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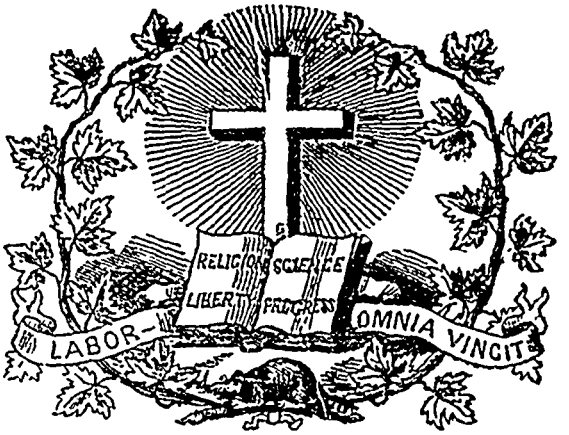

JOURNAL OF EDUCATION.

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LITERATURE.

POETRY.

THE RED RIVER VOYAGEUR.

Out and in, the river is winding
The links of its long, red chain
Through belts of dusky pine-land
And gusty leagues of plain.

Only at times, a smoke wreath
With the drifting cloud-tack joins,—
The smoke of the hunting lodges
Of the wild Assiniboins!

Drearily blows the north wind
From the land of ice and snow;
The eyes that look are weary,
And heavy the hands that row.

And with one foot on the water,
And one foot on the shore,
The Angel of Shadow gives warning
That day shall be no more.

Is it the clang of wild-geese?
Is it the Indian's yell?
That lends to the voice of the north wind
The tones of a far-off bell?

The voyageur smiles, as he listens
To the sound that grows apace;
Well he knows the vesper ringing
Of the bells of St. Boniface.

The bells of the Roman Mission,
That call from their turrets twain,
To the boatman on the river,
To the hunter on the plain!

Even so in our mortal journey
The bitter north winds blow,
And thus upon life's Red River
Our hearts as oarsmen row.

And when the Angel of Shadow
Rests his feet on wave and shore,
And our eyes grow dim with watching
And our hearts faint at the oar,

Happy is he who heareth
The signal of his release
In the bells of the Holy City,
The chimes of eternal peace!

J. G. Whittier.

SPARE MOMENTS.

A wand'rer in a desert land,
A cup of water held in hand,
And sprinkling some upon the sand;
"Spare drops!" he cries.
His brow though fevered, parched his lips,
The precious liquid scarce he sips,
And moistens but with finger tips
His burning eyes.

"I have enough," he cries, "of this,
These few small drops I ne'er shall miss,"
He little thinks how much of bliss
Hides in those drops!
The cup has fallen from his grasp!
The fragments now the madman clasps,
And murmurs with his dying gasp,
'Come back, spare drops!'

That water, time-drops, minutes are;
We lavish without thought or care,
This wealth on objects frail though fair;
Nor heed its worth,
To guide the soul, refine the mind,
The broken heart of woe to bind,
And virtue's highest joy to find
In blessing earth.

We have no minutes given us,
Save as a noble, holy trust,
Which we, the spirit-linked-with-dust,
Should e'er give back,

Fraught with those deeds that love bestows;
So when our life-work finished shows,
No waymarks may appear but those,
Our course to track.

Vermont School Journal.

Christ and the Lilies.

The bell of the little rustic church was ringing the hour for Sunday school one pleasant summer Sunday afternoon, and Miss Evelyn, one of the teachers, quickened her steps along the green shaded lane to overtake a group of her own scholars, who she saw on their way to school, some distance ahead.

They did not notice her coming up behind them, for her light step fell soundless on the grassy path, and she could not avoid hearing what the two hindmost girls were saying as she drew near. It was Jenny Warner who was speaking, and her voice sounded almost as if she had been crying.

"You needn't say 'Never mind,' Lucy; I can't help minding when I am laughed at for my shabby clothes. Fanny Houston asked the girls, quite so I could hear, how they liked bonnets that were made in the year one, and mantles that were saved in the ark. It's none of her business what I wear, and she's a conceited disagreeable thing; but still you know, Lucy, our things are terribly plain and old-fashioned! I do wish mother would dress us a little nicer. If I only was rich I'd show Miss Fanny whether she should look down on me so!"

"Being rich needn't make a bit of difference," answered her older and more sensible sister. "She can't look down upon you now, unless you choose to care for her unkind speeches. It isn't dress that makes one person better than another."

"But other people think just the same, Lucy; I know everybody thinks meanly of us for being so shabby. I won't come to church any more with this old hat—now, there!"

"For shame, to say such a wicked thing!" said her sister, reprovingly. "And to be so silly, too; no one but such foolish girls as Fanny Houston think anything at all about your clothes. Didn't Mr. Hart praise you only last Sunday for knowing the catechism so well? And isn't Miss Evelyn as fond of you as she can be? So long as that kind of people think well of you, what need you care for such as Fanny Houston. Your rosy cheeks are a great deal prettier, I am sure, than the roses in her hat."

Jenny's simple little face brightened up at her sister's kind encouraging words, and she said penitently,—

"Well, I won't mind it if I can help—still, Lucy, I do wish we could afford to dress better, after all!"

And so they went through the church-yard gate, Miss Evelyn following close behind, and thinking how she should best say a word in season to each of her foolish pupils. There was a cluster of beautiful field lilies growing just without the gate—she stooped and plucked them—and then went into the church, for the bell had ceased ringing.

It was her custom, after the regular duties of her class were over, to allow them to select a chapter to read and "talk over" with her. This afternoon she herself selected the last part of the sixth of Matthew, and requested Fanny Houston and Jenny Warner to read it attentively. The little girls did so, wondering each to herself what Miss Evelyn could mean—if she could have heard anything? and each colouring with shame as they found the rebuke of their vanity in Christ's own words.

When they had finished, Miss Evelyn said, speaking very earnestly, though without looking specially at them: "I selected these verses, my dear girls, because I think there is great need that all young people should think seriously about these words of our Saviour, with regard to love of dress, now-a-days, when there are no children to be found any more, only little men and women—and one cannot tell a child's dress from its mother's except by the size. Vanity and self-conceit are the two faults which seem to take deepest root in the hearts of young girls, growing rankly there, and choking the springing up of better things. But I trust if they have found room in the hearts of any of you, my dear scholars, that the recollection of these words of Jesus, he, who though God himself, wore the coarsest robes, will help you to root them out. He is displeased to see the hearts which should be filled with better and holier thoughts, set only upon plans for vain display—some exulting in a silly triumph—others murmuring with sinful discontent. And it is but vain labour after all, for as he told the people then, even Solomon in all his glory was not arrayed half as richly as one of the wild lilies of the field. See how delicately these beautiful colours are laid on—how soft and velvety are the leaves! How coarse and gaudy the finery which some foolish girls delight in, appears by contrast! Believe me, my dear scholars, that the most beautiful ornament any of you can put on is a '*meek and quiet spirit*;' set your thoughts upon attaining that—and no one whose opinion is worth having, will ever stop to think whether you are dressed in flounces and flowers, or in the plainest of garments; and you will be sure of the approbation of one at least—even Christ himself!"

The bell was ringing again for church, and the girls had no time to say anything; but we may hope that they took the lesson to heart, and profited by it.—*Children's Paper.*

EDUCATION.

School days of Eminent Men in Great-Britain. (1)

By John Timbs, F. S. A.

(Continued from our last.)

CXL.

ROBERT BURNS, "THE AYRSHIRE PLOUGHMAN."

Robert Burns, whom his countrymen delight to honour as the Shakspeare of Scotland, was born in 1759, in the parish of Alloway, near Ayr. His father was a poor farmer, who gave his son what education he could afford. Burns tells us that "though it cost the schoolmaster some thrashings," he made an excellent English scholar; and by the time he was ten or eleven years of age, he was a critic in substantives, verbs, and particles. In his infant and boyish days, too, he was much with an old woman who resided in the family, and was remarkable for her ignorance, credulity, and superstition. She had the largest collection in the country of tales and songs concerning demons, ghosts, fairies, brownies, witches, kelpies, elf-candles, dead-lights, wraths, apparitions, cantraips, giants, enchanted towers, dragons, and other trumpery. This cultivated the latent seeds of poetry, but had so strong an effect on Burn's imagination, that after he had grown to manhood, in his nocturnal rambles he sometimes kept a sharp look-out in suspicious places, and it often took an effort of philosophy to shake off these idle terrors. (2) He says: "The earliest composition that I recollect taking pleasure in, was *The Vision of Mirza*, and a hymn of Addison's, beginning, 'How are thy servants blest, O Lord!' I particularly remember one stanza, which was music to my boyish ear:—

'For though on dreadful whirls we hung
High on the broken wave.'

I met with these pieces in Mason's *English Collection*, one of my school-books. The two first books I ever read in private, and which gave me more pleasure than any two books I ever read since, were *The Life of Hannibal*, and *The History of Sir William Wallace*. Hannibal gave my young ideas such a turn, that I used to strut in rapture up and down after the recruiting drum and bagpipe, and wish myself tall enough to be a soldier; while the story of Wallace poured a Scottish prejudice into my veins, which will boil along there till the flood-gates of life shut in eternal rest."

While Burns lived on his father's little farm, he tells us that he was, perhaps, the most ungainly, awkward boy in the parish. He continues:—

(1) A subscriber, writing from New Glasgow, April 27th, has favored us with the following:—

"To the account of the school-days of Lord Nelson, contained in my last number of the *L. C. Journal of Education*, that for March, might be added that as a matter of fancy, he learned to write with each of his hands, and could have written equally well with either; and that he had often remarked that it was one of the most happy incidents of his education, as on his right arm being carried away by a cannon-ball he was able to write his despatches as before. This anecdote I heard told by the first Lord Castlereagh to the Rev. Mark Cassidy, when visiting the public school on his father's estate, in the County of Down, Ireland, as his lordship saw me writing with my left hand."

(2) See the Life and works of Robert Burns. Library Edition. Edited by Robert Chambers.

"What I knew of ancient story was gathered from Salmon's and Guthrie's *Geographical Grammars*; and the ideas I formed of modern manners, literature, and criticism, I got from the *Spectator*. These, with Pope's *Works*, some *Plays* of Shakspeare, Tull and Dickson on *Agriculture*, the *Pantheon*, Locke *On the Human Understanding*, Stackhouse's *History of the Bible*, Justice's *British Gardener's Directory*, Bayle's *Lectures*, Allan Ramsay's *Works*, Taylor's *Scripture Doctrine of Original Sin*, *A Select Collection of English Songs*, and Hervey's *Meditations*, had formed the whole of my reading. The Collection of Songs was my vade-mecum. I pored over them driving my cart, or walking to labour, song by song, verse by verse,—carefully noting the true, tender, and sublime, from affectation and fustian. I am convinced I owe to this practice much of my critic craft, such as it is."

Burn's father was a man of uncommon intelligence for his station in life, and was anxious that his children should have the best education which their circumstances admitted of. Robert was, therefore, sent in his sixth year to a little school at Alloway Mill, about a mile from their cottage: not long after, his father took a lead in establishing a young teacher, named John Murdoch, in a humble temple of learning, nearer hand, and there Robert and his younger brother, Gilbert, attended for some time. "With him," says Gilbert, "we learned to read English tolerably well, and to write a little. He taught us, too, the English Grammar. I was too young to profit much from his lessons in grammar, but Robert made some proficiency in it; a circumstance of considerable weight in the unfolding of his genius and character, as he soon became remarkable for the fluency and correctness of his expression, and read the few books that came in his way with much pleasure and improvement; for even then he was a reader when he could get a book." Gilbert next mentions that *The Life of Wallace*, which Robert Burns refers to, "he borrowed from the blacksmith who shod our horses."

The poet was about seven years of age when (1766) his father left the *clay bigging* at Alloway, and settled in the small upland farm at Mount Oliphant, about two miles distant. He and his younger brother continued to attend Mr. Murdoch's school for two years longer, when it was broken up. Murdoch took his leave of the boys, and brought, as a present and memorial, a small compendium of English Grammar, and the tragedy of Titus Andronicus; he began to read the play aloud, but so shocked was the party at some of its incidents, that Robert declared if the play were left, he would burn it; and Murdoch left the comedy of the *School for Love* in its place.

The father now instructed his two sons, and other children: there were no boys of their own age in the neighbourhood, and their father was almost their only companion: he conversed with them as though they were men; he taught them from Salmon's *Geographical Grammar* the situation and history of the different countries of the world; and from a book-society in Ayr he procured Derham's *Physico and Astro Theology*, and Ray's *Wisdom of God in the Creation*, to give his sons some idea of astronomy and natural history. Robert read all these books with an avidity and industry scarcely to be equalled. From Stackhouse's *History of the Bible*, then lately published in Kilmarnock, Robert collected a competent knowledge of ancient history; "for," says his brother, "no book was so voluminous as to slacken his industry, or so antiquated as to damp his researches." About this time a relative inquired at a bookseller's shop in Ayr for a book to teach Robert to write letters, when, instead of the *Complete Letter Writer*, he got by mistake a small collection of letters by the most eminent writers, with a few sensible directions for attaining an easy epistolary style, which book proved to Burns of the greatest consequence.

