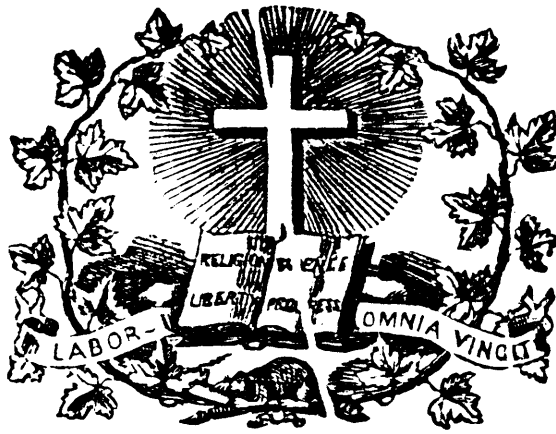


Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

L'Institut a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- | | | | |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/> | Coloured covers /
Couverture de couleur | <input type="checkbox"/> | Coloured pages / Pages de couleur |
| <input type="checkbox"/> | Covers damaged /
Couverture endommagée | <input type="checkbox"/> | Pages damaged / Pages endommagées |
| <input type="checkbox"/> | Covers restored and/or laminated /
Couverture restaurée et/ou pelliculée | <input type="checkbox"/> | Pages restored and/or laminated /
Pages restaurées et/ou pelliculées |
| <input type="checkbox"/> | Cover title missing /
Le titre de couverture manque | <input checked="" type="checkbox"/> | Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées |
| <input type="checkbox"/> | Coloured maps /
Cartes géographiques en couleur | <input type="checkbox"/> | Pages detached / Pages détachées |
| <input type="checkbox"/> | Coloured ink (i.e. other than blue or black) /
Encre de couleur (i.e. autre que bleue ou noire) | <input checked="" type="checkbox"/> | Showthrough / Transparence |
| <input type="checkbox"/> | Coloured plates and/or illustrations /
Planches et/ou illustrations en couleur | <input checked="" type="checkbox"/> | Quality of print varies /
Qualité inégale de l'impression |
| <input checked="" type="checkbox"/> | Bound with other material /
Relié avec d'autres documents | <input type="checkbox"/> | Includes supplementary materials /
Comprend du matériel supplémentaire |
| <input type="checkbox"/> | Only edition available /
Seule édition disponible | <input type="checkbox"/> | Blank leaves added during restorations may
appear within the text. Whenever possible, these
have been omitted from scanning / Il se peut que
certaines pages blanches ajoutées lors d'une
restauration apparaissent dans le texte, mais,
lorsque cela était possible, ces pages n'ont pas
été numérisées. |
| <input checked="" type="checkbox"/> | Tight binding may cause shadows or distortion
along interior margin / La reliure serrée peut
causer de l'ombre ou de la distorsion le long de la
marge intérieure. | | |
| <input checked="" type="checkbox"/> | Additional comments /
Commentaires supplémentaires: | | Continuous pagination. |



THE JOURNAL OF EDUCATION

Devoted to Education, Literature, Science, and the Arts.

Volume XIV.

Quebec, Province of Quebec, June, 1870.

No. 6.

TABLE OF CONTENTS

School Discipline.....	85	in Aid of Superior Education for	93
Science for Children.....	86	the Year 1869.....	94
To Train a Child.....	87	Floral Months of the Province of	94
Teaching by the Page.....	87	Quebec.—July.....	95
Normal Schools.....	88	University Intelligence.....	95
Poetry: The Burial of Moses.....	89	Books and Current Exchanges Re-	95
How to Read.....	89	ceived.....	95
Gentleness in Woman.....	90	Miscellany: Education.....	95
The Sister.....	91	Literature.....	96
True Politeness.....	91	Science.....	97
The Value of Science.....	91	Art.....	99
Official Notices: Appointments.—		Political Economy.....	100
School Commissioners.—Diplo-		Meteorology.....	100
mas Granted by Boards of Exa-		Advertisements: Wants.....	100
miners.....	92	The Dramatic Reader.....	100
Editorial Department.—Ministry of		The Working Class.....	100
Public Instruction: Report of		The Journal of Education.....	100
the Apportionment of the Grant		Official Documents.....	101

School Discipline.

(Continued from February Number).

What then are some of the disciplinary agencies to be recommended?

I do not propose here to lay down a series of fixed rules, by which all teachers must be governed in the management of their schools. No one is safe who attempts to treat every case by a specific rule. Yet, every act of discipline is subject to fixed principles, which underlie and regulate the circumstance attending it. The judicious teacher will adhere to the principle while he varies the means and appliances to suit the circumstance of the case.

First, a thorough organization and classification are necessary.

I have seen the school so perfectly systematized; all its arrangements so complete, and its departments so perfectly adjusted, that the working of its machinery not only produced no friction, but created order, interest and zeal, such as secured the desired object. I have seen these arrangements so perfect as not only to prevent general disorder, but to punish wrong, without the agency of the master.

On the other hand, I have often witnessed the utter failure of apparently competent teachers, for the want of system in the arrangements and classification of their school.

In the organization, regard must be had to seating the pupils. They should be so arranged in the school-room, that they will

present to the eye of a visitor, system and uniformity; should be so seated that they will not disturb each other, in the necessary movements of the day. The rogues, if possible, should be separated, and every temptation to idleness and mischief removed.

The teacher should provide for irregularities. They must occur in every school, and hence, should be reduced to system and made disciplinary.

Recesses should be at regular intervals, when one division of the school, male or female, may be excused for ten or fifteen minutes, to take the open air, and then, the other division in its turn. The time of recess in the school-room, may be spent by the teacher in attending to individual wants, and rendering individual assistance.

It is a suitable time also for the practice of school gymnastics, which will, ere long, be required in all our schools, both for recreation and development.

Again, there should be an occasional recess from study, in which for two or three minutes, the pupils may whisper and ask questions, or attend to any necessary irregularities not allowed in study hours.

With this indulgence, they will have less temptation and excuse for the violation of wholesome laws at other times, and will maintain good order and rigid discipline.

Every exercise and movement from the opening to the close of the school should be systematically arranged and definitely fixed.

In classification, great pains should be taken, to have as few classes as possible, and to have each pupil assigned to his appropriate sphere, where he will work easily and successfully with his time fully occupied.

The school when thoroughly organized and classified still needs vigilant care and constant attention, lest its machinery become disarranged and work mischief.

Order and regularity are thus secured, and the disciplinary influence, in this way brought to bear upon the school is every where felt and appreciated.

The second disciplinary agency which I will mention, is law.

"Order is Heaven's first law," and this order is the result of law. Indeed, law is the ruling agency, in the universe of God. It controls planets and sun and holds in subjection the very particles of which they are composed. Withdraw this controlling

of principle from the material world, and anarchy, confusion and chaos would result.

Law is also a necessity in all organized society. Man as a social being cannot exist without it. Hence, in every community, and among every class of human beings from barbarism to the highest grade of civilization, we find a code of laws for the regulation and control of individual men.

So we have *civil* government, *family* government, *school* government—each an absolute necessity for the existence of human society, in their various relations, and above all and over all, the Supreme law of God bears sway.

In the material world these laws are so definite and exact, as to control the smallest particle that floats in the sunbeam, and so comprehensive as to embrace worlds and systems of worlds that roll in infinite space.

So human law must be definite and comprehensive. And to be obeyed it must be understood by every citizen, child and scholar.

In the government of the school, the regulations necessary to secure order and proper discipline, must not only be fixed and uniform, but fully made known to every pupil, that there may be concert of action and a harmonious working of all the machinery. It will not do to trust a matter of so much importance to the good sense and good intentions of the scholars, however much we may confide in them. It will not do to allow each to be a law unto himself and to act alone upon his own responsibility. Every experienced teacher knows how utterly impracticable such a theory is. Every one should take an early opportunity to announce and explain the principles and facts upon which the school is to be governed.

These necessary school laws must be rigid and rigidly enforced. Says an experienced teacher in this connection: "A system of discipline ought to accomplish completely the object it aims at. It should have no rules which have not been well considered beforehand. It should then admit of no exceptions, but for the most imperative reasons. Let down the laws to day, and the scholars will leap the fences to-morrow, and snap their fingers at all barriers the day after. The system while it lasts must be inflexible, earnest, strong, thorough. It is much easier to govern perfectly than partially, to say nothing of the clear gain in temper and comfort. If an evil ought to be prevented, let the master deliberate and then prevent it. He can, if he will."

Again, the pupil must be taught and made to believe, that all school regulations and laws are based upon *authority*—authority vested in the office of the teacher, which is his *not* to withhold, but to *execute*.

This is the very germ, and the only foundation of good government. Let it be distinctly understood, that persuasion may never take the place of authority. In school management, as a means of preventing evil, we may persuade, invite and win, at any time, when the necessity of subordination is not questioned by the pupil; or after he has been subdued by authority, we may allure him by kind treatment. But kindness cannot supply the place of authority. Obedience is *not* a voluntary compliance with a request, but a hearty response to acknowledge authority—an implicit yielding to a command. The pupil must not wait the dictates of inclination, or feeling, before he yields, but promptly *obey*. Ours is not a government of persuasion, not of reasons assigned, not of the will of a majority, but of the will of *one* master. From his decision there may be an appeal, but *disobedience never*.—H. O. —*Rhode Island Schoolmaster*.

Science for Children.

The schoolmasters of the present day may be divided into two categories: those who *teach*, and those who *hear lessons*; the latter class, unfortunately for the next generation, being by far the more numerous. The mischief done to the community generally by the short-comings of inefficient teachers is too well known to every one who has pierced below the surface of the great question of middle-class education. The difficulties, how-

ever, that beset a science teacher in his endeavors to force scientific truths into the unwilling and unprepared minds of boys, who have been subjected to the sway of these same lesson-hearers, can only be realized by those who have gone through the task. The case of a senior science class, which has been under my charge for some months past, will illustrate my meaning most fully. It consists of about a dozen boys, whose ages range between fourteen and seventeen years, and they receive twice a week an hour's instruction on chemistry and physics. The class may be divided into two distinct portions by a perfectly sharp line. Four of the boys have had the advantage of six or seven years' training under the principal of the school, who is not only a ripe scholar, but also an efficient teacher—a very rare collocation in these days. The rest have simply learnt lessons all their lives. The four boys who have been *taught* are as mentally distinct from the others, as if they were different species of the same genus. The first four are bright, attentive, wide-awake—I know of no other term to express exactly what I mean—logical, and clear-headed; they can fairly follow a chain of scientific reasoning, and produce it afterwards link by link; they have a certain power of induction and deduction, although of course, being new to science, this power is necessarily only just awakened; they can connect and correlate facts and ideas, they can enumerate a series of phenomena in logical sequence; in a word, although their industry and application are far from colossal, the task of teaching them the truths of natural science is a comparatively easy one. The other boys, as I have said before, almost form a distinct mental species. They cannot understand the possibility of learning any thing without the aid of a book, and the idea of finding out anything for themselves has never entered their heads. Still they are far from stupid boys, being all possessed of good average brains; yet their faculties have not merely been allowed to remain undeveloped, but they have been utterly entangled, stunted, and stultified by what Dr. Frankland would call their "previous school contamination." These boys, it must be understood, are the sons of parents belonging to the upper stratum of the middle class, and have mostly been to schools conducted by university men with honorable initials appended to their names—men, in fact, who are scholars but emphatically no teachers. Their great fault is a total want of mental method, without which the greatest brain is as nought. They are at home in Virgil and Horace, some of them are fair Greek scholars; they have "been through" Euclid and can work moderately difficult algebraical problems in a certain mechanical fashion; they are well acquainted with the leading facts of English history, and know the exact position and population of Adrianople; but as far as real mental power goes, any poor boy, who has been in a National school for three years, would beat them hollow.

These facts surely point out the absolute necessity of beginning scientific training at a very early age; and I fancy this necessity has not been sufficiently dwelt upon in the numberless essays, letters, lectures, and evidence on the subject of scientific education with which we have been deluged during the past decade. There seems to have been a notion abroad, that scientific teaching should not be begun before the age of twelve or fourteen; but why, I would ask, should boy's minds be allowed to remain fallow during all these years? The minds of boys of seven and eight should surely be as carefully developed as those of their seniors, and there is certainly no means of pure mental culture so successful as scientific teaching. A boy of this age should not be taught science so much for the sake of acquiring a certain number of facts, as of developing his powers of observation and reasoning, and giving a proper tone to his mental faculties. A boy of eight or nine takes a morning canter of three or four miles on his pony, not for the purpose of getting over some seven thousand yards of ground, but to strengthen his muscles and improve his carriage: his science lesson should be an intellectual canter, taken with the view to strengthen and improve his mental muscles and carriage.

It may be urged that children of eight or nine are too young

for systematic science teaching, but facts prove the contrary. An ordinarily intelligent boy or girl of this age is perfectly capable of understanding the broad differences between the animal, vegetable, and mineral kingdoms; that there are more gases than one in the world; that some of them are colorless, while others are brown or green; that some burn and others do not; that some plants grow from the inside, while others grow from the outside; that some animals have jointed backbones, that others have their bones outside their bodies, while others have none at all. Facts such as these are perfectly comprehensible to children even younger than those I have named. During the first two years of a child's school life, after he has learned to read and write, he should be carried through the whole range of physical science in a systematic manner. The fundamental truths of chemistry and physics should be first taught him: all theoretical considerations being left aside. As few definitions as possible should be given, the whole task of the teacher at the commencement being to cultivate the child's powers of observation to the utmost. Gradually the powers of induction and deduction may be developed, facts and phenomena should be compared, and conclusions drawn from them. Order in thought and description should be specially insisted upon, and occasional retracings of the ground already gone over should take place. The objects of this preliminary science-teaching should be two-fold: first and foremost, to train the mind and form the judgment; and secondly, to give the child a general idea of the object and scope of the natural sciences. At the age mentioned, the faculties are all fresh, and in full process of development; and such is the desire to exercise them in intelligent children, that their thoughts often run wild. There is nothing a child likes so much as investigation, or "finding out all about things," as he himself would phrase it. The boy in the nursery rhyme who cut the bellows open to see where the wind came from, is a type of his class. Unfortunately at the present time, scientific teachers for children are extremely rare, but let the want once arise, and the demand will soon be met. We have plenty of scientific teachers and lecturers for boys and men, but the child has hitherto been left out of consideration. Teachers, in the true sense of the word, are every day on the increase, and even the old-fashioned schoolmasters are beginning to see very plainly that they must alter their system of instruction, and yield to the pressure of the times. But it is not only upon these that I would urge the necessity of beginning science-teaching at the earliest possible period, but also upon those who have already adopted science as part of the ordinary school curriculum for the older boys.—*Chas. W. Quin, in "Nature."*

To Train a Child.

A little tract issued for distribution by the Ladies' Sanitary Association of London, gives these wise suggestions for the nurture of children in health of body and spirit:

1. Never refuse a thing if it is harmless, give it, if you are able, without delay.
2. Never give anything because it is cried for that you have refused when asked for.
3. Be careful to observe real illness, and avoid causing bodily uneasiness from over-clothing or cold or unwholesome food, such as candy, sugar-plums, sour fruit, or giving buns or cakes to quiet the child.
4. Avoid false promises. They are sure to be found out false.
5. Avoid threats of all kinds. If believed, they make children timid, and injure both mind and body: if not believed, they are useless. Such threats as bogie, policeman, and black-man, are sure to be found out false, if the child lives.
6. Never say anything untrue to a child.
7. Do not wreak your own bad temper, or visit your own feelings of fatigue and trouble, on children, by being severe with them, or by saying, "You shan't have it" or "I won't give it to you," when there is no reason for refusal, except that you are yourself tired, or in trouble, or out of sorts.

8. Avoid giving orders, such as "Stand still," "Go on," "Hold your tongue," "Put it down," etc., unless you really mean that you should be obeyed; and the fewer orders you give, the better.

9. Neither give too much pity, nor yet be severe and unkind, when a child tumbles down and hurts itself.

10. Do not worry a child. Let it alone, and let it live in peace.

11. Teach it early to play alone, and amuse itself without your help. Let it alone, is a golden rule in nine cases out of ten.

To sum up all in a few words, try to feel like a child; to enter into its griefs and joys, its trials and triumphs. Then look forward to the time when it shall have numbered as many years as you have seen, and pray for help and strength to do your duty by it. You may fail, as we all may; but if you sow the seed with humility and faith, you will have done all that is permitted to us imperfect creatures; and if you have reared up a cheerful, loving, truthful, and brave spirit, in a healthy body, you have been working with him who told us it was "not the will of our Father in heaven that one of these little ones should perish."

Teaching by the Page.

Among the things which still cling to us as relics of fogginess is that of teaching and studying by the page, instead of by topics. There are perhaps no other two expressions in our pedagogical vocabulary of less meaning and more history than "going through the book" and "learning the book through."

If our text books were what they should be, there might possibly be a shade of meaning in these expressions, but notwithstanding the burdensome load of school text books which are continually heaped upon us, it is a fact, and one which speaks little credit for text-book makers, that, with but few exceptions, the mode of teaching suggested by them, and the manner in which subjects are presented, are more or less a failure. No teacher who studies to present subjects to his pupils in the most clear and comprehensive manner can fail to observe this deficiency. Our constant watchword should be, "from the known to the unknown," and indeed this is, and can be, the only profitable and natural mode of procedure.

Further, it becomes necessary for every one who pretends to impart instruction successfully to understand the order of development of the faculties of the human mind. This knowledge may be acquired partly by observation and partly from our works on Mental Philosophy. Of late the subject is also treated in a limited way in almost all our works on the art of teaching.

