multiplying the numerators and denominators of the fractions together. And it will be seen, that, to multiply any quantity by a fraction, is to add that quantity to itself, as many times as there are units in the numerator of the fraction, and to take such a part of this result, as is indicated by the denominator of the fraction.

VII.—*Division of Fractions.*—To divide one quantity by another, is to find how many times the latter is contained in the former. It is evident, from this definition, that numbers can only be compared by this rule when they refer to objects of the same kind. A number of *days*, for instance, cannot be contained any number of times in a number of *acres*; but 3s is contained in 15s. five times, &c. To divide then $\frac{8}{9}$ by $\frac{4}{9}$ is to find how often *4-ninths* is contained in *8-ninths*. The answer is evidently 2 times or twice; for $\frac{8}{9}$ are exactly twice as many ninths as $\frac{4}{9}$. Again let it be required to divide $\frac{3}{4}$ by $\frac{4}{5}$. Reducing the fractions to a common denominator, $\frac{3}{4}$ divided by $\frac{4}{5}$ is the same thing as $\frac{15}{20}$ divided by $\frac{16}{20}$, and from the preceding $\frac{15}{20}$ is contained in $\frac{15}{20}$ as often as 16 is contained in 15 i. e. the quotient obtained by the division of $\frac{15}{20}$ is the same as the quotient obtained by the division of 15 by 16. Now we have proved that a fraction expresses the quotient obtained by

the division of the numerator by the denominator; therefore the result must be the fraction $15/16$ the only form in which the quotient can be expressed. Now this result can be obtained at once by multiplying the dividend by the divisor inverted, for, $15/16 = 3/4 \times 5/4$ or $3 \times 5 \times 4 / 4 \times 4$. This method is adduced from the above. For in reducing the fractions $3/4$ and $4/5$ to a common denominator, we multiplied the numerator of the fraction $3/4$ by 5, the denominator of the fraction $4/5$ and the numerator of the fraction $4/5$ by 4 the denominator of the fraction $3/4$, and the two denominators together for the common denominator. In dividing, however, we neglected the latter, and obtained, the result $3 \times 5 \times 4 / 4 \times 4$ or $15/16$. It is evident, then, that we divide one fraction by another when we multiply the numerator of the dividend by the denominator of the divisor, and the denominator of the dividend by the numerator of the divisor, or in other words, when we invert the divisor and proceed as in multiplication.—*Papers for the Schoolmaster.*

SCIENCE.

NATURAL HISTORY.

Things to be observed in Canada, and especially in Montreal and its vicinity. The introductory Lecture of the Popular Course of the Montreal Natural History Society, winter of 1857-8.—By the President, PROFESSOR DAWSON.

There are in all places some things which every one sees, and other things which, though equally or more interesting, very few see. Every visitor to Montreal is likely to know something of our public works and buildings, our mountain and its scenery, our rapids, and many other prominent objects, interesting to naturalists no doubt, but equally so to other men. It is not necessary to refer to such things as these; and I propose this evening to direct your attention to some more obscure and less noteworthy objects, deserving attention from those among us who love the study of nature.

In order to receive much pleasure and some advantage from the study of natural history, it is not necessary to be a great naturalist. In this subject we do not repel the tyro with the harsh warning, drink deep or taste not. We hail every young inquirer as an aid, and are glad to have the smallest contributions which are the result of earnest and well directed inquiry. In truth a large proportion of the new facts added to natural science, are collected by local naturalists, whose reputation never becomes very extensive, but who are yet quoted by larger workers, and receive due credit for their successful efforts. A few men highly gifted and widely travelled, or thoroughly conversant with all the details of special subjects, are consulting naturalists, and the reducers into a more general and scientific form of the facts obtained from many quarters; but still the great majority of naturalists, and among them many of the most estimable and useful, are very limited in their field of actual observation.

We have several such men in Montreal, as well as a few of somewhat more extended reputation; and there are no doubt a number of young persons who might be induced to devote some portion of their leisure to such studies, did they know of a profitable field of enquiry. To such I have no doubt that the topics of this lecture will be of interest.

Good works of art are rare and costly, good works of nature are scattered broadcast around our daily paths; and are neglected only because their familiarity prevents us from observing their surpassing beauty and interest. Nor are all of these objects known even to naturalists. There are, more especially in these new countries, scarcely any objects that have been thoroughly investigated, and there are vast numbers that are quite unknown to science. I cannot in the space of one lecture point to even the greater number of these objects,—nor is it possible to conjecture the results which may attend inquiries prosecuted in new directions. It may, however, be possible to direct your attention to some leading departments of the great field of nature, that deserve your attention.

Let us inquire in the first place for the most promising local fields of inquiry in the domain of zoology.

To begin with the lower members of the animal kingdom, I am not aware that anything has been done with our spongiellæ or fresh-water sponges. Such organisms must exist in our lakes and streams, and though very low and simple in their structure, much interest attaches to their growth, nutrition and reproduction. They

are soft gelatinous structures, with an internal skeleton of silicious spicula, greenish in colour, and resembling some of the fresh water alga which live with them. Dr. Bowerbank, of London, is preparing a monograph of the sponges, and informs me that he will be glad to receive specimens from our waters. Here then is an opening for a young naturalist. I quote the following from Dr. Bowerbank's printed circular, and shall be glad to receive and forward specimens:—

"The writer would also be particularly obliged by specimens of spongiellæ, or fresh-water sponges, as he is engaged on a monograph of that tribe. They are found in rivers, lakes or tanks, and pools, attached to dead wood, rocks or stones, and are occasionally found surrounding the branches of trees, dipping into the water during periodical floods; and if they contain their granular, seed-like bodies, they are the more valuable. Dry them just as they come from the water. If it be deemed necessary to preserve parts or the whole of delicate specimens of either marine or fresh-water sponges in fluid, the best material is strong spirit, or water with a considerable excess of undissolved salt in it, but never alum. Jars or pickle and fruit bottles, well corked and sealed, or tied over with bladder, are the best vessels for the purpose."

Rising a little higher in the scale of life, little has been done with our fresh-water polyps, whether the simple hydra-like forms or the more complex fresh-water bryozoa. Great reputations have been made by the study of such creatures in Europe,—and in a land of streams and lakes like this, much could certainly be done in collecting new forms, and adding to our knowledge of the habits and range of organization of the fresh-water radiates. These animals should be sought in lakes and streams, especially on submerged wood, fresh-water shells, and the leaves of aquatic plants. They may easily be kept in water for examination, and careful drawings should be made of their forms and internal structures as seen under the microscope. It is difficult to preserve them; but I would recommend immersion in glycerine or the method above given for sponges, as likely to succeed.

The mollusks also offer tempting fields of inquiry, more cultivated than those formerly noticed, but still having large promise. Many species of unio, alasmodon and anodon, exist in our river, most of them no doubt identical with species described by American naturalists, but some perhaps new, and many requiring more careful study as to their habits, reproduction, and the real limits of species and varieties. The univalve mollusks are also very numerous, both in the waters and on the land, and require study, more especially in relation to the animals as distinguished from the empty shells. Such studies demand patience and nicety, and would be greatly aided by vivaria, in which these creatures can be easily kept alive and examined at leisure. Mr. Billings, one of our members, has done some work in this field, portions of which have appeared in the *Canadian Naturalist*. Prof. Hall will bring before us this winter some interesting facts respecting the occurrence of pearls in the fresh-water mussels, and Mr. Bell of the Geological Survey has collected many species in the lower part of the river.

Many members of this Society have opportunities of collecting marine shells in the Gulf of St. Lawrence,—this is also a useful field of inquiry. Rear Admiral Bayfield has made large collections in the course of his survey. My own collection contains many species. More recently Mr. Bell exhibited to us a very interesting collection from the head of the Gulf between Gaspé and Quebec. I have no doubt that much may still be done, and these shells would be of great interest for comparison with those found fossil in the tertiary clays, long since deserted by the sea. While speaking of the marine fauna, I may add that the echinoderms, the zoophytes and crustaceans, also afford fields of much interest and promise, still very imperfectly cultivated.

Of the huge province of the articulates I am almost afraid to speak. There is work here for all the naturalists in Canada for the next century. Mr. Couper of Toronto has collected and identified several hundreds of species of coleoptera; and his collection, now in the McGill College, affords a good basis for any one desirous of commencing the study of these creatures. Mr. D'Urbain of our own Society has entered on the investigation of the butterflies. With the exception of what has been done for us by the Arctic explorers, and the naturalists of the United States, the other orders of Canadian insects are almost a terra incognita. In the mean time the country is suffering so seriously from the ravages of many of the insect tribes, that the attention of Government has been attracted to the subject, and the essays produced in answer to its call, by Prof. Hind and others, show that comparatively little examination of these creatures or inquiry into their habits has been made within the limits of the Province;

nearly all the facts contained in these essays, having been collected from abroad though the value of the essays published, and the large number of competitors, show that we have persons qualified for the work. For hints very useful to the young naturalist, I may refer to the papers on collecting insects, and on the distribution of insects, by Mr. Couper, published in the *Naturalist*.