Burns was about thirteen or fourteen, when, his father regretting that he and his brother wrote so ill, to remedy this defect sent them to the parish school of Dalrymple, between two and three miles distant, the nearest to them. Murdoch, the boys' former master, now settled in Ayr, as a teacher of the English language: he sent them Pope's Works, and some other poetry, the first they had an opportunity of reading, except that in the English Collection, and in the *Edinburgh Magazine* for 1772. Robert was now sent to Ayr, "to revise his English grammar with his former teacher," but he was shortly obliged to return to assist in the harvest. He then learned surveying at the parish-school of Kirkoswald. He had learned French of Murdoch, and could soon read and understand any French author in prose. He then attempted to learn Latin, but soon gave it up. Mrs. Paterson, of Ayr, now lent the boys the *Spectator*, Pope's Translation of Homer, and several other books that were of use to them.

Thus, although Robert Burns was the child of poverty and toil, there were fortunate circumstances in his position: his parents were excellent persons; his father exerted himself as his instructor, and, cottager as he was, contrived to have something like the benefits of private tuition for his two eldest sons; and the young poet became, comparatively speaking, a well-educated man. His father had remarked, from a very early period, the bright intellect of his elder-born in particular, saying to his wife, "Whoever may live to see it, something extraordinary will come from that boy!"

It was not until his twenty-third year that Burns's reading was enlarged by the addition of Thomson, Shenstone, Sterne, and Mackenzie. Other standard works soon followed. The great advantage of his learning was, that what books he had, he read and studied thoroughly—his attention was not distracted by a multitude of volumes, and his mind grew up with original and robust vigour; and in the veriest shades of obscurity, he toiled, when a mere youth, to support his virtuous parents and their household: yet all this time he grasped at every opportunity of acquiring knowledge from men and books.

Burns, says Mr. Carruthers, came as a potent auxiliary or fellow-worker with Cowper, in bringing poetry into the channels of truth and nature. There were only two years between the *Task*, and the *Cotter's Saturday Night*. No poetry was ever more instantaneously or universally popular among a people than that of Burns in Scotland. There was a humour of Smollett, the pathos and tenderness of Sterne or Richardson, the real life of Fielding, and the description of Thomson—all united in the delineations of Scottish manners and scenery by the Ayrshire ploughman. His masterpiece is Tam o'Shanter: it was so considered by himself, and the judgment has been confirmed by Campbell, Wilson, Montgomery, and by almost every critic.

CXLI.

RICHARD PORSON, "THE NORFOLK BOY," AT HAPPESBURGH, ETON, AND CAMBRIDGE.

Richard Porson was born in 1759, at East Ruston, near North Walsham, Norfolk: he was the eldest son of the parish-clerk of the place, who was a worsted-weaver, and is described as clever in his way. Porson's mother was the daughter of a shoemaker: she was shrewd and lively, and had considerable literary taste, being familiar with Shakspeare and other standard English authors, from her access to a library in a gentleman's house where she lived servant.

Porson, when a boy, was put to the loom at once, and probably he'ped his mother in the corn-fields in harvest-time. He was next sent to the neighbouring school of Happesburgh, the master of which was a good Latin scholar. When the father took his son to school, he said to the master: "I have brought my boy Richard to you, and just want him to make (*sic*) his own name, and then I shall take him into the loom." The master, however, took great pains with the boy, making him at night repeat the lessons he had learnt during the day, and thus, probably, laid the foundation of Porson's unrivalled memory. He had previously been for a short time at a school at Bacton, but was unable to bear the rough treatment of the boys. At Happesburgh, he learnt rapidly—especially arithmetic, of which he continued all his life very fond; and his penmanship was very skilful. His memory was wonderful: he would repeat a lesson which he had learnt one or two years before, and had never seen in the interim. He had only such books as his father's cottage supplied—a volume or two of Arithmetic, *Greenwood's England*, Jewell's *Apology*; an odd volume of Chambers's *Cyclopædia*, picked up from a wrecked coaster; and eight or ten volumes of the *Universal Magazine*.

The remarkable aptitude of Porson soon became noticed: at the age of eleven, Mr. Hewitt, the curate of East Ruston, took charge of his education, and continued to instruct him till the age of thirteen, when his fame as a youthful prodigy, through Mr. Hewitt, became known to Mr. Norris, the founder of the Norrisian Professorship at Cambridge, who said, however: "Well, I see nothing particular in this heavy-looking boy, but I confide in your account of his talents." Porson was then sent to Cambridge, where the Greek Professor, and three tutors of Trinity College, having examined him, reported of him so favourably that Mr. Norris had him entered on the foundation at Eton, in 1774.

Mr. Hewitt, writing to the Cambridge Professor, speaks of having had "the orderly and good boy under his care for almost two years, chiefly on Corderius's Colloquies, Cæsar, Ovid, Horace,

and Virgil, and Mathematics. In Greek he was only learning the verbs." (1)

Of his Eton days, Porson only recollected with pleasure the rat-hunts in the Long Chamber. His promise of excellence appears at this time to have rather diminished: his composition was weak, and his ignorance of quantity kept him behind his inferiors in other respects. He was also prone to conceit in his verses, and fond of mixing Greek with his Latin. He went too late to Eton to have any chance of succeeding to a scholarship at King's. He was popular among his schoolfellows, and two Dramas which he wrote for performance in the Long Chamber are still remembered. He seems, however, at first to have somewhat disappointed his friends, as Lord Nelson's brother, who was at Eton with Porson, brought back word that they thought nothing of the Norfolk boy. At the same time, his unrivalled memory was noticed at school, and exemplified in the oft-repeated story of his construing Horace from memory, when his book had been abstracted, and Ovide put in its place. And his promise must have been remarkable, as when he left Eton, contributions from Etonians to aid the funds for his maintenance at the University were readily subscribed.

At Eton he remained some four years, and in October, 1778, through the aid of Sir George Baker, the celebrated physician, (Mr. Norris had died in the previous year,) Porson became a member of Trinity College, Cambridge, was elected Scholar in 1780, and Craven University Scholar in 1781. Next year he graduated as third senior optime, and obtained soon after the first Chancellor's medal; and in the same year he was elected Fellow of Trinity, a very unusual thing at that time for a Junior Bachelor of Arts. He seems to have begun his critical career while an undergraduate, and it was, doubtless, during his residence at Cambridge that he laid up his marvellous stores of learning for future use. He now turned his thoughts to publication; and is said to have first appeared in print in a short critique on Schutz's *Æschylus*, in a review started by his friend Maty, a Fellow of Trinity, in 1783; and he contributed to this journal some four years, until it was discontinued. "His review of Brunck's *Aristophanes* is a striking specimen of that strong nervous English for which all Porson's writings are remarkable, and nowhere else are the chief excellences and defects of the great comic poet so well summed up." But at this period, his chief attention was devoted to *Æschylus:* his restoration of two passages in Plutarch and Æschylus, by each other's help, is one of the earliest as well as one of the most brilliant of all Porson's emendations. "If it be remembered that this was done by a young man at the age of twenty-three, it shows an amount of learning, mingled with the power of applying it, at that age, that it would be vain to seek elsewhere." (*H. R. Luard.*)

In 1786, Porson communicated to a new edition of Hutchinson's *Anabasis of Xenophon* a few annotations which give the first specimen of that neat and terse style of Latin notes in which Porson was afterwards to appear without a rival. They also show already his intimate acquaintance with his two favourite authors, Plato and Athenæus, and a familiarity with Eustathius's Commentary on Homer. Next year were written his *Notæ breves* prefixed to the Oxford reprint of Toup, which first made his name known, generally, as a critic of the highest rank. In the same year appeared the most perfect specimen of Porson's wonderful power of humour—the three panegyrical letters in the *Gentleman's Magazine*, on Hawkins's *Life of Johnson*, in which wonderful compositions Porson's force of pleasantry and delicate touches of satire show his extensive acquaintance with the English dramatists, especially with Shakspeare. The whole is an admirable specimen of Porson's peculiar ironical humour.

Porson became better known by his series of letters to Archdeacon Travis, on the contested verse, 1 John v. 7—in the words of Gibbon, "the most acute and accurate piece of criticism which had appeared since the days of Bentley." Porson also gained great celebrity in the learned world by his discovery of the new canons respecting the Iambic metre of the Greek tragedians, which he announced in the preface to his second edition of the *Hecuba* of Euripides.

We have not space to glance further at Porson's masterly criticisms, or his classical contributions to periodical literature. He resigned his Fellowship through his religious opinions, and was subsequently supported by subscription. He was afterwards elected to the Regius Professorship of Greek at Cambridge.

(1) These leading details of Porson's life and career of learning have been selected and condensed from a very able paper by H. R. Luard, M. A., in the *Cambridge Essays, contributed by Members of the University*, 1857.

Meanwhile, he lived in Chambers in Essex-court, Temple; and occasionally visited Dr. Goodall, at Eton; and Dr. Parr. While at Hatton, he generally spent his mornings in the library, and in the evening would pour forth from the rich stores of his memory pages of Barrow, whole letters of Richardson, whole scenes of Foote, recitations from Shakspeare, and etymologies and dissertations on the roots of the English language. His wonderful power of retaining accurately what he had read, and being able to produce it always when called for, never forsook him. Nothing came amiss to his memory: he would set a child right in his twopenny fable-book, repeat the whole of the moral tale of the Dean of Badajos, or a page of Athenæus on cups, or Eustathius on Homer. Sometimes he would recite forgotten Vauxhall songs, and spend hours in making charades or conundrums for ladies, with whom he was a great favourite.

It has been observed of Porson by one who saw much of him, that to the manners of a gentleman, and the most gigantic powers of learning and criticism, he joined the inoffensiveness of a child; and, among his many good qualities, one was, *never to speak ill of the moral character of any man.*

It is not difficult to trace in Porson's habits of thought the influence which the study of mathematics had upon him. He was to his dying day very fond of these studies. There are still preserved many papers of his scribbled over with mathematical calculations; and when the fit seized him in the street which caused his death, an equation was found in his pocket.

Dr. Young has said of him, that "as far as regards the possession of a combination of the faculties which Porson did cultivate, he appears to have been decidedly the most successful of any man on record in the same department.

"To him chiefly," says Mr. Luard, in his excellent paper in the *Cambridge Essays*, "English scholarship (especially Cambridge scholarship) owes its accuracy and its certainty; and this as a branch of education—as a substratum on which to rest other branches of knowledge often infinitely more useful in themselves—really takes as high a rank as any of those studies which can contribute to form the character of a well-educated English gentleman."

How painful is it to add, that a man of such amiable nature and surpassing intellect should have been addicted for many years of his life to the degrading habit of hard-drinking.

(To be continued.)

Suggestive Hints towards Improved Secular Instruction.

BY THE REV. RICHARD DAWES, A. M.

XVI.

A KNOWLEDGE OF COMMON THINGS.

(Continued from our last.)

In giving a short conversational lecture on birds, for instance, the teacher might speak of the way in which they build their nests—whether in trees or on the ground—the greater degree of skill shown by some in doing this, than by others—but that all birds of the same kind build in the same way—that a bird builds its nest by instinct—man builds a house from reason, improves and profits from what others have done in that way before him—but that birds build now as they always have done, etc.

The stricking difference of the state of their young, when hatched and leaving the egg—the chickens of the barndoor fowl, and of others of that class, will run about, and seek their own food, the moment they leave the egg—want but little assistance from the parent birds—that of the mother alone for a short time being quite sufficient, and the care of the male bird is not wanted in assisting to bring up a brood of chickens—the same with the duck—young ducks take to the water, and look out for themselves immediately.

Others again, such as birds of prey, the eagle, the hawk—all our small birds—the young of these, after leaving the shell, are in a helpless state for some weeks, and depend entirely for support upon the parent birds, and require the assistance of both, in order to find a sufficient supply of food: these are always found in pairs, and want the assistance of both the parent birds to bring them up.

Then the structure of the bones—being hollow tubes, and full of air-cells—caused by little, strengthening, bony processes, which go from one side of the hollow tube to the other—(this would be seen by splitting the bones of fowls)—the outside bony

substance of the tube being thickest at the extremities, where strength is wanted—all this required for the purposes of flight; but in the bones of animals moving on the ground, these hollow parts of the bone are filled with marrow—fewest air-cells in the bones of those birds whose habits do not require long flight, etc. The mechanical structure of the wing—the pinion-bone moving in order to stretch out the feathers in the same plane with the one to which it is attached—if it admitted of an up-and-down motion out of that plane, the wing would be much less strong, and a much greater muscular power required to produce the same effect in flight, etc.

Again, on fish for instance—some breathing by means of gills, so as to get at the oxygen contained in the air of the water, all water containing air, it being necessary to the life of fish. Air contained in water being richer in oxygen by about 25 per cent than the air of the atmosphere—this is important to fishes—although cold-blooded animals do not require by any means the same amount of oxygen in a given time as hot-blooded ones of the same size—perhaps not more than 1/50th.

Some fish, such as the whale, etc., breathe by means of lungs, and take in air, for which purpose they are obliged to come up to the surface of the water.

All air breathing fishes have a broad flat tail—a horizontal tail, giving them a mechanical advantage in rising to the surface—fishes breathing through the gills have the tail vertical, perpendicular to the water in which they float—thus to propel them forward and direct their motion—some fish, gelatinous masses, breathe at all points of their surface.

One reason why some fish live longer than others out of water, seems to arise from their having a different kind of gill, one which retains a quantity of water, and so long as they can get oxygen from this water in the gills they continue to live.

