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And also there, of fresh green moss,
Upon the esplanade
Brodered with flowers small and grass,
A table-cloth was laid.

Soon in the trees the birds did build
The cunning little nest;
While in the foliage were concealed
Musicians of the best.
And when, from their delightful song
The birds, fatigued, abstain,
Young Spring-born frogs, with lungs quite strong,
The symphony maintain.

Now when the joyous, smiling May
Saw all prepared well,
He to the Sexton sent straightway,
To ring the dinner bell:
The cuckoo cried! and far and near
'Twas echoed o'er the earth;
In every corner to declare
Of gentle Spring the birth.

BOSCAWEN.

LITERATURE.

POETRY.

SIR SPRING.

FROM THE GERMAN.

Sir Spring came o'er the land supine,
The genial, princely fellow,
With golden locks, soft, curling, fine,
With eyes both bright and mellow,
His good steed was a butterfly,
On which he proudly sat;
Before him, as a page, did lie
A bright fruff, in state.

And, as he came within a wood,
He found it sad and drear;
The leafless trees all shivering stood,
Their branches dry and sere.
When he this wood examined well
He said: "Here will I house!"
And added, viewing hill and dale
"And here will I carouse!"

May-zephyrs now did fan the air—
The veil of clouds dispersed;
The vernal sun shone bright and clear,
Its beams the wood traversed.
May-breezes blew adown the vale,
The hidden springs all swelling;
And followed the first sunbeam's trail
A rustling and a welling.

And in the torpid faded trees
There was a busy stirring;
They budded, blossomed, in the breeze,
And leaved, without demurring.

A SPRING MADRIGAL.

Open the window darling,
And welcome the breath of spring,
For the spirit of Joy is abroad,
And gladdens each sentient thing!
My heart is drear as the wintry earth
Shrouded in bleakest night,
But thou can'st banish its frosted cares,
Spirit of Love and Light!

Open the window darling,
I hear the gush of a song,
That comes from the beautiful spring-time,
Flitting, like Hope, along.
My heart is sad as an autumn morn,
Before the winter's blight,
But thou can'st scatter its sorrowful mists,
Spirit of Joy and Light!

Open the window darling,
For nature's heart is glad,
There is no space on the jubilant earth
For memories drear and sad;
Our God may temper with shades of woe,
The hour's silvery flight,
But thou can'st cheer the drooping soul,
Spirit of Hope and Light!

Open the window darling,
The air which roams abroad,
Life-giving pure and fragrant,
Is surely a breath from God!

Love me with all thy sweetness
And cast forth into the night,
The joyless thought within my soul,
Verbal spirit of Light!

Montreal, April, 1863.

J. G. ASCHEB.

THE RETURN.

See o'er yon oaks, those ruin'd walls
Speak of days long forgot;
Yet there is one who dreams them o'er,
He owns a waud'rer's lot.
With heavy eye, by tears obscur'd
He scans the reeling tow'r:
Oh! thousand days of happiness—
Could he recall one hour!

Slowly he climbs the winding path,
Lingering near the groves,
Where steals as silv'ry filament,
The brook he dreads—yet loves.
'Twas here the fatal sword he drew:
His friend had fallen here.
Hate vanish'd with that mortal blow—
Now friendship claims a tear!

See, how that sore oppressed heart
A fond emotion sways!
'Twas here, her love was pledg'd to him,
In bless'd and happy days.
Hark, hark! what long remember'd voice
Now calls in murmur'ing tones?
Oh! would it were her voice again—
'Tis but the Brook who moans!

Oh, Wanderer, how chang'd the scene!
Thou, too, how alter'd now!
Friends, youth, and home, all past away—
A stranger here art thou!
'Tis thus that passions of an hour
The fairest life may blast,
When erring Honor stoops to crime,
Tho' Justice weep o'er-cast.

Montreal, May, 1863.

A. E. P.

THERE SHALL BE NO MORE DEATH—IN HEAVEN.

There shall be no more fading of the flowers,
No Autumn winds shall lay the beauty low;
There shall be no more death of joy-winged hours,
No burial of hope, as here below.

Love shall not die, where all is living love;
There the heart grows not strange, or weak, or cold;
For grief's wild blast shall blow no more above;
There friends we cling to, fade not—wax not old.

There is not heard the stealthy step of him
Who placing icy hand on heart and brain,
Makes the old landscape of our life-ray dim,
And wings the spirit from its home of pain.

There shall be no more death! Not then as now,
Will be the nameless shudder—the regret
Of bearing sin's deep stain upon the brow—
Death's warrant for the deed he stays as yet!

A glorious life, untinged by thought of death!
Then shall we live when once that bourne is ours,
Where fell disease ne'er stops the labouring breath—
Life, happy life—amid the unfading flowers!

SCIENCE.

The wonders of the Heavens.

(Lecture delivered in the College of Lachute, Feb., 1863.)

Many are the subjects with which man meddles, and on which he exercises his mind. He has his subjects of art and subjects of

science; subjects taken from the world around him, and many from worlds above him,—subjects terrestrial and subjects celestial; subjects relating to time, and subjects pointing to eternity. Some of these lie within the grasp of his mind; if others, he can never give but a twilight view; and of how many does he try to say something, of whose truths and verities he actually knows nothing. Yet of all how many have an improving and an intellectualizing effect, when rightly handled—giving the mind of man a higher mould, character and cast?—Few have not their wonders—and not a few are all wonders together; and of which the one selected for your entertainment, ranks high. Of all the subjects with which man deals, that which directs his mind to, and opens up to it, the high sublimities of creation, is one of the most interesting and attractive,—tending much to give the mind an elevated tone, and foster exalted thoughts of Him who created the heavens—and by a word brought their hosts into being. To some of these wonders, let our attention for a little be directed.

It is night. A while ago the sun tinged the western horizon with his last golden beams, and sank to rest behind the distant hills. Earth has drawn round her the sable robe of darkness. The hum of the busy-on-going world is silenced—nature is hushed to repose. Darkness reigns around. Day has its peculiar charms: so has night. Day shows us earth; night reveals to us the heavens. Day declares the greatness of our world; night, the *majesty and immensity* of the Creator's universe. Day awakens the harmonies of earth; night the music of the spheres. We cannot look upon the glittering bosom of the heavens, without being beguiled into meditation on its wonders. It is true the great mass of mankind, are *indifferent* to the charms of these scenes. The greater number of observers see nothing but a vast canopy mantling the globe, sparkling with brilliant atoms. To them it is a scene of only gay and gorgeous confusion, in which no law can be recognized,—a fitting dome, perhaps, for so noble a temple as earth, or a pavement for heaven.

They look upon the stars simply as jewels of light set in a framework of ebony; they can see no end answered in their existence, at all commensurate with the magnitude and extent of the *agency* employed: there is not a *tithe* of the beauty in their conceptions that characterised those of the child, who described the stars as "*eyelid holes* in heaven, to let the glory through." And the most imaginative of such gazers would not say with Carlyle that they are "*street lamps to the city of God*" or halting places in the path to heaven."

Many there are who are neither uneducated nor thoughtless, and who could give expression to a multitude of bright imaginings, and lovely thoughts about the heavens, who could not give a lucid explanation of the *simplest laws* by which the revolutions of the orbs of heaven are directed; who could not *tell* whether the stars move or are in a fixed position, whether they change their relation to one another, whether they rise or not, whether the same clusters are displayed in summer as in winter.—But one who has paid a very moderate degree of attention to the revelations of astronomy, contemplates such a scene with a new order of interest: yes, even he who is not a professional *student* of the science. In those seemingly promiscuous assemblages of twinkling stars, he will be enabled to trace regularity and harmony, where the ignorance of the untutored, or the *folly* and faithlessness of the sceptic, can see only the fortuitous dispositions and arrangements of chance, he can find the links of the most consummate design as

..... Gloves wheel round,
Each drawing each, yet all still found
In one eternal system bound,
One order to fulfil!"

and when he has traced the intermingled threads of the warp and woof that compose the texture of the shady mantle, started all over, when he has seen the modes of operation of combined and conflicting forces to produce a harmonious result, and when at length, the line of rigid demonstration fails him, a reasonable analogy takes the helm and he is guided into new fields of inquiry, on which he may expatiate; and thus engaged in a tour of observation over the wonderful works of God, his conceptions of the wisdom, power and goodness of the Great parent and preserver of the universe continually expand, till overwhelmed by the variety and sublimity of the objects of his contemplation, he sinks down in the consciousness of his own littleness, and seeks repose to his wearied faculties, in the homage of silent adoration, or cries out with the words of the royal poet:

"When I consider the heavens, the work of thy fingers—
The moon and the stars, which Thou hast ordained:
What is man, that Thou art mindful of him? and the
Son of man, that Thou visitest him?"

Astronomy as it now presents itself to us, is in its early manhood. But the annals of its youth are full of interest and instruction; even the muster-roll which registers its birth may be interestingly read by us. The scenery of the heavens, doubtlessly elicited the wondering admiration of the earliest inhabitants of earth. Josephus tells us that Seth, and Abraham and even the antediluvians, studied the stars. Astronomy is in all probability one of the most ancient of the sciences. And men began at an early age of the world, to distinguish between what are called fixed stars and planets. And as observations continued, and star-gazers became more familiar with the apparently fixed stars, it was found an advantage to throw them into groups—and to designate each cluster by some special characteristic name. Among the forms which fancy animated the waste and silent vault of heaven, the earliest groups thus distinguished, were the seven starred Pleiades, the seven stars of the Great Bear, the constellation of the Less Bear, the belt of Orion—Jacob's staff—the Swan, the Scorpion, and others.

But I wish not to detain you tracing back or tracing forward the history of astronomy. Let us interest and instruct one another out of the rich treasury of our subject, as it now presents itself to us, in its present state of advancement.

As the eye surveys the vast expanse of the firmament, how many strange, burning, and bewildered thoughts enter the minds of the contemplative? Where, may they ask, do these mighty heavens begin, and where, have they end? Can man fathom their depths, or scale their heights? Can human calculations express their extent? Are angels ever winging their flight across the seemingly illimitable expanse?

Now do these vast agencies of worlds on worlds, and systems on systems, act and re-act upon one another? Has space a limit? or is the fabric of the universe unfinished,—on the confines of which new creations at millions of points are starting into being—stretching out into the infinite void? To the explanation of such thoughts and problems great and persevering minds address themselves, and such thoughts and researches are to us full of interest. The contemplation of the subject opens a vista which gives us an insight into the glories of the Eternal, who presides with infinite perfection over a limitless empire. Amid the silence and the solitudes of the midnight scene, the soul may catch an inspiration of solemn awe and delight in the contemplation of such themes, and soaring on the wing of devotion far above the littlenesses of earth, may draw near to its Father above, and hold high converse with Him, who holds all in the hollow of His hand.

But pass we on from general statements to particulars.—See what the heavens—what creation around, present to us. They bring to view—they spread out before the wondering eye—characterized by the marvels and majesty of Him whose ways and works and perfections are past finding out, the wonders of spaces, illimitable—of magnitudes, exceeding imagination's grasp,—of revolutions which in number and nature, and mode, nonplus the human intellect,—of phenomena, whose variety and character exceed research, and of influences, whose nature and workings and ends, are shrouded in mystery.

But it is time to come still closer to our subject and take it up in its grand divisions of planets, satellites, comets and suns, and touch upon a few of their discovered wonders.

The earth first demands consideration in the order of the planetary system, and the general relations which it sustains to the other planets. It is that world in which we have received our being. It is the home of our mortal existence. It is the grand theatre of all our activities. It is the vale of our cares, and toils and trials. It is the great school-house of our race, in which soul and body receive training for another state of being. With it, therefore, we have much to do, and in it we have not a little to perform.

But I meddle little with its geography and mathematics. I proceed on to make general statements.

The earth, as well as other worlds, has its countless wonders. They are countless in kind—countless in variety—countless in number. Speak we of its size, how vast? Its surface has an extent of 240,500,000 square miles; and its mass has been computed to contain 260,000,000,000 of cubical miles or by the French numeration principle 260 billions of cubical miles. Figures may number, but the mind cannot comprehend the limits of our abode. It struggles in vain, to form a distinct conception of such a mass, and desists from an attempt so abortive. But what is this earth with all its teeming wonders of animated existences, and vastness of size, but an isolated spot in the vast and magnificent dominions of the Omnipotent Sovereign of the universe. And yet the countless myriads of living beings throughout the wide compass of nature are not only all known to Him, to whom darkness

is as light, and the creation as a speck; their most trivial actions are subjected to His control, and rendered subservient to the accomplishment of His purposes. Carry this idea along with you as you and I travel together in thought from earth to heaven and from world to world, a sense of the constant inseparable presence of the Omniscient Omnipotent. One will help not a little to give elevation and suitable solemnity to our thoughts as the mind's eye essays to look into the vast abyss of creation.

I have said the earth's mass is computed at 260 thousand millions of cubical miles: and it has been estimated to weigh at least 2,200,000,000,000,000,000, or 2½ thousand trillions of tons, and by the French numeration 2½ sextillions of tons. Speak we of its motions? It revolves upon its own axis with immense rapidity, and speeds through space at the rate of 63,000 miles an hour.

“Who can utter the mighty acts of Jehovah?”

The earth is wrapped in an invisible fluid, called the atmosphere. This invisible swaddling band accompanies our orb in its diurnal and annual motions: it is the prime supporter of life, the promoter of vegetation, and is essential to all that is beautiful to the eye and pleasant to the ear, around us; and so nicely proportioned are its parts of oxygen, nitrogen and carbon, that any disproportion of these would prove injurious to life and all animated nature. Were the Almighty to usher forth the following fiat—“Let the nitrogen of the atmosphere be dissolved, and let the oxygen thereof exert its native energy without control, wherever it extends;” in the twinkling of an eye every region of the earth would be encompassed in a devouring flame, which would not only consume vegetation, but would cause the hardest rocks of the earth to trickle down like wax before a burning taper.