Who knows anything of the myriads of minute crustaceans and aquatic worms that swarm in our waters in summer. I have seen enough to be assured that their name is legion, but I am not aware that any one has collected or determined the species occurring here. The subject is a difficult one, but many of these creatures are exceedingly curious in structure and habits; and collections of facts and specimens might be made, by any one having time to devote to such pursuits.

Among the vertebrated animals, though there is little ground so completely untraversed as in some of the lower forms of life, much may still be done. In one department the late Prof. McCulloch and Prof. Hall long since set a good example, in collecting birds and other vertebrates, and preparing lists of those frequenting or rarely visiting this locality. The geographical distribution of the higher animals as illustrated by such collections and lists, is in itself a very important subject.

The fishes of our rivers afford a fertile subject of inquiry. Many of the smaller species are probably undescribed, and there are some of peculiar interest which deserve study in their habits and modes of life. I refer especially to the *Lepidosteus* and the *Amia*, those ancient forms of ganoid fishes which remind us so strongly of the antique species found fossil in the Palæozoic rocks, and a minute acquaintance with whose habits might throw most interesting light on the condition of the world in those bygone periods. Information on their spawning grounds, their haunts at different stages of growth, their food, their winter and summer resorts, their migrations, their peculiar instincts, if carefully collected, would be of inestimable value. Living specimens, which might be kept in vivaria and examined at leisure, would also be of great interest, and might be procured by many persons who have not themselves time or inclination for such studies. Agassiz, who has already so ably illustrated the structures and affinities of these animals, has invited collectors to contribute specimens for his great work now in progress; and any facts relating to the habits of these inhabitants of our waters, will be gladly received for this journal. I should add here, that Mr. Fowler, one of our members, has prepared a number of accurate and beautiful drawings of Canadian fishes, and can thus perpetuate for us the fleeting tints of our specimens.

Even the smaller quadrupeds of Canada are by no means well ascertained. The mice, the shrews, the bats, are very imperfectly known. There may be unknown species. There certainly are many unknown facts in distribution and habits. Mr. Billings has published in our journal an interesting summary of facts on Canadian quadrupeds; and much curious information exists in the work of Mr. Gosse, as well as in the standard works of Richardson & Audubon. I would especially invite attention to the mice and other small rodents, and the shrews. Only a few days ago a fine pair of specimens of the old Black Rat of Europe, which I did not know as a resident of Canada, were procured by Mr. Hunter, beautifully prepared by him, and presented by a friend to the College Cabinet, affording an illustration of the curious facts that may be learned even within the limits of our city.

I had almost forgotten to refer to the reptiles of Canada. The magnificent volumes of Professor Agassiz shew what may be done with one family, that of the tortoises. None of us, perhaps, can enter into the study in the manner in which this great naturalist has pursued it, but many may collect important facts and specimens. We do not yet know much about the numerous snakes, frogs, toads and newts of Canada, though many specimens exist in the collections of this Society, of Dr. McCulloch, and of the University. Even a catalogue of the specimens in these collections would be valuable. Unattractive though these creatures may appear to the popular view, they afford more than most other animals evidences of the wonders of creative skill.

One little batrachian reptile I regard, as a geologist, with peculiar interest, and would commend to your notice. I refer to the *Menobranchus*, or *Proteus*, a creature most unattractive in aspect, but most singular in its habits and mode of life, and a representative of the earliest forms of air-breathing life introduced upon our planet. No gift would afford me greater pleasure than a few living specimens of this animal, which might enable me to become better acquainted with its mode of life, and thus better appreciate the probable habits of some of its extinct congeners, whose bones I have disinterred from the carboniferous rocks. Some

time ago a living specimen was procured by Mr. Hodgins of Toronto; but the few observations of its habits which he has recorded in the *Canadian Journal*, only stimulate the desire for further information.

It would be ungracious to leave the animal kingdom, without notice of Ethnology as a field of investigation. The remarkable collection of Mr. Kane, exhibited here during the meeting of the American Association last summer, must have strongly impressed your minds with the interest of the subject, as it relates to the Indian tribes. Mr. Kane was fortunate in having so able an expositor of his collection as Dr. Wilson; and I may add that Canada is fortunate in having an ethnologist so well fitted to lead in this department. Surely, some of our members might contribute something to his great subject. Specimens relating to it are not often laid before us. We received, however, last year, through the Bishop of Montreal, a curious ancient urn, which excited much interest. I have since been in correspondence with the gentleman who made known the discovery, and hope to obtain further information and specimens. On the return of his Lordship, who possesses the original notes on the subject, I trust this interesting relic will be figured and described in our journal.

Plants afford as many local attractions as animals, but I shall occupy less time with the subject of Botany than with that of Zoology. A very large herbarium has been collected by the oldest living member of this Society, Professor Holmes; and as we now have it arranged by Professor Barnston, in the Cabinet of McGill College, it affords an invaluable means of reference to the student. Dr. Barnston is now engaged in preparing a catalogue of this and his own collections, which will, I trust, be published under the auspices of this Society; and it will then be for subsequent collectors to add to this already extensive list such species as may still remain undiscovered.

The Canadian Botanist should not, however, content himself with the mere determination of plants. I cannot doubt that much remains to be done in investigating the uses of native plants not now applied to practical purposes in the art or in domestic life; and that as Canada becomes more populous, and agriculture less rude in its practice, the cultivation of many neglected plants fitted to contribute to minor practical uses, will be undertaken. Nor should our forests and the means for their preservation and restoration to such an extent as may be desirable for shelter and for the supply of wood, be neglected by scientific men. Rich gleanings, applicable to Canadian practice, may be made in this direction, from the expedients employed in European countries; and in a country in which one-third of the soil should probably remain in forest to supply the permanent demand for fuel and other uses, this subject is of great practical importance.

Another subject less practical, but profoundly interesting, is the geographical distribution of plants, so ably expounded by DeCandolle, and on our side of the Atlantic by Professor Gray. The curious facts respecting the geographical distribution of the *Ranunculaceæ*, so pleasantly stated by Mr. George Barnston, in an article in the last volume of the *Canadian Naturalist*, show how much can be done in this field. But it is not merely in relation to botany that this inquiry is of interest. Edward Forbes has shewn that great questions in geology are illustrated by it; and nowhere better than on the American Continent can it be studied in this aspect. Let us inquire respecting any plant, what are its precise geographical limits? To what extent do these depend on climate, elevation, exposure, soil. What inferences may be deduced as to the centre from which it originally spread, and what as to the changes in the extent of the land and the relative levels of land and sea that have occurred since its creation? Here are fertile subjects of inquiry, leading to the grandest conclusions in reference to the history of life upon our planet.

But I must turn for a moment from this great subject to the humbler members of the vegetable kingdom, no less curious than the higher, and less known. One of our members, the Rev. Mr. Kemp, has directed his attention to the fresh-water *Algæ*, and has contributed a valuable paper as the first result of his inquiries. Mr. Poe, another of our members, is an enthusiastic student of the Fungi, and other more minute and simple forms of plant life. A summary of what is known of these objects, as occurring in Canada, will be given to us by Mr. Poe in the present winter; and I have no doubt will excite some interest in these singular and anomalous structures, so curious in their habits and often so injurious to our property.

The Mosses, Lichens, Lycopodiaceæ, Ferns, and other allied families, offer many rewards to any diligent student; and the excellent arrangement and descriptions in Professor Gray's new edition of his manual, give facilities heretofore within the reach of

few. There may be Canadian botanists engaged in this study, but I have no evidence that this is the case. Our mountain and the neighbouring hills afford peculiar facilities for it; and I suspect that curious facts as to the distribution of these plants might be obtained, from their study on these isolated trappean eminences, in a limestone and alluvial country.

The naturalists and professional men of Montreal have devoted much attention to the microscope; and our city possesses many good instruments, daily increasing in number, and affording a most delightful and instructive means of scientific observation in all departments of Natural History. Among our members, Mr. Poe and Mr. Murphy deserve especial mention, as having devoted much time and effort to the improvement and increase of our means of study in this department.