Any one wishing to give short conversational lectures of this kind, if unaccustomed to do so, will find it of assistance to read from a book any striking passage which may occur, or which he may happen to meet with in his own reading, embracing facts easy of illustration, or describing the manners and customs of other nations; such, for instance, as the following:

"Certain insects can run about on the surface of the water. They have brushy feet, which occupy a considerable surface, and if their steps be viewed with a magnifying glass, the surface of the water is seen depressed all around, resembling the footsteps of a man walking on feather-beds. This is owing to a repulsion between the brush and the water. A common fly cannot walk in this manner on water. Its feet are wetted, because they attract the water instead of repelling it. A steel needle, slightly greased, will lie on the surface of water, make an impression as a great bar would make on a feather-bed, and its weight is less than that of the displaced water. A dewdrop lies on the leaves of plants, without touching them mathematically, as is plain from the extreme brilliancy of the reflection at the posterior surface; nay, it may sometimes be observed, that the drops of rain lie on the surface of water, and roll about on it like balls on a table. Yet all these substances can be wetted; that is, water can be applied to them at such distances that they attract it."

How easy to make interesting remarks on a passage like this and how delighted children are to have the philosophy of such things as flies walking on water, or needles floating on it, explained to them—or of any facts which come frequently under their own observation.

I have been very much pleased with the interest I have found the children would take in having any graphic passage read to them, descriptive of the modes of life, occupations, etc., of other nations or people, and have occasionally read passages of that kind myself, and am in the habit of pointing out such to the school-teachers to read. I will instance the following: while reading "Hochelaga," a description of Canadian life, the following passages occured to me as giving a lively picture of what it is their object to describe, and one quite coming home to the minds and capacities of children. I took the book into the school, and read them, and the interest with which they were listened to, with a few observations I made myself, would have convinced any one of the usefulness of this suggestion. On an occasion like this, the teacher would, as an economy of time, unite all the intelligent part of his school.

'For about three weeks after Christmas, immense numbers of little fish, about four inches in length, called "tommy-cods," come up the St. Lawrence and St. Charles: for the purpose of catching these, long narrow holes are cut in the ice, with comfortable wooden houses, well-warmed by stoves, erected over them Many merry parties are formed, to spend the evening fishing in these places: benches are arranged on either side of the hole, with planks to keep the feet off the ice; a dozen or so of ladies and gentlemen occupy these seats, each with a short line, hook, and bait, lowered through the aperture below into the dark river. The poor little tommy-cods, attracted by the light and air, assemble in myriads underneath, pounce eagerly on the bait, announce their presence by a very faint tug, and are transferred immediately to the fashionable assembly above. Two or three Canadian boys attend, to convey them from the hook to the basket and to arrange invitations for more of them, by putting on bait. As the fishing proceeds, sandwiches and hot negus are handed about, and songs and chat assist to pass the time away. Presently plates of the dainty little fish, fried as soon as caught, are passed round, as a reward of the piscatorial labours. The young people of the party vary the amusement, by walking about in the bright moonlight, sliding over the patches of glassy ice, and visiting other friends in neighbouring cabins; for while the tommy-cod season lasts there is quite a village of these little fishing houses on the river St. Charles.

"Although the temperature is usually kept very high within doors, by stove-heat, people never seem to suffer by sudden transition to the extreme cold of the open air. I have often seen young ladies, when the thermometer was below zero, leave a hot room, where they had been dancing, and walk quietly home, with very little additional clothing; the great dryness of the air preserves them from danger. In the very low temperatures, a razor may be exposed all night to the air without contracting a stain of rust. Colds are much less frequent in winter than summer."

"The winter markets at Quebec are very curious: everything is frozen. Large pigs, with the peculiarly bare appearance which that animal presents when singed, stand in their natural position on their rigid limbs, or upright in corners, killed, perhaps, months before. Frozen masses of beef, sheep, deer, fowls, cod, haddock, and eels, long and stiff, like walking sticks, abound on the stalls. The farmers have a great advantage in this country, in being able to fatten their stock during the abundance of summer, and by killing them at the first cold weather, keeping them frozen, to be disposed of at their pleasure during the winter. Milk is kept in the same manner, and sold by the pound, looking like lumps of white ice."

The above passages will suggest many interesting observations on the habits of the people, climate, etc.; that, although ice is ice, yet it varies in its temperature, and that a mass of ice (milk) at a low temperature, (zero, for instance,) would do more for cooling purposes, than the same mass at a temperature near the melting point. Canadian ice is better than English ice, and why?

Then, again, these frozen animals, etc., how is it that the animal body, while alive, is not cooled down to the temperature of the atmosphere, and of the objects around it?—what is it which maintains this internal heat that resists the cold?—a degree of cold in some climates far below the zero of Fahrenheit, and preserves an internal temperature in warm-blooded animals, varying but little on either side of 96°—remaining also about the same in the hottest climates—refusing to be cooled down by surrounding objects below that internal heat which is necessary for this class of animal life, or to be heated by those above it; but the moment life is extinct, yielding itself up to the influences of either—in the one case becoming a solid frozen mass, and while in that state not decomposing—and, in the other, rapidly dissolving into its simple elements.

And again: Is every kind of animal life equally affected by heat?—are those termed cold-blooded animals affected in the same way as the warm-blooded by the surrounding media? No: these submit themselves within certain limits to the influence of the surrounding objects, and the internal heat of their bodies varies between 35° and 85°—when cooled down to the former point many of them become torpid and revive again with increased warmth, but all refuse to be cooled below this, the principle of animal life supporting the heat of the body at this temperature: how curious this is, when, for months together, no new fuel is added to support this heat. In hot climates, if they submitted to a heat greater than about 85°, they would, many of them, dissolve and become extinct—these preservative conditions are indeed beautiful.

What myriads of organisms necessary for the chain of existences in the world would be destroyed if either of these principles were violated!

"Temperature of the Bodies of various Animals.

	Fahr.
Adult man	99.5
Child	102

Ox, sheep, elephant, hare, rabbit, dog	99.	100
Narwhal, (lowest temperature of any mammal		96
Ape and bat, (highest temperament of any mammal)		104
Birds		104.5
Gull (lowest temperature)		100
Great titmouse (highest temperature)		111

Cold-blooded animals have a temperature three or four degrees above the medium in which they exist.

All animals, strictly speaking, are warm-blooded ; but in those only which possess lungs is the temperature of the body quite independent of the surrounding medium."

(*To be continued.*)

The Dictionary in the School.

In all well regulated systems of education, three objects are principally sought. Educators may differ in regard to the relative importance of the three, but all recognize them as the great objects of pursuit. Without deciding which is most important they may be named in this order.

First, the acquisition of positive knowledge.

Secondly, a vigorous and healthy discipline of the mental powers while acquiring this knowledge.

Thirdly, the reception of so much pleasure from the pursuit of knowledge that the pupil may love study for its own sake, and always desire, not to limit his mental labor, but to push it farther.

It is proposed to show in what way the use of the Dictionary tends to secure these desirable results.

1. In the acquisition of positive knowledge, the most desirable things are exactness and completeness. The former may be defined as a perfect conception of an object in itself; the latter, as a perception of its bearings, relations and connections. The exact definition of a pendulum would not include all its properties or its uses ; it would not include its history, or trace out its connection with the general law of gravitation. But a *complete* knowledge of the pendulum must include all these, and we may say, that there is, perhaps, no subject which we completely know. We cannot set our metes and bounds and say, " No truth beyond." But we cannot be complete unless we are exact, and the very first step to completeness is exactness. Every teacher who understands his business, labors to make his pupil exact in his understanding of elementary truths. We even push Geometry into our primary schools that pupils may be exact in their first conceptions of form. Now the very idea of definition is that of exact limitation. The ideal of a perfect definition, that it should exactly describe the thing specified, distinguish it clearly from everything else, and be expressed as briefly as possible, is also an ideal of exact knowledge. The exact sciences, so called, are those whose terms, from their nature admit of sharp and clear definitions. Other sciences may become exact as their terms are defined more skilfully. Many wordy controversies arise from a difference in definition. The science of definition is among the most valuable ever taught or studied. The dictionary as the repository of this science, must always be an indispensable companion of every student, from the beginner in learning up to the most accomplished of scholars. Especially do young pupils need the study of definition to limit an exuberance of imagination which often leads them to think they know a thing because they can talk about it. Precise definition tends necessarily to clearness of expression, and is an antidote to unmeaning verbosity. Once clearly understanding that every word has significance and meaning, the pupil interests himself to know what they mean singly and collectively. The teacher's duty to the pupil requires that he teach him how to use the dictionary as soon as he is capable of reading with tolerable facility, and when the habit is once formed, it endures. The pupil goes to his dictionary to seek information as naturally as to the table to seek his daily food. The teacher thus saves his own time. He does not need to act as dictionary for the school when each has access to a better one than he can often be, and when each has learned to consult his own.

Pronunciation is given to definition as the most important thing to be learned in regard to any word. But as the pupil advances, other things may be learned. Spelling, too much neglected at the present day; pronunciation, a matter of great importance: derivation, unsurpassed in instructiveness and interest, are better learned from the dictionary than from any other source. And while *complete* knowledge is not imparted by the dictionary, the pupil, by its use in the love of it, learns to use the larger dictionaries, such as Encyclopedias, Gazeteers, and Biographical dictionaries which every school-room needs, and will have, too, " in the good time coming," A library is necessary to make knowledge complete, but from a single volume,—the dictionary—the pupil may learn the most important lesson of the school-room,—namely, *how to study.*

2. The principal object of educational discipline is the formation of the best habits of study. Attention, critical observation, research and originality are all important parts of discipline, and are all evoked and encouraged by the use of the dictionary.

Many wise educators hold that mental discipline is the primary object of school training. Information, they say, is not education, or *drawing out*, it is rather pouring in. A man's education is shown, not in the mass of information which he possesses, but in the use which he is capable of making of it. And this power of usefulness will depend on his mental discipline. Without discussing this subject, it will be readily admitted that the training of the mind is often undervalued and neglected in our common schools. Many teachers imagine that mental training is acquired from only mathematics, and do not think it can be gained from Geography, or History, or Reading, in a great, if not in an equal degree. It is my own opinion that discipline, and the most profitable discipline, may be combined with the acquisition of information, and that the combination will be highly productive of good results.

Attention and critical observation are essential to exact knowledge. And whenever a pupil, by close and sharp questioning is driven to feel the insufficiency of his loose and inaccurate statements, when every deficiency in his knowledge is exposed, he is made to see that vague general notions cannot take the place of exact knowledge. Compelled to seek some definite idea, he betakes himself to the dictionary, and for the first time, perhaps, feels himself on firm footing. It is an epoch in a scholar's history when he first dares to contradict a statement on the ground that the dictionary states the matter differently. He feels that he has got his foot on a rock. And even if beaten from his position, he has learned the power of his weapons, proved his armor, and taken a step toward independence in thought and in investigation. He will soon learn that a word may be grappled with like a proposition, and that there are reasons for its use in certain connexions. He gains new impressions in every act of research. In finding one word he may learn a dozen others, and each will cling in his memory far better than when spoken by others. Pupils who will never remember what is told them, will fix truth by investigating it for themselves, and teachers will do well to bear in mind that the saving of a pupil's labor is not, in every case, *helping*. The labor may be necessary to fix the fact and secure the attention, to cultivate a love of research, and secure originality of expression. We require our pupils in their translations of the classics to use their own words, not because they will be likely always to choose the best, but that they may learn to think and speak in their own language. And by means of a good dictionary, the same discipline which is justly esteemed profitable in classical study, may be extended to English literature. There are many passages of our best authors which convey almost nothing to the minds of the children who blunder over them in their reading-books, as they would repeat a passage in Choctaw. The child's vocabulary is limited, his ideas are superabundant ; he wants words to express himself, and he can find them nowhere so well as in the dictionary. For want of this early expansion of the vocabulary many persons group several ideas into one word, and never separate them. They may afterwards acquire a superfluity of words, but they are not likely to get the right word in the right place. No exercise is more profitable than to require a pupil to change the words of an eloquent writer into his own. Let any teacher try it for the first time with an intelligent class, and there will be a searching of dictionaries such as he has seldom witnessed. It is wonderful to see how, kaleidoscope-like, the same ideas may be shifted and varied, continually producing pleasant combinations, and pleasant most of all, because original.

3. Nor are we to undervalue the pleasure of gaining knowledge. It is the ready spur to constant exertion ; it is the refreshment amid toil, the reward when the toil is over. And let us always remember that it is the pursuit which gratifies us most, and not the attainment. It is the race that interests us, not the paltry prize. The hunter of the fisher is interested in the pursuit of his victims, not in the mere possession of their lifeless bodies. Let us hear Sir William Hamilton, no contemptible authority in mental sciences.

" A truth once known falls into comparative insignificance. It is now prized less on its own account, than as opening up new ways to new activity, new suspense, new hopes, new discoveries and new self-gratulations. It is not knowledge—it is not truth

that he principally seeks; he seeks the exercise of his faculties and feelings. It is ever the contest that pleases us, and not the victory."