Every thing about the earth, or belonging to it, is beautifully adjusted and nicely proportioned. All is the work of One who is infinitely wise and good.

The moon next claims attention. Who does not love to behold the moon as she sails along, with all her wonted dignity, illuminating the course and lightening the heart of the traveller, the sailor and the peasant? By her attractive influence she sways the ocean and perpetuates the regular returns of ebb and flow, by which the liquid element is preserved from putrefaction and the inhabitants of continents and islands from infection and disease. The moon is full of subjects for thoughtful contemplation to all who have observed its constitution. It appears to be a vast Phlegmian region displaying in every direction the effects of volcanic agency. Improved telescopes, Lord Rosse's especially have brought to view in the moon not a few strange appearances. By Lord Rosse's instrument, objects of not more than 183 feet in extent are made visible, and the intervening void is reduced to 120 miles. Dr. Scoresby, one of our most practised telescopic examiners of the heavenly bodies, tells us, “that the moon appeared through this instrument like a globe of molten silver, while the various details were so clearly seen, that if there were any edifice of the size of York Minster, or even of the ruins of Whity Abbey, they would be easily perceived. But there was no appearance of any thing of that nature, nor was there any indication of the existence of water, or of an atmosphere.” He saw a vast number of extinct volcanoes, several miles in breadth; and the general appearance of the surface was like one vast ruin of nature. It may, however, be mentioned that some astronomers maintain that the moon has an atmosphere, and also seas—but they are seas of fog—the gravitating power of the moon not being sufficient to condense water into its liquid form.

When the sun is totally eclipsed by the moon, the outer rim of the moon shows some strange appearances. Around the sun himself a beautiful circle of light called corona is visible, while the moon passes before him, and prominences or flames, as they are often termed, of a bright rose-red colour, make their appearances at different points round the border of the dark moon. The corona is believed to be an atmosphere of the sun rendered visible by the intervention of our satellite. The red projections are also known to be in some way connected with the physical constitution of the solar globe. The total eclipse of July 1851 showed a remarkable red flame, extending far from the edge of the moon. It was shaped like a Turkish scimitar, strongly coloured with rose-red at the border, but paler in the centre.

The grandest object which arrests the heaven-directed-eye, is the glorious Sun,—the centre and soul of the planetary system,—the lamp that illumines it—the fire that heats it—the sceptre that guides and controls it. Who does not like to see this glorious orb rise above the eastern horizon, on a morning in spring? when hill and dale, and wood and plain, are clad in their livery of soft and

freshest green. Mark his progress from his rise to his mid-day splendour, and from that till "he

Sinks gently midst that glorious canopy,
Down on his couch of rest,—ever like a proud
King of the earth—the Ocean."

Let us now direct our attention to the object itself and see how far our ideas are commensurate with its grandeur. Mark its *dimensions*—its diameter approaching a *million* of miles, and its circumference *three*. Its surface contains more than twelve thousand times the number of square miles there are on our globe, and its solid contents are 1,350,000 times the amount which the earth contains, so that it would take more than a million and a quarter of globes as large as our own to make one equal to the size of the sun. I give another estimate of the almost boundless dimensions of this great luminary. The earth contains about 264 thousand millions of cubical miles. Jupiter is 14 hundred times larger than the earth; Saturn 1 thousand times, and Uranus 80 larger than this world. Add the contents of these mighty orbs, and to the sum, those of all the other planets, moons and comets of the solar system: multiply the last total by 500; and the product would not come up to the contents of the orb of day. And yet, this immense body, in the contemplation of which our noblest faculties are exhausted, is but one out of millions of millions, of similar globes which exist around us, in the vast universe of space!—Of its physical constitution, *how little do we know*. Of its envelopes of *light*, what do we know? Astronomers have discovered 3, rising above each other in variety and transparency. But how these oceans of light are generated, who can tell? Whatever the luminous matter may be, and whatever be its source, it is never at rest, but tumbling and weltering in endless agitation. The agency, by which its constant flood of light and heat is produced, is matter only for speculation.

Its spots is another phenomenon, which has brought out not a few speculative notions. What we know of them is, that the sun is never without them; that they are of various extent—from a thousand to 40 or 50 thousand miles in diameter; that they have a gyratory motion of their own, and that they often appear and disappear with amazing rapidity, though some have been observed to make 7 or 8 passages over the sun before they have entirely vanished. But the sun has its *faculae* as well as its *maculae*—that is, spots more *luminous* than its general surface. The whole disc of the sun is found to be studded with bright and shady spots,—giving his surface a mottled appearance. Some suppose that the sun is inhabited, others assert that it is an immense furnace, alimented by comets; and not a few that it is the abode of the Blessed.

The following are the latest theories respecting the source of the sun's heat:

1. That the sun is a heating body, losing heat.
2. The heat is due to chemical action, among materials belonging to his mass, or that the sun is a great fire.
3. That meteors falling into the sun give rise to the heat which he emits.

It is said that these three combine all the theories that have yet been proposed to account for his heat.

How many blessings does God shower upon the earth through this wonderful luminary? Familiarity with our blessings often produces indifference to their value. Is it not so with the sun? How little do we *value* its cheering and invigorating operations upon the Earth? But let its beams be withdrawn only for a short time, how changed would be the face of this earth! Barrenness, desolation and death, would everywhere reign.

Let us then be ever thankful to Him who hath promised that while the earth remaineth, seed-time and harvest, summer and winter, and day and night *shall not cease*.

From the sun let us pass to some of its attendant worlds, and direct attention to a few of their discovered wonders. The number of planets, and moons, and comets, and meteoric bodies which move around him, none can tell. Already astronomers have discovered over 70 planets, coursing round him, 20 satellites, and innumerable comets and meteoric bodies.

The most wonderful of the planets, and to which astronomers have directed most of their attention, are Jupiter and Saturn. Jupiter is the largest of the planets; and when viewed through our best telescopes, presents, with its moons and belts, a magnificent appearance. Just conceive a globe 1,000 times the size of our earth, with a surface containing a number of inhabitants 8,000 times more than the present population of our globe, revolving round its axis at the rate of 460 miles in a minute, and flying through the regions of the heavens at the rate of nearly 30,000 miles every

hour, carrying along with it 4 revolving worlds in its swift career, and continuing this rapid course, without intermission, age after age, for thousands of years,—and we behold a scene calculated to fill every reflecting mind with admiration and astonishment. While contemplating such a scene, how does it become us to raise our thoughts to that Almighty Being, who, at first formed so vast a globe, and launched it from His powerful arm, and whose incessant energy sustains its swift career, age after age? Saturn is another magnificent world, and courses round the sun 410,000,000 of miles, beyond Jupiter's orbit. The grandeur and sublimity of the spectacle presented by this orb are scarcely to be described. Could we station ourselves within a few thousand miles of its course,—its body—a thousand times larger than the earth—its 3 rings and 8 moons, would appear to fill the greater portion of the visible heavens. Let us, thus placed, conceive this planet,—flying before us at the rate of 22,000 miles an hour, carrying along with it, its stupendous rings—one of them 20,000 miles in breadth, and perhaps 150 in thickness, and in circumference 500,000, and revolving round it with a velocity of 900 miles a minute—and far beyond these 8 other spacious globes, larger than our moon, wheeling round it; let us endeavour to stretch our imagination to the utmost, to represent such a scene as nearly as possible to the reality, and suppose ourselves as spectators, how grand and overwhelming, and almost terrific would be the amazing spectacle! Amidst the emotions it would excite we could only exclaim, "Great and marvellous are Thy works, Lord God, Almighty." "Thy right hand, O Jehovah, is become glorious in power." Who can utter the mighty acts of the Lord? "The Lord God Omnipotent reigneth."—Is it possible to separate such scenes and operations from the idea of an eternal and Almighty intelligence who formed, and arranged, and set in motion such stupendous machinery? Could chance, or the fortuitous concurrence of atoms, have ever produced such a portion—and but a very small one—of celestial mechanism and preserved it, unimpaired in all its relations and movements, from age to age? Such an idea is fraught with the grossest absurdity that ever entered the human imagination. If a divine superintendent over creation did not exist, the whole frame of universal nature would long ere now, have been untinged, and the universe with all its splendid orbs, and mighty movements, have been transformed into a chaos, and scattered through the regions of infinitude. And since there is a God, that God, how great!

But time will not admit of my directing your attention to much more of the discovered wonders of the planetary system. A few remarks more, and we direct attention to the cometary world.

On turning to the heavens, it is found that ever since the first observations were made great changes have been taking place. The eccentricity of the Earth's orbit has been diminishing; the moon has been moving more quickly, and is now in advance, by about four times her own breadth, of what her place would have been, if it had not been accelerated.

To what will all this lead, it may be asked?—Lead to? why it will lead to this, that He who holds the whole machinery of creation as in the hollow of his hand, regulates the movements of every world and all worlds—individually and in system separately as one grand infinite whole,—to less than hair-breath movements, or position-changes, and that all intelligent existences—inhabitants of worlds, are as safe from the collision of worlds, or deranging influences, as if they encircled heaven's throne. And what have our most intelligent creation-system astronomers to admit? Just this—that what was at one time considered certain departures in the movements of worlds from laws—are but the carrying out of those laws in all their fulness and glory!

In my remarks on the mechanism of the heavens, I would say, there is harmony there; but it is the deep and solemn harmony of empyrean spheres. Poetry is there; but to be read in those eternal brilliants set in the deep-dark tablet of infinitude. Architecture is there; but it is the colossal structure of sun and system—of eluiter and universe. Eloquence is there; but there is neither speech nor language—it is the spangled significance of harmonious stillness. Wisdom is there; but it is the wisdom of Omnipotence!

JOHN BRUCE,
Inspector of Schools.

(To be continued.)

EDUCATION.

An Address to School Pupils. (1)

YOUNG PUPILS: You have but crossed the threshold, and are just entering upon duties with which your own happiness and that of others is intimately connected. Could you know how deep and lasting every impression is that is made upon your minds in the *morning of life*, you would understand the importance of this period of your existence.

It is an inherent principle in our nature to desire to so act our part upon the *stage of life* as to secure the approbation of those with whom we are associated. But a great and good character does not burst at once upon the world as the lightning gleams from the cloud!

The great and good have prepared themselves for usefulness in the world, by patient and unceasing cultivation of their mental and moral faculties through childhood and youth. See you stately edifice; remember the beauty, permanence and intrinsic value of the building materially depend on the manner the work is performed at the base.

We will first speak of your duties connected with your studies and school. See that you enter the school room with proper deportment and respectable appearance. A gentle nod of the head as you enter is a becoming token of greeting and respect to your teacher and fellow pupils.

Treat your teacher with becoming respect at all times, and cheerfully obey the rules of school. Endeavor thoroughly to understand each lesson before you advance to another; by so doing you will readily master any intricacies you may meet in your studies.

In the hours of study, your business should be exclusively with your books; you should not permit the spirit of amusement and diversion connected with the hours of recreation to divide or enter into your thoughts, when they should be solely occupied with the subject of your lesson. You cannot become an eminent scholar without deep mental research.

Read sparingly any book not immediately connected with your studies; but whenever you who are more advanced meet with words in your course of reading as to the pronunciation or signification of which you are in doubt, never pass them without consulting your dictionary.

This will enable you to pronounce correctly, to understand the meaning and to learn the Orthography of every word in the language commonly used in speaking or writing, and form the very snaws of composition.

This is a better method of gaining a knowledge of the language than by reading the dictionary, by course; for in that way it would soon become dry and irksome; while the former plan will always be interesting and gratifying.

You should not fail to attend to the exercise of composition at least once a week; this will bring out your best thoughts and the choicest feelings of your soul; strengthen the memory and enable you to secure a fund of information you cannot otherwise gain. It is a kind of demonstration of the powers of the mind. The motion of our pen on paper is like the repeated strokes of steel upon the flint, till the sparks roll out.

The improvement of your mind, your advancement in study, and the moral influence that you will exert *through life*, have a close connection with the kind of persons you chose for your associates.

Make *confidants* of none, unless it be those who have as much interest as you have in keeping secret what you communicate to them.

If any of your fellow pupils use profane or vulgar language, if their temper is passionate and boisterous, if they are vicious or deceitful, reclaim them if you can, if not, separate yourself from their company.

Industry and prudence have much to do in the formation of a great and good character. It is an advantage to any person to understand how to perform some branch of manual labor. A person accustomed to labor is prepared to meet any of the reverses of fortune which so frequently occur in life; it also increases his muscular strength and his power of endurance and he gains a vast fund of knowledge which flows in no other channel.

How many great and good men of our country have been taught to labor, and have since been called to occupy positions of honor in the nation.

Never wilfully waste the smallest thing. Remember the great Saviour of the world, after he had fed so many thousands with so little food, said to his disciples, "Gather up the fragments that remain, that nothing be lost." Diligently gather up and improve the very scraps of time. An eminently useful character and a high position in the world are not so much the result of having great and numerous opportunities, as the faithful improvement of those we have: a learned man once remarked, "improve the first opportunity you meet, and that will open the way to the next." Faithfully perform any work you may have to do for parents, guardians or employers; by so doing you will gain the esteem of all who know you.

Never wantonly inflict pain upon animals. This is looked upon by the good as coming only from a depraved, reckless mind and as a demonstration of wanton cruelty. Dr. Young says:

"Take from my list of friends the man
That from his path would step aside
To crush a worm."

Never make derision of the deformed or the unfortunate; this is a mark of a very low and groveling mind.

Never deviate in the least degree from the truth. We are not at all times obliged to speak; but if we speak at all let it be the truth. Make use of no kind of intoxicating liquor as a beverage. The calamities that are brought upon society in consequence of intemperance, are so numerous that it should be banished as a demon, ever "seeking whom it may devour." From the use of liquor how many men have been ruined! How many mother's hearts have been wrung with anguish! How many thousands of children have been beggared and turned orphans and homeless upon the world!