These two things being agreed upon—first, that we must slowly and carefully proceed from the known to the unknown, and secondly, that a knowledge of the relative strength and the order of development of the child's mental powers is indispensable, who would for a moment think of—aye, who would not utterly shrink from—the idea of presenting a young pupil as their first lesson in English Grammar, the abstruse metaphysical enunciation that "Grammar is the science of language?" or, as some later writers, in order to simplify, we suppose, would have it, "the science and art of language." Following these very complete definitions comes such other interesting matter (to young minds) as a discussion of Philosophical Grammar, Philology, &c. If, after such an introduction into the "Elysian fields of English Grammar," the youthful disciple does not come to the usual conclusion that "he doesn't like it very well," or that "it's of no use," he must be hopelessly dull. It is not proposed to deny the truth of the proposition that "Arithmetic is the science of numbers," or, "Our earth is one of the heavenly planets," but we deny the propriety of having such abstruse definitions as the introductory matter in our school text books on these branches.

The child that has succeeded in committing to memory that "Reading is the perusal of anything written or printed," or that "Arithmetic is the science of numbers," is none the wiser for it.

It becomes, then, the business of teachers to supply, in assigning and hearing recitations, this deficiency in our text-books; and to do this, "teaching by the page" must be abandoned in most cases, and teaching by topics substituted. Especially does this apply to teaching geography, grammar, history, and the higher branches of natural science.

The person who teaches these branches at the rate of so many pages a day is not to be denounced, for he is doing the best he can, and a wearisome time he has of it, too, no doubt; but he, no less than his pupils, is to be pitied—pitied, not for any thing that has befallen him, but for some thing which has not befallen him. But, to teach by topics instead of by pages, it is necessary for the teacher to know, not only what is in one text book, but what is in other text-books on the same subject. In short, he must understand the subject he proposes to teach, and keep his particular text book as a guide—as a servant, not as a master.

It is not to be expected that more than a limited outline of any subject can be given in our ordinary text-books, yet in many cases this skeleton is presented to pupils as a specimen of the complete man. Is it any wonder that they find it "dry bones?"

Again, teachers and text-book makers will do well to study the nature of the process by which the young mind becomes acquainted with the facts around us. The smallest boy or girl in our schools will tell us that wood burns if put in a fire. But, you say, here is a piece of wood from Africa; it is piece of a palm tree; are you certain that this will burn? "Yes, it will burn for it is wood," will be the probable answer. The child has perhaps never seen more than two or three kinds of wood, yet by a method of induction it concludes that all wood burns. An hour's lecture on the chemical constitution of our bodies, the atomic theory of matter, and the relation and the effect which the atoms of a certain imponderable ether have upon the rotary motion of the atoms of animals and vegetable matter, will not convince your pupils one tithe as forcibly that a red hot piece of iron will burn their hand if brought in contact with it, as will one accidental collision with a heated poker.

Yet, could we not deduce from the one as conclusive a proof as from the other? Certainly, but it is not the kind of reasoning for which the child is prepared. In youth the great, and, we may say, almost exclusive source of knowledge, is perception through the senses. Hence, the more teachers can illustrate by means of objects, the more they can bring demonstration to bear upon the perceptive faculties, the more successful will be their efforts.

To accomplish this, it will be found that text-book teaching, as opposed to oral teaching, and page teaching as contrasted with topical teaching, will be found wanting if weighed in the balance.
—*Clinton Democrat.*

Normal Schools.

Normal Schools in this country are of comparatively recent date. The mode of conducting them is still a work of experiment—with some of us, at least. The experience of normal schools in Europe is not in any great degree available to us. We must determine for ourselves the best method of conducting schools for training teachers. That is our work—not to build up institutions to rival our academies and colleges, but institutions to prepare teachers for the common schools. This I regard as a work worthy of the ablest and best-trained minds.

Our work is, to prepare men and women to become teachers. *How shall we teach our pupils to teach?*

How did we, who are "deemed and taken" to be teachers, learn to teach? Did we not all learn to teach by teaching, or by trying to teach, just as we all learned to walk by walking, or by trying to walk? At the outset, we followed the example of those who taught us. We selected one or more of our teachers as a model or as models. We did not servilely imitate them. Their example gave direction to our course, which was perhaps subsequently modified, corrected, improved, by our experience.

Teaching is an art. The teacher is an artist; he is a professor of the finest of the fine arts—that of developing, directing, "giving form and pressure" to the immortal mind. His mode of acquiring skill is analogous to that of the painter. The painter selects his models, not that he may copy them, but to aid him in developing his conceptions of excellence. He also catches something of the spirit of his model—practises a kind of unconscious imitation, which is not at all inconsistent with originality. In like manner, the teacher may catch something of the spirit of his model, and practise an unconscious imitation.

In the fine arts, or, rather, in the other fine arts, the importance of models is fully admitted. No amount of instruction on the principles of an art, and no amount of effort under the guidance of those principles, will supply the place of models. Principles themselves can be taught most effectively by skilful exemplification.

The first thing that we need for the benefit of our pupils in normal schools is good teachers—model teachers. The very best educational talent should be secured. What we want is, not doctors of divinity and of law and of philosophy, and mistresses of arts and devices, but men and women who know how to teach.

In the next place, we should teach our pupils the branches which they will be called to teach—reading, spelling, arithmetic, geography, penmanship, the English language. Other branches should be added; but I think these should be taught in the normal school. Two objects will be gained by this:

1. The pupils will be acquainted with the studies they will be called to teach.

2. In the process of being properly taught, they will learn to teach; they will, at least, be made familiar with good models. This I regard as far more important than lectures on the art of teaching.

Some suppose that the normal school teaches the elementary branches from an unfortunate necessity—the pupils come so imperfectly prepared that the normal school must turn aside from its proper work, that of training its pupils in the science and art of teaching, to drill them in studies with which they ought to be familiar before they come.

From such I differ. I would teach the pupils these studies because I regard it as one of the most efficient means of teaching them to teach. Let the pupil be taught by one who knows how to teach, and he will be apt to go and do likewise. I grant that it is the province of the normal school to teach the principles of the art of teaching—that is, so far as is practicable. It requires some degree of mental discipline fully to understand what is meant by a principle, and its relation to a rule deduced from it, for one's self. We must adapt our instructions to the capacities and mental condition of our pupils. It may be easy for us to lay down principles systematically; but it may not be easy for our pupils to understand us. We should teach principles so far as we can; but I apprehend that to pupils in the normal school they are best taught in connection with class-instruction, as exemplified in the teaching received.

It may be said that, by requiring a higher degree of attainment as the condition of admittance, the course could be elevated. That is true. But is the object of a normal school to secure as elevated a course as possible, or to use the means best adapted to make good common-school teachers? If this be the object, then one of the means should be thorough instruction in the studies they will be called upon to teach.

With this instruction should be blended what is usually termed normal instruction, or instruction in the art of teaching. When a topic has been properly presented to the class, in a manner adapted to the condition of the class, attention can be called to the proper method of presenting it to minds in a different condition. The pupil will thus get the idea that the best teaching is that best adapted to the minds of those taught. You may give a lecture or course of lectures on the modes of teaching arithmetic, or you may blend that instruction with the presentation of the successive topics of instruction. The latter, I am inclined to think,

will have a greater influence on the practice of the pupils than the former.

Next comes practice in the art of teaching. Hence there must be a school for practice connected with the normal school. The pupils should teach in this school, under the supervision of the heads of departments in the normal school. The teacher of mathematics in the school for practice. The other teachers should supervise the teaching in their respective departments. By this means individual instruction can be given.

This practice should extend over a period of at least nine weeks, and should, during that period, occupy the chief attention of the pupil.

I would not have the course of study in a normal school limited to the branches usually taught in common schools. Whatever can be done during the period allotted to the course, in the way of instruction and discipline in other studies, should be done. The more true culture one has, the better teacher he will become. The teacher influences by what he is, as well as by what he says; hence, the more culture he possesses, the better.

Two inferences may be drawn from what has been said. The first is, that all good teachers, whether in the common school, the academy, or the college, are normal teachers—that is, are teachers of the art of teaching. Normal schools have not a monopoly of the good work.

The second is, that too much must not be expected from normal schools. Those who conduct them should not attempt more than is feasible. Sending one to a normal school will not of necessity make a teacher of him any more than sending him to a musical conservatory will of necessity make a musician of him. Not every one who has a capacity to acquire knowledge has capacity to become a teacher. Only a part of those who repair to the normal school will become teachers worthy of the name.—*Appletons' Journal*.

The Burial of Moses.

By Nebo's lonely mountain,
On this side Jordan's wave,
In a vale in the land of Moab,
There lies a lonely grave;
And no man dug that sepulchre,
And no man saw it e'er,
For the "Sons of God" upturned the sod,
And laid the dead man there.

That was the grandest funeral
That ever passed on earth;
But no man heard the trampling
Or saw the train go forth,
Noiselessly as the daylight
Comes, when the night is done,
And the crimson streak on ocean's cheek
Grows into the great sun;

Noiselessly as the springtime
Her crown of verdure weaves,
And all the trees on all the hills
Open their thousand leaves;
So, without sound of music,
Or voice of them that wept,
Silently down from the mountain's crown
The great procession swept.

Perchance the bald old eagle,
On gray Bethpeor's height,
Out of his rocky eyrie
Look'd on the wondrous sight;
Perchance the lion stalking
Still shuns that hallowed spot:
For beast and bird have seen and heard
That which man knoweth not.

But when the warrior dieth,—
His comrades in the war,
With arms reversed, and muffled drum,—
Follow the funeral car,

They show the banners taken,
They tell his battles won,
And after him lead his masterless steed,
While peals the minute gun.

Amid the noblest of the land
Men lay the sage to rest,
And give the bard an honored place
With costly marble drest—
In the great minster transept,
Where lights like glories fall,
And the sweet choir sings and the organ rings
Along the emblazoned wall.

This was the bravest warrior
That ever buckled sword;
This the most gifted poet,
That ever breathed a word;
And never earth's philosopher
Traced with his golden pen
On the deathless page, truths half so sage,
As he wrote down for men.

And had he not high honor?
The hill-side for his pall,
To lie in state while angels wait,
With stars for tapers tall,
And the dark rock-pines like tossing plumes
Over his bier to wave,
And God's own band, in that lonely land,
To lay him in the grave!

In that deep grave without a name,
Whence his uncoffined clay
Shall break again—most wondrous thought—
Before the judgment day,
And stand, with glory wrapped around,
On the hills he never trod,
And speak of the strife that won our life
With the incarnate Son of God.

O lonely tomb in Moab's land!
O dark Bethpeor hill!
Speak to these curious hearts of ours,
And teach them to be still.
God hath his mysteries of grace,
Ways that we cannot tell;
And hides them deep, in the secret sleep
Of him he loved so well.

—*Dublin University Magazine*.

How to Read.

In the English universities, reading is synonymous with study. There men read for honors, and wrangle for distinction. In the popular acceptance of the word, however, reading means the perusal of books for amusement or instruction. It is in this latter sense that we purpose to devote to the subject a few thoughts.

Reading naturally suggests two questions for reflection, viz., how we read, and what we read. It is manifest that the mind of man has two main powers—intellect and memory—and that both require exercise and cultivation. Therefore we should read closely, understandingly, in order that our intellects may be unfolded and their activity developed. We should generalize what we read, that our memories may be practised and our minds supplied with food for use and reflection. The cultivation of one faculty alone will surely dwarf the other, and produce a one-sided development. "A man of great memory," says Montaigne, "is rarely a man of sound judgment. He trusts to his memory, and relies upon the judgment of others. He is not an independent mind. Further, he has no force." How often do we see the man of mere memory beaten upon his own ground by the man of less knowledge, but of bold, active, and practised intellect! The mind of the former is simply recipient; the mind of the latter is aggressive. Given a subject for discussion, the man of intellect grapples with it; he does something of himself; the man of memory only endeavors simply to remember. If he cannot recollect what he has learned in regard to the subject, he fails utterly, and is discomfited. His province is merely to repeat and relate. But the man of intellect, if he do not inform himself, if he do not cultivate his memory and store his mind with digested material, though he may do better in the arena than the other, will have cause to lament that the use of his faculties is abridged from a deficiency of

objective resources. He may have cultivated the better half, still it will be but the half of his mind. Man should improve all his powers to be both a thinking and a knowing being, to be competent to attack and defend, to be prepared to inform, to appreciate, and to enjoy. Mere reading will not do this. "I knew a man," says Bolingbroke, "who had read for thirty years, almost constantly, and had heaped together almost as much learning as could be crowded into one head. In the course of my acquaintance with him, I consulted him one or twice, not oftener; for I found this mass of learning of as little use to me as to the owner. The man was communicative enough, but nothing was distinct in his mind. How could it be otherwise? He had never spared time to think; all was employed in reading. I never left him that I was not ready to say, 'God grant you a decrease of learning!' Reading and reflection should go together. Man should not regard his mind purely as an organ for bald speculation, nor as a receiver to be filled, but as a complex power to be instructed and cultivated, informed and exercised.

What we should read is a more difficult question to answer than the former. "Some books," says Lord Bacon, "are to be tasted, others to be swallowed, and some few to be chewed and digested; that is, some books are to be read only in parts; others to be read, but not curiously; and some few to be read wholly, and with attention." The same idea is to be found in Fuller and in St. John. Bacon's advice comprehends the practice of every extensive and judicious reader. The field of literature is too large to admit of any other course. Such being the case, it is evident that a guiding mind is often very desirable to prevent waste of time. Especially to the young, whose taste, knowledge, and judgment, are immature, a guide is of great importance. Mental deterioration will ensue from trivial reading, and mental and moral corruption from prurient and bad reading. To avoid such results, some wise ones have prescribed courses of reading like that of Pycroft. But these are generally mechanical in their arrangement, whereas reading always should have respect to the taste and character of the reader as well as to the special object in view. A taste for reading must always be induced by an appeal to the appetite of the individual. What interests and attracts one does not another. Besides, circumstances largely control reading, both in regard to the time available and the books which may be within reach. It is only where there is access to a large and complete library that extended courses of reading can be carried out, even if time will admit of it. Yet large libraries are not always a benefit. They open the door to desultory reading, which is the bane of mental cultivation, unless indulged in merely for relaxation. A small, well-selected collection of books, strengthened by proper works of reference (especially a good modern cyclopaedia), read and reread, will afford greater results to the beneficiary than a large library indifferently read. We cannot read every thing if we would. This is what renders a great public library such a despairing place to the would-be omnivorous devourer of books. Therefore, method must be practised, and our reading must be conducted upon the principle laid down by Bacon, that we may cover the largest amount of pages, and secure the greatest knowledge of authors and books, to the utmost advantage, and with the least waste of time. Reading should be diverse. One who reads dry, systematic works all the time, will shape his mind and character in accordance; one who reads novels exclusively, will end in hardly having capacity to read any thing else, or even mind enough to form a sound opinion of a novel. Nature has her revenge for misuse of mind as well as for abuse of body.

The professional man should read mainly upon his profession, but not exclusively. He needs various culture and relaxation to ornament and preserve his powers. The general reader, who has a fair command of time, should select some one subject, and read upon that closely, and in other respects broadly, as circumstances may permit. Read not every author who comes in your way, nor usually all of any author, but the best parts of those you may elect to read. "Read not," as Bacon says, "to contradict and confute, nor to believe and take for granted." Read for information, for improvement, and for relaxation; to enlighten and adorn the mind, and elevate and refine the character. Read, as St. John says, "with discernment and choice; for he who does not will have neither time nor capacity to do any thing else. He will not be able to think, without which it is impertinent to read; nor to act, without which it is impertinent to think."—*Appletons' Journal*.

THE QUEEN has expressed her intention to give a prize of a thousand francs for the best fan sculptured or painted by a female artist under 25 years of age, at the International Exhibition of 1871. The competition will be international.

Gentleness in Woman.

Gentleness is the quality which prepossesses at first—the quality which insinuates itself into the vantage ground, and, by surprise, as it were, gains the best position. A display of skill and strength calls forth a parrying thrust, but gentleness disarms opposition and wins the day without a contest. But while we thus eulogize gentleness we do not intend to ignore elegance. A woman should be elegant, not alone in manner, but in mind; for as manner may be artificial it cannot be a sure criterion of mental grace, but mind is an essential of true beauty. We are disappointed in, and wearied of, the fairest form which possesses it not. It gives tint and proportion to, while it sheds a radiance on, every other charm. Yet its definition cannot be clearly given, any more than we can express its feeling.

To acquire such elegance taste must be cultivated; for taste is its source and its rule. It is a great mistake to suppose that fashion is a criterion of elegance. The modes of fashion being entirely conventional, are often as ungraceful as they are odd and whimsical. We may smile at the oddities of a past age, and term them tokens of the capriciousness of the times, but our own day has displayed to us caprices in woman's dress by no means less remarkable, and certainly not less mirth exciting: and fashion is not grotesque, alone in costume; she is equally so in manner; rendering it that which shall be a test of the "upper ten," a passport to exclusive circles, or a mode as universal as the style of a robe; but it will become wearisome through its monotony, and possessing no intrinsic recommendation, while it may obtain countenance for a season, yet must be cast off as an old-fashioned dress.