Ought we to attempt to cram pupils with knowledge poured out by us, and passively received by them?—ought we, so to speak, to beat the bush for them, find the game, slay it, and bring it home; or should we urge them on to rouse the game, chase it vigorously and capture it for themselves? Can we expect them to be enthusiasts in study, unless they have the stimulus which we seek for ourselves? We should rather aim to find difficulties which they can successfully grapple and urge them to do it. And the dictionary is the most ready means of gratifying this thirst to know. In itself, it will impart much knowledge, not enough to clog the appetite, but enough to whet it, incite an eagerness for more, and lead to more extended research. It is an introduction to the broad field of independent study which every scholar pursues, independent of text-books and teachers. To many pupils, it is the only valuable library of general knowledge which will ever be open to them. It should therefore be made their constant study. It should guide them into the paths of general literature. It should accompany them in their daily readings. In brief, and reverently speaking, the perfect dictionary is to the student of secular knowledge, precisely what the Bible is to the student of things divine. And while the perfect dictionary is yet unattained, we have at least, such noble approximations that we can afford to rest content, persuaded that when their value is fully appreciated by American teachers, other illustrious names will be added to the list of American lexicographers.—*New Hampshire Journal of Education.*

Rules for Reading.

Read much, but not too many 'works. For what purpose, with what intent, do we read? We read, not for the sake of reading, but we read to the end that we may think. Reading is valuable only as it may supply to us the materials which the mind elaborates. As it is not the largest quantity of any kind of food taken into the stomach that conduces to health, but such quantity of such a kind as can be digested; so it is not the greatest complement of any kind of information that improves the mind, but such a quantity of such a kind as determines the intellect to most vigorous energy. The only profitable kind of reading is that in which we are compelled to think intensely; whereas the reading which serves only to dissipate and divert our thoughts, is either positively hurtful or useful only as an occasional relaxation from severe exertion. But the amount of vigorous thinking usually in the inverse ratio of multifarious reading is agreeable; but as a habit it is in its way as destructive to the mental, as dram drinking is to the bodily health. "Our age," says Herder "is the reading age," and adds, "it would have been better, in my opinion for the world and for science, if, instead of the multitude of books which now overlay us, we possessed but a few works, good and sterling, and which few would be more diligently and profoundly studied."—*Sir William Hamilton.*

Thoughts on Education from various Authors. (1)

(Continued from July 1860.)

II.

DUTIES OF PARENTS AND OF TEACHERS.

The child who has not left the tender embraces of its parents feels hunger and can procure for itself no nourishment, it feels cold and can not clothe itself.

But its father and mother are at hand.

They are attentive to its least cry; they watch the tones of its voice, and observe its complexion and color.

If it laughs, their hearts are full of pleasure; if it cries, they are grieved. If it tries to go, they follow its slightest motions, if it is sick, they have no rest.

They nourish the child and instruct it, until they have developed it into a man.

They trouble themselves in a hundred ways, only to care for the child and to ensure its success in life.

Oh, the virtue of a father and mother is truly infinite; it is like God himself.

An ancient Chinese emperor.

When once a female friend from Campania visited Cornelia, the mother of the Gracchi, and in the course of conversation, after an idle fashion, first showed her own rich ornaments, and then requested to see Cornelia's, the latter waited until her two blooming boys, Tiberius and Sempronius, came home from school, and then showed her friend the boys, saying "These are my jewels."

VALERIUS MAXIMUS.

An intelligent father must try to influence his son by good company, and must attend to this, as a chief department of education.

Example, knowledge of men, and admonition, are of prominent importance in education.

The father must so conduct toward the son that the latter shall be sensible of his father's love for him, and then give him more of his confidence than any other man.

As a father who is too strict destroys his son by bad management, so the father who manages him lovingly, and with wise consideration, will first reach his object.

Constraint makes the young obstinate and cunning, so that they deceive first their father and then more easily others.

A good son is obedient to his father out of respect and love, and follows his father's advice.

TERENCE.

It is the highest praise of a noble race, that even in the midst of great wealth they bring up their children to be noble men, a memorial of their family and of themselves.

PLAUTUS.

Water-drops wear away stones, and iron is worn out by the hands. But the crooked timbers of a wagon wheel will never regain their natural condition, however much industry is expended on them.

A field good by nature grows wild by neglect; and the better it naturally is, so much the more unfruitful is it if allowed to remain uncultivated.

However rough and hard the ground may be, it will yet, when it has received the necessary cultivation, bear good fruit.

Do not trees by neglect grow crooked and unfruitful, but when properly tended, are they not made fit to bear fruit?

What body is so strong as not to become weakened by disorderly living; and what so weak that training will not strengthen it?

Are not horses, if well broken when colts, obedient to the rider, and those not broken, wild and hard mouthed?

Are not the wildest beasts tamable by assiduity?

Human character considered in this point of view, is a long-fixed habit.

Just as it is necessary that the limits of a child should have proper management even immediately after its birth, in order that they may grow properly, even so must the moral character, as long as the child is weak and tender, be trained, even from the earliest youth.

The souls of children are as wax, upon which, as with a seal, impressions of wisdom and virtue can easily be made; whereas afterwards, when they have become hardened, they can be erased only with difficulty, and in like manner all new ones are resisted.

Children should early be made to learn useful things.

As the vine-grower drives down stakes near the vines to support them, so must the teacher fasten good teaching and admonitions to children, if they are to possess a good moral character. And to this end children should have only such teachers as unite with a true morality, a rich store of knowledge and experience.

He who does otherwise, is like a sick man who neglects the real physician, but sends for a quack, who by ignorant treatment destroys his life, or like a merchant who turns away the most skillful captain, and employs the least skillful one instead.

A good education, including the proper instruction is the first, middle and last means by which youth become virtuous; while all other good things, such as riches, high birth, beauty, &c., are in comparison with such an education not worth trying for.

Children must be protected from follies and from intercourse with bad men, and made accustomed to tell the truth; and never to forget that lying is a contemptible thing, and deserving of universal abhorrence.

When parents, from avarice or conscientiouslessness or ignorance or any other cause, neglect their children, the sad consequences which punish such conduct do not fail to follow.

When such sons grow up to be men, give themselves up to the most frightful vices, and squander all their goods, then, when it is too late, the parents who have ruined them, feel the deepest distress.

The home, the school and the church are the three chief pillars of education.

The impressions which the child receives at home, being the first, and enforced by the examples of the father and mother, are the most enduring.

The parents are the first and most influential instructors; and accordingly, most distinguished men have been so fortunate as to enjoy a good home training.

In the relations of the parents to the children, it is of the utmost consequence that, on the subject of education, father and mother should think in harmony.

To this result will contribute the earnestness and firmness of the

(1) Abridged from Barnard's American Journal of Education.

father, the softness; warmth, patience, and at the same time the proper steady strictness, of the mother.

It is the intermingling of these traits which will complete the ideal of a home education, and is the foundation of happiness in the family.

Those to whom God has given the best gift which he can give to man —children—should find no place of amusement, gaming table, gay society, or theatrical exhibition, any more necessary to them than is the company of their children.

Absences from home should only be occasionally taken, as a necessary recreation and relief, to make them more capable of performing their home duty.

For there may be such a thing as an excess of self-devotion.

But this is exactly calculated to cripple the faculties which are indispensable to the fulfillment of the educational duties.

It admits of no doubt that the mother can do very much not only for the corporal benefit, but also for the mental development, of her children, if she is an intelligent and true mother.

She usually has her children much about her in their early years; they depend chiefly upon her. She has their youthful minds entirely in her power.

She can therefore do much to direct aright the first development of their perceptions and of their reflective powers; to secure them an early acquaintance with language, the most important means of cultivating the understanding; and that even their little plays may have some reference to a higher purpose.

Even upon sons while growing up into young men—whom so many mothers, even of intelligence, consider as grown beyond their influence —they can have an influence in many ways beneficial.

NIEMEYER.

I hold it incontestable, that if the history of all those men were fully known, who have distinguished themselves for uprightness or virtue, it would be found that nine out of ten of them owed these good qualities to their mothers.

It is not now sufficiently understood, how important for the future life is an innocent and blameless youth; how almost all those who have enjoyed this advantage, have owed it to their mothers: and how universally the perfection and the good fortune of men is founded upon female intelligence and female virtue.

ISELIN.

Parents are under obligations to educate their children, because they are required to do so by the voice of nature, regard for their own happiness, and their obligations to society and to the divine organization of the human race.

This education differs from the instruction which the children receive from others; but for this latter they must be prepared in the bosom of the family, and brought up to it.

Parents can therefore not be permitted to neglect this physical, intellectual, and moral and religious training, any more than the furnishing of that civic education which only terminates at years of discretion and fitness for an independent employment.

VON AMMON.

He who can not perform the duties of a father, has no right to become a father.

Neither poverty, nor labor, nor regard for men, can excuse him from bringing up his children and from educating them himself.

I assure every one who has a heart, and who neglects these holy duties, that he will one day weep bitter tears over his fault, and will never escape remorse for it.

ROUSSEAU.

To neglect the education of children, not to do all that is possible for this holy purpose, so far as parents may be able, in their circumstances, not to secure them the best teachers, not to keep them regularly at school, not to instruct them personally as far as possible, not to protect them from vice and by good examples to encourage them to goodness, is worse than to expose young children; it is the murder of their immortal souls.

LUTHER.

There are no greater benefits than those which parents confer upon their children.

But just as the husbandman renders useless the seed which he has sown, if he gives it no further care, so all the parental care of their children's bodies is in vain, if they confine their sollicitude to the period of childhood, and do not bestow long-continued care upon them.

SENECA.

Thy wife shall be as a fruitful vine by the sides of thine house: thy children like olive-plants round about thy table.

Behold, that thus shall the man be that feareth the Lord.

Yea thou shalt see thy children's children, and peace upon Israel.

BIBLE. *Ps. cxxviii.*

OFFICIAL NOTICES.

APPOINTMENTS:

SCHOOL COMMISSIONERS.

His Excellency the Governor General in Council was pleased, on the 15th instant, to make the following appointments of School Commissioners:—

County of Two Mountains.—St. Hermas: Messrs. Joseph Bricault dit Lamarche and Antoine Lefebvre.

His Excellency the Governor General in Council was pleased, on the 18th instant, to make the following appointment of a School Commissioner:—

County of Temiscouata.—St. Antonin: Rev. George Talbot.

CATHOLIC BOARD OF EXAMINERS FOR THE DISTRICT OF MONTREAL.

Mr. Patrick Carey, Mrs Joseph A. Passage and Miss M. Léonore Bessette, have obtained diplomas authorizing them to teach Elementary Schools.

F. X. VALADE,
Secretary.

PROTESTANT BOARD OF EXAMINERS FOR THE DISTRICT OF MONTREAL.

Miss Victoria A. Scripture, has obtained a diploma authorizing her to teach Elementary Schools.

W. LUNN,
Secretary.

CATHOLIC BOARD OF EXAMINERS FOR THE DISTRICT OF QUEBEC.

Misses Apoline Black and Philomene Castonguay; Messrs. Abraham Goudreau and Charles Melville Loriot; Misses Sophie Lamontagne, Justine Turgeon and Sophie Vallières have obtained diplomas authorizing them to teach in Elementary Schools.

NAPOLEON LACASSE,
Secretary.

PROTESTANT BOARD OF EXAMINERS FOR THE DISTRICT OF QUEBEC.

Mr. John Thompson and Miss Jane Thompson have obtained diplomas authorizing them to teach Model Schools.

Miss Margaret Baily; Mr. John Baily; Misses Anne Brodie, Hannah Gillis, Elizabeth Kerr, and Jane Ann MacKenzie; M. Thomas McDewitt; Misses Margaret McKillop, Mary McKillop (born in 1841), Mary McKillop (born in 1824); Messrs Charles Murchie, John Murchie, and Andrew Moffet; Miss Susan Sutherland and Mr. Duncan Stewart, have obtained diplomas authorizing them to teach Elementary Schools.

D. WILKIE,
Secretary.

SITUATIONS WANTED

Mr. William Webb, of South Quebec; is provided with a diploma for Model Schools.

Mr. Mark McReady, who is provided with a diploma for Academies. Apply at Mr. Thomas McReady's, 55, Mountain street, Montreal, or at the Education Office.

Miss E. Carlisle, has taught 5 years in the United States, and one year in Canada.—Elementary Schools. Apply at the Education Office.

NOTICE TO TEACHERS.

Teachers within the limits of the Jacques-Cartier Normal School are requested to attend the Conference to be held on Friday, the 31st May next, at the usual place of meeting. The chair will be taken at 10 o'c. a. m. precisely.

The members of the Council will meet on the same day at 8 o'c a. m. in the Professors' room.

By order,

F. X. DESPLAINES,
Secretary.

Education Office, 22nd April, 1861.

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 fyled within the period prescribed, that is to say, before the first day of August next. No exception will be made under any pretence whatsoever.

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

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

4th. Blank forms will be transmitted during the first fortnight in June next, 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.

5th. 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 between the 1st and 15th of June next.

P. J. O. CHAUVEAU,
Superintendent of Education.

JOURNAL OF EDUCATION.

MONTREAL (LOWER CANADA) APRIL, 1861.

OBITUARY.

It is with the deepest pain that we are called upon to record the death of Joseph Lenoir, Esq., which occurred in the night of Wednesday, the 3rd instant. By this sad event the *Journal de l'Instruction Publique* is deprived of the assistance of an able pen, and the Department of Education, with the entire public, have lost a faithful servant.