Permit me to advise you to use tobacco in no form, for which our reason is.—it has a deleterious influence on the intellect; also, it is an inconvenient, expensive and filthy practice, unfit for rational beings to indulge in. You may, with propriety, answer, you know many respectable worthy men that use tobacco. I grant it; but I have never met with any who did not regret contracting the foolish habit in their youth and heartily wish they had never seen the filthy weed. The most rational reason I ever heard for using the article is, it is said that Cannibals will not eat the flesh of those persons that have been in the habit of using tobacco.

It has become quite common and is looked upon by some persons as a mark of wit and cunning, for boys to congregate at night for the purpose of committing petty depredations on their neighbors by obstructing the highway with fence rails, the taking off of carriage wheels, the hiding of tools, the ringing of door bells, the pulling up and destroying of garden vegetables, &c. These practices should be discountenanced and cease at once; and no boy who wishes to be respected in society should ever engage in them.

Use no vulgar or profane language. Profanity has become a crying sin in our nation and calls down the withering displeasure of God upon our country. It is enough to palsy the heart of one who has any reverence for his God, to hear the oaths and imprecations used in saloons and hotels, on steamboats and railroad cars, in the streets, in the Army and Navy, and, in fact, at almost all places where men congregate.

For this practice there is no excuse, no benefit derived; every thinking mind says it is wrong, and the man who is a profane swearer is not only lessened in his own estimation, but also loses the esteem of the good and great.

At the close of the American Revolution it is said Gen. Washington invited his staff officers to dine with him. While at table, one of the officers while in conversation with another, made use of an oath. Washington dropped his knife and fork, and said, "I thought we were all gentlemen." Never use the language of the Scriptures in levity or in jest; nor ever trifle with the sacred institutions of Religion.

Seriousness and a proper respect for the services of religion are always commendable in the house of worship.

Never put yourself forward in taking the lead in conversation when in the company of those who are your seniors in age, or your superiors in intellect or position. Always show becoming respect for the aged;—the sunshine of life with them is nearly past; a few more faint rays from the western horizon thrown across their path and their sun sets forever. The little acts of sympathy or favor you may bestow on them will bring blessings on your head from their venerable lips. (2)

(1) As the school examinations are about to commence, the present essay may serve as a model to teachers for "parting words" to their pupils. (Ed. L. C. J. of E.)

(2) But do not let them perceive that you are so respectful and attentive altogether on account of their age. Old people have often the weakness of being very sensitive as to any thing that will remind them directly or indirectly of their old age.—Ed. L. C. J. E.

And last, but not least, permit me strongly to urge upon your attention the duties you owe to your parents. Could you realize the labor and toil it has cost them to care for you in infancy and childhood, could you count their weary footsteps in tending and caressing you when sick, could you number the anxious days and watchful nights they have spent by your bedside, aye, could you see the anguish-stricken heart of your mother while she pressed you to her bosom and prayed God that the hand of death might not be permitted to bear you away,—you would weep because of your ingratitude and your inability to ever repay them for their parental love and tenderness.—*Eric Gazette.*

Our Experience with Gymnastics.

We have wasted no enthusiasm on the subject of school gymnastics. We have listened somewhat attentively to much that has been said upon it, but with considerable scepticism and hesitation, suspecting that, after all, it might prove one of those questions which have assumed a temporary importance, and filled the minds of the more sanguine and excitable, to be gradually supplanted by other questions like them, which, in their turn, must rise, and sink, and disappear.

But, on the other hand, we have seriously asked ourselves, whether this ought so to be,—whether the subject of physical training in schools does not justly claim our permanent and earnest attention and interest? Could the Greek mind, the most acute and subtle in all the ancient world, be, for generations and centuries, engrossed in this theme,—could her four great national games call forth, at regular periods, the noblest of her sons, to exhibit and to witness the power and grace of human form and action, and shall the question assume but a temporary importance in the American mind? Shall we carefully copy her dead forms in sculptured marble, and care not to see our sons and daughters rival in form and action, the grace of the sons and daughters of lovely Greece?

We were not, however, compelled to go to history for examples; for living arguments met us in our daily walks. We used to meet an Irish hod-carrier, who, though evidently poor and somewhat advanced in age, had often, by his very gait and bearing, attracted our notice and admiration, he walked so like a prince, whose royal form neither poverty nor toil could bend. Chance at length having thrown us in contact with him, our wonder was relieved when we learned that our fancied Hibernian prince had acquired his splendid form and action while, in earlier days, he was trained as a soldier in the service of His Majesty. We applied the "rule of three" to our prince's case, and stated the question somewhat as follows: "If a training of ten years in His Majesty's army can give to a poor Irish soldier a grace and dignity which neither years, nor poverty, nor toil can destroy, how much can we do for our own American boys and girls, by a systematic physical training of ten years in our public schools, at a time in life when their minds and bodies are most susceptible to permanent impressions? Answer—Something."

Another Irishman, a clerk, had also often crossed our path, and we had almost as often admired his erect and elastic bearing. He, too, we found, at length, had served in the British army. An old gentleman appeared in our church and continued to meet us in our worship. He was badly crippled by an injury received by an accident upon the spine, but yet neither age nor pain had made his shoulders stoop, nor bent the erect and manly posture of his head. He, too, had, when but a boy of eighteen years, served in an army, and was present at the battle of Plattsburg.

What effect the campaigns of the present war will have upon the forms and bearing of our own soldiers will better appear when we shall see, not, as now, the inmates of our hospitals, but the hardy forms of men who have received their training on the tented field.

Influenced by thoughts like these, our mind was prepared, when our school committee employed a professional teacher of gymnastics in our public schools, to welcome him in cordial good faith, and with some degree of confidence in his success. He proved a faithful teacher and an excellent man. He believed, however, in dumb-bells, and wand, and wooden rings; while we, viewing the matter from a different standpoint, saw less in them to be admired. Two hundred heavy boots daily entering and traversing the floor of our school-room, had so pressed upon the shoulders of our patience, that when two hundred dumb-bells were added, the poor shoulders began to bend beneath their load, when, finally, the wooden rings proved "the feather that broke the camel's back." It became a serious question with us, not alone how much benefit the bodies of our boys were receiving from their exercises, but how

we could best contrive to suppress the provoking rapping of dumb-bells and rattling of wooden rings. These delectable instruments were not only instruments of exercise, but also instruments of torture. Numerous, too, were the sources of their annoyance. They must be bought, and sold, and dropped, and moved in the desks, and lost, and broken, till we could have heartily wished they had never been invented.

We do not hesitate to say, that however agreeable and useful these instruments may be for a more private practice, they so tax the nerves and the patience of the teacher, in a large school of boys, that they cannot for a long time enjoy that teacher's favor, which is so essential, so indispensable to their successful use.

Moreover, we gave too much time to each lesson. There was too much waiting to be instructed, too many exercises were attempted, and too little accomplished by way of perfecting any one of them. Too much time was spent in getting the instruments in hand, assuming positions, etc., etc., and too little in actual muscular exertion.

Our first essay at introducing gymnastics would have almost inevitably failed, had not the system been greatly modified.

The excellent work of Mr. Mason came to our hand in a fortunate hour. It has supplied for us just what we most needed, viz, the muscular exercise without the clatter of instruments and the delay attendant upon getting ready to begin. At a snap of the fingers the boys may be brought to their feet, and upon a single word they may be actually engaged in their practice. They like the exercises. The transitions are easy and natural; the motions are well adapted to develop the chest and otherwise secure the objects desired; and so little verbal instruction is required, so little delay occurs, and so directly does one order of motions succeed another, that the five minutes spent in gymnastics are among the most quiet, orderly, and agreeable of the day.

Our experience leads us to make the following suggestions:

1. These exercises should be commenced with the greatest promptness, and conducted with the greatest vigor and exactness, and with the fewest possible interruptions.
2. The way to teach gymnastics is to "go at it," and not "talk about it." Gymnastics are best learned through the eye.
3. Five minutes at a time is as long as these exercises should continue. Even with the naked hand, Mr. Mason's lesson, if briskly and vigorously practised, afford as much muscular effort as most boys will with pleasure bear.
4. These exercises should be brought on at precisely their allotted time in the day, like the other exercises of the school. Here we may differ from some of our friends who only practice gymnastics when they seem most to be needed. To say nothing of judging of the feelings of pupils by the feelings of their teacher, (an obviously unsafe criterion,) daily observation shows us that men are inclined to defer physical exertion. The invalid finds a thousand excuses for neglecting to take the regular exercise which his physician requires. If the practice of gymnastic exercises is left to the feelings of teachers or the whims of pupils, they will, in most schools, soon fail altogether to be employed. The pressure of intellectual labor and the natural aversion to vigorous physical exertion, will eventually crowd them out.
5. These exercises must not be optional, but should be as rigidly required of every pupil as the other exercises of the school.
6. The time devoted to them should be one of the greatest vigilance and activity on the part of the teacher. Otherwise the sluggish motions of the lazy, and the irregular motions of the listless and those who do not enjoy the practice, will vitiate and destroy the beauty and pleasure of the whole exercise.
7. No set of motions should be dismissed till it is so accurately learned, and can be performed with such precision, as to afford to the actors a positive pleasure. We all love to do what we can do well. We soon tire, if conscious of only half success.—Short, brisk, vigorous exercises, so perfectly learned that all the hands in in school move as if impelled by a single will, are those which, in our experience, afford the highest pleasure and effect the greatest good.—*Monthly Ed. Massachusetts Teacher.*

Dependence of Education upon habit.

A complete system of education should embrace a consideration of the phenomena presented not only by healthy, but by morbid, growth. It should be able not only to form but to reform—not only to develop with the assistance of nature, but to correct when her general laws seem to have been superseded by untoward influences. With respect to this point, education is purely an inductive science, and its principles and rules must be based upon a long and careful

observation of the manifestations of mind, presented during its several stages of growth. We do not perhaps possess a sufficient number of such facts to make an accurate generalization, so as to form practical rules sufficient for our guidance in all cases. The subject has not received that special attention which is necessary for a full and reliable exposition of the theory of learning in this regard. The materials for such an exposition must, in great part, be deduced from the daily and hourly experience of the school room; and by carefully gathering and collating the facts of this experience and employing them for the extension and improvement of the science of teaching, it is in the power of the humblest laborer in the great field, to contribute to the proper establishment of his profession—to the erection of that temple of science, in which, and in which alone, it is to be permanently enshrined and preserved.

In that admirable allegory of Dr. Johnson, in which he represents the various stages of human life under the beautiful and expressive figure of the ascent of a mountain, there is a very important principle illustrated which bears immediately upon this point: "As Education led her troop up the mountain, nothing was more observable than that she was frequently giving them caution to beware of Habits; and was calling out to one or another at every step, that a Habit was ensnaring them; that they would be under the dominion of Habit before they perceived their danger; and that those whom a Habit should once subdue, had little hope of regaining their liberty." There can be no doubt of the truth of the principle, here so beautifully represented, and that the character, both moral and intellectual, is established simply by the FORMATION OF HABITS.—These when depraved, constitute what has been called above, morbid growth, and at an early age, may although, with more or less difficulty, be eradicated. In moral, this is doubtless much more difficult than in intellectual, education; since, in the former case, the passions and appetites exert an opposing influence; while, in the latter, the only resistance to be overcome, in addition to that of habit itself, proceeds from indolence, or that kind of mental inertia by which it resists a change of condition. No part of the teacher's duty is more important than the exercise of a constant vigilance so as to arrest the formation of deleterious habits, or to aid in forming such as are calculated to confirm the healthy progress and development of his pupil's mind. The mind of a child may, with respect to the influence of habit, be compared to a plastic material having a tendency to set; the greatest skill and tact of the artisan being required to prevent its setting unequally or unsymmetrically, since when once lost, the plasticity can be restored, if at all, only with exceeding difficulty. As in such case, the principal object of the artist or workman would be to see that symmetry of form was secured before this fixed character, so the teacher must deem it the highest aim of his exertions to guard against the formation of such habits as would impair the symmetry or balance of his pupil's mind. It is remarked by one whose opinion, by reason of a long and peculiar experience, is entitled to a very great weight, that "if we study carefully the whole class of what are commonly supposed to be instinctive acts, in the human being, we shall find that the most of them are automatic rather than instinctive; or the result of habit based upon experience."

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

OFFICIAL NOTICES.

NOTICE TO DIRECTORS OF INSTITUTIONS CLAIMING AID ON THE GRANT FOR SUPERIOR EDUCATION UNDER THE ACT 19 VICT., CAP. 54.

1st. No institution shall be entitled to, or receive, any aid unless the return, and demand therefor, be filed within the period prescribed, that

is to say before the first day of August next. No exception will be made under any pretence whatsoever.

2. Acknowledgment of the receipt of such return and demand will be made immediately to the party forwarding same.

3. Any party not receiving such acknowledgment within eight days after mailing the documents, should make inquiries at the Post Office and also at this Office, failing which, such demand and return will be deemed as not having been sent in.

4. Blank forms will be transmitted during the first fortnight in June, to all institutions now on the list; and institutions not receiving them during that period, must apply for them at the Office of this Department.

5. Institutions not on the list, that may be desirous of making the necessary return and demand, can obtain the requisite blank forms by applying for them at this Office.

PIERRE J. O. CHAQUEAU,
Superintendent of Education.

Education Office East, Montreal.

APPOINTMENTS:

EXAMINERS.

His Excellency the Governor General in Council was pleased, on the 23rd April last, to appoint Richard Langan, Esquire, to be a Member of the Board of Examiners of Three Rivers, in the room of Rev. H. Burgess, absent.

SCHOOL TRUSTEES.

His Excellency the Governor General in Council was pleased, on the 23rd April last, to appoint Mr John G. O'Farrell to be a School Trustee for the Dissident Schools of the Municipality of Slipton, in the County of Richmond.

DIPLOMAS GRANTED.