Geology presents on every side ample harvests to the inhabitants of this city. Our noble mountain,—the skeleton of an old Silurian volcano, with its multitudinous trap-dykes of various age and composition, is itself a study capable of throwing new light on the phenomena of volcanic agency as manifested in those ancient periods. The stratified rocks at its base, full of fossils,—many of them no doubt undescribed, and, in some of their beds, actually made up of the comminuted fragments of shells and corals,—invite the attention of the most unobservant. Every block of building-stone from our quarries is a mass of animal debris, presenting under the microscope hundreds of beautiful forms bearing the impress of creative skill, though belonging to perished races of animals. Our worthy associate, Mr. Billings, now most usefully connected with the Geological Survey, is a brilliant example of reputation, and, what is better, accurate and extensive knowledge, gathered from the study of the Lower Silurian limestones.

I need scarcely remind you of the tertiary clays to which I had the pleasure of directing the attention of this Society at one of its late meetings. They have yielded in the past summer about thirty species of animal remains not previously known to exist in them; and many of these have been brought to light by the industry of our College students. Some even of the boys of the High School now have collections of these fossils, and have been successful in adding to the number of species. Much yet remains to be done in this field; and I look forward to the time when we shall have nearly complete lists of the shells peculiar to each level of the Peistocene sea, and to the present Gulf of the St. Lawrence, and an accurate knowledge of the position of the shores of each successive salt-water area, as the sea gradually left our noble valley. We shall then be in a position to offer a large contribution to the tertiary geology of America, and of the world.

With the present facilities for travelling, the whole geology of Canada lies before us; and we need not apprehend that Sir Wm. Logan will grudge us space in this large field. He has done, and is doing, a great work; but, even with his skill and energy, were he to live far beyond the allotted age of man, he would but find the number of openings for investigation increasing before him. He has well and effectually opened up an immense territory; but there is room in it for hundreds of geologists to earn reputation by following on his track. He will thank you for anything that you can do in the accumulation of facts; that is, provided you do not embarrass him and oppose the interests of truth by those crude and hasty generalizations, or baseless hypotheses, in which unskilful and hasty observers are too prone to indulge, and which sometimes impose upon the credulity of the public to the serious injury of the science. No department of natural science presents greater temptations to such vagaries than geology, and none has suffered more seriously from their effect on the popular mind. No science is more grand in its ultimate truths, none more valuable in its practical results, than geology, when pursued in the spirit which characterises the head of our survey. None is more dangerous or misleading in the hands of pretenders.

The subject of geology I may remind you includes within itself many subordinate fields, which have been or are being successfully cultivated, by observers in various parts of Canada; and here as in most other parts of America, geological investigations have been more eagerly and extensively pursued than other branches of natural science. The mineralogical researches of Dr. Holmes, and of Dr. Wilson of Perth, who, though not one of our citizens has contributed much to our collection, and the geological observations of Dr. Bigsby, some of which relate to the vicinity of this city, preceded the work of the Provincial Survey, and not only made many important discoveries, but may be regarded as among the causes which led to the institution of that great enterprise, so successful and so creditable to the Province. Nor must I here omit the interesting paper on the Montreal mountain, long since contributed to this Society by our late Treasurer, Dr. Workman,

a paper to which I all the more readily give prominence here, as I have had the pleasure of visiting some of the localities in company with its author, and as it was inadvertently omitted in the list of authorities referred to in the paper on that subject, which I lately read before this Society. Were it expedient to attempt extending such notices beyond the more immediate limits of our own sphere of operation, I might name many useful men who have variously distinguished themselves in this science, by way of encouragement to our embryo geologists. One name I cannot pass by, that of a man of much more than Canadian reputation, and of eminent usefulness in promoting the growth of Canadian geology, Professor Chapman, of University College, Toronto, whose able papers and notices in the Canadian Journal we shall do well if we can approach in the journal of this Society. I shall farther take the liberty of mentioning the collection of the Rev. Mr. Bell, now in Queen's College, and that of Sheriff Dickson, of Kingston, from both of which I have derived much pleasure and instruction, and those of Dr. Van Cortlandt, and of the Silurian Society of Ottawa, and of our more venerable sister the Literary and Historical Society of Quebec, the study of which is a pleasure, I trust, yet in store for me.

I have probably sufficiently trespassed on your patience, and shall say little of the aids which intelligent public appreciation can render to meteorological investigations, such as those of Prof. Smallwood and Prof. Hall, or to the important chemical inquiries of Prof. Hunt. The results attained by these gentlemen are full of material for thought, and in many minor departments of their work I have no doubt they might be aided by local co-operation on the part of some of our members. If in no other way, we can aid these gentlemen by studying and expounding to the public the conclusions which they reach. Independently of their interest to science, now appreciated far beyond the limits of Canada, the tables of Prof. Smallwood and Prof. Hall, and the analyses of Prof. Hunt, are full of facts of immense practical value in agriculture and the arts of life. I had occasion, not long since, in connection with my lectures on agriculture to study the analyses of soils in the reports of the Geological Survey, and I am convinced that those analyses contain the germ of a revolution in Canadian agriculture, which will be effected so soon as they are thoroughly understood by the people.

Enough has been said to indicate some of the paths of inquiry open to the members of this Society. But, it may be asked, why should we leave our offices, our business, our social amusements, for such occupations. It is not necessary that we should do so. All of us have public, social, and private duties, that have prior claims on our attention. We must not neglect these; but, if we have a little leisure for rational amusement, I know none more agreeable or inspiring than the study of nature, or of some small department of it, such as the observer in his own locality can take time fully to master. Let him provide himself with, or secure access to, the best books in the department he may select, and this need not, in the first instance, be a very extensive one. Let him read, collect, observe, and note; and, in an incredibly short time, he will find a new world of beauty opening to him. Objects before unregarded will become friends, and will speak to him of the wonders of the Universe of God, until he will long to make known to others the utterances which have broken on his own inner ear, and rejoice in being able to add his mite to the treasury of our knowledge of nature.

I might here speak of the facilities which this city presents in access to books and collections. They are small in comparison with those in many cities of the old world. Yet they are not despicable. The collection of the Geological Survey, the collection and library of this Society, and those of our educational institutions, offer many aids to the student, as well as many objects deserving of farther study and explanation. The meetings of this Society also afford a valuable means of improvement and profitable intercourse; and our Journal, the *Canadian Naturalist*, has for one of its objects the introduction of inquirers to profitable fields of research. Already, in the two volumes published, there are valuable summaries of the facts most necessary to the student in many of the departments referred to in this lecture.

It is scarcely necessary to add that such studies as those which I have recommended, even if they afford no new facts or principles, are in themselves capable of yielding much rational pleasure; and that in this aspect of the subject the field of inquiry is much more extensive than in the former; since here we are not restricted to the absolutely unknown, but may find for ourselves quite as much interest and novelty in ground previously trodden by others, but new to us.

In conclusion, I may say on behalf of all those members of this

Society engaged in the pursuit of any department of Natural History, that they will welcome with pleasure any inquirer fired with the true ardour of a naturalist; and that they will most thankfully avail themselves of, and honourably acknowledge any aid that they may receive in collecting the material of their investigations. Nor need this statement be limited to Montreal. My subject being local, I have confined myself chiefly to things and persons in our city; but there are men in other parts of Canada, and beyond its limits, working at these subjects; and while it is desirable that here we should rival them in these pursuits, no reason exists to prevent our emulation from being accompanied by mutual and friendly aid. In this spirit I close by asking pardon, if, in the above remarks, I have unwittingly omitted or done injustice to any labourer in the departments of science to which I have adverted. — *Canadian Naturalist.*

LITERATURE.

Anglo Canadian Literature.

The St. Lawrence and the Saguenay, and other Poems. By Charles Sangster. Kingston, C. W.: John Creighton and John Duff, 1856.

Poems. By Alexander McLaughlan. Toronto: John C. Geikie, 1856.

Oscar and other Poems. By Carroll Ryan: Hamilton, Franklin Press, 1857.

A Song of Churity [Canadian Edition.] Toronto: Andrew H. Armour & Co., 1857.

Poetry is the natural progeny of a nation's youth. It is the eldest as well as the fairest, of the offspring of literature: if indeed it be not rather her parent, for songs were sung long before letters were invented. Our Province, however, occupies a singular position in this its Canadian youth. Our schooling has been too much alongside of the elder of Europe's nations, and our individual thoughts partake too largely of the experience which centuries have accumulated around the old Saxon hearth, to admit of the lyrical or epic muse inspiring for us the lay that is born of nature in the true poet's heart. We are past the first poetic birth-time, which pertains to the vigorous infancy of races; we have yet to attain to the era of refinement from which a high civilization educes new phases of poetic inspiration. We cannot yet respond, amid these charred stumps and straggling snake-fences of our rough clearings, to Hiawatha's appeal to those:

Who love the haunts of nature,
Love the sunshine of the meadow,
Love the shadow of the forest,
Love the wind among the branches,
And the rain-shower and the snow-storm,
And the rushings of great rivers,
Through their palisades of pine-trees.