Mr. Lenoir was born on the 25th September 1822, at the village of St. Henri, near Montreal, and consequently was a little over 38 years of age when he died. He was admitted to the Bar, in this city, on the 4th of October 1847, and during the twelve years preceding his death contributed to the French Canadian press many poetical essays which breathe those tender emotions so characteristic of their author, and which seem to have had their source in the utmost serenity of gentle contemplation. His mild disposition and unassuming manner awakened in every one with whom he had intercourse a deep and lasting friendship. So retiring was his nature that his friends could not prevail upon him to make a collection of his scattered poetical fragments; but we trust ere long some compiler may present them in a volume to his admirers. The illness from which he suffered was a severe attack of inflammation of the lungs, which had a sudden and fatal termination. He leaves a widow and six children who looked to him as their only protector.

His remains were followed to the Côte des Neiges Cemetery where they were deposited, by a great number of friends and admirers. In the cortege, besides the Superintendent, Secretary and employés of the Educational Department, the following gentlemen were noticed:—Rev. P. Ouellet, Director of St. Mary's College, and other Professors; Principal Verreau, and the Professors and students of the Jacques Cartier Normal School; the Professors and students of the McGill Normal School; Dr. Meilleur, former Superintendent of Public Instruction, during whose tenure of office Mr. Lenoir entered the public service; Mr. Cherrier, Member of the Council of Public Instruction, and many noted in letters, at the Bar, and as educators.

The funeral service was celebrated in the Church of Notre-Dame, and this circumstance recalled to our mind the lines, which but a short time before, the poet had penned in the full enjoyment of life and vigor, selecting for the theme of his eloquence the vast temple which was so soon to witness his solemn obsequies. We give the last stanza:—

"O demeure tranquille! ô sainte basilique!
Monument élevé sur la place publique,
Comme un phare sur un écueil,
Je m'étonne toujours que parfois l'on t'oublie,
Mystérieux asile, où Dieu reconcilie
Ces voisins ennemis, la vie et le cercueil!"

Parts of the service were chanted by the students of the Jacques Cartier Normal School. Prominent in the choir of the church during the ceremony stood several priests of the St. Sulpice Seminary,—an institution under whose auspices Mr. Lenoir had received his education, having gone through his course of studies in the Montreal College. His amiable qualities and brilliant talents had won for him the regard and affection of all his teachers and fellow-students, among whom are to be numbered his cousins Rev. Luc Lenoir, and Rev. Charles Lenoir, the present Director of the College—the latter officiating at the service.

On the preceding day Rev. Mr. Verreau, as Principal of the Normal School, expressed his regret in the most touching language at being unable to postpone his public lectures on the history of Canada as a mark of respect to the memory of our late colleague, and pronounced a warm eulogy on his literary merits.

A funeral service also took place in the Chapel of the Jacques Cartier Normal School, on the 13th instant, attended by the relatives and friends of the deceased.

May the words of merited praise accorded to the talent and many virtues of our late callaborator, thus prematurely snatched from his labors in the prime of manhood, stimulate in the breasts of our youth a noble ambition to write their names in the literary annals of their country.

The Exhibition of 1862.

The following official programme of the Exhibition of 1862 was published in the *London Gazette*:—

INTERNATIONAL EXHIBITION OF WORKS OF INDUSTRY AND ART TO BE HELD IN LONDON IN 1862.

Her Majesty's Commissioners:—Earl Granville, K.G Lord President of the Council; the Marquis of Chandos; Thomas Baring, Esq., M.P.; C. Wentworth Dilke, Esq.; Thomas Fairbairn, Esq. F. R. Sandford, Secretary.

Decisions of her Majesty's Commissioners on Points relating to the Exhibition, March, 1861.

Her Majesty's Commissioners have fixed upon Thursday, the 1st day of May 1862, for opening the exhibition.

The Exhibition building will be erected on a site adjoining the Royal Horticultural Society, and in the immediate neighbourhood of the ground occupied in 1851 on the occasion of the first International Exhibition.

The portion of the building to be devoted to the exhibition of pictures will be erected in brick, and will occupy the entire front towards Cromwell-road. The portion in which machinery will be exhibited will extend along Prince Albert's-road, on the west side of the gardens.

All works of industry to be exhibited should have been produced since 1850.

Subject to the necessary limitation of space, all persons, whether designers, inventors, manufacturers, or producers of articles, will be allowed to exhibit; but they must state the character in which they do so.

Her Majesty's Commissioners will communicate with foreign and colonial exhibitors only through the commission which the Government of each foreign country or colony may appoint for that purpose; and no article will be admitted from any foreign country or colony without the sanction of such commission.

No rent will be charged to exhibitors.

Prizes, or rewards for merit in the form of medals, will be given in the Industrial Department of the Exhibition.

Prizes may be affixed to the articles exhibited.

Every article produced or obtained by human industry, whether of raw materials, machinery, manufactures, or fine arts, will be admitted to the exhibition, with the exception of—1. Living animals and plants; 2, Fresh vegetable and animal substances, liable to spoil by keeping; 3, Detonating or dangerous substances.

Spirits or alcohols, oils, acids, corrosive salts, and substances of a highly inflammable nature, will not be admitted, unless sent in well-secured glass vessels.

[The articles exhibited will be divided into classes, according to the enumeration contained in our last Number.]

Her Majesty's Commissioners will be prepared to receive all articles which may be sent to them on and after Wednesday, the 12th of February, and will continue to receive goods, until Monday, the 31st March, 1862, inclusive.

Articles of great size and weight, the placing of which will require considerable labour, must be sent before Saturday, the 1st of March, 1862; and manufacturers wishing to exhibit machinery or other objects that will require foundations or special constructions must make a declaration to that effect on their demands for space.

Any exhibitor, whose goods can properly be placed together will be at liberty to arrange such goods in his own way, provided his arrangement is compatible with the general scheme of the exhibition, and the convenience of other exhibitors.

Where it is desired to exhibit processes of manufacture, a sufficient number of articles, however dissimilar, will be admitted for the purpose of illustrating the process; but they must not exceed the number actually required.

Exhibitors will be required to deliver their goods at the building, and to unpack and arrange them, at their own charge and risk; and all articles must be delivered with the freight, carriage, porterage, and all charges and dues upon them paid.

Packing-cases must be removed at the cost of the exhibitor or his agent, as soon as the goods are examined and deposited in charge of the commissioners.

Exhibitors will be permitted, subject only to the necessary general regulations, to erect, according to their own taste, all the counters, stands, glass frames, brackets, awnings, hangings, or similar contrivances which they may consider best calculated for the display of their goods.

Exhibitors must be at the charge of insuring their own goods, should they desire this security. Every precaution will be taken to prevent fire, theft, or other losses; and her Majesty's Commissioners will give all the aid in their power for the legal prosecution of any persons guilty of robbery or wilful injury in the exhibition: but they will not be responsible for losses or damage of any kind which may be occasioned by fire or theft, or in any other manner.

Exhibitors may employ assistants to keep in order the articles they exhibit, or to explain them to visitors, after obtaining written permission from her Majesty's Commissioners, but such assistants will be forbidden to invite visitors to purchase the goods of their employers.

Her Majesty's Commissioners will provide shafting, steam (not exceeding 30lb. per inch), and water, at high pressure, for machines in motion.

Intending exhibitors in the United Kingdom are requested to apply without delay to the Secretary of her Majesty's Commissioners, at the offices, 454, West Strand, London, W.C., for the form of demand for space, stating in which of the four sections they wish to exhibit.

Foreign and colonial exhibitors should apply to the commission, or other central authority, appointed by the foreign or colonial government, as soon as notice has been given of its appointment.

Her Majesty's Commissioners, having consulted a committee as to the organisation of the Fine Art Department of the Exhibition, will publish the rules relating thereto at a future date.

By order, F. R. SANDFORD, Secretary.

Offices of her Majesty's Commissioners, 454, West Strand London, W.C.

The Visit of His Royal Highness the Prince of Wales to America.

X.

UPPER CANADA.

(Continued from our last.)

On the following day the Prince witnessed the acrobatic performance of Blondin, who with a man on his shoulders, crossed the yawning gulf on a rope stretched from cliff to cliff, and afterwards executed his perilous feats on stilts, the accounts of which could not during a long time be credited in Europe. Although remonstrating against such daring extravagance, His Royal Highness presented the adventurous little Frenchman with a sum of $400. The same day the Prince and suite saw all the places usually visited by well informed and well directed tourists, descending beneath the enormous sheet of falling water at Table Rock, and steaming close to the foot of the falls in the *Maid of the Mist*. Sunday H. R. H. attended Divine Service at Chippewa; and on Monday crossed over to the American side, where he was received by the people with great enthusiasm.

The Prince also passed over the Suspension Bridge where an address was presented by Hon. W. H. Merritt, on behalf of the Directors of this great concern.

On Tuesday, the 18th, His Royal Highness, in the presence of a great throng of Canadians and Americans, and as repeated salvos of artillery pealed forth, took his departure from the Clifton Hotel where he had alighted, and proceeded to Queenstown. This was the only public demonstration made at the Falls, where, after the fatigue of so much official drudgery the Prince had found that retirement and repose so welcome to his exhausted strength.

From the days of Hennepin, who first spoke of Niagara (1), down to our own, — Mr. Woods, the *Times'* correspondent, devotes over twenty pages of his work to the subject, — descriptions without number of this great cataract have been written both in verse and in prose. The first named author seems to have been rather appalled by this *hell of waters* than impressed with its grandeur. We translate his description as follows:

"Between Lake Ontario and Lake Erie there is a prodigious cataract, whose fall is really wonderful. Its equal cannot be seen in the world. There are some in Italy and also in the Kingdom of Sweden, but they are very insignificant specimens compared with this.

At the foot of this wonderful cataract runs the river Niagara which is only the eighth part of a league in width, but it is very deep in some parts. The current is so rapid above the falls that it washes away all the wild animals which attempt to cross it — their efforts to save themselves being of no avail against its force — and hurls them from a height of more than six hundred feet. This incomparable waterfall is composed of two great sheets of water and of two cascades, with an island sloping forward between them. As the water falls from this great elevation it boils and foams in a most frightful manner with a noise louder than thunder. When the wind blows from the south this awful roaring may be heard at a distance of fifteen leagues.

From this fall the River Niagara runs with an extraordinary degree of swiftness as far as the Great Rock (*Gros Rocher*), a distance of two leagues, but in the next two leagues, extending to Lake Ontario or Frontenac, its course becomes much slower.

The river is navigable for boats and large ships from Fort Frontenac to the foot of the Great Rock mentioned above. This rock, lying in the west, is detached from the land by the Niagara, and is distant two leagues from the great Falls. It is over these two leagues that we are

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(1) Champlain who penetrated to Lake Huron by the Ottawa, must have been aware of the existence of the Falls of Niagara, though it is probable he never saw them. In the curious chart which accompanies the account of his voyage made in 1632, the position of a waterfall is indicated in a river that discharges itself in Lake St. Louis (Ontario) from above; Lake Erie is not traced on this map.

constrained to make a *portage*; that is, to transport our goods over land, but the road is very good. Trees are few in number, the land consisting almost exclusively of meadows, with pines and oaks interspersed.

From the Falls to the Rock which lies on the western side of the river, both banks rise so exceedingly high that one shudders to look at the whirling current beneath. Were it not for these great Falls of Niagara, the navigation, which is completely obstructed, would be open to large boats and even ships more than four hundred and fifty leagues through Lakes Huron and *Illinois*. These lakes may truly be called small seas of fresh water." (1)

At the period of P. Hennepin's voyage the wild state of the country must have imparted to this great wonder of nature an aspect even more grand and terrible than that which still makes it an object of unequalled magnificence, and consequently of universal attraction. There exists between the well known contour of the falls and the altered scenery by which they are now surrounded a pleasing harmony, which has dissipated the rugged and inhospitable look that struck terror in the first Europeans who beheld them. Châteaubriand has given the world a description of Niagara in his Atala, which has contributed as much to establish the reputation of the falls as all that has been said about them since; these few lines alone, written by the author of the *Génie du Christianisme*, and which we now translate, have drawn thousands to the spot.

"We soon reached the brink of the cataract whose presence was announced by dreadful roaring It is formed by the River Niagara which issues from Lake Erie and falls into Lake Ontario, its perpendicular height is one hundred and forty-four feet. From Lake Erie to the falls the river runs over a steep declivity, and as it leaps down has the appearance less of a river than of a sea whose tide rushes headlong into a yawning abyss. The cataract is divided into two branches, and assumes the form of a horseshoe; projecting forward between the two falls and suspended above the chaos of waters is an island, hollowed out underneath and overgrown with trees. The great body of the stream falls towards the south, bending into a vast cylinder and unrolling itself as a sheet of snow, brilliant with many colors in the sun. Towards the east the torrent descends in a frightful shadow, and seems a liquid column of the deluge—a thousand rainbows playing over the deep chasm. The water striking violently against the shattered rocks flies in whirlwinds of mist high above the forest as the smoke of a vast conflagration Pine and wild walnut trees with rocks hewn into fantastic figures decorate the scene. Eagles drawn by the gush of air descend whirling around to the bottom of the chasm; and carcajoux hung by their pliant tails from the low branches watch, eager to seize the drifting carcasses of the moose-deer and of the bear."

Queenstown which the Prince visited immediately after leaving the Falls of Niagara, is situated on very elevated ground, and commands a charming prospect. On one side the Niagara River, with its cold green waters, is seen winding between its high banks; on the other Lake Ontario, with a vast extent of country whose luxuriant vegetation offers the most varied tints, opens to the view.