PROTESTANT BOARD OF EXAMINERS FOR THE DISTRICT OF MONTREAL.

First-Class Elementary (E)—Messrs. John Ferguson, Israel F. Loomis, Andrew McLennan, Isaac W. Wallace, George A. Wright; Misses Mary Jane Bell, Mary C. Derrick, Florilla Grant, Eliza Kerrigan, Susan King, Mary Agnes Knot, Sarah Low, Janet McFie, Margaret McFie, Catherine Sutherland.

Second-Class Elementary (E)—Messrs. Samuel H. Dewart, Milton L. Loomis, Donald McKee, James B. Truicott; Misses Cordelia Bassett, Martha Jane Bush, Margaret McNee, Jessie A. Robb, Mary H. Walsh.
May 5, 1863.

T. A. GIBSON,
Secretary.

PROTESTANT BOARD OF EXAMINERS FOR THE DISTRICT OF QUEBEC.

First-Class Model School (E.)—Messrs. Charles Black, Thomas McDonald, and Miss Mary Ann Ahern.

First-Class Elementary (E.)—Miss Christiana McKinnon, and Miss Catherine McDonald.

Second-Class Elementary (E.)—Miss Helen Dalgleish.
May 5, 1863.

D. WILKIE,
Secretary.

CATHOLIC BOARD OF EXAMINERS FOR THE DISTRICT OF QUEBEC.

First-Class Elementary (F.)—Miss M. Angèle Vitaline Langlois, and Mr. Joseph Thibault.

Second-Class Elementary (F.)—Misses M. Alvine Bélanger, M. Elzire Béchet, M. Mélina Girard, M. Céline Lainé *alias* Laliberté, and Elizabeth Piché.
May 5, 1863.

N. LACASSE,
Secretary.

BOARD OF EXAMINERS FOR THE DISTRICT OF KAMOURASKA.

First-Class Elementary (F. E.)—Artémise Bart.

Second-Class Elementary (F.)—Misses Mathilde Boucher, Olive Dumont, Philomène Elzter, Céline Lapointe, Césarine Martin, Louise Ouellet, Apolline Paradis, and Olive Therriault.
May 5, 1863.

P. DUMAIS,
Secretary.

SHERBROOKE BOARD OF EXAMINERS.

First-Class Academical (F.).—Mr. William H. Lee.
 Second-Class Academical (E.).—Mr. John A. Putney.
 First-Class Model School (E.).—Miss Jane L. Ives.
 First-Class Elementary (E.).—Misses Amanda Carr, Julia M. Heard, Louisa H. Kenaston, Esther E. Loring, Anna B. McLean, Lodema Percival, Louisa S. Sawyer, and H. Eliza Wright.
 Second-Class Elementary (E.).—Messrs. Wm. E. Curtis, Duncan McCrea; Miss Melissa Hitchcock, and Miss Mary Mulvena.
 May 5, 1863.

S. A. HURD,
 Secretary.

BEDFORD PROTESTANT BOARD OF EXAMINERS.

First-Class Elementary (E.).—Messrs. A. D. Keyes, A. L. Keyes, Edmund J. Reed; Misses Hannah Allen, Elizabeth E. Brimmer, Sarah M. Barnes, Mary Jane Baird, Sarah A. Berry, Mary J. Bourne, Matilda J. Barton, Mary E. Cray, Mary J. Cameron, Emily Maria Cutter, Lucia Chamberlain, Sarah L. Dow, Maria Farmer, Maria A. Fuller, Susan A. Fuller, Lydia Gage, Hannah Gago, Sarah Gage, Maria M. Ingalls, Ellen M. Kimball, Julia H. B. Meigs, Carlotta R. O'Dell, Melissa Pickle, Mary Agnes Peters, Rhoda A. Robinson, Charitie E. Snow, Clementine L. Squire, Ann C. Seymour, Emily Sargent, Mary Taylor, Charlotte Van De Waters, Catherine Van De Waters, Mr. A. D. Wells, Mary E. Wane, Ellen Westover, Jane Wallace, Susan M. Woodard, and Sophia Winchester.

Second-Class Elementary (E.).—Misses Matilda E. Baillie, Janet Blackwood, Catherine Baker Brown, Martha E. Billings, Elizabeth E. Bigelow, Lucretia S. Billings, Saloma Babcock, Catherine Chartier, Hannah Clement, Elizabeth Ann Ferguson, Julia Maria Gladden, Mary Jane Gage, Lucy T. Gage, Jennie L. Hagen, Prudence M. Hubbard, Sarah Hungerford, Mary Ellen Kennedy, Betsey Mitchell, Anna M. Martindale, Charlotte Neil, Maria A. Reynolds, Marcia Sweet, Sarah J. Smith, Charlotte C. Spalding, Maria Seymour, Jane B. Smith, Lucy J. Spencer, Harriet A. Truax, Amanda M. Townsenc, Lydia M. E. Tater, Maria M. Vilas, and Anna Maria Winters.
 May 5, 1863.

WM. GIBSON,
 Secretary.

BEDFORD CATHOLIC BOARD OF EXAMINERS.

First-Class Elementary (E.).—Misses Eliza Kerley, Susanna Butler, Mary A. Butler, Eliza A. Caroline, Mary P. McAlcer, Catherine O'Flaherty, and Honorah Sweeney.
 May 5, 1863.

L. H. D. BONDY,
 Secretary.

STANSTEAD BOARD OF EXAMINERS.

Second-Class Elementary (E.).—Misses Lydia M. Aldrich, Clementine Aldrich, Miriam P. Alexander, Lizzie A. Belknap, Alma L. Cleveland, Mary E. Colby, Betsey A. Chapman, Mary Daly, Leora R. Evans, Elsie L. Elliott, Albie M. Elliott, Lizzie A. Hurd, Ellen J. McLean, Lavinia D. Orcutt, Minerva M. Perkins, Mira D. Sutton, Bethiah E. Willard, Mary A. Webster, and Mr. Harvey B. Sawyer.
 May 5, 1863.

C. A. RICHARDSON,
 Secretary.

RICHMOND BOARD OF EXAMINERS.

First-Class Elementary (E.).—Miss Celestia Cheney, and Miss Helen Maria White.
 Second-Class Elementary (E.).—Mr. Alexander Campbell; Misses Isabella Morrill, Hetty Perkins, Mary Ann Burbank, Sarah Jane Gee, Martha Ayer, and Ellen Fitzpatrick.
 May 5, 1863.

J. H. GRAHAM,
 Secretary.

BOARD OF EXAMINERS FOR THE DISTRICT OF THREE RIVERS.

First-Class Elementary (F.).—Misses M. J. Philomène Gólinas, Eldise Lambert, and Mrs. Martine alias Léa Turcotte.
 Second-Class Elementary (F.).—Mr. Aurée Bergeron.
 March 11, 1863.

J. M. DESILERS,
 Secretary.

BOARD OF EXAMINERS OF BEAUCE.

First-Class Elementary (F.).—Miss Sophio Labbé, and Miss Eléonore Beaudoin.
 Second-Class Elementary (F.).—Miss Anastasio Gagné.
 May 5, 1863.

J. T. P. PROULX,
 Secretary.

RIMOUSEI BOARD OF EXAMINERS.

Second-Class Elementary (F.).—Misses Eléonore Guay, Henriette Tardif, and Marguerite Thibault.
 May 5, 1863.

P. G. DUMAS,
 Secretary.

DONAVENTURE BOARD OF EXAMINERS.

First-Class Elementary (F. E.).—Mr. Zéphyrin Marcotte.
 First-Class Elementary (E.).—Mr. David McCreadie and Mr. Thomas Henry Verge.
 May 5, 1863.

CHARLES KELLY,
 Secretary.

CHICOUTIMI BOARD OF EXAMINERS.

First-Class Elementary (F.).—Miss Cléophaée Dubois, and Miss Susanne Harper.
 May 5, 1863.

THOMAS Z. CLOUTIER,
 Secretary.

SITUATIONS WANTED.

An Irish National Teacher, highly classed and with eight years' experience, would accept of a situation as English teacher in an academy or a college; or he would be prepared to take charge of an English school. He will undertake to obtain a diploma from a local Board of Examiners. Apply at this Office.

An experienced Teacher with an Elementary Diploma, and who is competent to teach English and French, is desirous of obtaining employment. Inquire at this Office.

DONATIONS TO THE LIBRARY OF THE EDUCATIONAL DEPARTMENT.

The Superintendent of Education acknowledges with thanks the following donations:
 From Mr. J. G. Shea, New York: "Leaves and Flowers; or, Object Lessons in Botany, with a Flora;" by Alphonso Wood, A. M., 1 vol.
 From Messrs. Dawson, Bros., Montreal: "Principia Latina; a first Latin course;" By William Smith, LL. D., 1 vol.
 From Mr. John Lovell, Montreal: "Easy Lessons in General Geography;" By J. George Hodgins, LL. B., F. R. G. S.
 From Rev. Mr. Verreau, Principal of Jacques-Cartier Normal School: "Recueil d'Édits et Ordonnances Royaux;" Edition of 1710;—2 vols. folio.

JOURNAL OF EDUCATION.

MONTREAL (LOWER CANADA), MAY, 1863.

Celebration at the Laval University.

The second centenary of the founding of the Seminary of Quebec was celebrated with much *eclat* at the University of Laval on the 30th April last, this day being the two hundred and fortieth anniversary of the birth day of the founder of the university—Mgr. de Laval. The presence of the members of both Houses of Parliament, clergymen, and many persons of note attracted to the capital from all parts of the Province, added much to the interest of the ceremony; while the pleasure of those assembled was enhanced by the genial influence of a lovely day:

After the service and a sermon at the cathedral, which edifice had been tastefully decorated with streamers and flags, the pupils of the Seminary and of the affiliated college of Notre Dame de Levis, together with the Professors, graduates and students of the University clad in their costumes and attended by many of the clergy and citizens, proceeded to the court-yard of the Seminary, where congratulatory addresses were presented to the Superior, Rev. Mr. Taschereau. Among those who felicitated the Superior on this occasion were the citizens of Quebec, for whom the Acting Mayor of the city acted as spokesman; the R. C. members of Parliament, whose address was read by Hon. J. E. Turcotte, Speaker of the Lower House; and the clergy of the diocese on whose behalf the V. R. Mr. Cazeau, V. G., also presented an address. When this part of the proceeding was terminated, the party withdrew to one of the halls of the university where a repast had been provided by the Seminary for 300 guests.

In the evening a very interesting literary and musical soirée was given in the same building. So great was the crowd of persons anxious to gain admittance that many had to be turned away for want of space to accommodate them. The musical entertainment was the most successful, the orchestra and choir, composed of the pupils and a few amateurs, gained most deservedly the applause of all who had the good fortune to be present. The band of the Rifles elicited much admiration, as did also the solo performers. Speeches were delivered by the Rev. Mr. Legaré, one of the Professors of the University, and the Hon. Superintendent of Education; after which the entertainment was brought to a close by a short address from Rev. Mr. Taschereau, who acted in the double capacity of Superior of the Seminary and Rector of the University. He thanked the auditory for the interest they had so often manifested in the affairs of the Seminary and of the Laval University.

Annual Convocation of the University of McGill Collège.

FIRST DAY.

Yesterday the Annual Meeting of Convocation was held in the William Molson Hall of this College. There was a large attendance, consisting of Fellows of the University, officers of instruction, graduates, and friends of the institution. Mr. Principal Dawson presided, having on his right hand Rev. Canon Leach, Vice-Principal and Dean of the Faculty of Arts. The proceedings having been opened with prayer, Mr. W. C. Baynes, B. A., the Secretary, read the minutes of the last Convocation, which were approved. Wm. Busby Lamb, Esq., B.C.L., was then elected Fellow for the Faculty of Law, for this year; T. W. Jones, Esq., M.D., Fellow for the Faculty of Medicine; and Brown Chamberlin, Esq., B.A., was elected Fellow for the Faculty of Arts. Rev. Dr. Leach then read the following list of Students in Arts to whom prizes and honors were awarded:

FACULTY OF ARTS—PASSED FOR DEGREES.

Degree of B.A.—Norman William Trenholme, Sampson Paul Robins, Lemuel Cushing, Thomas Fairbairn, Leonidas Heber Davidson, Charles Peers Davidson, Richard John Wicksteed, Elisha Joseph Fessenden, David Prescott Merritt, Frederick Lyman, David Ross McCord, John D. Clowe.

Graduates in Civil Engineering.—George Edwards, Maurice Gaviller, John Lestock Reid.

HONOURS AND PRIZES.

Graduating Class.—Chapman Gold Medal, for General Standing and First Rank Honours in Moral Philosophy and Rhetoric, Norman William Trenholme. Prince of Wales Gold Medal, for Mathematics and Natural Philosophy, Sampson Paul Robins. Honours in Classics—First Rank Honours, Lemuel Cushing. First Rank Honours, Richard John Wicksteed. Honours in Moral Philosophy and Rhetoric—Second Rank Honours, Thomas Fairbairn. Thomas Fairbairn, *Certificate in German, Advanced Course. Lemuel Cushing, *Certificate in German, Elementary Course.

Students of the Third Year.—Archibald Duff—First Rank General Honors, First Rank Honors in Mathematics and Natural Philosophy; *Certificate in Classics; *Certificate in French. McGregor—First Rank General Honors; Prize in Rhetoric; *Certificate in French. Alvan F. Sherrill—First Rank General Honors; First Rank Honors in Classics; Certificate in German. John Alexander Bothwell—Second Rank General Honors; First Rank Honors in Rhetoric; Prize in Rhetoric for Essay; Prize in Zoology. George Austen Pease—Second Rank General Honors; First Rank Honors in Classics. John A. Muir—*Certificate in German.

Students of the Second Year.—Robert Wardrop—First Rank General Honors; First Rank Honors in Mathematics; *Certificate in Classics; Certificate in Botany. Edward Horatio Kraus—First Rank General Honors; First Rank Honors in Logic; Prize in Logic; *Certificate in Classics, in French, in Botany. Robert Short—Prize in Logic, for Essay.