We want our pine-trees for lumber, and so long as they spare us a surplus for kindling wood, we ask no kindling inspiration from them. The rushing of our great rivers we estimate rejoicingly—for their water-privileges. The sunshine of the meadow is very welcome to us in the hay-harvest; and the poetry of the snow-storm full of the music—of our sleigh-bells. As to our love for the shadow of the forest, that pertains to the romantic simplicity of our squatter stage of infancy, from whence we emerge as fast as possible into the clearing we hew out of it, rejoicing at the crash of falling pines, and keeping time with the music of the axe to the crackling of the logging-pile. We do not mean to say that a poet is an impossibility, amid the rugged realism of this vigorously practical Canada. The nughenial Ayrshire farm of Mosgiel gave no greater promise of a crop of poetry from its bleak and exposed heights before it gave birth to its "Mountain Daisy." But we wonder what would be the estimate of the emigrant settler who should apostrophise the giants of the Canadian back-woods, as they bowed beneath his sturdy stroke, after the fashion of the Ayrshire bard to the "wee, modest, crimson-tipped flower" over which he so reluctantly drove the ploughshare. We question much if our minister of agriculture could be induced to rescue from the rapidly dispersing ordnance reserves a Sabine farm for such a Canadian Virgil.

Such being the present prospects of the poet amongst us, it is not greatly to be wondered at that such poetry as we do produce is less redolent of "the odors of the forest" than of the essences of the drawing-room; and more frequently re-echoes the songs that are to

be gathered amid the leaves of the library-shelf, than under those with which the wind sports among the branches whereon song-birds warble their nuptial lays. To the class of poetry which thus repeats the old-world music and song we must assign Mr. Sangster's "St. Lawrence and the Saguenay." It is a pleasant and tasteful depiction of the scenes and associations of our noble river, written in the same stanza as "Childe Harold," and with some echo of its mode of thought, though lacking the force and pathos of its passionate utterances. But, while we may easily cull from it many graceful verifications of such descriptions as the scenery naturally suggests, we have to search carefully through its hundred and ten stanzas to find any such as might be welcome to the jaded fancy of the old world because of their freshness of wild-wood imagery. Campbell has written, in the same stanza his "Gertrude of Wyoming," and sketched very pretty Indian pastorals, such as delighted the London drawing-rooms into the belief that "the mute Oneyda, and the savage Ontallissi were the perfect embodiments of our American Aborigines. They do not, however, awaken any very familiar associations for us to whom the scenery, and even the Savage of the wild West, are not unfamiliar. But the poet of "the St. Lawrence and the Saguenay," sees the river: it is, and not as it was. To him, with all its beauty, it is only the great navigable highway from Ontario to the Sea, with its daily steamers, its wooding stations, its locks and canals. If the Indian lingers among its vanishing woods, it is as the old painted British Druid haunts Avebury or Stonehenge. Here, for example, is the picturing of the thousand Isles:—

Many a tale of legendary lore
Is told of these romantic Isles. The feet
Of the Red Man have pressed each wave-zoned shore,
And many an eye of beauty oft did greet
The painted warriors and their birchen fleet,
As they returned with trophies of the slain.
That race has passed away; their fair retreat
In its primeval loneliness smiles again,
Save where some vessel snaps the isle-inwoven chain:

Save where the echo of the huntsman's gun
Startles the wild duck from some shallow nook,
Or the swift hounds' deep baying, as they run,
Rouses the lounging student from his book,
Or where, assembled by some sedgy brook,
A pic-nic party, resting in the shade,
Spring pleasedly to their feet to catch a look
At the strong steamer, through the watery glade,
Ploughing, like a huge serpent from its ambushade.

Were we to transport the scene to the firth of Clyde, or any other islanded hune river, and change only a single term; that of the *Red Man* for the *old Pict*, or even the *Red Gael*, there is nothing in the description that would betray its new-world parentage. At best it is no true Indian, but only the white man dressed in his attire; strip him of his paint and feathers, and it is our old-world familiar acquaintance. The lay of the Whip-poor-will, instead of some romantic Indian legend, is but a commonplace "Willie and J-annie" love song, though thus heralded by one of the best stanzas in the poem:

The Whip-poor-will, among the slumberous trees,
Flingeth her solitary triple cry
Upon the busy lips of every breeze,
That wafts it in wild echoes up the sky,
And through the answering woods, incessantly.
Surely some pale Ophelia's spirit wails
In this remorseless bird's impassioned sigh,
That like a lost soul haunts the lonely dale!
Maiden sing me one of thy pleasing madrigals.

However much taste and refinement may be displayed in such echoes of the old thought and fancy of Europe, the path to success lies not in this direction for the poet of the new world. To Tennyson this nineteenth century is as fresh an *el dorado* as America was to Cortes or Pizaro. To him it is a thing such as Spenser, or Dryden, or Pope, or Campbell, or Byron, had no knowledge of. Its politics, its geology, its philosophy, its utopian aspirations, its homely fashions and fancies, all yield to his poetic eye suggestive imagery rich with pregnant thought. And surely our new world is not less suggestive. It is not a "Hiawatha" song we demand. The Indian Savage is not the sole native product of the wilds, nor the only poetical thing that meets the eye in the clearings. Here is the Saxon doing once again, what Ella and Cedric did in old centuries in that historic isle of the Britons. Science and politics, and many a picturesque phase of colonial life, all teem with inspiration such

as might awake for a Canadian Tennyson another "Sleeping palace" like that from whence he led his happy princess :

"When far across the hills they went
In that new world which is the old."

Poetry, however, is not the crop which it can at all be expected, or indeed desired, that Canadian farmers will cultivate at present. And if we can only reproduce exotic thoughts in verse, it is better on the whole that we should take the foreign originals at first hand. Having, however, stated our feeling in regard to the absence of that originality and individuality of character in "The St. Lawrence," which might have made of such a virgin theme a poetic gem of rarest beauty; we may nevertheless, refer with pleasure to some of its stanzas as gracefully commemorating historical features. Here, for example, is a good subject not discreditably dealt with:—

The inconstant moon has passed behind a cloud,
Cape Diamond shows its sombre-colored breast,
As if the mournful night had thrown a shroud
Over this pillar to a hero's dust.
Well may she weep; hers is no trivial trust;
His cenotaph may crumble on the plain,
Here stands a pile that dares the rebel's lust
For spoliation: one that will remain—
A granite seal—brave Wolfe! set upon Victory's fane

A granite seal—brave Wolfe! set upon Victory's fane

Quebec! how regally it crowns the height,
Like a tanned giant on a solid throne!
Unmindful of the sanguinary fight,
The roar of cannon mingling with the moon
Of mutilated soldiers yars ago,
That gave the place a glory and a name
Among the nations. France was heard to groan;
England rejoiced, but checked the proud acclaim—
A brave young chief had fallen to vindicate her fame.

Wolfe and Montcalm! two nobler names ne'er graced
The page of history, or the hostile plain;
No braver souls the storm of battle faced,
Regardless of the danger or the pain.
They pass'd unto their rest without a stain
Upon their nature or their generous hearts.
One graceful column to the noble twin,
Speaks of a nation's gratitude and starts
The tear that valor claims, and feeling's self imparts.

The poem is manifestly designed as a companion, if not a guide-book, for the voyage to the Saguenay; and though it has in it none of those magical passages which stir the heart like the sound of a trumpet, it will nevertheless make an agreeable return to the tourist for the small space it claims in his baggage.

Of the poems issued from the Hamilton Franklin Press, the principal one, entitled "Oscar," is a picture of the Crimean War, written by a young Canadian, who witnessed and bore a part in the scenes he describes. The plan of his poem, however, embraces a sketch of Canadian scenery, as noted by the imaginary hero, on his way to the seat of war, and so furnishes another view of the same picturesque and historic landscape which has been already drawn by the poetic pencil of Mr. Sangster. Here, for example, is Mr. Ryan's sketch of the Thousand Isles:—

Now Fairy Land is gained—the Thousand Isles—
Amid whose cedar shades sweet Nature smiles
In all the beauty of a scene unchanged,
As when the Indian warrior ranged
From isle to isle, long centuries ago,
And chased, with swift canoe, the nimble doe.
Those shady rocks the softest sound prolong,
As when they echoed to the Squaw's low song,
Who dipped her paddle in the dancing stream,
And watched the sun's last lingering beam.
As he, behind the forests of the west,
In dazzling glory slowly sank to rest.
Each isle an emerald, each rock a gem,
Which forms proud Nature's own bright diadem!
Those wilds again the Indian ne'er will know,
Nor will those waters, in their joyous flow
Bear savage forms unto the depths below.