It was here that one of the most remarkable combats of the war of 1812 took place. General Brock died victorious on this spot, as Wolfe had done on the Plains of Abraham. As he fell mortally wounded his troops and militiamen rushed upon the enemy to avenge his death, and overthrew all that opposed them. The first monument erected to his memory was destroyed in 1840 by some unknown Vandal, who blew up a portion of it with gunpowder; but a column more befitting the deeds which it is to commemorate, was undertaken in 1856,—a national subscription having been opened for the purpose,—and was finished and solemnly inaugurated in September 1859 The cost of this new monument was over £2000; it consists of an elega Corinthian column, rising from a pedestal ornamented with bass-reliefs · at the four angles of its base lions support escutcheons bearing the arms of the hero. The total height is 190 feet including the statue of the general, who is represented with his left hand resting on the pommel of his sword, his right extended and grasping a baton — the classical symbol of military authority. In the vault under the monument lie two sarcophagi of stone which enclose the remains of Sir Isaac Brock and of his aide-de-camp, Col. Macdonnell.

The monument had been left purposely incomplete at the time of its inauguration; the Prince now laid the last stone in the presence of 160 veterans, who had served in the war of 1812, and among whom we notice Sir J. B. Robinson, Chief Justice of Upper Canada, Sir Allan McNab and Sir Etienne Taché. The first named gentleman read the following address: —

May it Please Your Royal Highness,—

Some of the few survivors of the Militia Volunteers who assisted in defending Canada against the invading enemy during the last American war, have assembled from different parts of the Province, in the hope that they may be graciously permitted to offer to Your Royal Highness the expression of their loyal welcome, upon your arrival in this portion of Her Majesty's dominions. In the long period that has elapsed, very many have gone to their rest, who, having served in higher ranks than ourselves, took a more conspicuous part in that glorious contest. They would have delighted in the opportunity which we now enjoy of beholding in their country a descendant of the just and pious sovereign in whose cause they and their fellow-soldiers fought, and whom they were from infancy taught to revere for his many public and private virtues.

We feel deeply grateful to Her Majesty, whose condescension to the wishes of her Canadian subjects has conferred upon us the honor of a visit from Your Royal Highness; and we rejoice in the thought that what Your Royal Highness has seen, and will see, of this prosperous and happy province, will enable you to judge how valuable a possession was saved to the British Crown by the successful resistance made in the trying contest in which it was our fortune to bear a part; and Your Royal Highness will then be able to judge how large a debt the Empire owed to the lamented hero Brock, whose gallant and generous heart shrank not, in the darkest hour of the conflict, from the most discouraging odds, and whose example inspired the few with the ability and spirit to do the work of many.

We pray that God may bless Your Royal Highness with many years of health and happiness, and may lead you by His Providence to walk in the paths of our revered and beloved Queen, to whom the world looks up as an illustrious example of all the virtues that can dignify the highest rank, support worthily the responsibilities of the most anxious station, and promote the peace, security, and happiness of private life.

His Royal Highness replied as follows:—

Gentlemen.—I accept with mixed feelings of pride and pain the address which you have presented on this spot; pride in the gallant deeds of my countrymen, but pain from the reflection that so many of the noble band you once belonged to, have passed away from the scenes of the bravery of their youth, and of the peaceful avocations of their riper years.

I have willingly consented to lay the first stone of this monument. Every nation may, without offence to its neighbours, commemorate its heroes, their deeds of arms, and their noble deaths. This is no taunting boast of victory, no revival of long-passed animosities, but a noble tribute to a soldier's fame; the more honorable, because we readily acknowledge the bravery and chivalry of that people by whose hands he fell.

I trust that Canada will never want such Volunteers as those who fought in the last war, nor her Volunteers be without such a leader; but no less and most fervently I pray that your sons and your grandsons may never be called upon to add other laurels to those which you have so gallantly won.

Accept from me, in the Queen's name, my thanks for your expressions of devoted loyalty.

The Prince and suite then ascended to the top of the monument and viewed the scenery, which in grandeur cannot be surpassed. His Royal Highness also laid the last stone of an obelisk erected on the precise spot where Brock fell.

Shortly after the Prince went on board the *Zimmerman* and proceeded to the little town of Niagara, which under the name of Newark was once the capital of Upper Canada. It is situated at the head of Lake Ontario, almost facing the old Fort of Niagara which stands on the United States shore, and which awakens so lively an interest in the mind of the tourist.

Although the population of Niagara does not exceed 3000, still it returns a member to Parliament— the least an ancient capital can do. The neatly adorned little town gave the Heir Apparent a kind reception; having heard the official harangues of the mayor and magistrates, His Royal Highness received a deputation of ladies, who came to make an offering of a basket of fruit grown in the well known orchards of the vicinity The royal party having again set out soon reached Port Dalhousie, and thence visited St. Catherines, on the Welland Canal.

This last mentioned place, as the Welland Canal to which it is indebted for its prosperity, owes its existence to Hon. Mr. Merritt, a gentleman whose plans were looked upon as chimerical, but who happily has lived to see them transformed into splendid realities

This little town, whose population numbers about 7000 inhabitants, desirous of giving in the joyous festivities of the day, a prominent place to the main element of its success, erected a triumpal arch entirely composed of flour barrels. It is said that this construction did not present such a heteroclitic figure as might have been expected.

Having received several addresses, including one from the mayor, Mr. Currie, the Prince left St. Catherines by the Great Western railway for Hamilton.

(1) *Voyage du R. P. Louis Hennepin, Amsterdam* 1704. It will be seen that this writer greatly exaggerates the height of the falls.

Was it to punish the proverbial ambition of this city that it was put down at the very bottom of the vice-royal programme, and that the Prince deferred his visit until after His Royal Highness had first travelled several hundred miles beyond and retraced his steps? Be that as it may, it is agreed on all sides that the 'ambitious little city' took a signal revenge and in no place did the Prince meet with a more hearty welcome.

The mayor, Mr. McKinstrey, presented an address to which His Royal Highness replied as follows:—

Gentlemen,— This is the last of the very numerous Addresses which have flowed in upon me from Municipal authorities as well as other bodies, throughout the Queen's dominions in North America, which I have traversed from East to West; and I can say with truth, that it is not the least fervent in its declarations of attachment to the Queen; nor the least earnest in its aspirations for the success and happiness of my future life; and in its prayers that my career may be one of usefulness to others and of honor to myself.

You cannot doubt the readiness with which I undertook the duty which was intrusted to me by the Queen, of visiting in her name, and in her behalf, these possessions of her crown That task is now nearly completed; and it only remains for me to report to your Sovereign, universal enthusiasm, unanimous loyalty, all-pervading patriotism general contentment, and, I trust, no less general prosperity and happiness.

I can never forget the scenes I have witnessed during the short time which I have enjoyed the privilege of associating myself with the Canadian people, which must ever be a bright epoch in my life I shall bear away with me a grateful remembrance of kindness and affection, which as yet I have been unable to do anything to merit; and it shall be the constant effort of my future years to prove myself not unworthy of the love and confidence of a generous people.

Hamilton now ranks by its population,—about 18,000 souls—as the second city of Upper Canada and the fourth of the entire Province. It is situated on Burlington Bay, only 38 miles from Toronto. Its founding dates from 1813, and in 1841 the population was little over 3000. Wide streets and very elegant edifices, built principally of a whitish stone, give it a fine appearance; it has several churches and banks, two large hotels and numerous manufactories. It is also the seat of a Roman Catholic Diocese, under the charge of the Right Rev. Bishop Farrell, its first dignitary. Dundurn Castle, the residence of Sir Allan McNab,—resembling in form a feudal stronghold,—is situated in the vicinity.

The night of the reception there was a general illumination, with fireworks, and the Prince attended a concert which came off in the Hall of the Philharmonic Society. The day following His Royal Highness visited the Central School of the town, where an address was presented, and afterwards held a levee at the Royal-Hotel, which, as this was the last to take place in the Province, was attended by even a greater number than usual. The remainder of the day was employed in making a non-official visit to the Crystal Palace, where the Industrial and Agricultural Exhibition of Upper Canada was held, and after a luncheon, in the inauguration of the new Aqueduct. In the evening a ball was given in a building erected for the occasion, at which Mrs. David McNab had the honor of being the first to dance with the Prince in a quadrille.

Thursday, the 20th of September, the royal party proceeded to the Crystal Palace and formally opened the Exhibition, which in as far as cattle and agricultural products were concerned, it is said, might have compared favorably with any display of the kind even in England.

The Agricultural Society of Upper Canada presented an address to which His Royal Highness replied in the following terms:—

Gentlemen.— I return you my warm acknowledgements for this Address which you have just presented upon the occasion of opening the fifteenth exhibition of the Agricultural Society for Upper Canada; and I take this opportunity of thanking the agriculturists, artisans, and farmers, who are now assembled from distant parts in this city of Hamilton, for the more than kind and enthusiastic reception which they gave me yesterday and repeated to-day.

Blessed with a soil of very remarkable fertility, and a hardy race of industrious and enterprising men, this district must rapidly assume a most important position in the markets of the world: and I rejoice to learn that the improvements in agriculture which skilled labor and science have of late years developed in the mother country, are fast increasing the facilities of your soil, enabling you to compete successfully with the energetic people whose stock and products are now ranged in friendly rivalry with your own within this vast enclosure.

The Almighty has this year granted you that greatest boon to a people,—an abundant harvest. I trust it will make glad many a home of those I see around me, and bring increased wealth and prosperity to this magnificent Province.

My duties as representative of the Queen, deputed by Her to visit British North America, cease this day; but in a private capacity I am about to visit, before I return home, that remarkable land which claims with us a common ancestry, and in whose extraordinary progress every Englishman feels a common interest. Before I quit British soil, let me once more address through you the inhabitants of United Canada, and bid them an affectionate farewell.

May God pour down his choicest blessings upon this great and loyal people.

At about 2 o'clock, as the artillery thundered out a royal salute, the Prince took his departure from Hamilton, escorted to the railroad station by the militia, national societies, and a great concourse of people. The royal party arrived late at Windsor, a town situated on the south-western confines of the province, on the banks of the Detroit and in the centre of a French population which settled there before the Conquest, and which has augmented considerably and now numbers, in the counties of Kent and Essex, over 20,000 souls. Sandwich, a neighboring town, is the seat of a lately erected Roman Catholic diocese; Mgr. Pinsonnault, a native of Lower Canada, is the first and present Bishop. The Prince having replied in a few words to an address presented by the Mayor of Windsor, went on board the steamer that bears the name of the little town, and immediately started for the United States shore, amidst the farewell cheers and universal regrets of the assembled people.

(To be continued.)

Notices of Books and Publications.

LITERARY AND HISTORICAL SOCIETY OF QUEBEC: *Report of the Council of the Society for the year* 1860.

We have to thank Mr. Bowen, Secretary to the Literary and Historical Society of Quebec, for a copy of the Report of its Council, for 1860. This society is the oldest of the kind in the Province, having been founded in 1824, under the patronage of Lord Dalhousie, then Governor of Lower Canada. On the 4th of June 1829, it became incorporated with the Society for the encouragement of Arts and Sciences. It has published three volumes of *Transactions*, and three parts of a fourth volume; the latter appeared successively in February 1843, March 1854, and January 1855; the last number of the third volume dates from 1837. To these must be added two volumes of Memoirs on the history of Canada, published for the first time, and one edition of the Voyages of Jacques Cartier, containing a translation by M. Faribault of Hackluyt's account of the third voyage of the renowned navigator, and which till then had been almost unknown in Canada. These publications date from 1838-39 and 1840. Both these and the Transactions are now very rare, and not to be had at the booksellers.

The *Société Littéraire de Québec*, which preceded the present society and whose motto was "*Florcamus in nemoribus,*" was altogether different. M. Louis Plamondon, an eminent Canadian lawyer, was its secretary in 1809, and in that year a small pamphlet, which it is now difficult to procure, was published, giving an account of the meeting held on the 3rd of June 1809; it contains a discourse of M. Plamondon's and two odes, one in English by Mr. Fleming, of Montreal, and the other in French, signed, *Canadensis;* both obtained the prizes of the Society. The subject which had been chosen for competition on that occasion was, "The birth-day of H. M. George III."

The motto of the present society is "*Nititur in lucem,*" and its device the sun rising on a clearing in the forest. It obtained a royal charter in 1831.

The *Transactions* give the essays read before the society; the first volume containing one by Chief Justice Sewell on the laws of Lower Canada (a discourse pronounced at the inauguration of the society, on the 31st May 1824); several articles on the geology of Canada, by Capt. Bayfield, Capt. Bonnycastle, and Lieut. Baddeley; on its conchology, by Mrs. Shephard; on its botany, by Mr. Shephard, and by Mr. V. Greene; on the Saguenay territory, by the celebrated Andrew Stuart; on the Etrurians, Tyrians, and Tuscans, and on the analogy existing between the habits, usages and traditions of the Asiatics and those of the American Indians, by Major Mercer.

The second volume contains two remarkable essays in French,—one by M. Amable Berthelot, on the subject of an ancient bronze canon found at the entrance of the Jacques-Cartier River; and the other by M. Joseph Perrault,—a plan of general education most suited to the prosperity of Lower Canada;—a grammar of the Huron tongue, translated from the Latin, with commentaries by Dr. Wilkie; notes on two phenomena of diurnal obscurity which

occurred in Canada, in October 1785, and July 1814, by Chief Justice Sewell; and an article on the topography of the country between Lake Huron and the Ottawa River, by A. Shirreff.