But breeding is something entirely different; with neither affectation nor restraint; it is unobtrusive and unpretending, always self-possessed and at ease, it knows its own place and its own relations; while its attentions are never troublesome, neither is its courtesy officious. Yet this quiet, lady-like deportment though it seems to imply very little effort, is by no means an easy or common attainment; for we often see women who have lived much in society very deficient in this criterion of grace; and there is more, than at first would seem to be implied in this remark which we have casually heard— "She is very pretty and very pleasing, but she wants repose."

Elegance is nature, but nature polished; while it copies natural grace, it corrects natural defects, it studies to suit as well as to simplify; and does not think that which is very pretty and playful in a girl of fourteen, equally becoming in a woman of thirty; nor does this elegance play the romp, nor affect that dashing manner which imparts such a strange unpleasant tone to womanhood, and least of all does it indulge in that raillery which is piquant only as it is personal, and amusing but in proportion to the annoyance it may cause. On the contrary it has a respect for the feelings and a tenderness even for the faults of others; it never wounds, and it never invites aggression. And this elegance invites feeling, and in this does it differ from the polish of the world. Selfishness is the bane of fashionable life. Every one is cold, for every one is selfish. In that elegant court over which the unfortunate Maria Antoinette presided, where polish lent its charm to every gesture, selfishness was the predominant principle; and in the hour of trial, self preservation the only aim. Nothing is more persuasive than feeling; it has a natural charm to which art can never attain. Elegance invests woman with a romantic charm, and more perhaps than any other attraction renders her an object of interest. To be careless of elegance is a sign of little anxiety to please, or little acquaintance with the emotions of the heart. Man is very accessible to the graceful and the beautiful; and however engrossed he may be by higher pursuits, will still seek in the society of woman relaxation and refreshment. It is her province to be the enlivener and sweetener of his leisure, as well as the sharer of his cares. It is a mistaken idea that religion combats elegance—instead it should give new motives for its cultivation. The religious woman ought to endeavor to increase her influence that she may turn it to the best account; and, in this view, she will not consider what is ornamental as unworthy her regard. She will cultivate it as a means of persuasion, and will study to be agreeable, were it only from a desire to recommend her principles.

Religion is itself full of grace. It is the refiner as well as the purifier of the heart. It imparts correctness of perception, delicacy of sentiment, and all those nicer shades of thought and feeling which constitute elegance of mind. For what reason then should piety and inelegance be associated? Why should religious persons be so often characterized by an absence of the graceful—so much so at times, that awkwardness and almost vulgarity are regarded by many as the usual concomitants of extraordinary seriousness?

Pious women should never give occasion to such a reproach. Ungracefulness does not make them the more devout; nor deficiency in taste cause them to become more heavenly-minded. On the contrary

they imbibe more deeply the spirit of their religion, when they carry its charm into the detail of life, when they are fascinating as well as good.—*Brooklyn Catholic.*

The Sister.

No household is complete without a sister. She gives the finish to the family. A sister's love, a sister's influence? what can be more hallowed? A sister's watchful care! can anything be more tender? A sister's kindness! does the world show us anything more pure? Who would live without a sister? A sister in fidelity, in purity, in love, is a sort of guardian angel in the home circle. Her presence condemns vice. She is the quickener of good resolutions, the sunshine in the pathway of home. To every brother she is a light and life. Her heart is his treasure-house of confidence. In her he finds a fast friend, a charitable, forgiving, tender, though often severe, friend. In her he finds a ready companion. Her sympathy is open as day and sweet as the fragrance of flowers. We pity the brother who has no sister, no sister's love. We feel sorry for the home which is not enlivened by a sister's presence. A sister's office is a noble and gentle one. It is hers to persuade to virtue, to wisdom's ways; gentle to lead where duty calls; to guard the citadel of home with sleepless vigilance of virtue; to gather graces and strew flowers around the home altar. To be a sister is to hold a sweet place in the heart of home. It is to minister in a holy office. Let every sister meditate on what she is, and what she ought to be; on her office, her duty, her pleasure, her life. It is hers to be a model, and set an example of innocence, virtue, cheerfulness, patience, and forbearance, to be the smile and light of home and its circle of loved ones.

True Politeness.

The terms lady and gentlewoman are often in our mouths, but the true meaning of them is but little understood.

In this privileged land, where we acknowledge no distinctions but what are founded on character or manners, she is a lady who, in inbred modesty and refinement, adds a scrupulous attention to the rights and feelings of others. Let her worldly possessions be great or small, let her occupations be what they may, such a one is a lady and a gentlewoman; whilst on the other hand, the person who is bold, coarse, vociferous and inattentive to the rights and feelings of others, let her possessions be ever so great, and her style of living and dress be ever so fashionable, will always be looked upon as a vulgar woman. Thus we may see a lady sewing for her livelihood, and a vulgar woman presiding over a most expensive establishment.

The charm which true politeness sheds over a person, though not easily described, is felt by all hearts, and responded to by the best feelings of nature. It is a talisman of great power to smooth our way along the rugged paths of life, and to turn towards us the best side of all we meet.

The Value of Science.

Many persons have been deterred from pursuing scientific studies on account of the cry of utilitarianism and the reproach that attends upon anything practical. There is something quite unworthy of the age in which we live, in any such notion, as the progress of society and the advance of civilization in modern times depend chiefly upon the application of the discoveries of scientific men. We never know what use may ultimately be made of a discovery. What appears to us at the time as a trivial and insignificant fact, may become one of the links in a great chain of practical application.

When Oersted observed the deflection of the needle produced by the galvanic current, he could not have anticipated that a telegraph would grow out of so slight a circumstance. Faraday's discovery of induction gave us the present form of the telegraph, and also electro-plating and electro-chemistry. The black powder in the alkali manufacturers' vats in Paris, to which the name of iodine was given, was of no consequence when first discovered, but now we know that the grand application of photography depends upon it.

A few years ago a German chemist announced the discovery of sugar in the beet. The account was received, like a vast number of other announcements, as a useless fact, and rather disgraceful to the man who wasted his time in such insignificant labors. Now we know that the beet sugar industry is one of the most important on the continent of Europe, involving millions of capital, and giving occupation to thousands of men.

The illustrious philosopher, Faraday, succeeded in condensing a number of gases. It was an interesting experiment, but certainly no one could have predicted that some day the question of furnishing

cheap food to large cities would depend upon the application of this discovery, but such appears likely to be the fact. The best refrigerating machines, and the most practical methods of producing artificial cold, are founded upon the condensation of gases, especially of ammonia, by means of which we shall be enabled to transport frozen meat to any distance.

But not only in the production of cold is Faraday's discovery available; we have in it the germ of a valuable motive power, that is capable of extensive application. Faraday discovered also benzol, and for many years no use could be devised for it; we now know that the whole aniline industry, with its magnificent array of colors, rests upon what appeared to be a useless discovery; and yet Faraday, who gave us our present form of telegraph, who enabled us to produce the richest colors, who put cheap food within our reach, and gave us a motive power available at all times, himself worked in poverty, and died a poor man.

Professor Tyndall has just aroused the attention of the world to the great question of haze and dust, and out of the agitation of this subject will eventually grow true methods of ventilation, the suppression of cholera and fevers, the proper care of the poor in tenement houses, and many improvements in the sanitary condition of mankind.

De la Rive, of Geneva, while experimenting in electricity, found that a bit of zinc would prevent the oxidation of iron, and he at once suggested its employment for this purpose. Out of this simple fact has grown the immense industry of galvanizing iron; but that is not all, for in the same battery De la Rive observed that the minute scratches on one of the cups was accurately copied on the copper deposited upon it. He mentioned the circumstance; Jacobi took it up, and we now have electro-plating and galvano-plasty carried to complete success.

Pasteur has been devoting years to the study of fermentation, and as a result of his experiments, we are taught to know the true causes of disease and decay, and to invent the proper remedy.

The workers in copper were found to be exempt from cholera, and on investigation it was found that they breathed considerable sulphurous acid, and it was at once seen that this gas, which prevents fermentation and destroys the cholera germs, was what afforded protection to the copper-smiths, and the same remedy was applied with success in cholera districts and in hospitals.

Sir Isaac Newton discovered the solar spectrum. It was an insignificant thing to throw a beam of light on to a screen through a hole in the shutter, and his neighbors thought he ought to have been better employed; but what a wealth of invention has grown out of this one fact. We now dissect our light, and apply each part as we want it. We can shut out the light and admit the heat. We can concentrate the chemical rays and take a picture. We can examine the spectrum and determine the composition of the sun, moon, and stars, and we shall, before long, separate the light and chemical rays from the heat, and shall store up the heat of the sun as our great motive power, after our coal and fuel have been exhausted. We cannot tell to what vast uses this discovery is destined to be applied.

Professor Schrotter, of Vienna, found that he could convert phosphorous into a red powder, which had many peculiar properties: It was not so poisonous to the workmen in the match factory; it did not ignite on friction, and could be easily transported from one place to another; it was not soluble in the same re-agents as the ordinary phosphorous; and it had powerful reducing properties. It was a trifling matter at first, but has since saved the lives of many a poor person in match factories, and served an important use in the extermination of vermin.

The catalogue of trifling discoveries is almost endless, and we have mentioned enough to show the importance of appreciating the labors of those whose whole life is devoted to the good of their fellow men.

In ancient times it was said, "The proper study of mankind is man," and acting upon that, the world stood still for centuries. The study of mankind led to metaphysical mysteries and superstitions, and it is only since science has dispelled these clouds and let in the light of observation, perception, and judgment, that man has begun to enjoy freedom from such thralldom as our early philosophers imposed upon him. One superstition after another passes away before the clear light of scientific inquiry, and it is not the man of science, but the metaphysician and inductive philosopher, who throw doubt and distrust and unbelief into our ranks. The value of scientific study is therefore two-fold; it gives us the comforts of civilized life, and overturns all doubt and superstition; it proves all things and holds fast that which is good."—*Scientific American.*

Mr. Charles Dickens, the eminent novelist, was seized with paralysis on the morning of the 9th inst., and died at his residence at Gad's-hill in the evening.

OFFICIAL NOTICES.



Ministry of Public Instruction.

APPOINTMENTS.

MEMBERS OF BOARDS OF EXAMINERS.

The Lieutenant-Governor was pleased, by an Order in Council dated the 30th of May last, to appoint the following gentlemen Members of the Boards of Examiners hereinafter mentioned:

Montreal (Protestant).—The Reverend Charles A. Doudiet, to replace A. N. Rennie, Esquire, deceased.

Richmond (Catholic).—The Reverend Louis-Aimé Masson, to replace the Reverend Trefflé Gouin.

SCHOOL COMMISSIONERS.

The Lieutenant-Governor was pleased, by an Order in Council dated the 30th of May last, to appoint the following gentlemen School Commissioners for the hereinafter mentioned Municipalities:

St. Alexandre, County of Iberville:—Mr. Louis Bombardier, to replace Mr. Pierre Dulude.

St. Jean de Matha, County of Joliette:—Mr. Joseph Charland, to replace Mr. Elzéar Geoffroi.

St. Giles, (No. 1) County of Lotbinière:—Messrs. Charles Têtu, Alexis Montminy, Augustin Demers, Charles Delâge, and Magloire Brochu.

St. Giles, (No. 2) County of Lotbinière:—Messrs. Jacques Parent, Pierre Boivin, François-Xavier Demers, Senior; Jean-Baptiste Caux and Flavien Croteau.

Township of Hincks, County of Ottawa:—Messrs. Louis Fournier, Pierre Barbier, Alexis Desloge, André Sabourin and Jean-Baptiste Pâquet.

DIPLOMAS GRANTED BY BOARDS OF EXAMINERS.

WATERLOO AND SWEETSBURG (CATHOLIC).

Session of May 3rd, 1870.

ELEMENTARY SCHOOL DIPLOMA, (E) 1st Class:—Mr. Joseph McAleer.
J. F. LEONARD,
Secretary.

QUEBEC (PROTESTANT).

Session of August 3rd, 1869.

ELEMENTARY SCHOOL DIPLOMA, (E), 2nd Class:—Misses Jane Borland, Mary Ann Dodds, and Harriet S. Watkins.

D. WILKIE,
Secretary.

Session of November 2nd, 1869.

2nd Class:—Miss Alice M. Rickaby.

D. WILKIE,
Secretary.

Session of May 3rd, 1870.

1st Class:—Mr. George Armatage.

2nd Class:—Misses Sarah Fraser and Rebecca McGillis.

D. WILKIE,
Secretary.

BEAUCE.

Session of May 3rd, 1870.

ELEMENTARY SCHOOL DIPLOMA, 2nd Class:—Misses Margaret O'Grady (E), and Sophie Mathieu (F).

J. T. P. PROULX,
Secretary.

GASPÉ.

Session of May 3rd, 1870.

ELEMENTARY SCHOOL DIPLOMA, 1st Class (E):—Miss Susan Rachel Dumaresq.

E. J. FLYNN,
Secretary.

Session (Special) of May 21st, 1870.

ELEMENTARY SCHOOL DIPLOMA, (E) 1st Class:—Edouard Noël.

E. J. FLYNN,
Secretary.

SHERBROOKE.

Session of May 3rd, 1870.

MODEL SCHOOL DIPLOMA, 1st Class (E):—Mr. Seth Leet.
2nd Class (E):—Albert B. Clampit.

ELEMENTARY SCHOOL DIPLOMA (E) 2nd Class:—Misses Mary E. Blake, Henrietta Blondin, Martha A. Clark, Elizabeth Donahue, Elizabeth A. Jenks, Sarah Olivier. (E. and F.)

2nd Class (E):—Misses Martha A. Caswell, and Anne M. Farnsworth.

S. A. HURD,
Secretary.

RICHMOND.

Session of May 3rd, 1870.

ELEMENTARY SCHOOL DIPLOMA, (E) 1st Class:—Miss Clara Brady.

2nd Class:—Misses Mary Brady (F), Marie Henriette Daigle, Mary Ann Dunn (E), Marie Georgina Leclerc, Marie Eliza McCraw, and Marie Rose Tondreau.

F. A. BRIEN,
Secretary.

KAMOURASKA.

Session of May 3rd, 1870.

ELEMENTARY SCHOOL DIPLOMA, (F) 1st Class:—Misses Dominine Blanchet, Ophidie Fraser, Justine Gagnon, Vitaline Gagnon, Palmyre Pelletier, Pélagie Rossignol, Emma Roy, and Année Terriault.

2nd Class (F):—Misses Aurélie Dumont, Clotilde Gagnon, Sarah Lavoie, Georgina Martin, Praxède Michaud, Henriette Moreau, and Justine Ouellet.

P. DUMAIS,
Secretary.

MONTREAL (CATHOLIC).

Session of May 3rd, 4th, and 5th, 1870.

MODEL SCHOOL DIPLOMA, (F) 1st Class:—Misses Marie Lafleur, Adeline Perrier, Marie Salva, Messrs. Désiré Treau De Cœli and Amédée Chauré.

ELEMENTARY SCHOOL DIPLOMA, (F) 1st Class:—Misses Octavie Angers, Victorine Archambault, Apolline Asselin, Hélène Bouchard, Adeline Boudrias, Emélie Caza, Henriette Champagne, Marie-Louise Chaput, Louise Chenevert, Mathilde Couturier, Mathilde Deslauriers Legault, (E and F) Rose de Lima Deziel, Octavie Doré, Emélie Doré, Hélène Dubois, Angéline Dubois, Joséphine Déragon, Déleska Durand Desmarchais, Eloise Durand, Mary Ann Fitzgerald, Adéline Francœur, Hélène Gagon, (E and F) Alphonsine Hamel, Corine Hétu, Elise Lacombe, Alphonsine Langelier, Salomé Lavoie, Adeline Laurent dit Lortie, Margaret Lavine, Elizabeth Leblanc, Emma Martin, Dalvina Louise Moreault, Emélie Morin, Philomène Perrault, Louise Sophie Pesant, Eugénie Poirier, Ada Proulx, Anastasie Poireau, Elise Rose, Malvina Routhier, Joséphine St. Germain Gauthier, Lucie Stebenne, Alzire Slavan, Virginie Thibodeau, (E and F) Fernanda Vallée, Arthémise Veronneau, Azeline Vigneault, Mrs. J. Pesant, née Charlotte Genand; Mrs. Salvaille, nee Edwidge Rajette; Mr. George Landry.

2nd Class:—Nathalie Chartier, Octavie Latendresse, Exilda Latour dit Forget, Margaret McDonnell, Arthémise Martel, Domitilde Primeau, Octavie Ouimet, Valérie Richard, Margaret Salen (E).

P. VALADE,
Secretary.

ATLHER.

Session of May 3rd, 1870.

ELEMENTARY SCHOOL DIPLOMA, (E) 1st Class:—Misses Bridget Burke, Eliza J. Hall, Martha Hall, Carrie Twedie, Maria Walsh, Messrs. A. D. Pratt and James Stenhouse.

J. L. WOODS,
Secretary.

MONTREAL (PROTESTANT).

Session of May 3rd, 1870.

ACADEMY DIPLOMA, (E) 1st Class:—Messrs. J. A. Clarke, Morgan Lané and Wm. H. Naylor.

2nd Class :—Miss Emma Kahler.

MODEL SCHOOL, DIPLOMA, 1st Class :—Mrs. Allan McDonald.

ELEMENTARY SCHOOL DIPLOMA, 1st Class :—Misses Valerie Clément, (F) ; Matilda C. Hamilton, Carrie S. Lunan, Margaret McNaughton, (E) ; Léa Rondeau, (F) ; Martha A. Sawyer, Emma Sicard, (F) ; Jennie Struthers, Mary Wallace, Mesdames Alex. J. Gardner and Duncan McKay ; Messrs. James Stuart, John Symons, and Philip Ransford Young.