Niagara is described, or rather soliloquised. Ontario, the St. Lawrence, its Rapids, and the scenes along its banks, all pass in review here, as in the former poem. and Canada itself is apostrophised in terms more loving than original, and with an occasional lameness in the prosody, here as elsewhere somewhat detrimental to the music of the verse:—

Hail! Canada, my own, my native land!
Land of a thousand floods sublimely grand!

Upon this world, on nation, land, or clime,
Has nature lavished gifts more wild, sublime;
Nor blest with brighter hopes her fertile vales,
Or wafted over hills more healthy gales.
Thy boundless wilds as yet untrod, unknown,
Industry soon will rear a joyous home;
Those fertile tracts where axe was never heard,
Where securely sings the native forest bird;
Where swiftly bounds the deer o'er leagues untold,
Wait but for man to yield their hidden gold.
Oh! glorious happy West fore'er adieu!
Where'er I wander I will turn to you,
And, in memory, thy beauties call to view.

The patriotism is here, certainly preferable to the poetry, even though the latter does recall lines not less patriotic, with which the sixth canto of the "Jay of the last Ministrel" is precluded. But, passing onward down the St. Lawrence, here is the younger poet's picturing of the historic associations of the heights of Cape Diamond:—

See now Quebec with mighty grandeur rear
Its gloomy head—loom sternly in the air!
And from the awful height look proudly down
Upon St. Lawrence with a watchful frown;
Where 'neath guarding shade securely ride
A thousand vessels on the heaving tide.
This Oscar saw, and stood to view the height
Where Fraser's clans had climbed that glorious night
Up the craggy steep to Abraham's plains,
And hid the verdant sod with bloody stains.
The chivalrous Montcalm, though hasty, brave,
Fought well, his noble post and cause to save;
To every deadly charge his men led on,
And nobly fought amid the clashing throng.
Proudly he died, though not in victory's arms,
Glorious he fell 'midst battle's wild alarms!
Nor did Death's terrors his manly bosom mock—
He died defeated nor survived the shock.

Peace to the warrior hero's shade—
Bright be his wreath, its glories never fade!
Wolfe the true, the noble, generous, brave,
Thou hast all earth can give—a hero's grave.
For this have kings and monarchs vainly sighed
The tyrant's tomb by deeper stains was dyed:
A tear of joy, not grief, bedews his pall,
A prayer from earth thanks Heaven for his fall.
A lowly poet a chaplet fain would twine
Unto a name as bright and pure as thine.

Proud Britain's standard, waving from the height
O'erlooks the glorious scene with conscious might;
Flag borne triumphant over sea and land,
And kiss'd the breeze on every foreign strand;
Serenely spread out to the sweeping gale,
Beholds the proud St. Lawrence' mighty vale.
Its wide-spread folds, high above all unfur'd
Bids stern defiance to the envious world.
Here a true patriot justly would exclaim,
Let Liberty and Truth wash out the stain
That yet upon its mighty folds remain.
Long may true freedom 'neath its shade repose,
Twined round her brow, the shamrock, thistle, rose.
As once it was, may it ne'er again be grasp'd
To mark blood and ruin where'er it passed.
From off point Diamond's peak a booming gun,
With loud report, salutes the setting sun;
Through the ambient air mellow, clear and sweet,
The bugle's note, re-echoed, sounds retreat.

We would not willingly quarrel with a Canadian poet inspired by loyal and patriotic sentiments such as these; but we venture to think that a prose narrative of the Crimean Campaign, from one of ourselves who had borne a share in its sufferings and its triumphs, would have won the suffrages of a thousand Canadian readers for one who will be tempted to the perusal of "Oscar's" poetic experiences. Nor would such a narrative have been the less welcome for his enthusiastic apostrophe to the beauties of our noble St. Lawrence, though uttered only in eloquent prose. We may be permitted to say here once more, in the words of "Aurora Leigh":—

Young men:
Too often sow their wild oats in tame verse,
Before they sit down under their own vine
And live for use. Alas, near all the birds
Will sing at dawn,—and yet we do not take
The chaffring swallow for the holy lark.

The poems of Alexander McLachlan are designated in the motto

of their title page as "harmely rustic jingle," and as the former volumes are composed after the model of English poets of the beginning of the century, this is a faint echo of Allan Ramsay and Fergusson,—we can scarcely say of Burns: though some of the subjects are probably suggested by his choice of themes, e.-g. "The Grieve; or the Lamentation of old Jawbaws," which thus begins:

I dinna ken what tempted me
To venture ovr the raging sea;
To come awa' to to thir back wuds,
To live in poverty and dudds.

But here, e'en those wha rule the nation
Are driving on some speculation;
Aye, e'en the big parliamenteer
Will trade and cheat, like a tramp tinker.
The biggest man thinks nocht degrading—

Thus it will be seen is a genuine, if not a very poetical Canadian glimpse of things as they are, and the curious reader may find more of the like kind in the same volume.

Craving as we do a native poetry, if we are to have Canadian poetry at all, *The "Song of Charity"* takes us by guile. The dedication of the tastefully executed volume "to kind friends in Orillia, Canada West," tells us that the poem was "composed in chief part, during a summer's holiday, on the waters and amidst the islets of little Lake Couchiching." Here accordingly is genuine native inspiration. We are gliding, with the author in his birch canoe, over the picturesque lake, and hailing the Indian as he silently paddles past us, under the lee of the wooded islands, from the prettily named Orillia—so called after a favorite native flower,—to his own scattered Indian lodges at Rama. We turn the page, and, as we expected, we are in the forest:

The forest's faery solitude,
The violet's haunt be mine;
Where call the free in merry mood
From dawn till day's decline!
All gentle creatures gather there
From leafy nest and mossy lair;
The little snakelet, golden and green,
The pointed grass glides swift between;
And there the quaint-eyed lizards play
Throughout the long bright summer-day—
Under the leaves in the gold sun-rain,
To and fro' they gleam and pass,
As the soft wind stirs the grass
A moment and then sleeps again.
And there, the noontides, dream the deer
Close couched, where with crests upcurled,
The fragrant ferns a forest rear
Within the outer forest-world.
And many a petalled star peeps through
The ferny brake, when breathe anew
The soft wind-pantings. And there too,
The hare and the tiny leveret
Betake them, and their fears forget—
Lazily watching with soft brown eye
The laden bees go sailing by,
With many a bright winged company
Of glittering forms that come and go,
Like twinkling waves in ceaseless flow,
Across those dreamy depths below.
And high above on the bending bough
Its gush of song unloosens now
Some forest-bird. Wild, clear, and free
Upswells the joyous melody
In proud, quick bursts; and then, anon,
In the odorous silence, one by one
The thick notes drop, but do not die;
For through the hush the soul keeps on
With a music of its own—
So runs the forest minstrelsy!
One other sound there soundeth on;
Out of the distance dim and lonely;
Out of the pine-depths, murmuring ever,
Floweth the voice of the flowing river.

And we too, wend our way out of these pine-depths, following the windings of the flowing river, until we at length emerge and—what see we? Not the rocky rapids of our Canadian Severn, or the woody solitudes of Chief's Island, or the fringing "bush" that still skirts the shores of Lake Simcoe,—but an ancient home:

Beneath the shade
Of those old trees so bent and sere;
And there, with its stonework tracery,

The quaint old house, as old as they,
Still stood, and kept from year to year,
With storm and frost and slow decay,
A struggle for the mastery.

We are not then in Canada at all? Unless we have slept a sounder and longer nap than Rip Van Winkle: it would seem not. While we were imagining ourselves in the bush, and deceiving ourselves even to the fancying these hares and tiny leverets, were some native variety that haunted the Georgian Bay, we were all the time amid the glades and the associations of Old Europe. We could even fancy ourselves once more under "the huge, broad-breasted old oak tree," beneath which we first made the acquaintance of "the lovely lady Christabel;" for the rhythm, and even something of the mode of thought, recall to us that most beautiful fragment of the dreamy Coleridge's muse. But it is Canadian poetry we are in search of, and we therefore leave the "Song of Charity," and betake ourselves to the additional poems which accompany it. And here, at length, is one of truly native name and characteristics: "A Canadian Summer's Night." Now, at least, we are not deceived. We glide over the rippling waters of Lake Couchiching, and list to its forest voices:

Still callest thou—thou Whip-poor-will!
When dipped the moon behind the hill,
I heard thee and I hear the still.

But mingled with thy plaintive cry
A wilder sound comes ebbing by
Out of the pine-woods, solemnly.
Aud bark, again! It comes anew—
Piercing the dark pine-forest through,
With its long too-hoo, too-hoo!