The articles most noticeable in the third volume are those on botanical researches in Canada, by Mr. Shephard; on the Magdalen Islands, by Lieut. Baddeley; on the mirage phenomena in the Gulf of St. Lawrence, by Mr. Kelly; a paper on the Greek authors who have spoken of hyperborean peoples, by Mr. Cochran, who took the prize offered on the subject by Sir Charles Grey; lastly, a paper on the history of civilization, by Andrew Stuart.

The three numbers published as part of the fourth volume contain a paper on a general system of education for Canada, by Dr. Wilkie; notes on the Labrador coast, by Mr. Robertson, and on the Esquimaux Bay, by Mr. Davies; and a paper containing very interesting researches on the Island of Anticosti, by Mr. Roche.

All these essays have been highly appreciated in other countries; and the Memoirs of the Society are not unfrequently cited in the literary and scientific publications of Europe and of the United States.

The Society long occupied the edifice known as the Union Hotel, and when the seat of Government was transferred to Kingston, was, unfortunately, permitted to remove to the Parliament Building. Its library then contained about 3000 volumes,—many of these were rare and very valuable works;—a number of highly prized manuscripts, copied at Paris; a mineralogical and geological collection,—the most complete one then to be found in the country;—a fine herbarium of Canadian plants, formed by Lady Dalhousie; a pretty numismatic collection; a conchological collection, given by Lord Durham; some portraits and pictures; a small collection of objects of natural philosophy and chemistry; numerous curiosities,—among the number was the bronze canon which M. Berthelot maintained had belonged to Verrazani;—and the remains of the zoological museum of Mr. Chasseur, which had been purchased by the Legislature, but not until it had a first time suffered by fire. The whole, with the exception of the manuscripts, which were saved, and of a few medals and books, was consumed in the fire which destroyed the Parliament Building in 1854.

That the society will not easily recover from the effects of such a calamity may readily be conceived; but the Report of its Council cited above shows that it is actively engaged in regaining its former position. The President, Mr. Meredith, and the Secretary, Mr. Bowen, are known for their energy and perseverance, and their exertions will doubtless finally be successful. This year the Committee intrusted with the historical department is composed of Messrs. G. B. Faribault, Chairman, R. S. Bouchette, Marsden, N. de Montizambert, and Wilkie.

We see with pleasure that quite a number of papers have been read in the course of the year before the society, and that it proposes very soon to publish another series of *Transactions*.

We learn that a memoir of Jacques Cartier by M. Desmazieres de Séchelles, as yet unpublished, has been sent to the society from St. Malo. It is affirmed that it contains many particulars on the life and discoveries of the celebrated navigator which have never before been printed. This is one of the most important facts mentioned in the Report, and we hope the Society may be induced speedily to publish this memoir, as to keep it for any length of time from the natural curiosity of the many writers who take a deep interest in the history of the country, would almost amount to cruelty.

MacKay: Manual of Modern Geography, Mathematical, Physical and Political on a new plan embracing a complete development of the new systems of the globe, by the Rev. Alexander MacKay, in-12, xi, 695 p. Blackwood and Sons, Edinburg and London, 1861.

This treatise occupies a medium between the larger works and the ordinary school books, and by its convenient form, will prove a valuable manual to teachers. Students of universities and others will also find it a useful guide, notwithstanding many errors which occur, especially in what concerns Canada and America.

Geography, natural history and the natural sciences occupy much of its space. The arrangement of the matter and plan of the work are quite original, and without entirely approving of the system followed by the author, we recommend it to the careful consideration of those who in future may treat of the subject. It is divided into three parts, viz.,—1st. Mathematical Geography or Cosmography; 2nd Physical Geography; 3rd. Political Geography. The last takes up 631 pages, and is the main feature of the work, the two other parts being merely introductory compendiums.

We make the following extracts:

"Contour and Elevation.—The following are some of the comparisons, equally interesting and curious, that have been drawn by Carl Ritter and other geographers between the two great continents in respect to their forms of *contour* and *relief*:—

"1. The greatest length of the Old World is from east to west, while that of the New is from north to south; in other words, the eastern continent has its greatest extension in the direction of the *parallels*, while the western has its greatest extension in the direction of the *meridians*.

"2. The greatest extension of both continents towards the north and south is nearly under the same meridians. Thus, the Cape of Good Hope is nearly in the same meridian with Cape Nordkyn in Norway; the peninsula of Malacca with Cape Severo in Siberia; and Cape Horn with the north-west angle of Greenland. The last-mentioned country, however, is now known to be detached from the North American continent.

"3. Both continents attain their greatest extension from west to east along the same parallel—viz. that of 50° N.

"4. Both continents spread out widely towards the north, where they closely approach each other; both are abruptly terminated by the Arctic Ocean in nearly the same latitude—viz. that of 72°; whereas toward the south they widely diverge, and narrow down to single promontories.

"5. In either continent a large portion of the area is nearly detached from its principal mass: thus Africa is nearly severed from the one continent and South America from the other.

"6. All the great peninsulas of both continents follow a southerly direction; as the Scandinavian, Spanish, Italian, Hellenic peninsulas, Africa, Arabia, Hindostan, Further India, Corea, and Kamtschatka, in the one; and Alaska, California, South America, Florida, and Nova Scotia, in the other. The only important exceptions to this generalisation are, Jutland in the Old World and Yucatan in the New, both of which stretch *northward;* and Asia Minor in the former and Russian America in the latter, which project towards the *west*.

"7. The opposite coasts of the two grand continents are strikingly conformable to each other, the projections of the one being opposite to the indentations of the other, as if they meditated a closer union at some future time: thus Brazil stands opposite to the Gulf of Guinea; Western Africa to the Gulf of Mexico; Nova Scotia to the Bay of Biscay; while the opposite coasts of Greenland and Norway are nearly parallel.

"8. Looking at the two continents in another way, we find that Africa with Madagascar has its counterpart in South America with the Falkland Isles; while Florida and the West Indies have a similar correspondence with Malacca and the East Indian Archipelago.

"9. Taking the six separate continents, it is a remarkable fact that, with the exception of Africa, they all present to the ocean on their northern sides broad flats of low-lying land; while their southern extremities are rocky, pointed, and elevated. Again, while Africa, South America, and, we may almost add, North America, contract toward the south into single promontories, each of the others sends out three separate projections, which curiously correspond, each to each. Thus the Spanish peninsula resembles Arabia; Italy with Sicily corresponds to India with Ceylon; and the Hellenic peninsula with its adjacent islands, to Further India with the Malay archipelago.

"10. But the most important feature of configuration is that which has reference to their comparative lengths of *coast-line*. While the three southern continents present to the ocean an almost unbroken front, neither receiving its waters into their bosoms nor projecting into it any important peninsulas, the three northern ones are highly indented, though in very different degrees, their masses evincing a tendency to break up into members. Thus, while Asia and North America has each an extensive line of coast, Europe has wholly surrendered herself to the ocean, as if conscious that at a future time that element would become one of the chief sources of her prosperity.

"In regard to the lines of Vertical Relief, on the other hand, the following are the most important generalisations:—

"1. All the continents rise gradually from the sea-shore towards the interior, where they attain their maximum elevation; and thus

each of them presents to the surrounding ocean two great slopes, which greatly differ, however, in length and degree of inclination.

"2. In the Old World, the long gentle slope is inclined toward the north, and the short abrupt slope toward the south; while in the New World the gentle slope is toward the east, and the abrupt toward the west.

"3. But while each of the grand continents has thus a law peculiar to itself, it is also influenced by the law of the other. Thus, though in the Old World the long or gentle slope is toward the north, and the short or abrupt one toward the south, it is also true that the slope fronting the east is more gradual than that fronting the west. In like manner, though in the New World the longer slope fronts the east, and the shorter the west, it is also true that the slope which fronts the north is gentler than that which fronts the south.

"4. The laws regulating the primary and secondary slopes, however, may be expressed still more generally thus: In both continents the long and gentle slopes descend toward the Atlantic, or toward the Arctic Ocean which is its continuation; while the short and abrupt slopes incline to the Pacific, or to the Indian Ocean which may be regarded as one of its members.

"5. The elevated ridge formed by the intersection of the great slopes is usually occupied by lofty mountain-chains, and constitutes the grand *watersheds* of the different continents. Hence in the Old World the general direction of the principal mountain-ranges is from east to west, while in the New it is from north to south. In the one they proceed in the direction of the parallels; in the other in that of the meridians; while in both they extend in the direction of the *greatest length* of the continents. Thus, in the eastern continent one immense mountain-chain extends, with few interruptions, from the western extremity of the Pyrenees to the vicinity of Behring Strait; while in the western, an almost unbroken range extends from the north-east angle of Russian America to the southern extremity of Patagonia.

"6. The law of following the direction of the greatest length holds equally true in regard to all the more important peninsulas and islands. Thus Scandinavia, Italy, Malacca, Corea, Kamtschatka, and Lower California, together with Great Britain, Corsica, Sardinia, Sicily, Crete, Madagascar, Sumatra, Java, Japan, Cuba, Hayti, Jamaica, and New Zealand, are all traversed by mountain-ranges in the direction of their greatest length.

"7. While in both hemispheres the reliefs go on increasing from the poles to the equator, the highest elevations of the Eastern Hemisphere occur in the vicinity of the Tropic of Cancer, while in the Western they are found near the Tropic of Capricorn: compare the positions of Mount Everest, Kunchingmga, and Dhawalagiri, in the Himalaya, with those of Aconcagua and Sahama, in the Andes of Chile and Bolivia.

"8. A remarkable similarity exists between Europe and Asia in respect to their reliefs, and an equally striking dissimilarity between Africa and South America. Thus the Pyrenees and Alps correspond with the Taurus, Caucasus, and Himalayan ranges; the basin of the lower Danube has its counterpart in Tonquin; European Turkey corresponds with Further India; Venetian Lombardy with the basin of the Ganges; while Delhi, Calcutta, and Bombay at once suggest Milan, Venice, and Genoa. But while the interior of Africa is chiefly occupied with dreary deserts and elevated plateaux, and has its loftiest elevations on the east side, the interior of South America is low and fertile, with a huge mountain-range on the west side: yet the Nile and the Zambezé correspond in direction, magnitude, and importance, with the Amazon and La Plata.

"9. While the *Table-lands* in both hemispheres are intimately connected with the mountain-ranges,—the highest mountains invariably rising, not from plains, but from elevated plateaux,—the Old World is most remarkable for its *Mountains and Table-lands*, and the New for its *Plains and Rivers*.

"10. Notwithstanding the imposing height of the various mountain chains, the mean elevation of the continents depends far less on it than on the general configuration and extent of the plains and table-lands. This is evident from the fact that the highest elevation of the loftiest mountain-range on the globe does not exceed 5½ miles above the level of the sea, being little more than the 1/1400 part of the earth's diameter. Consequently the mountain-chains on the globe produce no greater deviation from its spherical shape than the small protuberances on the rind of an orange do on its general form. For example, if the entire mass of the Alps were pulverised and distributed over the whole extent of Europe, its surface would not thereby be raised more than 22 feet above its present level; while, on the contrary, were the great plateau of Spain, which has an elevation of only 2000 feet, levelled down and spread in a similar manner over the continent, the general surface would be raised 76 feet. The Himalaya and Kuen-lun Mountains, with the table-land of Tibet by which they are connected, would produce an elevating effect on the whole of Asia amounting to 358 feet; and it is estimated that if all the inequalities on the earth's surface were reduced to an uniform natural level, the entire land would have an elevation above the sea of about 1000 feet. Or taking each of the continents separately, the average elevation of Europe would be 671 feet, of North America 748 feet, of South America 1132 feet, and of Asia 1151 feet.

"11. It was long a prevalent opinion, founded on theoretical views, that the depths of the ocean must be nearly equal to the elevations of the continents; but the greatest depths hitherto ascertained by the improved methods of sounding are in the North Atlantic Ocean, and do not exceed 25 000 feet; while Mount Everest, in the Himalaya, standing midway between Kunchingmga and Dhawalagiri, raises its snowy summit to an elevation of 29,000 feet. Thus, from the greatest depth yet reached by the plummet to the highest known mountain-summit, is upwards of ten miles in a vertical line, or 1/400 of the earth's radius.

"Population of the Globe.—The population of the entire globe cannot, as yet, be stated with any great degree of accuracy; but probably *one thousand millions* is not far from the truth. Of these the Caucasian race numbers about 400,000,000; the Mongolian, about 470,000,000; the Negro, including the Papuan and Australian sub-varieties, about 80,000,000; the Malay, about 40,000,000; and the American, about 10,000,000.

"The population of the different *continents*, according to the most recent statistics, is as follows:— Europe, 265,417,785; Asia, 652,500,000; Africa, 60,000,000; North America, including Central, 39,681,230; South America, 18,417,312· Oceania, 21,000,000 —making a total of 1,057,046,327."

We also find among other statistics that "surface of the globe covers a superficial area of 197,000,000 square miles, and that one fourth part only of the solid matter of the earth is in contact with the atmosphere, the rest being covered with water. The ocean occupies about 145,500,000 miles and the land 51,500,000.