Students of the First Year.—M. B. Bethune—First Rank General Honors; Second Rank Honors in Mathematics; *Certificate in Classics. J. De W. Anderson—Prize in English Literature; *Certificate in Classics. Louis Hart—Prize for Essay on the English Language, under the signature of "Junius." Prize for Essay on the European Languages.

ENGINEERING STUDENTS.

First Year.—G. P. Risford—*Certificate in Chemistry, in Surveying, in Drawing.

Mr. John A. Bothwell, of Durham, who had written the prize essay in the Arts Faculty, was called up to read a portion of his thesis, which he did, receiving applause on several occasions. The graduates entitled to the Degree of B.A. were now called up and capped with the usual ceremony. Prof. Robins, one of those who had received the Degree of B.A., read an able and well-worded valedictory, which was frequently applauded. The names of those who received the Degree of M.A. are Arthur H. Plimsoil and Jas. L. Mason. Rev. Prof. Cornish, Prof. of Classical Literature, delivered an excellent parting address to the graduates. Mr. Principal Dawson now addressed the meeting, announcing that the gentlemen on whom the honorary degree of M.A. had been conferred this year were Rev. A. F. Kemp and Rev. Prof. Cornish, whose services in behalf of education were warmly eulogised. A fuller report of the proceedings, including the above speech, will appear in a future impression. The meeting was brought to a close with the Benediction, pronounced by Rev. Mr. Cornish.

SECOND DAY.

The closing proceedings of the Convocation of McGill College took place yesterday in the Wm. Molson Hall of the College, Andrew Robertson, Esq., M.A., Presiding Governor. William Molson, Esq., Governor; Principal Dawson, Vice-Principal Leach and the members of the various Faculties together with a number of graduates in Law, Medicine and Arts, were on the platform. A large audience chiefly composed of ladies filled the vacant seats at an early hour. After prayer by the Rev. Canon Leach, and

*Certificates are of the same value as Prizes, in respect of honor.

the reading of the minutes of last meeting Dr. G. W. Campbell, Dean of the Medical Faculty, awarded the prizes and honors to Students in Medicine. He afterwards conferred the Degree of M.D. on the graduating Class, Dr. Hall administering the Hypocritic oath when they were capped by the Principal with the usual formality. A valedictory address to the graduates was then read by Dr. Horatio Burritt, of the graduating class. An address to the graduates was likewise delivered by Prof. Craik.

Prof. P. R. Lafrenaye then read the award of prizes and honors to the Students in Law and the degree of B.C.L. was conferred on the graduating Class. They were next capped by the Principal. Professor Carter then delivered an address to the graduates in Law. The Principal made a brief announcement for the next session in which he characterized the present session as the most successful the University had yet experienced. The unusually large number of 300 actual students attended the session, of whom 63 graduated in the various departments. The Rev. Prof. Cornish, M.A., pronounced the Benediction, when the meeting adjourned.—*Montreal Herald*.

McGill Normal School Teachers' Convention.

We gave in our last impression a brief report of the meeting of the Teachers' Association in connection with the McGill Normal School, on Friday evening, and may preface this fuller report by congratulating the Association on the success of its first annual meeting. Principal Dawson presided, having on his right the Hon. the Superintendent of Education for Lower Canada, and Professor Robins, and on the left Rev. Mr. Kemp, M.A., Prof. Howe, and other friends of the cause of education. The room (examination hall, Belmont street), was handsomely decorated with evergreens which were made to twine round the various pillars, hang in garlands from many points of the ceiling, and stand out prominently in numerous pretty devices on the walls. In a framework of evergreens on the wall behind the Chairman, the word "Excelsior" was neatly outlined in roses. The Chairman in inaugurating the proceedings of the first annual convention of the Teachers' Association, stated it had been in existence a number of years and had been productive of much benefit to the members. It was thought a short time ago, however, that advantages might result from uniting the Association more intimately with the McGill Normal School, both as regards the teachers and the cause of education, and hence the union which had taken place. Dr. Dawson glanced briefly at the operations of the Association during the past year, mentioning the papers on various interesting subjects which had been read at the different meetings, and so forth. He showed the benefits which might arise from periodical meetings of teachers, where they might compare their acquirements, cultivate friendships, and each add something to the general stock of information. All engaged in the work of education should join the Association and help on this excellent enterprise. He pointed out the necessity for the union of those engaged in the work of English education, representing as they did a minority in this Province. It should be their desire to strive to make the system as excellent and efficient as possible in order that the education made use of in forming the minds of the English-speaking people of Lower Canada should be of the best character. They should combine to make education exercise as large an influence as possible in the country, and bring all within its beneficial influence. (Applause.)

Mr. Williamson, Secretary of the Teachers' Association now read the annual report, setting forth the aims of the society, its operations and progress during the past year.

Prof. Andrews now treated the meeting to a reading, in a style of excellence which elicited loud applause.

Hon. Mr. Chauveau, Superintendent of Education, addressed the meeting. He regarded the establishment of this Association with much pleasure. He had thought that it would be a great injustice that if while we were doing so much for the future teachers of the country, we should do nothing for the old teachers,

for those who had borne the burden and heat of the day. The speaker gave an account of his efforts to form a teachers' association, and of that formed in connection with the Jacques Cartier Normal School, in Montreal, and Laval school in Quebec, which had been very successful. The reason why the present association had not made the development expected was, that the majority of the teachers sent from the McGill Normal School were scattered through the Eastern Townships where it was difficult to maintain close relations with the head school in Montreal. He next referred to their Journals of Education in Lower Canada, which it was hoped would reach those teachers who could not attend this Normal School convocation. The Journals had been prosperous to a certain extent, but not to that extent to which they were entitled. Their merits had been appreciated by the Education Committee of the London Exhibition, who had awarded them first class medals. (Applause). He hoped the teachers would do all they could to support those Journals better henceforward, the only present difficulties being of the financial kind. He regretted there were only 200 subscribers to the Superannuated Teachers' Fund, when at least there should be one thousand. The present law only allowed a small sum to aged teachers, who deserved greater assistance. He hoped all teachers would at once become subscribers to the above fund. Having sketched the origin and operations of the Teachers' Associations preceding the present one, he said the Jacques Cartier and Laval School Associations, which were French and Catholic, and McGill Normal School, which was English and Protestant, had agreed to disagree respecting religious education; but it was but right, however, they should not be strangers, but labour together in the general interest of education, and always take an interest in the progress made on each side. He never failed to point out to each that the other was working strenuously, in the good cause of education. A little before the Union, there were 1,500 schools in the Province with only 57,000 pupils; now, there were 3,500 of the former, and 188,000 of the latter. In many French schools in town and country mental arithmetic was taught, and in many infant schools, and the Normal School in Montreal, object lessons were made the basis of education. The hon. superintendent mentioned other improvements adopted into the school system of this Province, such as the teaching of history, and so forth. Having remarked upon the value of the maternal influence as regards the education of children, he expressed his pleasure at seeing the British people on all occasions display such interest, almost a religious interest in the operations and progress of their educational institutions, and the welfare of the teachers, and resumed his seat amid loud applause.

Prof. Hicks and Principal Graham of St. Francis College, also delivered able and interesting addresses, the latter giving a gratifying account of the progress of education in the Eastern Townships, and warning intending teachers that they must possess high qualifications to enable them to take charge of schools in that section of the country. Hitherto students from the Townships had gone to the New England colleges for a first rate education; now, however, the tide was turning in favor of our excellent McGill College, an institution behind none of them, and which merited the fullest support.

The proceedings which were diversified with very clever performances of the Oratorio Society, under Mr. Fowler's leadership, and the readings of Mr. Andrew, were brought to a close with a number of interesting and instructive chemical experiments by Prof. Robins. After singing the National Anthem the meeting dispersed.

SATURDAY.

At ten A.M. to day, the second meeting of the Teachers' Association took place in the room where the first was held, Principal Dawson presiding. The proceedings opened with prayer.

Mr. Arnold, Master of the Panet Street School, now examined a class of his pupils in elementary arithmetic, which gave an opportunity of displaying a thorough knowledge of this branch. Their answers to difficult questions—almost amounting to puzzle

zles—were promptly and accurately given, reflecting great credit on themselves as well as their teacher. Three of Mr. Arnold's pupils, a little girl and two boys, charmed the meeting with a song, the little girl accompanying her sweet voice on the piano, and the boys chorusing in beautiful style.

Mr. Williams then read a paper, on teaching, containing an analysis of the difficulties encountered in the work, and of the duties and responsibilities of the teacher, and some wise reflections on the proper system of moral training. He regarded the principal obstacles to teaching as being more of a moral than intellectual nature. The speaker went on to show that the work of teaching was the demonstration and display of truth to the mind of the scholar, pointing out the best means of sound moral instruction. The evil of the past few years had been a desire to cultivate the intellectual faculties, regardless of the moral nature. It was gratifying to know that some of Britain's best sons having discovered the grand mistake of our generation in this respect were laboring now to establish a system having also for its object the elevation of the heart as the best means of curing the moral ills of society.

Mr. Warren, a teacher from the country, proposed, as a subject for discussion, whether it would be advisable to pass a law compelling the attendance at school of children from seven years and upwards, their eligibility to leave which to be determined by an examination—the standard of education to be high also. He spoke in favor of such a law, commenting upon the necessity for it in the country, where parents neglected to send their children to school, and remarking upon the advantages resulting from the education of the young.

Prof. Robins observed such a law would hand over the rising generation to such incompetent teachers as they had heard of—persons who in some cases could not spell correctly. (Laughter.)

Prof. Hicks thought the subject an important one, and would like to hear the opinions of all the teachers present, respecting it.

Mr. Williamson spoke on the negative. The measure would interfere with the rights and responsibilities of parents and withdraw children to some extent from their influence. The evils would counterbalance the benefits of such a system.

A lady asked whether it would not be contrary to the spirit of the English law to introduce this compulsion.

Mr. Warren said the necessity for such a law existed more in the country than in the towns. Could the good results which would spring therefrom be only witnessed, he believed people in the towns would sustain such a law. He could not speak as to the city needs, but he knew some compulsion was required in the country, where parents did not so keenly appreciate the benefits of education for their children.

Dr. Dawson said in answer to the lady, he only knew of one place in which John Bull had submitted to be sent to school by the State, and that was in New Haven, New England. There, long ago, an enactment had been passed compelling parents to send their children to school on pain of fine. This law had become obsolete (as all good laws should) in the way of there being no longer any necessity to enforce it. Parents having to pay for the education of their children, thought they might as well get something for it, and in the course of time all the youthful population was found attending school, and with the best results.

Rev. Mr. Kemp appreciated the views of Mr. Warren, believing that in country districts there was some necessity for a certain amount of compulsion being used to make parents send their children to school. If such a law could be put in operation for two years, it might produce the best effect. The difficulty in the way of education was not so much in the lack of good teachers as the unwillingness of parents to send their children to school and keep them there long enough to acquire sufficient knowledge. He thought there was too much liberty in this country as regards schools, and that municipalities ought to be compelled to support schools. He knew municipalities which had not a single school. The next thing was to make the education of the youth compulsory.

Dr. Dawson was understood to be in favor of levying a tax for

the support of schools everywhere, to be determined in proportion to the average attendance of pupils. As in New England people here would send their children to school if they were obliged to contribute to support the school.

After a recess of ten minutes the meeting re-assembled.

Prof. Howe, Rector of the High School, gave a specimen lesson in English, to a large class of his pupils. The subject read was an elementary lesson in mechanics. The boys were made explain some of the principles of mechanics; then were exercised in the syntax of the lesson, in explaining the words, spelling them and pointing out their derivation as well as construing parent Latin words, &c. The pupils shewed a creditable knowledge of the subject and that the labor spent on their instruction had produced good fruit.

Prof. Howe having explained the system by which the pupils in the High School were assigned their places and marks for proficiency, a system which appeared admirably adapted for correct classification as regards all branches, except arithmetic, resumed his seat.

Prin. Nicholls, of Lennoxville College, delivered an address, in which he dwelt on the importance of Teachers' Associations, and the good which all the members might derive from connection therewith. He commented on the importance of giving pupils in the lower schools a sound elementary education, without which basis a higher education in College could not easily be built up. Seeing the importance and indispensable nature of the work entrusted to them, he hoped the teachers of elementary schools would go away encouraged to do their part well in the good work of education, the value of which could not easily be calculated.

The Secretary now read several letters of apology for absence, from different professors and others friendly to education.

A discussion now took place in which the Principal of St. Francis College and other gentlemen present engaged, respecting the value of elementary education, amusing instances of its neglect in the case of some school teachers in the country being shewn; the best system of moral and intellectual culture to pursue, school routine, length of school hours, and so forth, those present expressing their opinions freely and clearly, and imparting valuable information, and making useful suggestions to each other. The meeting broke up in the afternoon. No doubt such conventions will tend greatly to the advancement of the cause of education in this Province.—*Montreal Gazette*.

Extracts from the Reports of Inspectors of Schools, for 1859 and 1860.

Extracts from Rev. Mr. PLEES' Report.

I have the honor to render this my second Report for the past year, of the schools with whose inspection I am intrusted.

These schools, I have satisfaction in saying, are in an efficient state, all progressing more or less, in the several branches pursued in them. It is, however, to be regretted that the parents and guardians are, in many cases, not sufficiently alive to the necessity of punctuality, to good order, and to the advancement of their children, in education. They seem to forget that the want of it not only impedes the progress of the tardy themselves, but to a certain extent, that of all who frequent the same schools with them, by deranging the teachers' plans and proportionably frustrating their efforts for the improvement of their pupils.

In English grammar and practical orthography, considerable progress has been made. In geography also, the children are advancing. In some of the schools, that of their own country has gained a due prominence in their course of instruction: but there is much want of a good school-map of Canada.