Shoreward again we glide—and go
Where the sumach shadows flow
Across the purple calm below.

There the far-winding creeks among,
The frogs keep up, the summer long,
The murmurs of their soft night-song.

A song most soft and musical—
Like the lulled voice of distant fall,
Or winds that through the pine-tops call.

And where the dusky swamp lies dreaming,
Shines the fire-flies' fitful gleaming—
Through the cedars—dancing, streaming!

Who is it hideth up in a tree
Where all but the bats asleep should be,
And with the whistling mocketh me?

Such quaint, quick pipings—two-and-two;
Half a whistle, half a coo—
Ah, Mister Tree-Frog! gare-à-vous!

The owl's on noiseless wing gloom by,
Beware, lest one a glimpse espy
Of your grey coat and jewelled eye.

Now 'tis is a genuine Canadian scene, such as no fire-side traveller or fancy-visioned poet of old world wanderings or library book-dust, could possibly call into being. The dark recesses of the pine-woods and the shadows of the lake-fringing sumach, the monotonous call of the Whip-poor-will, the soft and musical night-song of the frogs, the fitful gleaming of the fire-fly dancing in the cedar-swamp, the prowling night owl noiselessly listening to the mocking note—half a whistle and half a coo,—of the tree-frog: each one of these shows the touch of a Canadian pencil, such as the most laborious study of the home poet would in vain attempt. In this direction alone lies the path in which poetic success is worth welcoming among us; unless indeed it be fancied that we can look for some great Canadian-born Miltonic epic, not local or exclusive, but for other ages and generations than our own,—of which consummation it can only be said there appears at present no very discernible prospect.—*Canadian Journal of Science.*

D. WILSON.

OFFICIAL NOTICES.



APPOINTMENTS.

Mr. Charles H. Leroux, teacher, has been appointed school inspector in lieu and stead of A. P. L. Consigny, Esquire, resigned, for the district of inspection comprising the counties of Bagot and Rouville, and part of the counties of St. Hyacinthe and Iberville.

George Allan Bourgeois, Esquire, has been re-appointed school inspector for the district of inspection comprising part of the counties of Bagot, Drummond and Arthabaska.

ERECTION OF A SCHOOL MUNICIPALITY.

His Excellency the Governor General has been pleased to approve of the separation of the place known as "Radnor Forges" from the school municipality of Champlain, and to erect it into a separate school municipality, having the following limits, viz: twelve arpents in front by forty in depth—bounded in front by the division line of the concession St. Jean, in rear by the lands of the concession St. Felix, on one side to the North East, by the lands of one Aimé Olivier and of one Jean Gentes, and on the other side to South West, by the lands of Joseph Raiche.

CATHOLIC BOARD OF EXAMINERS FOR THE DISTRICT OF MONTREAL.

Mesdames T. M. Bertrand, Yvonne Proulx, Marcien Trottier, Eulalie Plamondon, Michel Martin, Jean Gervais; Misses Philomène Davignon, Malvina Séguin, Delphine Tarte, Céline Leclère, Tharsile Dulpé, Marie Louise Arpin, Julie Arpin, Virginie Roy, Juliette Laporte, Marceline Paré, Adéline Meloche, Evelina Masse, Marie-Mathilde Morelle, Victoire Limoges, Mélodie Mercier, Céline Limoges, Philomène Lussier, Césaire Lefebvre, Céline Mathieu, Genevieve Patis, Marie Lyle, Sophie-Abraham Courville, Rose Edouard Hébert, Elizabeth Lemire dite Marsolais, Céline Taillefer, Marie-Anne Legault, Clémence Benoit, Philomène Christin, Adeline Beaudouin, Isidore Beaudry, Elizabeth Tellier, Emilie Tessier, Ouséine Bissonnet, Nathalie Charlebois, Marie Fontaine; Messrs John McAfee, Jérôme Robillard, Théophile Beauregard, Auguste Hébert, and Miss Rosalie Leclère, have obtained diplomas authorising them to teach in elementary schools.

F. X. VALADE,
Secretary.

CATHOLIC BOARD OF EXAMINERS FOR THE CITY OF QUEBEC.

Mr. Louis Michel Amouroux has obtained a diploma authorising him to teach in academies.

Misses Marie-Adélaïde Bergeron, Rosalie Matte, Honorie Kenny, Henriette Bergeron, Judith Farley and Mrs. Adolphe Paré, have obtained diplomas authorising them to teach in elementary schools.

C. DELAGRAVE,
Secretary.

BOARD OF EXAMINERS FOR THE COUNTY OF SHELBURNE.

Miss Jane Amelia Dork and Mrs. Maria Alger Rodgers have obtained diplomas authorising them to teach in model or superior primary schools.

Misses Ellen C. Hurd, Candace C. Bailey, Malvina Hitchcock, Christine Stone, Helen S. Ryther, Jane S. E. Doherty, Louisa M. Cross, Emily M. Martin, Irene J. Pierce, Sylvia A. Glidden, Malvina Sawyer, Maria Sawyer, Margaret Carr, Susan M. Gilbert, Jane Wilford, Harriet O'Connor, Harriet Jane Ball, Catherine Gill, Ruth Alger and Mr. George H. Pope, have obtained diplomas authorising them to teach in elementary schools.

S. A. HURD,
Secretary.

BOARD OF EXAMINERS FOR THE COUNTY OF STANSTED.

Misses Floretta P. Dalloff, Susan Blamy, Lora Emma Morse, and Mr. George L. Clark, have obtained diplomas authorising them to teach in elementary schools.

G. A. RICHARDSON,
Secretary.

LIBRARY OF THE DEPARTMENT OF EDUCATION.

All persons having books in their possession, belonging to this library,

will please return them at as early a date as possible. It being intended to prepare a detailed and classified catalogue, the library will be closed until it is completed.

J. LENOIR,
Librarian.

SITUATION AS TEACHER WANTED.

Mr. Adolphe Lamy, teacher, a Canadian by birth, provided with a model school diploma, will undertake to teach algebra, trigonometry, &c. Applications to be addressed to Mr. Adolphe Lamy, St. Séveré, county of Champlain.

Mr. F. H. Declercq, a native of Belgium, provided with a diploma authorising him to teach in elementary schools, will undertake to teach English, Latin, &c., he also possesses other certificates of capacity. Address: F. H. Declercq, St. Charles de Bellechasse.

MONTHLY SUMMARY.

EDUCATIONAL INTELLIGENCE.

— There are at present in the city of New York 45 free elementary schools, under the direction of the Brothers of the Christian Schools and of Sisters of various religious orders, attended by 13,000 pupils. Besides this, the Jesuits and the Brothers have four colleges attended by 800 pupils. The ladies of the Ursulines, and of the Sacred Heart have eight academies with 3,000 pupils. The municipal authorities have given to the Sisters of Saint Vincent de Paul a building lot for the erection of an infant school. The board of education has contested the validity of the grant, which has been maintained by the court. None of those institutions receive support from the state.

— We with much pleasure insert the following extract from a letter lately received by a gentleman in this city from his brother, now resident in the United States. The writer, we understand, edited the first journal ever published in the English language devoted exclusively to the advancement of education: "The American Journal of Education," at Boston, in 1826. He also has been for nearly forty years an active teacher and labourer in the educational field. It is gratifying to learn that one so well qualified to judge of our educational efforts appreciates them highly, and has formed so just an estimate of the fitness of the Canadian Superintendents of Education for their important duties:—(1)

• • • • "I have to acknowledge several valued favors in the shape of educational documents, besides your last letter. It gives me inexpressible pleasure to observe the noble efforts now making in Canada for the advancement of education, and particularly the high aim which they all indicate, as regards the extent and the elevation of the plan which they embrace. Education cannot renovate the heart: but it may elevate it to a degree far beyond what has yet been imagined, and thus prepare the soil for the good seed of the Tree of Life. Human culture has as yet been miserably low and poor to what it ought to have been: when we look on the origin and destination of the soul; and it must undergo immense changes before it can accomplish the work for the faithful performance of which it is responsible. We have, in the past, been going blindfold in the track of a routine established when gross darkness was expected ever to cover the people, and but here and there a lamp of knowledge was to be lighted at the worshipped golden urn of benighted antiquity. Scholarship in antique lore was still regarded as the all-in-all; and it was not till very near the time of your school days and mine that the intelligent study of the works of God was considered as a requisite part of human culture, or the nature of the mind itself regarded as indicating its proper development. England is now awake on this subject, and is doing much for genuine culture. In the States, particularly in New England, we are gaining ground every year, although as yet far too slowly. Canada will soon have passed us in the race—has indeed, in some respects, already gone beyond even the standard at which we aim. I hope that Dr. Ryerson will long be continued in his noble sphere of action. His motto seems to be 'Ever Onward.' Mr. Chauveau seems to be indefatigable. His journal is intensely interesting. It breathes a charming spirit, and must, I think, be effecting a vast amount of good. The various documents with which you have favored me present some prominent points of peculiar interest—the wide range of attainments prescribed in your university and college courses, the high standard of scholarship at which they aim, the rigor of examination which they intimate, and the certainty of good results which they secure in the thorough education of those who are occupied with the duties of instruction. The standard of acquirement established in the Normal Seminary, and the judicious measures adopted for the professional

(1) We believe the writer to be professor William Russell, whose portrait and biography are published in *Barnard's American Journal of Education* for March 1867.

advancement of teachers, far transcend any thought in my own mind of what could ever be made practicable in Canada. Dr. Ryerson's late movement for bringing the ennobling and purifying influences of art to bear upon the minds of teachers will prove, I doubt not, the commencement of a new era in the history of popular education. Next to the study of nature, as an influence on mind, heart and soul, true art seems to me the most efficient for every good purpose of human culture. To every thoughtful parent the anticipation of bringing up his children in Canada must now be a source of deep felt satisfaction; and to every patriotic mind the prospective position of the Province must be truly cheering."—(Montreal Gazette.)