2nd Class (E) :—Misses Mary Collings, Mary Connelly, Letitia Egan, Catherine Herbert, Maggie Scott, Catherine Stocks, and Ellen Wright, Messrs. Thomas Graham and David H. Sawyer.

F. A. GIBSON,
Secretary.

STANSTEAD.

Session of February 4th, 1870.

ELEMENTARY SCHOOL DIPLOMA, (E), 1st Class :—Messrs. James Robinson, William McGowan, Jr. ; Misses Elma G. Foss, Matilda C. Thomas, Julia Thomas, Mrs. Susan A. Norton.

2nd Class :—Messrs. Benjamin F. Kezar, Squire Wright Boynton, Lovey Bailey ; Misses Susan L. Jewell, Mary A. Clark, Ella A. Robinson.

C. A. RICHARDSON,
Secretary.

Session of May 3rd, 1870.

ELEMENTARY SCHOOL DIPLOMA, 1st Class :—Misses Emma Isabel Harden, Alice C. Curtis, and Lucy Jane Kimpton.

2nd Class :—Misses Emma S. Beebe, Ella R. Bachelder, Rebecca A. Knight, Mary M. Thwaites, Adah M. Knight, Florence Fletcher, Faustina McKee, Mary A. Cook, Mary Stevenson, and Ezoa E. Whitchee.

C. A. RICHARDSON,
Secretary.

RICHMOND (PROTESTANT).

Session of May 3rd, 1870.

ELEMENTARY SCHOOL DIPLOMA, (E) 1st Class :—Misses Isabella Campbell, Henrietta McLeod, Sarah M. Olney, Christianna Neill, Almira J. Clampet, Eliza Reed, Zelinda A. Cross, Melissa Millar, Euphemia Scott, Clara F. Doying, Susan Shanks, and Léa Vessot, (F).

2nd Class : (E)—Misses Maggie Jane Smith, Robina McDougall, Adeline Atkinson, Ada M. Hurst, Mary R. Sutherland, Ida E. Brown, Emily A. Sprouls, and Martha Duff.

C. J. CLEVELAND,
Secretary.

THE JOURNAL OF EDUCATION.

QUÉBEC, PROVINCE OF QUÉBEC, JUNE, 1870.

Ministry of Public Instruction.

REPORT OF THE APPORTIONMENT OF THE GRANT IN AID OF SUPERIOR EDUCATION FOR THE YEAR 1869, APPROVED BY THE LIEUTENANT GOVERNOR IN COUNCIL.

To His Excellency

The Lieutenant Governor in Council,

The undersigned has the honor to submit the following Report and subjoined Tables (1) showing the apportionment of the grant to Universities, Colleges, Academies and Model Schools for the year one thousand eight hundred and sixty nine.

The Sixteenth Chapter of the Statute passed in the thirty-second year of the reign of Her Majesty, provides that—"The total aid to Universities, Classical Colleges, Industrial Colleges, Academies and Model Schools. . . . shall in future be distributed between the totality of the Catholic and Protestant Institutions respectively, in the relative proportion of the respective Catholic and Protestant populations of the Province according to the last census" which gives for the former 942,724 and for the latter 160,163, making their respective shares of the grant,—Catholics \$60,689, Protestants, \$10,311.

As this scale of distribution, compared with that adopted previously to the passing of the aforesaid Statute, reduces the share of the Protestants by nearly a half, it does not appear fair to pay out of this diminished grant the sums hitherto allowed the High Schools of Montreal and Quebec for the education of a certain number of pupils nominated by the Government. Seeing, however, that the service

for which this payment was usually made had been rendered for 1869, it would seem unjust to withhold it.

The undersigned, therefore, recommends that one thousand one hundred and twenty-eight dollars be paid to the Montreal High School and one thousand two hundred and eighty-eight to the Quebec High School for 1869, and that these two sums be taken from the amounts voted for unforeseen expenses, the undersigned declaring that these cases are urgent, in view of the fulfilment of the engagement of the Government.

The undersigned further recommends that Catholic Institutions receive an equivalent proportioned to the funds at the disposal of the Government, but not to be, in amount, less than double that accorded to the High Schools ; the undersigned will, later, submit a report to this effect.

He proposes also to consult with the Council of Public Instruction, as to the advisability of abolishing these scholarships, or if not, of establishing a more general system of free scholarships open to Catholics as well as Protestants. The British and Canadian School of Montreal, which received a grant of \$624 for 1868 and the Protestant Model School, Panet Street, Montreal, are now placed under the control of the Protestant School Commissioners, who, owing to the provisions of the late law, have ample means at their disposal ; it is no more than fair to retrench these from the list of Superior Institutions.

The undersigned proposes to distribute the \$10,311 amongst the other Protestant Institutions on the same basis as the last grant, save \$271 which must be paid, without reduction, to the McGill University, for contingent expenses of the Royal Institution for learning.

It is only just that the other Model and Charity Schools of the city of Montreal, should be placed under control of the Protestant School Commissioners. At all events this is the last year they will receive aid from the Fund in aid of Superior Education.

Similar notice will be given to institutions of a like nature in Quebec, so soon as the new law—concerning the city school tax—shall become operative. This will somewhat augment the diminished grant to the other institutions.

From the foregoing it will appear evident that it is impossible to add any new Model School to the list of Protestant Institutions for this year at least.

By the provisions of the new law, Catholic Institutions receive some augmentation of their former grants. This increase gives an excellent opportunity of supplying a want long felt, namely, Schools of Science applied to the Arts, and the undersigned recommends that a sum of two thousand five hundred dollars be set apart for this object. Steps will also be taken to establish two such schools, in connection with Catholic Institutions at present existing in Montreal and Quebec. As this sum is part of the grant to which Catholic Institutions are entitled, and as the Statute requires that the payment of this grant be made each year to Protestants and Catholics in the ratio of their respective populations according to the last census,—the undersigned recommends that he be authorized to lodge it to the credit of the Ministry of Public Instruction, the interest accruing to be added to the principal.

The undersigned recommends that the balance be employed as follows :

1. To increase the annual grant to each classical College, by one hundred dollars and to each Industrial College, by fifty. As these institutions suffered most from the reduction of the grant each year to subsidize new institutions added to the list, it is but just that they should now receive this slight compensation.

2. Over and above this annual increase, the undermentioned institutions are to receive the sums standing opposite to their respective names, in consideration of their pecuniary position and great usefulness :

I.—CLASSICAL COLLEGES.

1. Three Rivers.....	\$ 100 00
2. Rimouski.....	72 00

II.—INDUSTRIAL COLLEGES.

1. Masson, Terrebonne.....	\$ 150 00
2. St. Laurent.....	150 00

III.—MALE ACADEMIES OR MIXED.

1. Catholic Commercial, Montreal.....	\$ 1500 00
2. Plessisville.....	50 00
3. Princeville.....	50 00
4. Montmagny.....	50 00
5. St Roch (South), Quebec.....	100 00
6. St. Columban de Sillery.....	100 00

IV.—FEMALE ACADEMIES.

1. Ste Geneviève, Co. of Jacques Cartier..	\$ 50 00
2. Ste. Cécile de Beauharnais.....	50 00

(1) See page 101.

V.—MODEL SCHOOLS.

1. St. Aimé.....	100 00
2. Education Society, Quebec.....	100 00
3. To give the following new institutions and Model Schools the sums standing opposite their respective names.	
1. Model Schools of the Catholic Commissioners of Montreal.....	\$ 1000 00
2. Deaf and Dumb Institute, Montreal....	200 00
Batiscan.....	\$ 56 00
Champlain.....	73 00
Grande Baie (Girls).....	56 00
Hébertville.....	100 00
La Maitrise St. Pierre, Montreal.....	100 00
Nouvelle.....	100 00
St. Apollinaire.....	73 00
Ste. Anne de Bellevue (Girls).....	73 00
St. Ambrose, Quebec.....	73 00
St. Félix de Valois.....	56 00
St. François du Lac.....	56 00
St. Grégoire le Grand.....	100 00
St. Gabriel de Brandon.....	56 00
Ste. Luce.....	56 00
St. Liguori (Convent).....	56 00
St. Norbert du Cap Chatte.....	73 00
St. Ours.....	73 00
St. Valier.....	73 00
Waterloo, Shefford.....	100 00
La Pesche.....	56 00
Total.....	\$2659 00

With regard to the increase recommended to be given to the Commercial Academy of the Catholic Commissioners of Montreal and the new grant accorded to them for their model schools, it may be well to remark that these gentlemen received, the first year of the increase of the city school tax, a sum in the ratio of their numbers, whereas by the new Act they receive only what arises from the assessment of Catholic property. Counting on the former basis of distribution they undertook several enterprizes involving a large outlay. These two grants will enable them to meet their engagements and complete the works already commenced; they will also tend to restore the equilibrium destroyed by that clause of the new law which gives a much larger sum per pupil to the Protestant School Commissioners than to the Catholic. Should the new law when it becomes operative in Quebec, place the Catholic Commissioners in a position similar to those of Montreal, this should be borne in mind in the next distribution of the Grant in aid of Superior Education.

The undersigned further recommends that the sum of \$618 hitherto paid to the Institution for the Deaf and Dumb, conducted by the Sisters of Providence, Montreal, out of this fund, be paid by special warrant out of the vote for unforeseen expenses, as in the case of the High Schools of Quebec and Montreal.

The undersigned recommends that the balance \$1403 be reserved for ulterior distribution, in order to make good any omissions, or correct any errors in the list as now given; and in case of no error or omission being discovered to add this to that already placed at interest to aid in founding Schools of Science applied to the Arts.

The undersigned further recommends that two warrants be issued in his favour, one for \$66,837, the amount of subjoined lists of the sums accorded to Catholic and Protestant Institutions, in virtue of the statute, 32 Victoria, Cap. 16, amending the Act of Consolidated Statutes for Lower Canada, inclusive of the \$2,500 for the founding of Schools of Science applied to the Arts, and the other for \$3,031 to defray the scholarships of the *High Schools* of Quebec and Montreal, and to meet the Grant of the Deaf and Dumb Institution of the House of Providence, Montreal, out of the vote for unforeseen expenses, the undersigned declaring that it is necessary to make these payments in order that the Government may keep their engagements.

The whole respectfully submitted.

P. J. O. CHAUCHEAU,
Minister of Public Instruction.

Floral Months of the Province of Quebec.

(JULY.)

At no other period is the earth clothed with so rich a covering as in July; every mountain, meadow, bog, and piece of water now teems with beautiful flowers, and his heart must be cold indeed that has

never warmed with love to the Creator amid such scenes of beauty and joy. When surrounded by such resplendent beauty, I can liken it to nothing except the trees laden with dangling jewels in the story of Aladdin.

The swamps are now glorious with Orchises of beautiful forms and lovely hues such as the Calopogons, Pogonias and Arethusas, the latter is very fragrant, and a little later the white fringed Orchis and the splendid purple fringed Orchis, the latter is generally in swampy grounds bordering the bogs.

The Flowering Raspberry which at first blush declares itself to be of the Rose family is now in full bloom, ours is red but there is a white variety that covers the shores of Lake Superior and has been introduced into Sillery by Col. Rhodes—the fruit is like a raspberry but of rather sickly taste.

The sticky Henbane growing one or two feet high, is now to be found in waste places: the flower somewhat resembles that of the Potato, the flowers are veined—the plant although poisonous yields a valuable medicine.

The Willow Herb (*Epilobium*) called in Canada the Fire Weed is a truly splendid plant growing from two to six feet high, branching out like a little tree and bearing splendid pink flowers; the seed pods are full of a cottony down which acts as sails to the seeds and enables the winds to bear them far away so that this flower has spread over the whole north temperate zone and encircles the earth as a girdle.

The poisonous Dogsbane with its milky juice and tough bark is now in full flower, and very pretty flowers it has with elegant pinkish white bell shaped corolla.

The Dalibarda repens gives variety to the wild flowers of the woods growing in the thick shade, it trails along the ground like the strawberry, &c., with its white flowers. The Partridgeberry (*Mitchella repens*) is of similar habits, the leaves are evergreen, small, thick, and shining; it has two pretty white flowers rising from one ovary, so that the two flowers make only one berry, the two eyes of which show where the two flowers were. As the leaf is pretty and as it always has either elegant white flowers or brilliant red berries, I should recommend it as a house plant allowing it to hang down the sides of the pot or basket.

The Succory, a blue composite flower, is now common by the road sides and elsewhere; this plant is perhaps more abundant in Canada than elsewhere, and possesses some economical value; the roots washed, roasted, and ground, are sold as a substitute for coffee; the young shoots in early spring, make a good salad especially when forced like sea-kale.

The Chimaphila, a plant of the sub-order *Pyrola* is now in flower in the woods; it is one of our most beautiful flowers and well deserving of being cultivated as well as imitated in wax-work.

Our yellow Lily (*Lilium Canadense*) is a fine tall lily that yields to no lily of the same color in beauty, it grows in rich wet meadows.

The Mullein with its soft blanket-like leaves is now very common on poor rocky or gravelly banks, growing from two to four feet high, bearing yellow flowers which are often filled with an inky fluid.

The Ghost Flower, Indian Pipe, or *Monotropa*, a white plant springing up from decayed leaves, is now very plentiful in the woods; it has no leaves but a single white bell-shaped flower or a white stem which has white bracts instead of green leaves; the flower turns an inky black soon after it is gathered.

In the spring the Habitants brings to market a vegetable called wild asparagus. In July it flowers abundantly. It grows about three feet high, exudes a milky juice when broken, and has a head of sweet scented flesh colored flowers: it is grown in English gardens for its perfume, and yet people say our flowers are not sweet scented. Upon collecting and examining it for the first time, I had cut off several flowers which lay strewn upon the table: to my surprise they marched off in different directions as if full of life; on looking to see the cause I found they had acted as fly traps and that each one was dragged by a fly endeavouring to escape,—it was a race of fly-chariots; the design of the Creator is beautifully apparent in this; as the pollen is too waxy to shed itself easily, the flies adhere to it and in their struggles to escape fertilize the flower; the plant bears a large pod full of silky down and the plant is called Silkweed, also milkweed (*Asclepias*).

The wild Chamomile with its daisy-like flower, the rays of which are reflexed, and the Greater Burnet with its large spikes of white flowers are now common everywhere.

And now is the time for the Teacher to escape from his confinement and rush for the woods and mountains, I would suggest the greatest health and enjoyment are generally had at least cost, a second class R. R. ticket, a sail in an empty schooner will for a few shillings take us into the midst of mountains, lakes, waterfalls, woods, &c., &c.

In many of our lakes (Lake Calvaire near Quebec) may now be found our Water Lily, with its large fleshy peltate leaves floating on the surface of the water and the flower itself in the full sunshine reposes on the surface in the majesty of a "stately River Queen." On the banks of the same lakes and in rich wet spots may also be found Gentians, Arrow head, Water Plantain, Pickerill Weed, and in the water the yellow Water Lily.

The Rudbeckia, or Rudbeck's Sunflower is now very common, in the latter end of this month and throughout August this flower with the verge d'Or or Solidagos (Golden Rod) and Clematis and Asters, all garden flowers in England form tangled thickets of beautiful flowers.

The Helenium or False Sunflower may now be found in wet places besides running water; the flowers are of a deep yellow about the size of an ox-eye daisy, it grows from one to two feet high.

The different Fleabanes are now in full bloom, they are purple, or white, composite flowers, the purple kinds are very pretty and generally admired.

The Sentillaria gives some splendid flowers and our wild Verbenas are deserving of attention.

The Lobelia inflata, a medicinal plant, is now in flower.

The Cardamina hirsuta grows in our cold waters and extends along the Rocky and Andes Mountains to the Southern Zones in the islands of which it affords an invaluable remedy against the sea scurvy.

University Intelligence.

The sixteen Scholarships and Exhibitions recently established in McGill College, or, as it would be more properly called, the University of Montreal, will, we believe, be of the highest value in raising the standard of education throughout the whole of this Dominion, in which, hitherto, unfortunately, there has been too little of such encouragement to study. Eight of these are open for competition in September next, to all, whether University students or not. The subjects of examination are as follows, according as entrance is sought into the first or second year:—

FIRST YEAR.

FOUR EXHIBITIONS.—Three of \$125, one of \$100.
Classics.—Greek.—Homer, Iliad, bk. VI.; Xenophon, Anabasis, bks. I and II.; Lucian Timon, Grammar and Prose Composition.
Latin.—Virgil, Æneid, bks. I and II.; Cicero, Orat. I. in Catilinam; Sallust, Conspiracy of Catiline; Cæsar, Gallic War, bks. I and II. Grammar and Prose Composition.
Text Books.—Hadley's Elements of Greek Grammar. Arnold's Prose Composition, Exercices 1 to 25. Dr. Wm. Smith's Smaller Latin Grammar, and Principia Latina,—Part IV.
Mathematics.—Euclid, bks. I. II. III. IV., Defs. of bk. V., bk. VI. Algebra to end of Harmonical Progression (Colenso). Arithmetic.
English.—English Grammar and Composition—(Bain's Grammar as far as Derivation.) Special exercises in Grammar and Composition.

SECOND YEAR.