Reading, in most of our schools, is still very imperfectly taught. Progress in this important branch of elementary instruction is too generally made to consist of a rapid passage through a book and transference to another; thus being the kind of progress looked for by the parents in general. The inevitable consequence, I need not say, is, that a large majority of the words which the children are taught (and this with difficulty) to pronounce, are quite beyond the range of their ideas. Not only therefore, do they convey no distinct impression to their minds, except the dulness of the task

imposed on them, but the important rule "Read as you would converse" is rendered all but impracticable.

It would, I am persuaded, tend much to remedy this defect, if "Object Lessons" as a part of elementary instruction, were more generally adopted. There are, I believe, few pupils in our primary schools, who might not be materially benefited by them. The interest shown in them wherever they are intelligently conducted, their tendency to cultivate habits of observation and reflection, to give a clear perception of the meaning of words met with in their reading exercises, in short, to develop the intellect and impart a useful knowledge of things, give them, as I humbly think, a high rank among the means of popular instruction.

In arithmetic, these schools are progressing; but I too often find on examination, that the knowledge of this branch, actually possessed, chiefly consists of the Rules but recently gone through. I should deem it a great improvement on the methods which now prevail, if the rules were so explained to the pupils, that the principles on which they are based might be thoroughly understood. It is also, I think, highly desirable that the pupils, on having mastered any rule should be exercised with miscellaneous practical questions founded on that and the preceding ones. The advantages of such frequent retrospection would be very great, and some of our teachers are beginning to perceive its importance.

Of the schools under my inspection, the first, in the order of efficiency, is that conducted by Mr. R. C. Geggie, the holder of a model-school diploma, being No. 1 of the St. Louis district of this City. It is attended by boys exclusively, the number of whom, during the last six months was 95. This school is certainly an exception to what I have stated above in relation to reading; and much credit is reflected on the teacher by the natural manner in which they perform this exercise. They show by the inflections of the voice, that they are properly instructed in this respect and that they understand the subjects of their lessons. In orthographical exercises, both oral and written, they also acquit themselves in a highly satisfactory manner; and have acquired a very fair amount of knowledge of geography and English grammar. A few are pursuing book-keeping with various success.

Mrs. McCord's school, St. Roch suburbs, is also prospering. The attendance, during the last half-year has been 37, of whom 19 were boys and 18 girls. It exhibits a marked advancement in the several elementary branches taught in it. Geography and English grammar, in both of which I had noticed a greater deficiency than in anything else, are now much more intelligently pursued than heretofore. Much progress is observable in the writing. Mrs. McCord is provided with a diploma for an elementary school.

Mrs. McLean's school, St. Roch suburbs, has been much thinned by sickness, in attendance, during the past six months, having been only 7 boys and 15 girls. Their progress has, in general, been satisfactory: their improvement in writing particularly so. They are much exercised in mental arithmetic. Mrs. McLean is provided with a diploma.

Miss Geggie's school, district No. 2, St. Louis suburbs, is attended only by girls, who during the last half-year numbered 39. Miss Geggie is provided with a diploma. Owing to the frequent indisposition of the teacher, during that period, the progress made has not been so satisfactory as usual. The reading and spelling, however, were good and the answers in geography, on the whole, pretty correct.

The Champlain street school conducted by Mr. James Lloyd, assisted by Miss Lloyd, has, during the last six months, been attended by 16 boys and 19 girls. Both teachers are provided with diplomas, that of Miss L. is for a model school. The efficiency of this school has been much increased by the training which Miss L. received at the McGill Normal School. In reading, spelling geography and grammar, a very fair proficiency was shown at the examination. Object Lessons have been introduced here with manifest advantages.

Ste. Foy and *Banlieue* Dissident School, conducted by Mr. John Purdie, (provided with a diploma) assisted by his wife, has during the last six months, been frequented by 45 children of whom 22 were girls and 23 boys. On the day of the last examination, much interest was shown, as usual, by the parents who attended in considerable numbers. Several of the pupils acquitted themselves very well, as on former occasions; others had made but little progress, owing, to their having been kept by their parents from school, to assist them in farming operations, during a great part of the summer. The results of my examination in the different branches of study were, however, satisfactory on the whole. The course of instruction embraces, besides the elementary branches, astronomy, English history and composition, and men-

uration. The children are taught singing and needlework by Mrs. Purdie.

The dissentient school, municipality of St. Roch, conducted by Miss Gellespie, who holds a model diploma, is small, being attended only by 8 boys and 10 girls, and being comparatively new is less advanced than some others that I inspect. The teacher, however, is very efficient, and knows how, without severity, to maintain admirable order, and to instruct her pupils in an interesting manner. She has the advantage of being able to teach French; but two only of her pupils are at present, learning it. The dissentient school, St. Columban de Sillery, of which Miss Sturrock is teacher, has, on its list of pupils, 16 boys and 18 girls.

Miss Sturrock who possesses a diploma, is assiduous in her attention to her duties and the fruits of her zeal are seen in the progress which most of her pupils have made in their different studies, taking into account the shortness of the period during which the school has been in operation. In reading, orthography, English grammar, sacred history and arithmetic, the proficiency shown at my last visit was most satisfactory. Some pleasing exercises in composition, of which the subjects were given by me, were also performed.

Extracts from Inspector MAURAUULT's Report.

This district of inspection deserved honorable mention for its progressive efforts to establish its schools on a sound basis. Complaints against the schools were no longer heard; and, with few exceptions, the commissioners discharged their duties in a very satisfactory manner. The number of pupils in attendance continued to increase; and, in several parishes, superior schools were established in which both languages, music, and other branches were successfully taught. The *Journal de l'Instruction Publique* had many subscribers in this district, and the services rendered by that publication to the teachers who read it attentively were very apparent.

1. *St. Pierre-les-Bécquets*.—All the schools in this municipality were well conducted. By an increase in the rate of assessment, the commissioners had been enabled to pay off their debts, and at the same time to provide the necessary school materials. The model school of the village was under the direction of Miss Boisvert and Miss Hémon, who deserved credit for the progress which attended their labors. The number of pupils attending the schools of this parish was 538, being as 1 to 5 compared with the total population, and showing an increase of 79 pupils during the year. The local contributions amounted to \$26.31; or more than double the amount of the annual grant. The accounts were well kept.

2. *Gentilly*.—Both the commissioners and ratepayers of this municipality evinced a disposition which was highly commendable. Eight elementary schools and one academy were in operation. Of the first, those conducted by the Misses Bouvette, Bavi, and Beaudet deserved honorable mention. The academy also was kept on a satisfactory footing. These schools were frequented by 507 pupils, averaging 56½ to each school. Here also the local contributions amounted to more than double the amount of the yearly grant. The finances were in good order.

3. *Blandford*.—The commissioners of this municipality, in which, it may be necessary to remark, the ratepayers were generally poor, had been obliged to close the two schools previously established, in order to defray expenses incurred through a lawsuit—judgment having been rendered against them.

4. *Bécancour*.—The boys' school in the village was conducted by Mr. Poirier, a teacher possessing a diploma and who appeared to discharge his duties with punctuality, though his pupils were not, as yet, much advanced. The girls' school was managed by Miss Levasseur, a clever teacher, whose pupils made rapid progress. Altogether there were eleven schools under control in this municipality, with a regular attendance of 389 pupils, and one independent school affording instruction to 25 pupils. This was an increase of 14 on the total attendance of the previous year. The more advanced schools were those taught by the Misses Rivard, LeBlanc, Lacourse and Bourque. The sum raised by local contributions was \$592. The accounts were well kept.

5. *Ste. Gertrude*.—There were five schools in operation here, including the girls' academy controlled by the *curé*. Satisfactory progress was made in all these establishments, which were attended by 255 pupils,—the average to each being 57 scholars. The assessment had been raised, and monetary matters were well attended to.

6. *St. Grégoire*.—The results obtained by Mr. Biron were entirely satisfactory, and plainly demonstrated the advantages of the method of instruction followed in our normal schools, in one of which this teacher received his training. The other schools were also well conducted, especially those under the charge of the Misses Gauthier, Genest, Vigneau, and Béliveau, in all of which the inspector observed greater assiduity on the part of the scholars. The public schools of this municipality were eleven in number, with an aggregate attendance of 603 pupils. The convent school was frequented by 60 pupils. The increase on the attendance of the previous year was 13. The local contributions reached as high as a sum of \$991.04. The finances were in a satisfactory condition and the accounts well kept.

7. *St. Césaire*.—There were six schools in this municipality, of which one was independent and three were under the supervision of Inspector Bourgeois. The three schools situated within the limits assigned to Mr. Manrault, were regularly attended by 155 scholars, the management being quite satisfactory. The increase in attendance on the previous year was 41. The local contributions amounted to \$252; and the accounts were well kept.

8. *Nicolet*.—The village boys' school was still under the management of Mr. Pinard, whose pupils made uninterrupted progress. The girls' school remained under the direction of Miss Dufresne, and she also discharged her duties carefully and with zeal. The commissioners of this municipality had promptly carried out the recommendations of the Department of Education in furnishing the tables, stools, desks and other objects necessary to each school, and there was unmistakable evidence of general progress. The local contributions were \$540. The finances were in a prosperous state and the accounts in good order.

9. *Ste. Monique*.—The schools in this municipality had been closed since the previous month of July, and the inspector could not say when it would be possible to re-open them. The friends of education, who alone had contributed to their support, were naturally disinclined to incur further expense; and no doubt they hoped that the closing of the schools would at last open the eyes of those opposed to the tax to the consequences of neglect, and bring them to concur willingly in its enforcement, as all would see that this was the only sure means of securing proper support. This retrograde movement was greatly to be regretted, as the number of schools in operation in Ste. Monique during the previous year, was not less than eight, with an attendance of 410 pupils, and the inspector had remarked on his last visit that the pupils were generally progressing.

10. *Beau-du-Fevre*.—There were nine schools in operation in this parish, affording instruction to 519 children. The academy was still under the direction of Mr. de Lottinville, and of Miss Noël who had charge of the female department. This institution was regularly attended by 150 pupils, who made very satisfactory progress. The contributions amounted to \$895.20, exceeding the government grant by over one half. The accounts were well kept.

11. *St. Zéphirin*.—Five schools were in operation, attended by 225 pupils—increase on last year 31. The village school, under the care of Miss Rousseau, and those conducted by Miss Genest and Miss Grenier were maintained on an excellent footing, the pupils being assiduous and progressing rapidly. The attendance at the other schools was irregular and the progress made was not so marked in consequence. The commissioners and their secretary-treasurer, Mr. Hart, were zealous in the discharge of their respective duties. The local contributions (\$498.97) were more than three fourths in excess of the amount granted by the Department.

12. *St. Thomas-de-Pierreville*.—The academy of this parish remained under the direction of Mr. Rochon, and was entitled to rank among the best schools of the district. There were, in addition to the above, and the Abenakis Indian school, eight other schools in this municipality, attended by 351 pupils. The whole formed an aggregate attendance of 430—increase on the previous year 66. The schools were generally well conducted, and attended with greater assiduity than in former years, although two of the number still lacked a sufficiently numerous attendance. The local contributions formed a sum of \$560. The secretary-treasurer kept the accounts of the Corporation properly.

13. *St. François*.—The schools here were attended by 370 pupils. Of this number 55 frequented the village model school, which was conducted by Mme. Robillard with increasing success. The other schools were generally well managed, though irregularly attended. It was the intention of the commissioners, who had levied the assessment, to build several schoolhouses, which, as

there was but one in existence at the date of the Report, were much needed. The accounts were well kept; and the contributions amounted to \$474.52.

14. *St. David*.—There were nine schools in this parish, with 427 pupils—increase on last year 32. Of all the schools in this district of inspection those of St. David were the most regularly attended and obtained the best results. The schools conducted by the Miss Talbots, Messrs. Robert and Dupras, Miss Hébert and Miss Trudeau deserved special mention. The commissioners, and Mr. Bruneau, the secretary-treasurer, discharged their duties with punctuality. The amount of arrears due was much less than in former years, and the inspector entertained the hope that a further reduction would take place soon.

Extracts from Inspector HUBERT'S Report.

As compared with previous years, very important results had been obtained in this District of Inspection. The Boards of Examiners had been more stringent in their examination of persons who intended to devote themselves to teaching in the schools. Diplomas had however been granted to candidates who had not attained the age required by law. The ratepayers also took more interest in the education of their children than formerly. The school commissioners had not, however, been very zealous, but an improvement was looked for in this regard.

School-houses were being built or repaired, and the Inspector says that he had, by strenuous exertions, succeeded in having the schools furnished with the necessary articles, as he had invariably remarked that when a school is provided with all the necessaries, it is better attended. The best discipline prevailed in certain schools, but others were conducted by masters who did not appear to attach sufficient importance to this matter. Improvements however would gradually take place, and it was hoped that the most approved methods of instruction would everywhere be adopted.

Both male and female teachers were generally ill-paid; and it frequently happened that at the end of the year they did not receive more than half their salaries. This irregularity was a source of loss and inconvenience to them, because when deprived of their money so long they had to make their purchases on credit, instead of cash terms. The cause of this remissness on the part of the commissioners may be found in their neglect to collect the school rate from the assessed in the course of the autumn or beginning of winter—the time during which farmers are better able to pay. As it was, however, the tax was not collected till the end of winter or spring, when the crops had long been disposed of and the proceeds invested or spent. It was also to be regretted that these salaries, already so low, had in several places been still further reduced. The wish to do nothing that might displease the ratepayers had probably prompted the adoption of this expedient to avoid increasing the assessment, which the other wants of the schools had also rendered necessary. But the commissioners would no doubt find that this false economy was ill-timed, as a growing desire was manifested here for education. It may be asserted that, as a general rule, the ratepayers preferred that the commissioners should provide the necessary school articles instead of doing so themselves.

The Inspector, when examining the books and accounts of the secretaries and treasurers, had taken occasion to point out the advantages of a uniform system of book-keeping for all. The monetary affairs of the School Corporations had, with a few known exceptions, been conducted with a strict regard to honesty.