—The Hon I. J. Papineau has visited the Jacques-Cartier Normal School, and the education office in Montreal. He was pleased to express his approbation of the arrangements made for the conveyance of Normal instruction. The professors and teachers were happy to see among them a gentleman who has played so great a part in the history of our country; and they heard with great delight the short but impressive address which he made with his usual eloquence.

—The board of education of San Francisco, (California) has expelled from the public schools of that city, a young girl of great natural talents and irreproachable character, on the ground of her being of African descent. The *Echo du Pacifique* contains a well written and well deserved rebuke of so unchristianlike a proceeding.

LITERARY INTELLIGENCE.

—A new institution the *Cercle Littéraire* was inaugurated at Montreal at the *Cœvre des L...s* lyres. It is in the nature of a debating club on literary and scientific questions.

—Father de Ravignan who, together with Father Lacordaire held the first rank in the French pulpit, died at Paris, at the age of 63. Xavier de Ravignan at first belonged to the bar, and made his debut as *substitut du procureur du roi* in a brilliant manner. He left the world for the order of St. Sulpice from which he passed into that of the Jesuits. At the time when Mr. Thiers and the liberal party moved the reexpulsion of the Jesuits from France, he published a remarkable work on the history of his order.—Father de Ravignan had among his usual auditors in the church of Notre-Dame, the greatest men of the day, irrespective of their religious opinions or political principles.

—Mr. Franz Stevens, son of Mr. Stevens, chief clerk in the war office at Brussels, and brother of Mr. Paul Stevens, principal of the college of Chambly *et c.*, and late editor of *La Patrie*, died recently at the age of 25 of consumption. He was the author of a book of poetry "Les Poésies Nationales" and had been recently appointed professor of literature at the military school. The general in command, the pupils of the school, several ministers of state, and a great crowd attended his funeral. His popularity as a poet was such that a subscription list was opened for the erection of a monument to his memory.

ARTISTICAL INTELLIGENCE.

—We have great pleasure in announcing that a lady whose musical taste and ability are well known by her remarkable compositions for the piano-forte, has made arrangements with the celebrated firm of Scheidmayer & Co., of Stuttgart, for the importation of their pianos, harmoniums and organs, which have deserved the gold medals of the exhibitions of London and of Paris. Mrs. Shephard has appointed for her agents at Quebec, Messrs Crémazie, booksellers, Mr. Rolland in Montreal and Mr. Larue in Three Rivers. Orders may also be sent directly to Mrs. Shephard, No. 42, Ste. Ann street, Quebec.

—The theatrical world has lost its two greatest celebrities, Rachel, the great tragedian and Lablache the most powerful singer of the age.

SCIENTIFIC INTELLIGENCE.

—The academy of Sciences of Paris contains eleven sections under two divisions. We give the names of the 63 savans, comprising those sections.—Division of mathematical sciences. First section.—geometry: MM. Biot, Poinsot, Lamé, Chasle, Bertrand and Hermite. 2nd Section.—Mechanics: MM. le baron Dupin, Poncelet, Piobert, Moiré and Combes. 3d section.—Astronomy: MM. Mathieu, Liouville, Langier, Le Verrier, Faye and Delauney. 4th Section.—Geography and navigation: MM. Duperrey, Bravais and Daussy. 5th Section.—Physique générale: MM. Becquerelle, Pouillet Babinet, Duhamel, Despretz and le baron Guignard de Latour. 2d Division.—Physical sciences.—1st section.—Chemistry: MM. Chevreul, Dumas, Pelouze, Régnault, Balard and Frémy. 2d section. Mineralogy: MM. Cordier, Berthier, de Senarmont, Delafosse, le vicomte d'Archiac and Sainte-Claire-Deville. 3d Section.—Botany: MM. Brongniard, Montagne, Tulasne, Moquin-Tandon, Payer and Gay. 4th Section.—Rural economy: MM. Boussingault, le comte de Gasparin, Payan, Rayer, Decaisne et Pélignot. 5th Section.—Anatomy and zoology: MM. Dumeril, Geoffroy-Saint-Hilaire, Edwards, Valenciennes, Coste and De Quatrefages. 6th Section.—Medicine and surgery: MM. Serres, Andral, Velpeau, Bernard, Cloquet and Robert de Lamballe. There are besides two secretaries and 9 members unattached to any section. Mr. Elie de Beaumont is the secretary of the division of mathematical sciences and Mr. Flourens of the division of physical sciences. The nine other members are MM. le baron Séguier, Civiale, Bussy, Delessert, Bienaimé, le maréchal Vaillant, de Verneuil, le vice-amiral Dupetit, Thonars and Passy. There are 8 foreign associate and 100 corresponding members.

—The scientific congress of North America meets in Baltimore on the 28th of April next. The scientific congress of Germany meets in Carlsruhe towards the end of September; that of France will open its 25th session at Auxerres, the second of September, and that of Great Britain meets at Aberdeen in the same month.

—Mr. Laurent of Marseilles has discovered the 51th telescopic planet at Nismes. It is to be called *Nemusa* in honor of the latter city.

—We have just received from Mr. Bouillet the author of a great many classical works adopted by the University of France and namely of two excellent dictionaries, of one biography and geography and the other of sciences and literature, which are known all over the world: a letter from which we give an extract highly testifying to the greatness and usefulness of Mr. Lovell's patriotic enterprise.

Paris, 6th March 1858.

"I have received the *Canada Directory* which you were kind enough to send me: although I knew of no claim of mine to such a munificent gift. If your intention is to encourage the author of several works intended for the education of youth, and at the same time to afford him the means of completing and rectifying his "Dictionnaire Universel d'Histoire et de Géographie," believe me, sir, you will not find me ungrateful in that respect. I will not only take care that the 'Canada Directory' is tuned to a good account in my next edition of the dictionary, but I will present the copy you have spared for me to the Geographical Society of Paris, a member of which I am and I will call the attention of all those among my confrères, who deal in statistics to the valuable and plentiful information which is to be found in that inexhaustible mine. For my part as a member of the University, I have especially noticed the extended and complete article on education which this annuary contains."

OFFICIAL DOCUMENTS.

List of Male and Female Teachers inscribed upon the Register of the Teachers' Savings' Fund, from the 1st of October to 31st December, 1857.