Four Exhibitions of \$25 each.
Classics.—Greek—Homer, Iliad, bk. IX., and Odyssey, bk. XXII.; Arrian, bk. III.; Xenophon, Memorabilia. Grammar and Prose Composition.
Latin.—Virgil, Æneid, bk. VI.; Horace, Odes, bk. III.; Cicero, De Imperio Cn. Pompeii; Livy, bk. XXI. Grammar and Prose Composition. History of Greece to the end of the Peloponnesian War. History of Rome to the end of the Punic Wars.
Text Books.—Dr. Wm. Smith's History of Greece. Liddell's History of Rome. Hadley's Greek Grammar, Smith's Student's Latin Grammar. Arnold's Greek Prose Composition. Smith's Principia Latina, Parts IV. and V.
Mathematics.—The Mathematics (Ordinary and Honour) of First Year.
English Literature.—Bain's Grammar;—Latham's Hand Book Prosody;—Special exercises in Grammar and Composition.
Chemistry.—The Metallic Elements, as in Roscoe's Elementary Chemistry.
French.—Molière, l'Avare, les Femmes Savantes, Misanthrope, De Fivas:—Grammaire des Grammaires, (up to Syntax). Easy translation from English into French.
 The remaining eight are open to students only of McGill or other Universities.

Books and Current Exchanges Received.

From Messrs. Dawson Bros., Montreal: *An English Greek Lexicon*, by C. D. Yonge, edited by Henry Drisler, LL.D., Professor of Greek in Columbia College, Editor of "Liddell and Scott's" Greek English Lexicon, &c., &c.

A Comparative Grammar of the Anglo-Saxon Language, by Francis A. March.

Christianity and Greek Philosophy, or the relation between spontaneous and reflective thought in Greece and the positive teaching of Christ and His Apostles,—by B. F. Cocker, D. D., Professor of Moral and Mental Philosophy in the University of Michigan.

The History of Hortense, daughter of Josephine, Queen of Holland, Mother of Napoleon III,—by John S. C. Abbott, Author of "The French Revolution."

The above works are from the Press of Harper and Brothers, New-York.

We have to thank the Hon. Oramel Hosford, Superintendent of Public Instruction, Michigan, for a copy of the *Thirty-Third Annual Report of the Superintendent of Public Instruction of the State of Michigan* for the year 1869.

Annual Report of the Board of Education of the State of Connecticut, together with the Report of the Secretary of the Board for 1869.

A Catalogue of the Officers and Students of Tufts College, 1869-70.

The Canada Bookseller, a Quarterly Record of British American and Native Literature, published by Adam, Stevenson & Co., Toronto, Vol. 1. No. 2 for June, 1870.

Sabin and Sons' American Bibliopolist, April and May, 1870.

The California Teacher, June, 1870.

Good Health, a journal of Physical and Mental Culture, July, 1870.

Trübner's American and Oriental Record, May, 25 1870.

The Schoolmaster, a monthly journal of Educational Literature and News,—March, April and May 1870, Bloomington, Ill.

The Illinois Teacher, devoted to Education, Science, and Free Schools, June, 1870.

The Irish Teachers' Journal and Assistant, June, 1870.

The Nursery, a monthly Magazine for Youngest Readers, July, 1870.

The Young Crusader, June, 1870. We can heartily recommend this monthly.

Educational Gazette, May, 1870. This is the first No. to hand for several months.

Mount Auburn Index, Cincinnati, June, 1870.

Journal of Education, Province of Ontario, June, 1870.

Appletons' Journal, July 2nd, 1870.

The Cincinnati Medical Repertory, (May, 1870), Edited by J.A. Thacker, M. D.

Littell's Living Age, No. 1360.

Kansas Educational Journal, May, 1870.

The Western Educational Monthly, May, 1870.

The Rhode Island Schoolmaster, June, 1870.

The National Normal, June, 1870.

The Minnesota Teacher, June, 1870.

Ohio Educational Monthly, June, 1870.

The Massachusetts Teacher, May, 1870.

Leisure Hours, June, 1870. First No. we have seen for some months past.

The Technologist, especially devoted to engineering, manufacture and building, June, 1870.

The Manufacturer and Builder, June, 1870.

American Educational Monthly, July, 1870.

MISCELLANY.

Education.

— *Educational and Charitable Statistics of Rome.*—There are 22 ecclesiastical Colleges and Seminaries, in which the number of resident students is 841; in some of these, as in the Propaganda, and one or two others, or perhaps more (for on this particular point the Red Book does not furnish information, and I am not myself perfectly certain about the matter,) everything is supplied gratuitously to the students. The number of students in the Irish College was last year 61; in the Scotch 12; in the English (there are two English Colleges, one of which is called from its founder Pio Inglese,) 33; in the North American, 59; in the South American, 57; in the Propaganda, 122. Besides these there are several lay colleges and boarding schools scattered throughout the city. I have mentioned in a former letter that the education in the way of lectures, &c., at the University, the Propaganda, and the Roman College, was entirely gratuitous. The number attending at these valuable and learned lectures (given by some of the ablest Professors in the world) in theology, science, classics, &c., was last year 3,829, of whom 1,300 attended at the *Sapienza*, and 1,225 at the Roman

College. There are considerably over 100 schools under the care of the Christian Brothers and other religious confraternities for the imparting of elementary education to male children, and in them a gratuitous education is given to 6,341 pupils. Besides these there are private elementary male schools, where a small charge is made, and in these there are 1,567 children. Now, for female education. There are between 200 and 300 schools for females, under the charge, for the most part, of religious sisterhoods; in these schools gratuitous education is given to 9,444 girls, whilst 2,724 pay for their instruction and maintenance in the Convents or in private boarding schools in which they may be residing. It will thus be seen that the total number receiving gratuitous instruction in Rome in 1869 was 19,614, paying for their education (in most cases with their support) 4,291, making a grand total of the pupils at school in College, 23,905. From what I have already said, you will, of course understand that a considerable number of the gratuitously educated are also gratuitously maintained. Your readers amongst the Catholic clergy may take some interest in a return furnished in one of the columns. It is a return of the number of those out of the entire population sufficiently prepared and instructed to receive Holy Communion. It fixes the total number at 137,932, or more than one in every two of the gross population. The almost numberless institutes of charity are not separately specified, but an incidental statistic returns 875 men and 1,216 women as being entirely provided for in a couple of special establishments. I may add that the population of Rome has been steadily increasing every year since 1860, when it was 184,089, to 1869, when it reached, as already mentioned, 220,532."—*Correspondent Dublin Freeman.*

—*How Small Expenditure Count.*—Hear what the St. Louis Journal of Agriculture says on this head:

Five cents each morning—a mere trifle. Thirty-five cents per week—not much; yet it would buy coffee and sugar for a whole family; \$18.26 a year—and this amount invested in a saving-bank at the end of each year, and the interest thereon at six per cent, computed annually, would in twelve years amount to more than \$670—enough to buy a good farm in the West.

Five cents before breakfast, dinner, and supper; you'd hardly miss it, yet it is fifteen cents a day—\$1.05 per week. Enough to buy a small library of books. Invest this as before, and in twenty years you have over \$3000. Quite enough to buy a good house and lot.

Ten cents each morning—hardly worth a second thought; yet with it you can buy a paper of pins or a spool of thread. Seventy cents per week—it would buy several yards of muslin. \$36.50 in one year—deposit this amount as before, and you would have \$1340 in twenty years; quite a snug little fortune. Ten cents before each breakfast, dinner and supper—thirty cents a day. It would buy a book for the children. \$2.10 a week, enough to pay for a year's subscription to a good newspaper. \$109.59 per year—with it you could buy a good melodeon, on which your wife or daughter could produce good music, to pleasantly while the evening hours away. And this amount invested as before, would in forty years produce the desirable amount of \$15,000.

Boys, learn a lesson. If you would be a happy youth, lead a sober life, and be a wealthy and influential man—instead of squandering your extra change, invest in a library or a savings bank.

If you would be a miserable youth, lead a drunken life, abuse your children, grieve your wife, be a wretched and despicable being while you live, and finally go down to a dishonored grave—take your extra change and invest in a drinking saloon.

—*What to Teach your Children.*—Every observer of children must, I think, have noticed that much cruelty is committed by them from the merest thoughtlessness. It would be perhaps not easy to define very philosophically, or with anything like psychological accuracy, how it is that children so often act with cruelty to the world of life around them. The poor crushed fly, the wretched pelted kitten, the tortured cockchafer—all rise familiarly enough to our memories as instances of this unthinking wantonness, this early and miserable misuse of our mysteriously-given lordship over the creatures around us. These things, however, (account for them as we may), most certainly exist, and most certainly lead onward to cruelty more or less deliberate in after life. Wantonness in the child, if unchecked, is sure to deepen into cruelty, or, at any rate, indifference to it, in the youth and the man. If this be true, however, on the one hand, it is as certainly true on the other that few things can be taught more easily or learned more readily than tenderness and mercy to the animal world, if the teaching begin early enough and is conducted in the right way. Give a child a little insight into the habits and characteristics of some of the members of that varied though lowly domain of creation which is most immediately at the mercy of childish cruelty,

—bring out the conception of each poor fluttering or crawling thing being an individual, and having its own individual sufferings, and often showing its own pity-moving apprehensions,—and children, even at a very early age, will show in return an interested tenderness, and consistently maintain it as they grow up.—*Bishop of Gloucester and Bristol.*

—*Education of the Agriculturist.*—No man is so high as to be independent of the success of this great interest; no man is so low as not to be affected by its prosperity or decline. The cultivation of the earth is the most important labor of man. Man may be civilized, in some degree, without great progress in manufactures, and with little commerce with his distant neighbors, but without cultivation of the earth, he is, in all countries, a savage. Until he gives up the chase and fixes himself to some place and seeks a living from the earth, he is a roaming barbarian. When tillage begins, other arts follow. The farmers, therefore, are the founders of human civilization.

—Several members of the British Association recently waited upon the Lord President of the Council and Mr. Forster, to urge the appointment of a Royal Commission of Inquiry into the relations of the State to scientific instruction and investigation. Earl de Grey, while confessing that he was not convinced of the necessity for the issue of a Royal Commission, promised to consult his colleagues before arriving at a decision.

Literature.

—*Sir Francis Head, Bart., on "Literature."*—At a dinner given recently by the President and Council of Civil Engineers at Willis's Rooms; present the Lord Archbishop of York, the Secretaries of State for the Colonies and Home Department, the First Lord of the Admiralty, the Earl of Derby, Viscount Halifax, Mr. Baron Bramwell, Field-Marshal Sir John Burgoyne, General Sir Hope Grant, Dr. Tyndall, and about 200 other gentlemen; in reply to the toast "Literature," coupled with the name of the Rt. Hon. Sir Francis Head, Bart., our worthy townsman said:—Mr. President, my Lords and Gentlemen,—The word "Literature" as expounded to us by Johnson, means "skill in words," and as I well know that I am unskilled in words, it is with diffidence that I venture to submit to you a short comparison between "Literature" and "Civil Engineering."—The works of Literature, as we know, comprehend volumes in various languages, in verse as well as in prose, on subjects of all descriptions; and their growth is so continuous, that not only every spring, but every month of the year announces the birth of innumerable books, of which the best only, eventually form "The World's Library." Of the works of Civil Engineers, they themselves may justly and proudly ask, in plain English rather than in the words of Virgil, "What region in the world is not full of our labours?" and accordingly—by the construction of arterial roads, railways, and canals, by the electric telegraph, by submarine cables, and by other innumerable works above-ground and below—they have converted what may be called "the raw material" of the earth, as it existed in the days of its first tenant, Adam, into its present manufactured state. But gentlemen, the cost of these works has been proportionate to their magnitude, and I believe it would not be an exaggeration to state that whenever the works of Civil Engineers shall have been extended over the whole surface of the globe, the specifications of the materials required for their construction—if all linked together—would girdle its circumference; whereas the specifications of the whole of the materials required for the construction of all the works of literature, past, present, and future, can be enumerated by the four short words, "Pens, ink, paper, alphabet." Indeed it appears to me miraculous that by the manipulation or manœuvring of only 26 letters, literary labourers have successfully defended civil and religious liberty—have combated ignorance—conquered prejudices—and have, moreover, afforded instruction and amusement to the whole family of mankind. On the blessings of literature I need not dilate. It leads us in childhood—instructs us in youth—enobles us in manhood—it adorns prosperity—in adversity it demonstrates that:—

"When house and land are gone and spent
Then learning is most excellent"

and in our last hours, when the pillow can no longer give rest, and when stomach can no longer accept food, religious literature continues to illuminate and support, until by death or insensibility, the chamber of the human mind finally lapses into utter darkness. But literature, although it had been the giver, has also been the receiver of blessings, the most inestimable of which are, the penny and book posts, whose pedigree or genealogy, I submit, is logically as follows:—

Civil Engineers begat Locomotive Engines and iron Railways,—

Which begat Express, 1st Class, 2nd Class, 3rd Class, and Goods Trains,—

Which begat abundant space for the safe conveyance of letter bags and parcels,—

Which begat the Penny and Book Posts—(the former for social literature—the latter for general literature.)

As a Genoese Sailor "discovered" America, but did not create it, so did the London Post-office "find out," but did not invent the Penny and Book Posts, and yet the names of Christopher Columbus and of Rowland Hill will deservedly be immortal.

On behalf, therefore, of Literature, I congratulate the Institution of Civil Engineers on the invaluable postal services rendered by their twin legitimate children—who from the hour of their birth, have been nursed, educated, drilled and commanded, not by their own parents—"The child whom many fathers share, has seldom known a father's care"—but by the individual whose distinguished name it was my duty to mention.

—One of the last members of the literary circle which used to meet at Holland House, in the early part of the present century, has just passed away, in the person of the Rev. Charles Townsend, Rector of Kingston-by-the-Sea, near Brighton. He has died at the ripe age of 80 years, after suffering during the last three years from paralysis. He was a personal friend of Lord Byron, Samuel Rogers, and others of his contemporaries, and an especial favourite with the late Earl of Egremont, who conferred on him his little living, which, with its tiny church and parsonage, and still tinier population—for it was one of the smallest in Sussex—he never could be persuaded to exchange for wealthier preferment.

—*News.*—The word *news* is not as many imagine derived from the adjective *new*. In former times (between the years 1595 and 1730) it was a prevalent practice to put over the periodical publications of the day the initial letters of the compass, thus:—

N
E + W
S

importing that these papers contained intelligence from the four quarters of the globe; and from this practice is derived the term "newspaper."

—The late Lord Vernon's great work on the "Inferno" of Dante, in three volumes folio, has recently been completed. Copies of it are to be placed in the public libraries.

—*Oriental Literature.*—The Oriental Translation Committee nuss iybo the third and fourth volumes of Ibn Khallikan's Biographical Dictionary, by Baron de Slane; the third volume is actually at press; and the MS. of the fourth volume is very nearly completed. The Oriental Translation Fund, it may be of interest to learn, says *Allen's Indian Mail*, was established just forty years ago; it has enjoyed the patronage of George IV., of William IV., and of her present Majesty, and its successive presidents have been the Earl of Munster, Sir Gore Ouseley, the Earl of Clare, the Earl of Ellesmere, Professor Wilson, and Mr. Beriah Botfield. The published works of the society are more than seventy in all. The Sanscrit translations include those of the Sankhyr Karika, Rig Veda, and Vishnu Purana. Amongst those from the Arabic are found the travels of Ibn Batuta, and of the Patriarch Mecarius, Al-Makkari's "History of the Muhammadam Dynasties in Spain," and the extensive Lexicon of Hajji Khalifa. There are also on the list translations from the Persian, Syriac, Ethiopic, Armenian, Chinese, and Japanese languages.

—An old sergeant at Nieuport, Belgium, has contrived out of his modest pay, to collect a library of 8,000 volumes. He has announced his intention to leave it to his native town, above named.

—*Foolscap Paper.*—This term appears to have originated in England during the time of the Commonwealth. Charles I. having granted to certain parties the exclusive privilege of manufacturing paper, that commodity invariably bore, in water-marks, the royal arms. The rebel parliament made this circumstance a target for their jests, and ordered that the royal arms should be removed and their place supplied by the fool's cap and bells. This insulting change was reversed at the dissolution of the Long Parliament, but paper of the size then used for parliament journals still retains the name of foolscap.

—*Philosophy of Pythagoras.*—A prize of two hundred francs is offered by the French Academy for the best dissertation on the Philosophy of Pythagoras,—the dissertation to be sent in before the close of 1870. The plan of the Academy includes a critical examination of the traditions about the person and the doctrines of Pythagoras; a comparison of all the fragments left by his immediate disciples; a discussion of their authenticity, and remarks upon their resemblances and differences; research as to the influence of Pythagorism upon other systems of Greek philosophy, particularly on Platonism and Neoplatonism, to trace the Pythagorean traditions through the middle

ages and the period of the revival of Philosophy; and to separate truth from error in the Pythagorean philosophy, showing the influence which it has had both upon philosophy in general and upon science.

—*Curiosities of Literature.*—The first of a series of autographic facsimiles, by the photolithographic process, has just been issued. It contains Robert Burns's masterpiece, "Tam O'Shanter," and also his "Lament of Mary Queen o' Scots." They are reproduced with absolute and, in fact, inevitable fidelity, for the photographic part of the business is not more exact than the lithographic process which succeeds it, and the result is an exact and reliable facsimile, the size of the original MS., in ink of the same colour, and on paper as nearly like it as the improved manufacture of the present day will permit. Hosts of Scotchmen who pride themselves on being able to recite without a verbal error this wondrous "tale," will be pleased to see a reproduction only less interesting than the original itself. Burns wrote a fine, manly, clear hand.