Of the three counties forming this district of inspection, that of St. Maurice contained 29 elementary and three model schools, five academies and one college. Total number of pupils 2486. The county of Champlain contained 35 elementary and three model schools, and one academy. Number of pupils 2201. In the county of Maskinongé there were 38 elementary schools and one model school under control of the commissioners. Number of pupils 2008.

The county of Champlain was foremost in its local contributions, which nearly trebled the amount of the Legislative grant; while the county of Maskinongé contributed a sum double the amount paid them in aid of their schools. The county of St. Maurice also raised a sum nearly equal in proportion to that raised in the last mentioned county.

The city of Three Rivers, by the number of first class establishments which it supports, fully maintains its position as the *chef-lieu* of the District. The Ursulines' academy for girls, the boys' academy (in charge of Mr. Lawlor), Mr. Balmain's academy, and the model school of the Brothers of the Christian Schools were all in a very satisfactory condition; and the college recently opened

under the direction of Rev. Mr. Bayard, deserved particular notice as it had already become justly popular, and would unquestionably render important services to the inhabitants of the North shore of the district, whose number was set down as 50,000.

Among the academies, that of the Brothers of the Christian Schools, at Yamachiche, was entitled to the first place; and the model schools of Mr. Tétrault, Rivière-du-Loup; of Mr. St. Cyr, Ste. Anne-de-la-Pérade; of Mr. Robert-on, Ste. Geneviève; of Mr. Lamy, St. Sévère; of Miss Hamel, Champlain; and of Miss Robitaille, Pointe-du-Lac, were next in the order of excellence. Several of the elementary schools were also kept on an admirable footing.

(To be continued.)

MONTHLY SUMMARY.

EDUCATIONAL INTELLIGENCE.

—The high solicitude of the Emperor of the French, strengthened by the concurrent wishes of the legislative bodies of the state, has not failed, says the *Moniteur*, to influence favorably, during 1862, the management of public instruction and religious affairs. This management, affecting so many interests, is accordingly found maintaining its progressive tendency; and if the desired results have not been attained, it is only because its action has been curbed by the insufficiency of the resources at its command. The hope, however, is fully entertained that the contemplated improvements will be effected in future years, when the strict economy lately introduced in the financial administration, shall have provided the means of relieving the intellectual, religious and moral wants of the country. In connection with superior education the very useful work commenced at the *Muséum d'Histoire Naturelle* may be noticed. This museum is indebted to the munificence of the Emperor for the acquisition of a large number of animals of great value to science, which are in part the gift of the King of Siam. The *Bureau des Longitudes*, reorganized by the decree of the 26th March, 1862, has been able to improve the work published every year under its auspices. *L'Ecole française d'Athènes*, of whose young professors many already possess rich and brilliant classical attainments, continues its researches in Greece. Its labors have not been interrupted by the civil dissensions in that country, and many curious documents will doubtless be brought to light. The number of books distributed during the year in France by the *Dépot des Livres*, is 53,211. The augmentation in the number of degrees conferred by the Faculties and Institutions devoted to superior education, noticed as early as 1800, still continues, and, in 1862, there were conferred a number of diplomas exceeding that of the year preceding by 295. With regard to the Normal schools it may be remarked that the number of pupils in attendance was continually increasing and the salaries of the *maîtres de conférence* were higher than before. There were 50 Imperial lycées in France at present, besides that of Algiers; and upwards of a million of francs had been expended, in 1862, in repairing and building edifices for these institutions. The communal colleges have necessarily suffered in consequence of the competition in liberal instruction, and their number is decreasing. It is thought that these numerous establishments can only be placed in a satisfactory condition by lowering the course of study. A marked advance in elementary education has taken place during the year. The number of communal schools is now 37,000; and the attendance is very regular. The law does not recognize the principle of gratuitous nor compulsory instruction, but exacts an equitable tax as compensation from those who are competent to pay it, and admits gratuitously to the schools the children of indigent parents and even of those who could not pay the tax without great inconvenience. These regulations have not had the effect of reducing the number of paying pupils, which, in three years, has been augmented by more than 200,000; while the school tax has risen from nine millions in 1858, to thirteen millions in 1862. This prosperity induced the Emperor to issue the decree of the 19th April last, which entitles all teachers in common schools who have served during five years to receive as supplementary remuneration, from 1863, an amount so calculated that their minimum salaries shall be not less than 700 francs. Besides which one twentieth of the whole number of teachers shall receive salaries of 800 francs after ten years of service, and of 900 francs after fifteen years. It is also provided that all pupil-teachers and hussars shall receive a bounty of 100 francs on accepting employment in a public school.

The Government had extended aid to 662 communes for the building and repairing of schoolhouses. The amount given in this way averaged 5326 francs to each commune. A considerable sum had also been placed at the disposal of the Department for the improvement of the primary normal schools. School libraries, which must not be confounded with communal libraries, were growing into importance and promised to become very useful. The sum of 100,000 francs had been appropriated in 1862, for the purchase of books; and more than 60,000

volumes had been acquired. It is very satisfactory to know that there are in France 1000 communes in possession of good libraries.

SCIENTIFIC INTELLIGENCE.

—Hymenoptera emit peculiar odours; the little wood-boring *Hylei* send forth a very sharp but agreeable citron smell, some of the *Itheti* a lusciously sweet but sickly smell, some of the Ichneumons offensive smells of garlic, or still more disagreeable scents; but the capacity is not always co-extensive with the size of the insect, for the smallest sometimes emit it more powerfully than larger ones; nor is it a peculiarity limited to this order, for many of the beetles, and bugs, and caterpillars of the Lepidoptera possess the same property. Thus the *Cicindela campestris* exhales a strong smell of the otto of roses, as does also the musk beetle (*Cerambyx moschatus*), and both exude at the same time a milky fluid which adheres to the fingers; the *Necrophori*, or burying beetles, exhibit a strong smell of musk, some of the *Staphylinidæ* an agreeably sweet smell, for instance, *Philonthus*; in others it is most disagreeable and offensive, and amongst the larvæ of the Lepidoptera there are many which give out peculiar odours, for instance, that of the Goat Moth, which feeds within the substance of the ash, is named from the circumstance of its offensive smell, which has all the rankness of the smell of the goat, and may be detected at a distance from the tree wherein it is feeding. I have also found a whole copse of willows emitting the strong and refreshing fragrance of a garden of roses, it being abundantly inhabited by the *Cerambyx moschatus*.

—The assertion so frequently made, and so generally accepted, that our sun is one of the fixed stars, is of course incapable of demonstration. Its probability seems to rest chiefly upon two arguments—that the light of the stars is evidently of the same intrinsic and self-developed character with that of the sun, and that the sun, if viewed at a distance equal to that of the stars, would undoubtedly appear no otherwise than as one of them; and since no more direct proof can be obtained, we are willing to receive these as sufficient. But this point once admitted, it is evidently consistent with all analogy to proceed a step further, and to suppose that these other suns, or at least the insulated ones, may be, as our own, the centres of light and heat and gravity, and electrical and chemical influences, to groups of surrounding worlds. The idea is a magnificent one, and in full accordance with every other declaration of the glory of God in the heavens, and it would be no matter of surprise at any time if observation were to give us direct evidence of its truth. Nor would it necessarily follow that the highest class of instruments would be required for the detection of these planetary systems, though so wonderfully remote in the depths of space. Analogy may point the way in many cases where it ought not to interpose a check, and the diminutive size of our planets in comparison with their ruler affords no adequate inference that in other systems a very different arrangement may not obtain. It was a noble expression of old Bianchini's, "Quis unquam exhaustas dixerit cœli copias!" and all the subsequent progress of astronomy has proved, from more comprehensive premises, the justice of his conclusion.

And thus, although planets no larger than our own might ever remain invisible at the distance of the fixed stars, it is not merely possible, but may be even probable, that bodies of a similar nature may be connected with other suns, of sufficient magnitude to be visible with our instruments, especially in their modern state of improvement. The idea was thrown out by Sir J. Herschel, many years ago, that certain very minute points, closely associated with larger stars, may be visible by reflected or planetary light; and he specified among others, γ Urae Majoris, γ Hydre, α Geminorum, and the comets of α^2 Cancri and α^2 Capricorni; but it does not appear that these suspicions have been verified, or that the matter has been subsequently investigated, notwithstanding its obvious interest and importance.

The subject, however, has been brought afresh before us by M. Goldschmidt's recent assertion that, with an object-glass of little more than four inches aperture, he has not merely perceived Alvan Clark's companion of Sirius, which has hitherto been supposed to be reserved for the largest and most perfect instruments, but has detected five additional companions of the same character, at somewhat greater distances, varying from 15" to 1'; and, in announcing this discovery, he suggests an inquiry as to whether the object discovered by A. Clark may shine by native or reflected light, which may of course be extended to the rest. It seems remarkable that the colossal telescopes of Clark, Bond, Lassell, and Chacornac, in which the nearest of these alleged attendants has been perceived, should have given no indication, as far as has hitherto been stated, of the other five; but no doubt immediate attention will be paid to so interesting a point. M. Goldschmidt has distinguished himself as the discoverer, with comparatively very inadequate instrumental means, of no less than fourteen of the small planets intervening between Mars and Jupiter, and has, on that account, received one of the most honourable of testimonials, the Gold Medal of the Royal Astronomical Society, so that not a shadow of suspicion can be attached either to his eye or his judgment; but it is perhaps possible that some source of deception may exist in his instrument, such as appears to have given rise to the supposed satellite of Venus in the last century. We shall soon, at any rate, know more about it. Should the existence of these minute points be established, the most natural supposition, of course, will be, that Sirius is accidentally projected on a background of small stars at

an incalculably greater distance : and this idea would not be negatived by any apparent general displacement, which would be referred to the proper motion of the large star. Should, however, any mutual change of position be detected among the comites, a wide field would be opened for research among the fortunate possessors of competent telescopes. The question of native or reflected light would of course be a difficult one to deal with—its solution would, in fact, be impossible in the case of orbits highly inclined to our line of vision ; but if bodies exist whose revolutions carry them from side to side, or nearly so, with respect to the central luminary, any periodical variation of light connected with their positions in their orbits would, as indicating the existence of phases resulting from reflection, give sufficient evidence of their planetary nature.—*Intellectual Observer.*

— Mr. Frank Buckland delivered a lecture on the artificial culture of fish, by permitting the ova to develop in shallow boxes supplied with a constant flow of water. Mr. Buckland has recently ascertained the amount of ova in several species of fish, by counting the number in a given weight, say ten or twenty grains, and then weighing the entire roe. The following are the results :—

Salmon, to each pound the fish weighs, about 1,000 ova.	
Trout of one pound weight	1,008 "
Herring of half pound weight	19,840 "
Perch of half pound weight	20,592 "
Jack of four and a half pounds weight	42,840 "
Mackerel of one pound weight	86,220 "
Sole of one pound weight	134,466 "
Brill of four pound weight	239,770 "
Turbot of eight pounds weight	385,200 "
Roach of three quarters of a pound weight	480,000 "
Cod of fifteen pounds weight	4,872,000 — <i>lb.</i>

Mr. GLASHIER'S ASCENTS.—The ninth of these incidents took place at the Crystal Palace on the 31st of March, at 4h. 16m. p.m., the temperature being 50°. At one mile elevation the temperature was 33½°; at two miles, 26°; three miles, 14°; three miles and three-quarters, 8°. Then a warm current was encountered, and the temperature rose to 12°. At four miles and a-half, temperature zero. In descending, 11° at three miles, cold current entered, and it fell 7°. At two miles, rose to 18½°; 25° at one mile, and 42° on reaching earth. The air was dry before leaving the earth; at heights above two miles very dry; exceeding four miles dew point fully minus 40°. This, with previous ascents, shows that the theory of a decline of 1° for each 300 feet elevation must be abandoned. At one mile the deep roar of London was heard distinctly, and a murmur at greater elevations. At three and four miles views were wonderful, extending to Margate, Dover, Brighton, Yarmouth, etc. Railway trains looked creeping things, like caterpillars, and all the country looked so calm as to appear artificial. Looking downwards, patches of cumulus cloud appeared resting on the earth, and had the aspect of shining wool. The blackness creeping over the land at sunset was remarkable, while the sun was still shining on the balloon. The tenth ascent was made on the 18th of April, when he found sensitive photographic paper did not colour as much in half an hour in the full sun at three miles' elevation as in one minute at Greenwich. He likewise made spectroscopic experiments, and reports that at four miles, and upwards to four and a-half, "when the light entered the slit from the sun itself the lines in the spectrum were innumerable; all those I saw before leaving the earth were visible, and many more. The nebulous lines (H) were both seen, and the spectrum a good deal lengthened at the violet end; at the red end (A) was visible. When the light came from the sky in the immediate vicinity of the sun, the spectrum was shorter, but all the lines were visible from B to G. On passing from the sun the spectrum shortened very quickly, and when opposite to the sun there was no spectrum—in fact, no light at all."—*lb.*

— Hon. Henry Wilson, of Massachusetts, in the Senate of the United States, at the last session of Congress, presented and secured the passage of a bill to incorporate a National Academy of Sciences. Not more than fifty members will be received; and among the names already on the list we notice those of Professor Agassiz, A. D. Bache, J. A. Dahlgren, J. D. Dana, Ben. Silliman, and B. Silliman, Jr. The Academy will have all the powers necessary for its proper management; and it has undertaken, whenever called upon by the Government, to investigate, experiment, and report upon any subject of art or science without compensation. A committee has been appointed to draw up rules and regulations in conformity with the act of incorporation; and the two classes have been formed—Class A, to include *Mathematics and Physics*, and to be subdivided into the following sections:—1, Mathematics; 2, Physics; 3, Astronomy, Geography, and Geodesy; 4, Mechanics; 5, Chemistry; and Class B, which will be devoted to *Natural History*, with the following sections: 1, Mineralogy and Geology; 2, Zoology; 3, Botany; 4, Anatomy and Physiology; 5, Ethnology. The Academy is authorized to elect fifty foreign associates, who will have the privilege of attending the sessions, reading or communicating papers, and of receiving the publications of the Academy. There will be two regular meetings each year—the first, in January, will always be held at Washington, and the second, in August, at a place to be fixed upon during the previous session. The scientific sittings will be open to the

public, but the business meetings closed. Communications from persons not members of the Academy will be received, but must be read by a member who will be responsible for the general propriety of the paper though not for the opinions of the author. A report, drawn up by the President, will be presented to Congress annually. The following is a list of the officers chosen at the first election :

President,	Alexander Dallas Bache,	Washington, D. C.
Vice-President,	James D Dana,	New Haven, Conn.
Foreign Secretary,	Louis Agassiz,	Cambridge, Mass.
Home Secretary,	Wolcott Gibbs,	New York.
Treasurer,	Fairman Rogers,	Philadelphia.