Number of name on Register.	NAMES OF MALE AND FEMALE TEACHERS.	Number of years inscribed since 1848.	Premium received.			Amount of the premium to deduct fr. 1st yr's pension.		
			£	s.	d.	£	s.	d.
44	Mr. Louis François Tardif.	3½ years.	1	0	0	3	10	0
45	Miss Marie Dupont.	4½ years.	1	0	0	4	10	0
46	Miss Marie Fournier.	9 years.	1	0	0	9	0	0
47	Miss Mathilde Fournier.	do	1	0	0	9	0	0
48	Mr. Rodolphe Puize.	do	1	0	0	9	0	0
49	Miss Honorine Dumais.	2 years.	1	0	0	2	0	0
50	Mr. Jos. Hilaire Baron	3 years.	1	0	0	3	0	0
51	Miss Emilie Robitaille	9 years.	1	0	0	9	0	0
52	Mr. James Fenslie.	do	1	0	0	9	0	0
53	Miss Caroline Rankin.	do	1	0	0	9	0	0
54	Mr. Basile Vannier	do	1	0	0	9	0	0
55	Mr. François Fortin	do	1	0	0	9	0	0
56	Mr. Jacques Labranche.	do	1	0	0	9	0	0
57	Mr. Francis Dowse	do	1	0	0	9	0	0
58	Mr. John Martin	do	1	0	0	9	0	0
59	Mr. William Cunningham.	do	1	0	0	9	0	0
60	Mr. George Gray	do	1	0	0	9	0	0
61	Miss Thécèle Létourneau	6 years.	1	0	0	6	0	0
62	Miss Hélène Létourneau.	6 years.	1	0	0	6	0	0
63	Mr. Charles Dion	9 years.	1	0	0	9	0	0
64	Mr. Jean-Baptiste Dugal	do	1	0	0	9	0	0
65	Miss Adélaïde Talon.	do	1	0	0	9	0	0
66	Mr. Félix E. Juneau.	do	1	0	0	9	0	0
67	Mr. A. C. Wolfe	do	1	0	0	9	0	0
68	Miss Lucie Lesieur Desaulniers.	do	1	0	0	9	0	0
69	Mr. Bernard Gravel.	do	1	0	0	9	0	0
70	Miss Eméranice Michaud	do	1	0	0	9	0	0
71	Mr. P. J. Auger	do	1	0	0	9	0	0
72	Mr. Edouard Lafend.	do	1	0	0	9	0	0
73	Miss Marie Carpentier.	do	1	0	0	9	0	0
74	Miss Agnès Hamel.	do	1	0	0	9	0	0
75	Mr. William Wilson.	do	1	0	0	9	0	0
76	Mr. Félix Beaudry.	do	1	0	0	9	0	0
77	Miss Julie Gagné.	do	1	0	0	9	0	0
78	Mr. Joseph O. Manteht	do	1	0	0	9	0	0
79	Mr. H. T. Goslin.	do	1	0	0	9	0	0
80	Mr. Jos. G. Vincent dit Ferrier	do	1	0	0	9	0	0

82	Mr. Charles Huot	9 years.	1	0	0	9	0	0
83	Mr. Isidore Belleau	do	1	0	0	9	0	0
84	Mr. Pierre Rouleau	do	1	0	0	9	0	0
85	Mr. Maurice Racicot	do	1	0	0	9	0	0
86	Miss Eliza Robin	do	1	0	0	9	0	0
87	Miss Geneviève Robin	do	1	0	0	9	0	0
88	Miss Hélène Tremblay	2 years.	1	0	0	2	0	0
89	Mr. Pierre Augustin Drolet	9 years.	1	0	0	9	0	0
90	Miss Adèle Milette	3 years.	1	0	0	3	0	0
91	Mr. A. Z. Gouin	9 years.	1	0	0	9	0	0
92	Miss Milburge Casault	do	1	0	0	9	0	0
93	Mr. John Rutherford	do	1	0	0	9	0	0
94	Miss Emilie Ausbrow	do	1	0	0	9	0	0
95	Miss Henriette Ausbrow	11 years.	1	0	0	11	0	0
96	Miss Virginie Buteau	9 years.	1	0	0	9	0	0
97	Mr. Francis Corr	do	1	0	0	9	0	0
98	Mr. Charles Hudon	do	1	0	0	9	0	0
99	Miss Adèle de Vallières	do	1	0	0	9	0	0
100	Mr. Augustin Vallières	do	1	0	0	9	0	0
101	Mr. Joseph Létourneau	do	1	0	0	9	0	0
102	Mr. McVurty	do	1	0	0	9	0	0
103	Mr. John Burns	do	1	0	0	9	0	0
104	Mr. Antoine Lafleur	do	1	0	0	9	0	0
105	Mr. Paul H. Guilbault	do	1	0	0	9	0	0
106	Miss Odile Baril	2 years.	1	0	0	2	0	0
107	Miss Emilie Baril	9 years.	1	0	0	9	0	0
108	Miss Anastasia Duff	do	1	0	0	9	0	0
109	Miss Césarie Richard	7 years.	1	0	0	7	0	0
110	Miss Flora Maguire	4 years.	1	0	0	4	0	0
111	Mr. Louis Pantaléon Resch	9 years.	1	0	0	9	0	0
112	Miss Michaud	5 years.	1	0	0	5	0	0
113	Mr. J. B. Gaudreault	9 years.	1	0	0	9	0	0
114	Miss Louise Dubé	do	1	0	0	9	0	0
115	Miss Adéline Casault	do	1	0	0	9	0	0
116	Miss Zoé Lemire	7 years.	1	0	0	7	0	0
117	Mr. John Rogan	do	1	0	0	9	0	0
118	Mr. J. E. Labonté	do	1	0	0	9	0	0
119	Miss Marguerite Leblanc	8 years.	1	0	0	8	0	0
120	Miss Hermine Raymond	4 years.	1	0	0	4	0	0
121	Mr. L. A. Desrochers	9 years.	1	0	0	9	0	0
122	Mr. Nazaire Caron	9 years.	1	0	0	9	0	0
123	Miss Angélique Vallée	do	1	0	0	9	0	0
124	Mr. John S. Lawler	do	1	0	0	9	0	0
125	Mrs. A. D. Laplante	do	1	0	0	9	0	0
126	Mr. Louis M. Laplante	do	1	0	0	9	0	0
127	Miss Elizabeth Lemire	do	1	0	0	9	0	0
128	Mr. Thomas Allau	9 years.	1	0	0	9	0	0
129	Mr. Étienne Fecteau	2 years.	1	0	0	2	0	0
130	Mr. Benjamin Blanchard	9 years.	1	0	0	9	0	0
131	Mr. Robert Wright	do	1	0	0	9	0	0
132	Mr. John McKeeler	do	1	0	0	9	0	0
133	Mr. Francis Oat	do	1	0	0	9	0	0
134	Miss Marie Elizabeth Gervais	do	1	0	0	9	0	0
135	Miss Ursule Bouffard	do	1	0	0	9	0	0
136	Miss Edesse Richer	do	1	0	0	9	0	0
137	Miss Théotiste Perreault	2 years.	1	0	0	2	0	0
138	Mr. Joseph Beaulieu	6 1/2 years.	1	0	0	6	10	0
139	Miss Flavie Sénéchal	9 years.	1	0	0	9	0	0
140	Miss Marie Sénéchal	do	1	0	0	9	0	0
141	Miss Rose Délima Belletoulle	do	1	0	0	9	0	0
142	Mr. Andrew Doyle	6 years.	1	0	0	6	0	0
143	Mr. Louis Roy	do	1	0	0	6	0	0
144	Miss Louise Ayotte	9 years.	1	0	0	9	0	0
145	Mr. Hésippe Fournier	do	1	0	0	9	0	0
146	Mr. H. C. Dozois	do	1	0	0	9	0	0
147	Mr. W. Stinson	do	1	0	0	9	0	0
148	Mr. A. Dalaire	do	1	0	0	9	0	0
149	F. Z. De Lattinville	do	1	0	0	9	0	0
150	Miss Marguerite Béveau	do	1	0	0	9	0	0
151	Miss Elodie Béveau	5 years.	1	0	0	5	0	0
152	Miss Hermine Rousseau	do	1	0	0	5	0	0
153	Miss Dennerise Dumais	7 years.	1	0	0	7	0	0
154	Miss Zoé C. Lamonde	9 years.	1	0	0	9	0	0
155	Mr. S. Trépannier	do	1	0	0	9	0	0
156	Mr. Zéphirin de St. Anlon	3 years.	1	0	0	3	0	0
157	Miss Apolline Proulx	5 years.	1	0	0	5	0	0
158	Miss Henriette Carrier	9 years.	1	0	0	9	0	0
159	Miss Julie Christin	do	1	0	0	9	0	0
160	Mr. Finlay McEwan	6 years.	1	0	0	6	0	0
161	Mr. A. M. Langlois	9 years.	1	0	0	9	0	0
162	Mr. P. A. Parent	5 years.	1	0	0	5	0	0

Statement of monies paid by the Department of Education for Canada East, between the 1st January to 31st March, 1857.

Amount paid from 1st to 31st January 1858 as per statement published in Journal No. 1, 1858..... \$ 77,335:11

Paid from 1st February to 31st March 1858, viz :

On account of grant to common schools for 2d half of 1857..	\$ 26,558:10
“ “ for Superior Education	25,357:20
“ “ Jacques Cartier Normal School...	1,867:71
“ “ McGill Normal School	943:96
“ “ Laval Normal School	2,190:04
“ “ Journals of Education	523:99
“ “ Office contingencies	708:43
“ “ Departmental library	844:14
“ “ Parochial Libraries	207:72
“ “ Books for prizes	247:72
“ “ Salaries of School Inspectors	193:75
“ “ Poor Municipalities	3,410:00
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	\$140,387:87

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