—Mr. E. Little, the conductor of "Littell's Living Age" died on the 17th May, at his residence in Brooklyn, at the allotted age of 70. He was a resident of Boston for the last 25 years.

He was a man of broad views, generous sympathies and high cultivation, and his loss will be widely deplored. He leaves a widow and four children.

Science.

—*Experiments with Thermometers.*—Last year Dr. Carpenter, in the course of his dredging excursion in the North Sea, made observations of the temperature at the bottom of deep seas. But it occurred to him and others that the enormous pressure at the bottom of these deep seas must exert some influence on his thermometers, and prevent them from giving correct indications of the temperature. He has, therefore, made experiments with thermometers, the *Globe* reports, under pressure artificially produced, and has found, in fact, very large discrepancies in the results. Different thermometers, made very thick expressly for the experiments, showed variations of six, eight, and ten degrees at the same temperature under great pressure; and, on the whole, the doctor concludes that the temperature he has given for deep-sea bottoms must be received at about ten degrees too high! It is satisfactory to learn that Dr. Miller has devised a thermometer, the bulb of which is provided with an outer casing of glass, and the space between it and the bulb being partially filled with water, which will obviate the effects of pressure on the mercury bulb. These instruments will be employed during the next dredging excursion in the North Sea, for which a steamer has again been liberally provided by the Admiralty.

—*Magnetism.*—An American watchmaker has made a chance discovery that the balance wheel in nearly every watch is, if made of steel, converted into a magnet. By what process in the manufacture it has become one it might be difficult to say; but whether the wheel be indeed a magnet or not may be easily discovered by fixing it upon a small piece of cork, letting it float in still water, and seeing if it always turns in one direction. The fact of the magnetic character of the wheel will account for many perturbations in watches which have hitherto been inexplicable. A key, or the steel blade of a knife in the same pocket as the watch, will exert a disturbing influence. But even if there should be no piece of steel in the pocket, the magnet will necessarily tend towards the north, and so far interfere with the calculations of a watchmaker in a very delicate piece of mechanism.

—*The Age of Our Earth.*—Among the astounding discoveries of modern science, is that of immense periods that have passed in the gradual formation of the earth. So vast were the cycles of time preceding even the appearance of man on the surface of our globe, that our period seems as yesterday when compared with the epochs that have gone before it. Had we only the evidence of the deposit of rocks heaped upon each other in regular strata by the slow accumulation of materials, they alone would convince us of the long and slow maturing of God's works on earth; but when we add to these the successive populations of whose lives this world has been the theatre, and whose remains are hidden in the rocks into which the mud, or sand, or soil of whatever kind, on which they live; had hardened in the course of time—or the enormous chains of mountains whose upheaval divided these periods of accumulations by great convulsions—or changes of different nature in the configuration of our globe, as the sinking of lands beneath the ocean, or the gradual rising of continents and islands above—or the slow growth of coral reef on those wonderful sea-walks, raised by the ocean architects, whose own bodies furnish both the building stones and the cement that binds them together, and who have worked so busily during the long centuries that there are extensive countries, mountain chains, islands and long lines of coast, consisting solely of their remains—or the countless forests that have grown up, flourished and decayed, to fill the store-houses of coal

that feed the fires of the human race—if we consider all these records of the past, the intellect fails to grasp a chronology of which our experience furnishes no date, and time that lies behind us seems as much an eternity to our conception as the future that stretches indefinitely before us.

—*Mr. Rutherford's Star Photographs.*—By means of 11-inch objective this distinguished astronomer has obtained photographs of several groups of stars. One of these groups comprising 45 stars in the constellation of Pleiades, some of them of the 9th magnitude, was obtained after an exposure of three or four minutes.

By means of a very delicate micrometer, Mr. Rutherford has been able to measure the arc of the angle which separates the stars of this constellation. These results have been compared by Dr. Gould with those formerly obtained by Bessel, and confirm the remarkable accuracy of the latter's work.

By means of photography, Mr. Rutherford can obtain, in one night, results that cost the German astronomer the labour of ten years. Mr. Rutherford has also taken the photographs of the solar spectrum, shewing a large number of lines not mapped by other investigators. There was in this instance also a remarkable confirmation of the accuracy of Kirchoff's chart of the spectrum mapped from actual observation and experience.

—*Transit of Venus.*—The Chancellor of the North-German Confederation, in the absence of Herr Delbrück, has presented to the Federal Council the report of the Scientific Commission on the best means of observing the transit of Venus over the disc of the sun in 1874.

The very detailed report proposes to send two expeditions to different points of the northern, and two others to different localities of the southern hemisphere, for the purpose of taking heliometrical measurements of the distances between the central points of Venus and the sun during the transit, more especially at the time of the principal phase.

—*The Lavas of Vesuvius.*—It is a remarkable fact, says the *Engineer*, that the lavas of Vesuvius contain a greater variety of minerals than, perhaps, any others in the world. Häuy mentions that out of 380 simple minerals known to him, no less than eighty-two have been found on Vesuvius; and of these several are peculiar to the locality. Sir Charles Lyell expresses the opinion that these have not been thrown up in fragments from some older foundation, through which the gaseous explosions have burst, but have been supplied in the crevices of lava, "just as several new earthy and metallic compounds are known to have been produced by *fumeroles* since the eruption of 1822."

—*Influence of the Moon.*—Mr. R. H. Patterson, in one of the magazines, says that Professor Palmieri, who has so closely studied the phenomena of Vesuvius, declares that there is a perceptible relation between the phases of the moon and the developments of volcanic action. Any one who has lived in the South, or even sailed in the Mediterranean, may have noticed how carefully sleepers in the open air guard their head and face against the rays of the moon, to avert ophthalmia or other ills. In India meat exposed to the moon-rays immediately putrefies. The moon's influence produces tides and currents in the atmosphere just as it does in the ocean. Some of these facts indicate a lunar action more subtle than science can yet account for.

—*Utility of Coal-ash in Agriculture.*—A correspondent of the *Paris Journal of Agriculture*, seeing the amount of ashes thrown away annually, and considering that Sir Humphrey Davy and other chemists have found by analysis that ashes contain many substances which contribute to vegetable life, such as sulphate of potash and lime, various compounds of acids and minerals, carbonate of lime, alumina and silica, has made some interesting experiments. In the autumn he filled three flower-pots with coal-ashes, without any admixture with any other substance: in the one pot he sowed wheat, in the other oats, and in the third strawberry seeds. The pots were then placed in a garden bed, and left to themselves. In the month of March the plants were in a very thriving condition, and in April were luxuriant. The wheat and oats ripened perfectly, the grains being large and heavy, and the straw, in the case of the wheat, 55in., and that of the oats 43in. high. The strawberry plants continued to flourish until October, when it was necessary to transplant them; and after being planted out on the open ground they succeeded so well that the writer says they surpassed all other seedlings. The experiment is an interesting one.

—*Climatic Changes Produced by Trees.*—The British Medical Journal says the ground on which stands Ismailia a town of 6,000

inhabitants, was a few years since but a dry, sandy desert, on which rain was never known to fall. All is now transformed. The old dried up basin of Lake Timsah has been again filled with water from the Nile by a fresh water canal. Trees, shrubs and plants of all descriptions grow rapidly wherever the soil is irrigated, and the artificial oases widen fast. Accompanying this extraordinary transformation of the aspect of the place, there has been a corresponding change in the climate. At the present time Ismailia, during eight months in the year, is probably the healthiest spot in Northern Egypt. The mean temperature from June to September is 63 F., the four following months ninety-four, and the four winter months forty-five. Until two years ago rain was unknown, but in April last there were actually fourteen days on which rain fell, and lately there fell a tremendous shower—a phenomenon the oldest Arab had never previously witnessed. Rain ceases to fall on a country deprived of its forests, or only falls in violent storms. Here we see rain returning to the desert on restoring the trees.

—*The Drink of Plants.*—The use of manure-water is a matter of profound importance, and every point connected therewith should be canvassed freely and without prejudice. Long and careful observation has convinced us (*Gardener's Magazine*) that the customary directions of the books are false in principle and injurious in practice. It is customary to say, "Give a strong dose at such a time, then pure water only, then another strong dose; and so on and so on. It is quite true that some of our favourites endure such treatment without visible injury, but we feel persuaded that the results would be far more satisfactory were the plants needing extra nourishment supplied with manure-water constantly instead of with strong doses at intervals. A little calm consideration of the manner in which plants take up and assimilate their food must surely tend to the conclusion that strong doses of liquid manure approximate very nearly to strong doses of poison; at all events, accidents resulting from such practice are by no means uncommon, and there are probably many more accidents of the kind than are heard of beyond the gardens in which they occur. We have never seen more satisfactory growth than in cases where the only water obtainable was constantly charged with manure; yet the liquid was so far from being what we call "strong" that there was no indication to the senses of the peculiar properties of the fluid. Manure may be given in this weak state to almost any and every plant in cultivation with safety and benefit, and the constant use of such a fluid has a far more satisfactory effect in the end than the adoption of a stronger solution for a season only. We must not be understood as advocating what are sarcastically termed "homœopathic" doses; infinitesimal quantities need not be thought of. We simply urge that liquid manure may be so weak that seedling plants and newly-potted plants may be watered with it safely, yet so far strong enough that by its constant use the plants subjected to its influence will attain in the end a far higher degree of perfection than can be insured by the orthodox or any other method of artificial stimulus.

—*Age of Animals.*—The hare, rabbit, and squirrel, if they escape the gun of the sportsman, seldom outlive the seventh year. The average age of the fox is from twelve to fifteen years, of the cat about fifteen, and of the wolf from fifteen to twenty years. The horse, in a domestic state, does not often live longer than from twenty to twenty-five years, and the ass ranges to about the same period. Old age prostrated Copenhagen, the famous steed of the Duke of Wellington, at twenty-seven years. But the wild horse is supposed to attain a much greater age; and the extraordinary case is on record of even the domestic animal attaining sixty-two years. Pigs have been known to live through thirty years, but the average term is much less. The roebuck, the least of the deer kind known to our climate, seldom exceeds fifteen years. But great longevity is popularly assigned to the stag or red-deer, and naturalists are agreed that his term may go beyond forty years, perhaps to half a century. The camel arrives at maturity in five years, lives to forty or fifty years, and occasionally becomes a centenarian. The dog is not so lively as of old in his sixth or seventh year, and has evidently passed the bounds of his youth. Grey hairs are here and there upon him at the close of his eighth year, chiefly around his eyes and at the corners of his mouth. Such appearances become more conspicuous to the eleventh or twelfth year, when actual decrepitude usually commences, and increases so rapidly, that by the fourteenth year the animal is a burden to himself, and a nuisance to others. But dogs have lingered to twenty years. The average age of sheep does not much exceed ten years; to that period they will usually live, breed, and thrive tolerably well. But there are instances of a much more protracted age. Cows have an average age of about fifteen years. Rings on the horns tell the number of their days. At four years old a ring is formed at their roots, and every succeeding year another is added. It is well for certain members of the human race losing their bloom, who are somewhat sensitive upon the question of age, that there are no definite appearances added

with annual precision to their cheeks, revealing to the eye what they keep from the ear. The bear rarely exceeds twenty years; the rhinoceros has been known to live through that period; and perhaps the lion, though commonly reputed a long-lived animal, does not usually go much beyond it. There are, however, instances of lions reaching to threescore years and ten.—*Leisure Hour*.

—The *Journal of Applied Chemistry* says a constant use of the various advertised hair washes, invigorators, restorers, &c., produce effects which inevitably, sooner or later, produce ill-health, and often great bodily suffering. Lead in some form is one of the ingredients of all these mixtures. By the continued application of these washes to the skin or scalp an absorption of lead takes place, and its poisonous effects manifest themselves under the various forms of lead poisoning.

Attention has been called to the adulteration of beer as a presumed cause of *delirium tremens*, of furious intoxication, and of insanity. The *Lancet* says there can be no doubt that the beer supplied to public houses of the lower class is "doctored" to a extent that makes it simply a narcotic poison. We have been assured by a brewer, holding many small public houses, that any good and wholesome beer sent to them would be at once returned upon his hands. The consumers like to feel muddled by what they drink, and to procure this luxury at a small outlay.

—*The Hair*.—Is it possible for the hair to turn white, in the course of a single night? asks the *Globe*. Such a change is asserted to have taken place in several cases which the readers of history will call to mind. But science has always thrown a doubt over the truth of the statement. Recently, however, one of the most eminent physiologists of the day has expressed his belief that such a change is possible. M. Brown-Séguard has made observations on his own beard. In 1862, in his usual health, he noticed a few white hairs in his beard, and plucked them out, wishing to see whether others would come. He had not long to wait. In a few days he observed several more, and by continued observation made out that the change of colour began near the roots, and always took place, as far as he could observe, during the night. It took from two to five days for a hair to whiten throughout its entire length; but the author expresses his belief that it is possible for black hairs to change to white in less than a night: so historians need no longer hesitate to affirm that such a change did really happen in the case of Mary Queen of Scots.

Art.

—*The Fine Arts in France in the Fourteenth Century*.—During the fourteenth century the artist was yet only the artisan; the architect a master mason, the musician a minstrel, the painter and sculptor were of the rank of the modern house decorator. Under John, and afterwards among the dukes of Burgundy, if the artist did not enjoy the prestige of the poet or the historian, he was received by his royal or ducal master on an intimate and friendly footing. The architect, as already mentioned, was the *sergent d'armes*, the painter the *valet de chambre*. Peter, the miniature painter to the Duke of Orleans, was also his doorkeeper (*huissier*), or crier, when he was administering justice. Sometimes he would be sent from Blois to Tours for some things wanting to the accouchement of Madame the Duchess; sometimes from Blois to Romorantin to inquire after the health of Madame d'Angouleme, who was reported ill. Girat d'Orleans and Colart de Laon, already mentioned, distinguished themselves as adroit chamber councillors. Jean Van Eyck was often intrusted with confidential missions by the dukes of Burgundy. The fourteenth century in France may be considered as a stationary epoch. She had signalled herself in the two former centuries by the noble architectural works raised on her soil, and it was only a little before the beginning of the fourteenth, when architectural art, if not on the decline, had become stationary, that she began to send her men of skill to show to other nations of Europe the perfection to which her children had brought the Gothic style. At Kaschau, in Hungary, about 1261, Villart de Honcourt raised the church of St. Elizabeth, copied from two French churches. Between 1263 and 1276 an architect summoned from France raised a collegiate church at Wimpfen, near Heidelberg. In 1287 Pierre de Bonneuil left Paris with ten comrades to erect the cathedral of Upsal, in Sweden. Different churches of Bohemia owed their erection to Frenchmen. The cathedral of Prague was commenced in 1343 by Matthias d'Aras, a French architect, and finished in 1386 by Peter of Boulogne, another French architect. Gothic buildings were raised in Spain, French architects were engaged even in Italy. They traced the plan of the dome in Milan, and one of them, Philip Bonaventure, superintended the construction. The French Hardouin commenced Saint Petrona's church at Bologna. Gothic architecture raised by French hands ruled everywhere. At Naples, and even at Famagosta, in Cyprus, French artists asserted their national taste. They were as determined missionaries of architec-

tural art in the thirteenth and fourteenth centuries throughout Europe as the Irish had been of Gospel truths in the previous ones.—*The Dublin University Magazine*.

Political Economy.

—*Great Britain as a Money Lender*.—The *New-York Evening Post* says:

"The *Economist* of March 12th, prints the following table, compiled by the *Money Market Review*, of the foreign stocks which are dealt in at the London Stock Exchange:

Stock.	Amount.	Stock.	Amount.
	£		£
United States.....	422,968,000	Italy.....	37,583,824
Confederate States.		Mexico.....	27,471,450
(Cotton bonds)..	2,418,800	Montevideo.....	941,500
Argentine Republic..	5,459,000	Morocco.....	439,200
Austria.....	15,000,000	N. Granada.....	7,002,000
Brazil.....	13,519,400	Peru.....	7,512,450
Chili.....	4,929,320	Portugal.....	47,333,000
Colombia.....	127,000	Russia.....	83,592,500
Cuba.....	1,588,000	Sardinia.....	3,008,880
Denmark.....	4,198,090	S. Domingo.....	178,000
Danubian Principali-		Spain.....	97,000,000
ties.....	2,054,730	Sweden.....	3,097,600
Holland.....	54,428,642	Turkey.....	68,950,736
Ecuador.....	1,824,000	Venezuela.....	5,691,000
Greece.....	7,077,625	Egypt.....	27,211,000
Guatemala.....	578,500		
Honduras.....	1,000,000	Total.....	954,784,657

"The same journal quotes from the work of Fenn on the Funds the statement that during the two years ending with March, 1869, securities were created in London alone, by negotiating loans and issuing shares for foreign nations and for corporations, to the amount of £120,000,000 sterling, and adds:

"This is no exaggerated estimate, when we remember how many foreign and colonial bonds, railway debentures and miscellaneous shares have been placed before the public. The previous aggregate of debt and investment in all nations estimated by the same authority at about 5,500 millions, so that the total is raised to 5,620 millions sterling."

"The stocks named in the table above are all regularly called in the London Stock Exchange, and all but three pay their interest in London. The debt of this country is included, because it is 'very largely held here, and because investments are increasing in it at the rate of many millions per annum.' But besides these, there are public colonial debts, amounting to nearly 81,000,000 of pounds sterling, belonging to the same class.