OFFICERS OF THE CLASSES.

Class A. *Mathematics and Physics.*

Chairman,	B. Pierce,	Cambridge, Mass.
Secretary,	B. A. Gould,	Cambridge "

Class B. *Natural History.*

Chairman,	B. Silliman,	New Haven, Ct.
Secretary,	J. S. Newberry,	Ohio.

"Born in the midst of a great political revolution," says Silliman's *Journal* from which the above is extracted, "the National Academy of Sciences, created by the supreme law of the land, stands pledged to the power which has called it into being, and to the world to discharge its duties with fidelity. The members of the Academy named in the Act had before them simply to accept or to decline the trust reposed in them, by no choice of theirs. So far as they have accepted their position, we feel justified in saying it is with a conviction that there were many not named on the list who might most properly have been there, and with the assurance that so far as any honor may attach to membership, it will be shared much more largely by those who shall hereafter be called by the suffrages of the Academy to fill such vacancies as must occur, than by the corporators who are named in the law.

"The National Academy of Sciences does not take the place of, or necessarily interfere with, the American Association for the Advancement of Science, as many persons seem to have supposed.

— It is with real pain that we have to announce to our readers the death of Mr. Lucas Barrett, the distinguished naturalist, who was accidentally drowned whilst investigating the structure of some coral reefs at Port Royal, Jamaica. All who visited the Jamaica Court at the International Exhibition will remember the enthusiasm and painstaking kindness with which this gentleman was ever ready to show and explain the various mineral and geological specimens collected and exhibited by him. Although one of the most active of the Jamaica Commissioners, he still found time to officiate as one of the local secretaries of the British Association, besides keeping a term at Cambridge. Before returning to Jamaica to renew his researches as one of the chief members of the West Indian Geological Survey, he ordered a diving dress and pumping apparatus of the latest and most scientific construction, for the purpose of personally examining the rocks and coral reefs lying in the neighbourhood of most of the West India islands. He first tried this dress at Port Royal, on December 17, in shallow water, and was so well pleased with the result that he determined to give it a trial in deeper water. Two days afterwards he took with him his servants and boat's crew, all of whom were negroes, and descended into the deep water between the reefs, the men in the boat continued to pump without intermission as on the former occasion, but they noticed that he remained longer in the water than usual. Suddenly, to their horror, they saw him floating on the surface at a little distance from the boat. They got to him as quickly as possible, but all was over. The cause of his death will remain a mystery. He was not drowned by the influx of the water, as the diving-dress contained only air. The only explanation to be given is, that the air exit valves became permanently closed in some mysterious manner; but even this seems open to doubt, as the men continued to pump without interruption. Mr. Barrett was only twenty-five years of age when he died; and the enormous amount of valuable work done by him during his brief career, gave promise of his speedily becoming one of the chief ornaments of the science he so ardently loved, and to the too enthusiastic pursuit of which he fell a victim. For three years before his engagement on the West Indian survey, he delivered most of the geological lectures for Professor Sedgwick, and was made by him curator of the Woodwardian museum at that university. His collection of *Rudaria* in that Museum is one of the finest in the world. His loss to science will be felt severely, not merely on account of his own personal exertions in the cause of truth, but from the enthusiasm he communicated to those who had the privilege of his acquaintance.—*Chemical News.*

STATISTICAL INTELLIGENCE.

— The *Times* of the 29th. ult., gives a summary of a Parliamentary return respecting the Colonies of Great Britain. They extend over 3,330,000 square miles; cost £3,350,000 per annum, or £1 per mile; import £60,000,000 of goods yearly, and export £50,000,000. Their population is 10,000,000, of whom 5,000,000 are whites. The Australian colonies are the largest and do the most trade; the so called colonies,

where no English settlers are found, of the Mediterranean, cost most money; and Canada is more deeply in debt than any other dependency of the Crown. Out of the large sum of £3,350,000, the whole of the North American Colonies, though inhabited by two thirds of the entire white colonial population of the Empire, cost only £555,000, while the Ionian Islands, which England has offered to give up, cost £280,000; Malta £480,000; and Gibraltar, which George III. would have offered to give up, if his ministers would have let him, costs £420,000. The Cape of Good Hope, moreover, costs as much as the whole North American Colonies, now the subject of so much reviling on account of their charges upon the Imperial Treasury. Some other details are worth noting, for instance, Malta, which costs nearly as much money as all the British North American colonies, only took of British imports the inconsiderable value of £30,000. The West Indies, which, it is often said, have been ruined by emancipation, with a white population of only 54,000, and a very inconsiderable territory, exported £6,000,000 worth of goods, and took about the same value of imports. The smallest dependency is Heligoland, lying off the German coast of the North Sea. It has a population of 2,172 souls on a territory of one-third of a square mile, and buys yearly £13,000 of foreign produce. The Australian colonies are out of debt. Barbadoes owes the gigantic sum of £291, respecting which the *Times* doubts if it be the commencement of a new or the balance of an old debt. Considering who was its late Governor, it is perfectly astonishing that so small an amount of debentures should be extant; but we suspect that it must be the commencement of a new debt, and that it would soon have swelled, but for Governor Bincks' timely removal. Most of the West Indies are in debt to a larger amount; but even Jamaica only owes three years revenue, while Canada owes eight, which approaches tolerably near to that great British debt, which has been sometimes looked upon as almost fabulous.—*Id.*

MISCELLANEOUS INTELLIGENCE.

—The *Presse Scientifique des Deux Mondes* contains a description of a series of experiments made in Egypt by Figari-Bey on the wheat found in the ancient sepulchres of that country. A long dispute occurred a few years ago, as to what truth there might be in the popular belief, according to which this ancient wheat will not only germinate after the lapse of three thousand years, but produce ears of extraordinary size and beauty. The question was left undecided; but Figari-Bey's paper, addressed to the Egyptian Institute at Alexandria, contains some facts which appear much in favor of a negative solution. One kind of wheat which Figari-Bey employed for his experiments had been found in Upper Egypt, at the bottom of a tomb at Medinet-Abou, by M. Schnepf, secretary to the Egyptian Institute. There were two varieties of it, both pertaining to those still cultivated in Egypt. The form of the grains had not changed; but their colour, both within and without, had become reddish, as if they had been exposed to smoke. The specific weight was also the same—viz., twenty-five grains to a gramme. On being ground they yield a good deal of flour, but are harder than common wheat, and not very friable; the colour of the flour is somewhat lighter than that of the outer envelope. Its taste is bitter and bituminous; and when thrown into the fire, it emits a slight but pungent smell. On being sown in moist ground, under the usual pressure of the atmosphere, and at a temperature of 25 degrees (Reaumur), the grains became soft, and swelled a little during the first four days, on the seventh day their tumefaction became more apparent, with an appearance of maceration and decomposition; and on the ninth day this decomposition was complete. No trace of germination could be discovered during all this time. Figari-Bey obtained similar negative results from grains of wheat found in other sepulchres, and also on barley proceeding from the same source; so that there is every reason to believe that the ears hitherto ostensibly obtained from mummy wheat proceed from grain accidentally contained in the mould into which the former was sown.—*U. C. Journal of Arts and Manufactures.*

—In consequence of the vote of want of confidence carried in the House of Assembly, the Cabinet has been reconstructed as follows: *Upper Canada*—Hons J. Sanfield McDonald, Premier and Attorney General West; W. McDougall, Commissioner of Crown Lands; J. A. Ferguson Blair, Provincial Secretary; William Pearce Howland, Receiver General; Oliver Mowatt, Postmaster General; Lewis Walbridge, Solicitor General West. *Lower Canada*—Hons. A. A. Dorion, Attorney General East; L. H. Holton, Minister of Finance; Isidore Thibaudeau, President of the Executive Council; Lewis T. Drummond, Commissioner of Public Works; Luc Letellier de Saint-Just, Minister of Agriculture; L. S. Huntington, Solicitor General East.

An *Extra of the Canada Gazette* of the 16th. instant contains His Excellency's proclamation dissolving Parliament and making the writs for the elections returnable on the 3rd. July, on which day the new Parliament will assemble.

—Mr. Salomon Bélanger, a hardy *voyageur* who accompanied Sir John Franklin in one of his perilous expeditions, died recently at his residence in the parish of St. Jacques de l'Acadigan, Canada East, aged 69. He had on one occasion, as may be seen by Sir John's narrative, saved the life of his illustrious companion.

—Horace Vernet, the celebrated French historical painter, died in

Paris, on the 17th January. He was born in that city in 1789, and at an early age manifested a taste for painting. Among his earlier works were the Taking of the Redoubt, the Dog of the Regiment, the Horse of the Trumpeter, the Halt of French Soldiers, the Battle of Toloso, the Soldier Laborer, the Last Cartridge, the Death of Poniatowski, which followed each other in rapid succession, and found more favour with the multitude than with the artists of the *bas relief* school. In 1819 he painted the Massacre of the Mamelukes at Cairo, now in the Luxembourg, and at about the same time the battles of Jemeppe, Valtin, Innau, and Montmirail. In 1826 he was admitted a member of the Institute, and in 1830 was appointed to succeed Guio as director of the Academy at Rome. There he resided for five years, and devoted himself to the study of the Italian school, the result of which was a series of pictures somewhat new in the subject and manner of treatment. He abandoned for a while the life of the French soldier and the battles of the Revolution. During this period he painted Judith and Holofernes, Raphael and Michael Angelo at the Vatican, Combat of Brigands against the Pope's Riflemen, Confession of the Dying Brigand, Pope Leo XII. carried into St. Peter's. But he afterwards returned to his original subjects, and in 1836 produced four battle pieces; Friedland, Wagram, Jena, and Fontenoy. When Algiers was occupied by the French troops, a whole gallery at Versailles was set apart for the purpose of commemorating their achievements in Africa. This gallery was styled the Constantine Gallery, from a town of that name in Africa which had been captured by the French, and the decoration of it was intrusted to M. Vernet. He produced a great many pictures on subjects connected with the Algerine war, among which may be mentioned the Taking of the Smala of Abd-el-Kader, said to be the largest picture on canvass in existence. Vernet at several times attempted biblical subjects, but not with much success. He has also painted a large picture representing the capture of Rome by Gen. Oudinot in 1849. His only daughter married Paul Delaroche.—*N. Y. World.*

—Beneath the branches of a giant Euphorbia, sheltered by its shade, and almost lulled to sleep by the monotonous sound of a little bubbling mountain stream, I reclined one day, after a very successful foray amongst the Guinea-fowl which were occasionally found near the Bushman's River, a locality situated about one hundred and twenty miles inland to Port Natal. A quantity of long grass, which had been washed down quite flat, grew on each side of the little rivulet, and on this several dead branches were scattered, and old trunks of trees grouped, left in their places by the last periodical flood. Over this grass I observed a large brownish coloured snake gliding towards me. His large size, and the absence of the broad arrow form of head, showed me that he was not venomous; I therefore allowed him to approach me, whilst I remained perfectly still. Although I did not alter my position in the least, he yet became aware of my presence by some means, for he suddenly stopped when within twenty paces of me, then changed his direction, and then took up a position under an old stump, from which he eyed me most suspiciously. His colours were very beautiful, and there was a bloom upon his skin somewhat similar to that which we see on a ripe plum. He was evidently puzzled at my appearance, but seemed not in the least afraid; whilst I, knowing that I could shoot him at any time if I felt inclined to do so, had no hesitation in remaining within twenty paces of a snake fully twelve feet in length. After examining me for about two minutes the snake approached me, keeping its head slightly raised and looking steadily at my eyes. Its approach was so slow, and there was no break in it, such as that made by putting one foot before the other, that I felt an almost irresistible inclination to remain still and quiet, and allow the snake to glide towards me. Had the snake been forty feet in length, or had I been no bigger than a rabbit, I believe that, unless by a considerable exertion of the will, I should not have felt disposed to move. If the snake had been compelled to advance by a series of steps, each one would then have repeated the warning, and would have intimated that it was dangerous to stay; but the gliding, insidious approach of the snake appeared to produce a wish to wait until some decided movement should be taken by the reptile. Shaking off this singular temporary sensation by a decided action of the will, I raised myself on my elbow and stretched out my hand for my gun. The snake observing the movement stopped, and elevated its head, which it waved slightly in a horizontal direction. It was now not more than ten paces from me, and although tolerably certain that it was now not a poisonous snake, yet, for fear of a mistake, I deemed it prudent to ward it off, and intimated my idea by means of a broken branch which I threw at it. The snake appeared disinclined to leave me, but yet slowly glided away, stopping occasionally to look round, as though desirous of further acquaintance. I let him go; our interview had been so close and mysterious that I could not have killed him. There was also something wild and interesting in thus alone making the acquaintance of a reptile in its native wilderness, in observing some of its peculiarities, and in feeling slightly that singular power by means of which there is no doubt many of the serpent race occasionally obtain their prey.—“*A few interviews with Snakes*,” by Capt. Drayson, R. A.