"Now, of this whole mass of 1,035,525,793 pounds sterling—a 'scarcely conceivable amount'—the great bulk, as these high authorities believe, is now actually held and owned in England. 'As to the foreign debts, we suspect,' says the *Economist*, 'it would be too liberal to deduct £400,000,000, on account of other holdings than our own.' But at the very lowest, the British loans of this kind cannot be estimated at less than £570,000,000, on which the interest is almost always six or seven per cent., that journal concludes that Britain 'receives an annual tribute in shape of interest upon its foreign and colonial investments of not less than £28,500,000, and we believe that this is considerably under the actual amount.'

"Thus one single nation, with a much smaller population and fewer natural resources than our own, has saved and invested in loans, enough to secure it an annual income of \$140,000,000. Of the amount of the good which these loans have done, in bringing new lands into cultivation, enlarging trade and repairing the waste of wars in other lands, no estimate can be made, but it is immense. The result to great Britain, however, is plain enough—more abundant and cheaper living for her people, lighter taxation, and a more rapid growth in wealth and intelligence. It does not require a very lively imagination to trace to this cause the great change now going on in British politics in the direction of freedom and equal rights.

"However, this may be, it is at least evident enough that this use of a nation's earnings is a much better one than firing it away in gunpowder. This country expended directly not less than four thousand millions of dollars in the war between the Union and rebel conspirators; a sum which, invested in active improvements in the country, would have been worth to it at least twice the rate of profits that Great Britain receives for her loans; and at ten per cent, would have added at least £400,000,000 per annum to the wealth of the land. Yet, under the circumstances, we have invested our money better; for who can doubt that the Union thus saved, was worth far more than it cost.

Meteorology.

—From the Records of the Montreal Observatory, for May, 1870,—
By CHAS. SMALLWOOD, M.D., LL.D., D.C.L.

DAY.	Barometer corrected at 32°			Temperature of the Air.			Direction of Wind.			Miles in 24 hours.
	7 a.m.	2 p.m.	9 p.m.	7 a.m.	2 p.m.	9 p.m.	7 a.m.	2 p.m.	9 p.m.	
1	29.814	29.989	30.101	47.9	70.0	48.1	W	W	W	77.11
2	30.229	30.117	.079	47.2	72.6	54.1	W	W	W	66.54
3	.001	29.904	29.611	51.6	82.4	65.5	W	W	W	104.12
4	29.551	.774	.887	62.2	62.1	48.1	W	N	N	57.29
5	30.000	.886	.861	42.0	73.1	51.2	N	NE	NE	84.11
6	29.001	.642	.573	46.3	65.1	59.9	N by W	E	E	194.10
7	.460	.500	.551	42.0	69.2	51.7	E	NE	NE	91.00
8	.649	.671	.700	40.1	79.7	49.1	SW	SW	SW	87.10
9	.725	.800	.869	51.2	52.2	42.1	NE	NE	NE	211.66
10	.900	.904	.912	41.9	46.8	39.7	NE	NE	NE	197.24
11	.924	.891	.849	43.1	48.2	46.2	NE	NE	NE	204.11
12	.701	.700	.749	41.1	44.3	43.7	NE	E	W	97.27
13	.778	.817	.861	44.9	62.4	52.7	W	E	SW	86.74
14	.900	.847	.751	48.0	70.4	53.1	N by E	W	W	90.00
15	.849	.849	.850	57.3	81.2	61.1	W	WSW	WSW	211.29
16	.912	.929	30.001	51.9	52.1	50.0	NE	NE	NE	204.11
17	30.079	30.082	.087	45.3	75.2	54.1	NE	NE	NE	297.47
18	.150	.098	29.998	50.3	79.1	62.2	NE	NE	SW	104.12
19	.061	.002	.949	57.9	80.1	70.0	SW	SW	SW	69.12
20	.125	.131	30.134	58.9	71.2	62.2	SW	N by W	N by W	74.00
21	.211	.121	.100	49.7	47.7	42.0	N by W	NE	NE	64.29
22	.213	.204	.112	44.4	71.6	55.1	N by E	NE	W	84.12
23	.087	29.957	29.911	52.2	63.0	59.0	W	W	W	109.28
24	29.661	.674	.698	50.9	49.3	47.1	E	NE	NE	177.12
25	25.712	.760	.900	47.0	64.1	53.0	NE	WSW	WSW	89.20
26	30.001	30.059	30.097	48.9	70.2	86.1	W	SW	W	94.21
27	.151	.079	.000	50.2	79.9	60.3	W	NE	NE	71.11
28	29.967	29.899	29.849	56.3	84.2	54.1	NE	NE	NE	69.97
29	.910	.924	.946	59.7	88.2	73.0	NE	WSW	WSW	57.12
30	30.064	30.100	30.151	63.2	88.6	75.7	WSW	WSW	WSW	89.71
31	.257	.201	.100	65.6	89.3	69.1	SW	SW	SW	74.70

Remarks.—The highest reading of the Barometer was on the 31st, and indicated 30.257 inches; the lowest reading was on the 7th, and was 29.460 inches, giving a monthly range of 0.797 inches. The highest temperature was on the 31st, and was 89° 3 degrees; the lowest was on the 10th, and was 39° 7 degrees. Rain fell on seven days, amounting to 2.141 inches. The mean temperature for the month was 60° 74 degrees, which is 3° 34 degrees higher than the isotherm for Montreal for the month of May, deduced from observations during a long series of years.

— Meteorological Observations taken at Quebec, during the month of May, 1870; by Sergt. John Thurling, A. H. C., Quebec.

Barometer, highest reading on the 31st.....	30.100 inches.
" lowest " " 7th.....	29.290
" range of pressure.....	0.810
" mean for month (reduced to 32°).....	29.652
Thermometer, highest reading on the 30th in shade....	93.3 degrees.
" lowest " " 5th.....	32.6
" range in month.....	60.7
" mean of highest.....	65.2
" mean of lowest.....	42.4
" mean daily range.....	22.8
" mean for month.....	53.8
" highest reading in sun's rays.....	125.5
" lowest temperature on the grass.....	29.0
Hygrometer, mean of dry bulb.....	56.6
" " wet bulb.....	47.6
" " dew point.....	39.2
" elastic force of vapour.....	.239
" vapour in a cubic foot of air.....	2.7 grains.
" " required to saturate do.....	2.3
" mean degree of humidity (Sat. 100).....	52
" average weight of a cubic foot of air.....	532.6
Cloud, mean amount of, (0-10).....	5.1
Ozone, " " (0-10).....	4.0
Wind, mean direction of " North.....	6.00 days.
" " " " East.....	10.75
" " " " South.....	5.50
" " " " West.....	7.25
" " " " Calm.....	1.50
" " " " force by estimation 0-12.....	2.5
" " " " daily horizontal movement.....	135.8 miles.
Rain fell on.....	11 days.
Amount collected.....	1.94 inches.

ADVERTISEMENTS.

WANTS.

The Principal of an Academy in the Eastern Townships being about to relinquish his present position desires to form a new engagement. Address, A. B., Teacher, Office of Journal of Education, Québec.

A man of long experience in teaching English and French is open for an engagement on the 1st prox. His daughter also wishes an English School. Address,—William Kennedy, North Lancaster, County of Glengarry, Ontario.

A School in the Counties of Gaspé or Bonaventure, is wanted by an English Teacher, holding a *first class* Elementary School Diploma. Address—(stating salary) "Teacher," Shigawake P. O., County of Bonaventure, Q.

Wanted a male Teacher (Catholic preferred) competent to instruct in English and French; Salary £60 per annum, half cash, half country produce;—School to open on the 1st July next. Address William Gray, Sec'y Treas., Shoolbred, Co. Bonaventure, Q.

IMPORTANT TO TEACHERS.

JUST PUBLISHED:

THE DRAMATIC READER;

A selection of pieces for practice in ELOCUTION; with introductory hints on Reading,—

BY JOHN ANDREW,

Instructor in Elocution at McGill College and Normal School, Montreal

PRICE 75 CENTS.

This Selection, has been made with special reference to the practical acquirement of the Art of Elocution. The pieces are mostly new and unbackneyed, and are mainly extracted from the best English Dramatists, as being likely to interest and amuse pupils, while the attention and precision required in reading Dramatic Compositions cause them to be best adapted for practice.

DAWSON BROTHERS,
Great St. James Street, Montreal.

TO THE WORKING CLASS.—We are now prepared to furnish all classes with constant employment at home, the whole of the time or for the spare moments. Business new, light and profitable. Persons of either sex easily earn from 50c. to \$5 per evening, and a proportional sum by devoting their whole time to the business. Boys and girls earn nearly as much as men. That all who see this notice may send their address, and test the business, we make this unparalleled offer: To such as are not well satisfied, we will send \$1 to pay the trouble of writing. Full particulars, a valuable sample which will do to commence work on, and a copy of *The People's Literary Companion*—one of the largest and best family newspapers published—all sent free by mail. Reader, if you want permanent profitable work, address

E. C. ALLEN & CO., AUGUSTA, MAINE.

THE JOURNAL OF EDUCATION,

FOR THE PROVINCE OF QUEBEC.

The Journal of Education,—published under the direction of the Hon. the Minister of Public Instruction and edited by H. H. MILLS, Esq., LL.D., D.C.L. and P. DELANEY, Esq., of that Department,—offers an advantageous medium for advertising on matters appertaining exclusively to Education or the Arts and Sciences.

TERMS.—Subscription per annum \$1.00; Public School Teachers half price; School-Boards &c., free.

Advertising.—One insertion, 8 lines or less \$1.00, over 8 lines, 10 cents per line; Standing advertisements at reduced charges, according to circumstances, but not less than \$10 per annum.

Public School Teachers advertising for situations, free. School-Boards &c., free.

All communications relating to the *Journal* to be addressed to the Editors.

— Progress of British Merchant Shipping. — A British journal says :

"A parliamentary paper has just been published showing in a variety of tables the progress of the British shipping trade since the year 1838. The returns relate to a great many interesting questions in comparative statistics, but we need only pick out for the present one or two of the less known facts. One of these is the enormous preponderance of the British steam fleet, the evidence of which has never before been put before the whole world in the same way. In the year 1868 the British Empire possessed no less than 977,292 tons of sea-going steamers, against 135,259 tons belonging to France, 22,194 to Holland, and 36,856 to Hamburg.

The total for the United States is not given but it was 198,115 tons in 1867, and the trade is known to have been since at a standstill. England has more than twice the tonnage in steamers of the States named put together. The rapidity of the increase in England is equally remarkable. In 1850 the tonnage we possessed was 187,631; in 1860 it was nearly treble that figure, viz., 500,144 tons; and in 1868 it was 977,292 tons—almost double the figure of 1860. There is also ample evidence in the figures that the progress made during late years in the maritime commerce of the world is mainly English. Making a comparison with France, it appears that while the tonnage employed in France in 1858 was 12,784,336 tons, and in the United Kingdom 50,316,553, the comparison in 1867 was—France, 14,928,622 tons, and England, 65,037,056 tons. Our rate of progress has thus been much greater, although the magnitude of our trade even ten years ago was so much over that of France. Of the 65,037,056 tons no less than 56,593,816 tons, or four-fifths were English, while of the 14,928,622 tons engaged in the French trade only about two-thirds are French. From another statement again, it appears that French shipping has hardly increased at all during these ten years; and that while 69 per cent., of the shipping employed in 1858 in the direct trade between England and France was English, and 28 per cent. French, 3 per cent. being under foreign flags, the proportions in 1867 were,

English.....	82 per cent.
French.....	16 "
Other flags.....	2 "

The Board of Trade has thus made out its point as to the preponderance of British Shipping. The transformation cannot have taken place without causes which are well worth inquiring into, Shipping at any rate is not one of the trades in which there is any suspicion that we have not been holding our own against the foreigners.

OFFICIAL DOCUMENTS.

TABLE of the Apportionment of the Grant in Aid of Superior Education to Catholic Institutions for the year 1869, in Virtue of the Act 18th Vict., Cap. 54.

LIST No. 1.—CLASSICAL COLLEGES.

INSTITUTION.	Number of Pupils.	Annual Grant for 1868.	Annual Grant for 1869.
Nicolet.....	238	1588 00	1688 00
St. Hyacinthe.....	241	1588 00	1688 00
Ste. Thérèse.....	154	1272 00	1372 00
Ste. Anne Lapocatière.....	219	1588 00	1688 00
L'Assomption.....	166	1272 00	1372 00
Ste. Marie, Montreal.....	314	1272 00	1372 00
Trois-Rivières.....	121	1000 00	1200 00
Ste. Marie de Monnoir.....	185	650 00	750 00
Rimouski.....	100	1200 00	1372 00
Total.....		\$12502 00	

LIST No. 2.—INDUSTRIAL COLLEGES.

INSTITUTION.	Number of Pupils.	Annual Grant for 1868.	Annual Grant for 1869.
Joliette.....	158	781 00	831 00
Laval.....	130	313 00	363 00
Longueuil.....	220	317 00	367 00
Masson, Terrebonne.....	234	1000 00	1200 00
Notre Dame de Lévis.....	144	781 00	831 00
Rigaud.....	122	781 00	831 00
Sherbrooke.....	60	234 00	284 00
St. Laurent.....	290	462 00	662 00
St. Michel, Bellechasse.....	113	591 00	641 00
Varennes.....	61	234 00	284 00
Verchères.....	106	313 00	363 00
Ste. Marie, Beauce.....	110	313 00	363 00
Schools of Science applied to the Arts.....			2500 00
Total.....			\$9520 00

LIST No. 3.—MALE ACADEMIES OR MIXED.

INSTITUTION.	Number of Pupils.	Annual Grant for 1868.	Annual Grant for 1869.
Aylmer.....	54	210 00	210 00
Baie du Febvre.....	98	140 00	140 00
Baie St. Paul.....	90	155 00	155 00
Beauharnais.....	216	210 00	210 00
Belœil.....	89	312 00	312 00
Berthier.....	175	312 00	312 00
Bonin, St. André d'Argenteuil.....	92	210 00	210 00
Buckingham.....	248	140 00	140 00
Chambly.....	125	164 00	164 00
St. Columban de Sillery.....	165	140 00	240 00
St. Cyprien.....	136	140 00	140 00
Dufresne, St. Thomas Montmagny.....	55	190 00	240 00
St. Eustache.....	122	210 00	210 00
Farnham.....	238	185 00	185 00
Gentilly.....	70	140 00	140 00
Girouard.....	120	142 00	142 00
St. Grégoire.....	135	140 00	140 00
L'Islet.....	132	210 00	210 00
St. Jean.....	150	450 00	450 00
St. Jean, Montmorency.....	107	140 00	140 00
Kamouraska.....	94	310 00	310 00
Laprairie.....	160	185 00	185 00
Lotbinière.....	16	124 00	124 00
Ste. Marthe.....	105	140 00	140 00
Montmagny, St. Thomas.....	205	232 00	232 00
Montreal Commercial Academy.....	224	284 00	1784 00
Pointe-aux-Trembles, Hochelaga.....	60	277 00	277 00
Quebec Comm. and Lit. Acad., St. Roch.....	88	140 00	140 00
Roxton.....	88	122 00	122 00
Sorel.....	413	364 00	364 00
St. Timothée.....	140	204 00	204 00
Vaudreuil.....	77	140 00	140 00
Yamachiche.....	90	210 00	210 00
Princeville.....	34	250 00	300 00
Total.....			\$8622 00

LIST No. 4.—FEMALE ACADEMIES.

INSTITUTION.	Number of Pupils.	Annual Grant for 1868.	Annual Grant for 1869.
St. Aimé.....	60	106 00	106 00
St. Ambroise de Kildare.....	60	89 00	89 00
Ste. Anne Lapérade.....	168	126 00	126 00
L'Assomption.....	209	126 00	126 00
Baie St. Paul.....	141	106 00	106 00
Bélœil.....	108	89 00	89 00
Berthier.....	118	96 00	96 00
Boucherville.....	115	89 00	89 00
Chambly.....	128	141 00	141 00
St. Charles l'Industrie.....	334	187 00	187 00
Châteauguay.....	120	89 00	89 00
Les Cèdres.....	54	89 00	89 00
St. Césaire.....	187	119 00	119 00
St. Clément.....	222	141 00	141 00
Ste. Croix.....	85	141 00	141 00
St. Cyprien.....	172	89 00	89 00
St. Denis.....	130	89 00	89 00
Ste. Elizabeth.....	136	187 00	187 00
St. Eustache.....	128	94 00	94 00
Ste. Famille.....	60	179 00	179 00
Ste. Geneviève, Jacques Cartier.....	115	89 00	139 00
St. Grégoire.....	243	212 00	212 00
St. Henri de Mascouche.....	106	89 00	89 00
St. Hilaire.....	80	89 00	89 00
St. Hyacinthe, (Sisters of Charity).....	159	126 00	126 00
St. Hyacinthe, (Sisters of the Presentation).....	250	126 00	126 00
L'Islet.....	70	126 00	126 00
Ile Verte.....	110	124 00	124 00
St. Jacques de l'Achigan.....	187	187 00	187 00
St. Jean Dorchester.....	450	212 00	212 00
St. Hugues.....	84	280 00	280 00
St. Joseph, Lévis.....	310	280 00	280 00
Cacouna.....	96	157 00	157 00
Kamouraska.....	114	141 00	141 00
Laprairie.....	197	89 00	89 00
St. Laurent, (Jacques Cartier).....	188	187 00	187 00
St. Lin.....	148	89 00	89 00
Longueuil.....	341	280 00	280 00
Longue Pointe.....	70	141 00	141 00
Lachine.....	280	194 00	194 00
Notre-Dame de la Victoire.....	250	111 00	111 00
Ste. Marie, (Beauce).....	140	157 00	157 00
Ste. Marie de Monnoir.....	134	141 00	141 00
St. Martin.....	96	89 00	89 00
St. Michel.....	134	212 00	212 00
Deaf Mutes, (Sisters of Providence).....	125	618 00	200 00
St. Denis Academy, (Congregation Nuns).....	207	174 00	174 00
St. Nicolas.....	68	89 00	89 00
St. Paul, Industrie.....	70	89 00	89 00
Pointe Claire.....	85	89 00	89 00
Pointe-aux-Trembles, (Hochelaga).....	100	187 00	187 00
" " " (Portneuf).....	81	187 00	187 00
Rimouski.....	167	212 00	212 00
Rivière Ouelle.....	85	162 00	162 00
Ste. Scholastique.....	154	97 00	97 00
Sherbrooke.....	261	280 00	280 00
Sorel.....	430	323 00	323 00
Terrebonne.....	136	89 00	89 00
Ste. Thérèse.....	133	89 00	89 00
St. Timothée.....	91	125 00	125 00
St. Thomas de Pierreville.....	87	141 00	141 00
St. Thomas de Montmagny.....	212	212 00	212 00
Trois Pistoles.....	100	124 00	124 00
Trois-Rivières.....	286	212 00	212 00
Vaudreuil.....	92	89 00	89 00
Varenes.....	72	157 00	157 00
Yamachiche.....	134	141 00	141 00
Youville.....	95	141 00	141 00
Total.....			\$9959 00

LIST No. 5.—MODEL SCHOOLS.

INSTITUTION.	Number of Pupils.	Annual Grant for 1868.	Annual Grant for 1869.
Education Society, (Quebec).....	539	873 00	973 00
" " (Trois-Rivières).....	361	471 00	471 00
Lorette (Indians Boys).....	300	162 50	162 50
" " (Girls).....	300	162 50	162 50
" de St. François.....	30	156 00	156 00
St. Jacques, Montreal.....	260	780 00	780 00
Catholic Commissioners of Québec.....	313	313 00	313 00
Acton Vale, (Convent).....	200	73 00	73 00
Arthabaskaville.....	105	56 00	56 00
Aylmer, (Convent).....	48	150 00	150 00
Ste. Anne des Monts.....	41	73 00	73 00
Ange Gardien.....	48	73 00	73 00
Bagotville.....	95	56 00	56 00
Beaumont.....	72	73 00	73 00
Beauport.....	145	73 00	73 00
Berthier, Montmagny.....	110	73 00	73 00
Becancour.....	92	56 00	56 00
Boucherville.....	120	73 00	73 00
Baie du Febvre.....	182	73 00	73 00
Cap St. Ignace.....	86	73 00	73 00
Cap Rouge.....	123	56 00	56 00
Carleton.....	59	103 00	103 00
Châteauguay.....	74	73 00	73 00
Chateau-Richer, (Boys).....	84	73 00	73 00
" (Girls).....	75	51 00	51 00
Chicoutimi.....	92	130 00	130 00
Côte des Neiges.....	75	73 50	73 00
Côteau du Lac, (Boys).....	74	73 00	73 00
" (Girls).....	78	56 00	56 00
Côteau St. Louis.....	222	73 00	73 00
Chicoutimi, (Convent).....	81	150 00	150 00
Carleton, (Convent).....	57	150 00	150 00
Deschambault, (Boys).....	66	140 00	140 00
" (Girls).....	86	73 00	73 00
Eboulements.....	62	73 00	73 00
Ecureuils.....	125	56 00	56 00
Escoumains.....	52	73 00	73 00
Etchemin, Village.....	217	100 00	100 00
Grande Baie.....	25	73 00	73 00
Grande Rivière.....	92	73 00	73 00
Grondines.....	64	56 00	56 00
Henriville.....	72	56 00	56 00
" (Convent).....	147	56 00	56 00
Huntingdon.....	70	73 00	73 00
Iberville.....	130	73 00	73 00
Iberville, (Girls).....	120	56 00	56 00
Lacadie.....	115	73 00	73 00
Lacolle.....	109	73 00	73 00
Lachine.....	228	73 00	73 00
Lotbinière.....	25	73 00	73 00
" (Convent).....	85	73 00	73 00
Maria.....	41	73 00	73 00
Malbaie.....	50	73 00	73 00
Matane.....	88	56 00	56 00
Girl's School, Visitation Street.....	1304	73 00	73 00
St. Patrick's School, Point St. Charles.....	112	73 00	73 00
Ecoles Mod. des Commissaires d'Ec. de Montréal.....	200	73 00	1000 00
Nicolet, (Girls).....	114	56 00	56 00
Notre-Dame de Bonsecours, (Convent).....	136	100 00	100 00
Notre-Dame de Hull.....	357	73 00	73 00
Notre-Dame du Portage.....	54	56 00	56 00
Percé.....	45	56 00	56 00
Pointe Claire.....	59	140 00	140 00
Pointe-aux-Trembles, Portneuf.....	74	73 00	73 00
Pointe du Lac.....	192	73 00	73 00
Portneuf, (Boys).....	108	56 00	56 00
" (Girls).....	65	56 00	56 00
Quebec, St. Roch, South.....	356	73 00	173 00
Quebec, St. Roch, South, (Convent).....	557	73 00	73 00
" St. John's Suburb.....	75	73 00	73 00
Rawdon, Dissentients.....	30	73 00	73 00
" (Convent).....	38	73 00	73 00
Amount forward.....			\$9002 00

LIST No. 5—MODEL SCHOOLS.—(Continued.)

INSTITUTION.	Number of Pupils	Annual Grant for 1868.	Annual Grant for 1869.
Amount forward.....			\$9002 00
Rigaud—Female Academy.....	106	73 00	73 00
Rivière Ouelle.....	72	73 00	73 00
Rivière des Prairies.....	30	56 00	56 00
Rivière du Loup, Maskinongé.....	68	73 00	73 00
Rivière du Loup, Témiscouata (Boys).....		73 00	73 00
Sault aux Récollets.....	59	73 00	73 00
Sherrington.....	129	89 00	89 00
Somerset de Plessisville.....	28	140 00	190 00
Stanfold.....	36	56 00	56 00
Soulanges.....	32	73 00	73 00
St. Aimé.....	140	73 00	173 00
St. Alexandre, Kamouraska.....	54	73 00	73 00
St. Anicet.....	109	56 00	56 00
St. André, Kamouraska.....	44	73 00	73 00
St. Anne Lapérade.....	108	73 00	73 00
St. Anne des Plaines.....	116	73 00	73 00
St. Anne No. 2, Kamouraska.....	110	73 00	73 00
St. Anselme (Convent).....	90	73 00	73 00
St. Antoine de Tilly.....	32	73 00	73 00
St. Brigide, Iberville.....	67	56 00	56 00
St. Calixte de Somerset (Convent).....	178	73 00	73 00
St. Cécile.....	184	73 00	73 00
St. Césaire.....	133	73 00	73 00
St. Charles, Bellechasse (Boys).....	54	73 00	73 00
(Girls).....	62	73 00	73 00
" de St. Hyacinthe.....	112	73 00	73 00
St. Claire.....	85	73 00	72 00
St. Constant.....	123	106 00	106 00
St. Denis, Kamouraska.....	108	73 00	73 00
St. Denis No. 1, St. Hyacinthe.....	78	73 00	73 00
St. David.....	110	100 00	100 00
St. Dunstan.....	43	73 00	73 00
St. Edouard, Napierville.....	138	73 00	73 00
St. Elizabeth.....	78	73 00	73 00
St. Famille.....	50	73 00	73 00
St. Foye.....	93	73 00	73 00
St. François du Lac.....	125	73 00	73 00
St. Frédéric, Drummond.....	71	73 00	73 00
St. Ferdinand d'Halifax.....	41	56 00	56 00
St. Geneviève, Batiscan.....	64	73 00	73 00
St. Geneviève, Jacques-Cartier.....	80	56 00	56 00
St. George, Cacouna.....	53	56 00	56 00
St. Gertrude.....	32	73 00	73 00
St. Gervais (Convent).....	60	73 00	73 00
(Boys).....	49	73 00	73 00
St. Henri de Mascouche.....	51	73 00	73 00
d'Hochelega.....		73 00	73 00
de Lauzon.....	86	73 00	73 00
St. Hormas.....	95	73 00	73 00
St. Hilaire.....	68	73 00	73 00
St. Hubert.....	66	56 00	56 00
St. Hélène, Kamouraska.....	75	56 00	56 00
St. Irénée.....	56	73 00	73 00
St. Isidore.....	100	73 00	73 00
St. Jacques de l'Achigan.....	93	73 00	73 00
St. Jacques le Mineur.....	128	106 00	106 00
St. Jean-Baptiste (Village).....	230	73 00	73 00
St. Jean Chrysostome, Châteauguay.....	206	56 00	56 00
Lévis.....	54	56 00	56 00
St. Henri, Hoch'lega (Convent).....	395	56 00	56 00
St. Jean Deschailions.....	65	73 00	73 00
St. Jean Port Joly, (Boys).....	37	73 00	73 00
(Girls).....	35	73 00	73 00
St. Jérôme (Convent).....	147	73 00	73 00
(Boys).....	125	56 00	56 00
St. Joachim, Deux-Montagnes.....	87	73 00	73 00
St. Joseph, Chicoutimi.....	78	56 00	56 00
St. Joseph, Lévis.....	65	73 00	73 00
St. Julie, Somerset.....	50	56 00	56 00
St. Lambert.....	80	97 00	97 00
Amount forward.....			\$14207 00

LIST No. 5—MODEL SCHOOLS.—(Continued.)

INSTITUTION.	Number of Pupils	Annual Grant for 1868.	Annual Grant for 1869.
Amount forward.....			14207 00
St. Laurent, Montmorency.....	90	73 00	73 00
St. Léon.....	82	56 00	56 00
St. Lin.....	133	73 00	73 00
St. Louis de Gonzague.....	119	56 00	56 00
St. Martin.....	140	73 00	73 00
St. Martine (Boys).....	115	56 00	56 00
(Girls).....	120	56 00	56 00
St. Michel-Archange (Boys).....	83	56 00	56 00
(Girls).....	122	73 00	73 00
St. Monique.....	104	73 00	73 00
St. Maurice.....	67	56 00	56 00
St. Narcisse.....	65	73 00	73 00
St. Nicolas, Lévis.....	36	73 00	73 00
St. Norbert, Arthabaska.....	70	56 00	56 00
St. Paschal.....	108	73 00	73 00
St. Philomène.....	70	73 00	73 00
St. Philippe.....	65	73 00	73 00
St. Pierre les Becquets.....	71	56 00	56 00
St. Placide.....	86	73 00	73 00
St. Polycarpe.....	80	73 00	73 00
(Convent).....	140	73 00	73 00
St. Roch d'Achigan.....	92	73 00	73 00
St. Romuald de Lévis.....	118	73 00	73 00
St. Rose.....	113	73 00	73 00
St. Raphael.....	88	56 00	56 00
St. Sévère.....	74	73 00	73 00
St. Scholastique.....	92	73 00	73 00
St. Stanislas, Champlain.....	135	73 00	73 00
Beauharnais.....			
St. Sulpice.....	94	56 00	56 00
Trois-Pistoles.....	70	73 00	73 00
St. Ursule.....	56	56 00	56 00
St. Valentin.....	95	56 00	56 00
St. Vincent de Paul (Convent).....	140	73 00	73 00
(Boys).....	65	100 00	56 00
St. Alexandre, Iberville (Convent).....	133	56 00	56 00
St. Angélique, Papineauville.....	90	56 00	56 00
St. Croix.....	52	56 00	56 00
St. Cécile (Convent).....	232	56 00	106 00
St. Etienne.....	66	56 00	56 00
Iberville.....	56	56 00	56 00
St. Gabriel de Brandon (Convent).....	26	56 00	56 00
St. Louis de Gonzague (Convent).....	108	56 00	56 00
St. Zotique.....	100	56 00	56 00
Rivière-du-Loup, Témiscouata (Convent).....	107	200 00	73 00
Victoriaville.....	137	56 00	56 00
St. Alexandre, Iberville.....	69	73 00	73 00
Batiscan.....	83		56 00
Champlain.....	111		73 00
Grande Baie (Girls).....	45		56 00
Hébertville.....	87		100 00
La Maitrise St. Pierre, Montreal.....	102		100 00
Nouvelle.....	58		100 00
St. Apollinaire.....	67		73 00
St. Anne, Bellevue (mixed).....	150		73 00
St. Ambroise, Quebec.....	63		73 00
St. Félix de Valois.....	57		56 00
St. François du Lac.....	110		56 00
St. Grégoire le Grand.....	70		100 00
St. Gabriel de Brandon.....	82		56 00
St. Luce.....	90		56 00
St. Liguori.....	96		56 00
St. Norbert du Cap Chatte.....	47		73 00
St. Ours.....	96		73 00
St. Vallier.....	68		73 00
Waterloo, Shefford.....	145		100 00
La Pesche.....			56 00
Total.....			\$18683 00

RECAPITULATION.

Classical Colleges.....	12,502
Industrial ".....	9,520
Academies for Boys or Mixed.....	8,622
" for Girls.....	9,959
Model Schools.....	18,683
Total.....	59,286

TABLE of the Apportionment of the Grant in Aid of Superior Education to Protestant Institutions for 1869, in Virtue of the Act 18th Vict. Cap. 54.

LIST No. 1.—UNIVERSITIES.

INSTITUTION.	Number of Students.	Annual Grant for 1868.	Annual Grant for 1869.
McGill College.....	259	2221 00	1369 49
" Contingencies.....			271 00
Bishop's College.....	78	1588 00	979 18
Total.....			\$2619 67

LIST No. 2.—CLASSICAL COLLEGES.

INSTITUTION.	Number of Students.	Annual Grant for 1868.	Annual Grant for 1869.
St. Francis, Richmond.....	107	953 00	587 66
Morrin.....	22	600 00	369 98
Total.....			\$957 64

LIST No. 3.—INDUSTRIAL COLLEGES.

INSTITUTION.	Number of Students.	Annual Grant for 1868.	Annual Grant for 1869.
Lachute.....	142	300 00	184 99

LIST No. 4.—MALE ACADEMIES OR MIXED.

INSTITUTION.	Number of Pupils.	Annual Grant for 1868.	Annual Grant for 1869.
Aylmer.....	40	210 00	129 52
St. Andrew's, Argenteuil.....	106	93 00	57 37
Barnston.....	58	140 00	86 35
Bedford.....	128	148 00	90 06
Casseville.....	33	140 00	86 35
Charleston.....	91	282 00	173 92
Clarenceville.....	65	277 00	170 82
Clarendon.....	40	140 00	86 35
Coaticook.....	30	123 00	75 91
Compton.....	60	140 00	86 35
Cookshire.....	31	140 00	86 35
Danville.....	154	210 00	129 52
Dudswell.....	58	140 00	86 35
Dunham.....	114	277 00	170 82
Eaton.....	81	74 00	45 66
Farnham.....	65	210 00	129 51
Ste. Foye.....	49	140 00	86 35
Frelighsburg.....	38	185 00	114 07
Georgeville.....	38	143 00	88 14
Granby.....	144	277 00	170 83
Huntingdon.....	135	310 00	191 18
St. Jean.....	104	333 00	205 39
Knowlton.....	57	277 00	170 83
Missisquoi.....	22	214 00	131 98
Philipsburg.....	35	143 00	88 14
Shefford.....	135	321 00	197 96
Sorel.....	80	124 00	76 49
Stanbridge.....	84	216 00	133 22
Stanstead.....	147	496 00	305 86
Sutton.....	81	175 00	107 13
Sherbrooke.....	84	307 00	189 33
Cowansville.....	85	141 00	86 95
Total.....			\$4035 06

LIST No. 5.—MODEL SCHOOLS.

INSTITUTION.	No. of Pupils.	Annual Grant for 1868.	Annual Grant for 1869.
St. Andrew's School, Quebec.....	65	314 00	193 63
Colonial School Society, Sherbrooke.....	91	157 00	96 86
British & Canadian School Society, Quebec.....	203	684 00	421 78
National School, Quebec.....	156	347 00	213 99
Pointe St. Charles, Montreal.....	220	231 00	142 47
Amer. Presbyterian Sch. Society, Montreal.....	125	313 00	193 02
Colonial Church & Sch. Society, Montreal.....	1100	624 00	384 80
Infant School, Lower Town, Quebec.....	54	156 00	96 23
" " Upper Town, ".....	80	156 00	96 23
Berthier, (Diss.).....	26	56 00	34 57
Bury.....	64	73 00	45 05
Côteau Landing.....	77	56 00	34 57
Durham.....	94	100 00	61 76
Lacolle, (Diss.).....	116	73 00	45 05
Lachine, (Diss.).....	84	73 00	45 05
Leeds.....	79	73 00	45 05
Magog.....	70	73 00	45 05
Melbourne, (Girls).....	74	73 00	45 05
German School, Montreal.....	68	56 00	34 57
St. Matthew's School, Pt. St. Ch., Montreal.....	64	56 00	34 57
Protestant School, St. Ann Street, ".....	165	73 00	45 05
Rawdon.....	40	73 00	45 05
St. Henri, Hochelaga.....	85	73 00	45 05
Chambly.....	40	56 00	34 57
Three Rivers.....	80	56 00	34 57
Total.....			\$2153 64