We have said that there are many errors in that part of the work descriptive of America; they are not however so gross as those which occur in a model lesson in Geography published by a London educational periodical, and to which attention was called by the *Journal of Education* and the Quebec *Canadien*. Besides reiterating the charges against the French Canadians generally of ignorance and want of energy, the author has neglected to avail himself of later educational statistics than the returns of 1855 for Upper and 1851 for Lower Canada. With very little trouble he might have obtained the figures for 1858 and perhaps even those for 1859.

Woods: The Prince of Wales in Canada and the United States, by N. A. Woods.—Bradbury and Evans, 438 p.—with map. London, 1861.

Mr. Woods, the *Times'* correspondent has published his letters from Canada in a handsome volume. The descriptions of this writer are, as all the world knows, brilliant and clever, though somewhat verbose. He often treats men and things quite cavalierly, and his appreciations are sometimes very unjust; besides his narrative is not always correct. Several errors have been also committed in tracing on the map the route followed by the Prince of Wales.

Sadlier: The Spanish Cavaliers, a Tale of the Moorish wars in Spain, translated from the French, by Mrs. J. Sadlier, 202 ps. in-12o.—Sadlier.

Our late fellow-townswoman still pursues her vocation with the same energy and success, and we look upon her elegant translations as valuable acquisitions to the language. Mrs. Sadlier seems to attach herself to this style of literature, although her native talent has already won for her many laurels.

Relations inédites de la Nouvelle-France, (1672-1779) pour faire suite aux anciennes relations, (1615-1672). Two vols. 12vo. xxvii (1), 356 and 384 pages, with two maps. Paris, 1861.

(1) The Roman numerals indicate the number of pages so marked in each volume, and are to be added to those given in Arabic notation.

These two volumes form part of an extensive collection of voyages of the *Pères de la Compagnie de Jésus*, published by that company. They contain the narrative of Père Dablon, and an account of the voyages and discoveries of Père Marquette and Père Allouez which, as we said in a former number, have been already published in New-York, under the supervision of Mr. Gilmary Shea, and which until then had not been in print. These interesting documents are wanting in the *Relations des Jésuites* printed in Quebec at the expense of the Government; it is to be regretted they were not secured to complete the series, but we hope the Government will do so now. The work is also accompanied by an introduction of 28 pages from the pen of Père Martin, Superior of the Jesuits in Quebec, and late Rector of the St. Mary's College, Montreal, giving an account of the circumstances which formerly interrupted the publication of the *Relations*.

Historical Magazine.—Among other articles the February number contains a curious bibliographical notice on the voyages of Christopher Columbus, and that for March an article on Louisiana, and an interesting report of the January sitting of the Historical Society of Maine, at which several papers on the Acadians were read.

MONTHLY SUMMARY.

LITERARY INTELLIGENCE.

— Lord Palmerston has granted, out of the Queen's Bounty Fund, the sum of £100 to the two daughters of Mr. James De Foe, greatgrandson of the author of "Robinson Crusoe."

— Two large private libraries in Germany are now about being sold, that of the celebrated Karl Ritter, the catalogue of which will occupy several large printed volumes, and that of Dr. Hallbaum. The former collection is said to be unrivalled in the department of history and geography, the latter is noted for its selection of the editions of Plato's works. The *Athenæum* states that the Prussian Government ought not to allow such splendid libraries to be sold out, and the books scattered away, but ought to buy them for some public institution.

— The Royal Academy of Belgium has undertaken to reprint the best works of that country in the French language down to the time of Margaret of Austria.

— A large collection of books on America, chiefly on the Indians of North and South America, belonging to Mr. A. H. Stevens, agent of the Smithsonian Institution, was sold by auction at Leicester Square (London). The sale lasted three days.

SCIENTIFIC INTELLIGENCE.

— Our readers are aware that Parliament voted a sum of money last session, to enable Lieut. Ashe, Director of the Quebec Observatory, to join the American expedition to Labrador, having for its object the observing of the solar eclipse of July. No account of this expedition has yet appeared, but the *American Journal of Science* publishes some details of which we give a synopsis.

The expedition sailed from Brooklyn on the 28th of June, and reached the place previously selected on the Labrador coast about midnight of the 12th July, as the sun was setting. The greatest caution must be used upon approaching the coast, for in no sea does there exist so many dangers, as islets, rocks and sunken reefs are scattered around in profusion, and where these are not found, icebergs take their place. The latitude of the station was 39° 48' less some seconds, and the time 4h. 16m. 59s. west of Greenwich.

The landing had hardly been effected when a storm of wind and rain set in, which continued two or three days, rendering it difficult to use even a ship's telescope. Until Thursday evening, immediately preceding the eclipse the clouds were so thick that the stars were hid. However, on Friday, at the commencement of the eclipse, the sun appeared unencumbered and continued visible during the greater part of its duration, though clouds drifted rapidly over his disc and occasionally obscured it completely for a few moments; serious apprehensions were even entertained for the success of the observation of the final contact. Fortunately during the last four or five seconds the crescent on the eastern limb appeared entirely free, and the somuch-desired object was secured. Lieut. Ashe had the good fortune, spite of the unfavorable weather, to perceive a point of light and to determine its position in the corona which surrounds the moon during the total obscurity. This observation may serve to support those made in other places and under more favorable circumstances. This point was of a brilliant white light and of equal intensity.

The aurora borealis was seen on fifteen nights, the atmospheric electricity being hardly perceptible. On the 22nd July a snow storm spread a white covering over the entire country as far as the eye could reach and loaded the deck of the steamer with icicles. When the expedition left the coast the mountains were still covered with snow.

— In a paper read before the French Academy of Sciences on the secular variations of the inland seas, M. Babinet says he believes the herring might be easily introduced into the lakes of Europe and of America.

— The crew of the sloop of war *La Capricieuse* witnessed, on the night of the 20th August, an interesting phenomenon, not unknown at sea. It was thought at first to be an optical illusion, but on examining closely some of the water drawn up from the sea it was found to contain an infinite number of animalcula emitting a phosphoric light. We all agreed, says the commander, M. Trébuchet, that the phenomenon was to be attributed to these living atoms, so numerous and yet so minute that the eye could not distinguish their individual light, but received an impression from the mass similar to that produced by the starry light of the Milky Way.

—*The Silver Spring*, Florida, United States, is described by Professor Le Conte in *Silliman's American Journal of Science*. We subjoin a few notes. It is situated near the centre of Marion county, nearly in the axis of the peninsula. Its waters are discharged by a short stream bearing the same name (viz., Silver Spring), which, running about six miles, unites with the Ocklawaha (or Ocklawaha), a tributary of the St. John's River. The stream takes its origin in a deep pool or head basin, which is called, par excellence, "The Silver Spring." This basin is nearly circular in shape, about 200 feet in diameter, and is surrounded by hills covered with oaks, magnolias, bays, and other gigantic evergreens. The amount of water discharged is so large that small steamers and barges readily navigate "The Silver Spring" up to the pool or head spring. The maximum depth of water in the pool or basin was found to be not more than thirty-six feet in the deepest crevice from which the water boils up; the general depth in the central and deep parts of the basin was found to be about thirty feet. The most remarkable phenomenon presented by this spring is the truly extraordinary transparency of the water. Every feature and configuration of the bottom of this gigantic basin is as distinctly visible as if the water were removed and the atmosphere substituted in its place. On the 17th and again on the 20th of December, 1859, the sunlight illumi ated the sides and bottom of this remarkable pool as brilliantly as if nothing obstructed the light. The shadows of a little boat, of the spectators' overhanging heads and hats, of projecting crags and logs, of the surrounding forest, and of the vegetation at the bottom, were distinctly and sharply defined; while the constant waving of the slender and delicate msslike algæ, by means of the currents created by the boiling up of the water and the swimming of numerous fish above this miniature subaqueous forest, imparted a living reality to the scene. Bouguer, in 1760, estimated that the light of the sun in sea-water, at the depth of 311 French feet, would be equal to that of the full moon, and at 679 feet would wholly disappear.—*Illustrated London News*.

—*Natural Ice Caves* (*Glacières*).—In the last number of the *Bibliothèque Universelle de Genève*, Professor Thury has printed a memoir on these remarkable grottos. The glacière of La Baume, near Besançon, seems to have been the first to attract the attention of philosophers, which appears to be not only a great conservator but also a great producer of ice. In 1727, when the camp was at the Saône, the Duc de Levi had the ice taken from the cave in a great many carts, yet in 1843 the cave was resupplied with ice, which covered the floor; and the walls, and was suspended as stalactites from the roof. As the mean temperature of the soil where the grotto exists is several degrees above the freezing point, a change must take place between the interior and the exterior, in which, for a time, the heat taken off must exceed that received. M. Thury gives the theories of Prévost Pictet, and others, and then in a second part of his memoir gives an account of his own excursions and investigations, especially in the glacières of Jura, in 1757-61. He gives the following as the causes of the formation of the ice:—During winter the heavy cold external air falls through the holes of the grotto, displaces the less cold air, and freezes the water in the grotto. In the warm season the heavy cold air cannot be displaced, and transmits heat very feebly; while the radiation of the walls and roof, and the heat of the soil, melt only a small quantity of ice, which absorbs much heat when passing to the liquid state. In addition, the branches of the trees which overshadow the openings of the cave, the exposure towards the north, the vegetation which covers the soil the incessant evaporation of the surface, attenuate as much as possible the effects of the solar heat, and maintain the cold of the upper part of the grotto. M. Thury appends to his memoir an account of the investigations of MM. Soret and Morin:—In January last M. Soret, with two companions, visited the Ice Cave of the Vergy, in the Alps. They passed the night at the Convent of the Chartreuse, in the middle of a long valley, a situation of severe beauty. Thence they descended by a steep road, a quarter of a league long, to the village Pralong du Reposoir, where they halted. The mountaineers affirmed that nothing would be found in the "grand cave" but water and

vapour, but had not been there to see. The entry to the grotto was found to be free. The snow had slid down towards the bottom of the valley, where it formed a thick layer. Beautiful stalactites hung from the roofs; perfect silence reigned; very dry ice appeared everywhere in the form of columns, slabs, inclined planes, &c. There was no water or snow anywhere, and the atmosphere was very still and cold —*Id.*

STATISTICAL INTELLIGENCE.

— By the decennial census which has been completed since the breaking out of the civil war, it appears that the total population of the 34 States, 7 Territories and of the District of Columbia is 31,429,891, of which 3,949,557 are slaves. In 1850 the population was 23,067,262, of which 3,200,600 were slaves. The increase of the slave population is very small compared with that of free men But that does not give the figures of the black and coloured free population. The rate of increase of the whole is about 31 per cent.

The State of New-York has the largest population 3,837,542; the State of Oregon the smallest 52,464.

New-Mexico is the most populous Territory- 93,541, while Dahotas has the smallest population—only 4,839. The population of the District of Columbia (Washington and a small circuit around it) is 75,076.

The population of the seven confederate states, Alabama, Florida, Georgia, Louisiana, Mississipi, South Carolina, and Texas is only 4,067,891, of which 2,311,260 are slaves. To those however must now be added Virginia with a population of 1,596,083, of which only 490,887 are slaves, and likely also Tennessee with a population of 1,109,847, of which 275,784 are slaves, and Kentucky with 1,155,713, of which 225,490 slaves.

There are besides, several States and Territories that are doubtful or neutral; and giving the South the benefit of all possible contingencies in its favor, it may be said that the contest is likely to be at the most, one between six or seven millions of freemen from the Southern States, against fifteen or seventeen millions from the Northern and Western States. The odds are fearful as one may see.

— The census of Quebec and of Montreal, dividing the population according to religion and origin, is now complete and the results are as follow:—

The French Canadians and the natives of France in Montreal are 43,070, the natives of Great Britain and their descendants 43,745, and the natives of all other countries and their descendants 4,191. Nearly one half of the latter are French speaking, so that the city may be considered to be equally divided between the French and the English speaking populations. The Roman Catholics are 66,099, the members of the Church of England 10,072, all other Protestant congregations 13,917, Unitarians 468, Jews 398, without any religion 52. The total population of the city within the limits is 91,000; the population of that part of the suburbs which is out of the city limits is 10,433, nearly all French Canadians and Roman Catholics, giving altogether 101,439.

The population of French origin in Quebec is 29,236, that of British origin 21,097, and the natives of all other countries 701. The Roman Catholics are 41,858, the members of the Church of England 5,679, all other Protestant religions 3,432, Unitarians 20, Jews 117, without any religion 8. The whole population is 51,134; the population of the suburbs out of the city limits is given as 10,850, the great majority of which are Roman Catholics of French origin and Irish Catholics, giving altogether 61,984. The population of Montreal in 1851 was 57,715, and that of Quebec 42,052 within the limits.

— The Mississippi River extends 2,100 miles from the frozen regions of the North to the sunny South, and with the Missouri river, is 4,500 miles in length It would reach from New York across the Atlantic Ocean, or from France to Turkey and the Caspian Sea. Its average depth is fifty feet, and its width over half a mile. The floods are more than a month travelling from its source to its delta. The trappers can exchange the furs of animals caught by them on the Upper Mississippi for the tropical fruits gathered on the banks below. The total value of steamers afloat on the river and its tributaries, is more than $60,000,000, numbering 1,600 boats, with more than twice the steamboat tonnage of England It drains an area of 1,200,000 square miles, and washes the shores of twelve powerful States. In one single reservoir at Lake Pepin, between Wisconsin and Minnesota, 2,500 miles from the sea, the navies of the world might ride at anchor.

MISCELLANEOUS INTELLIGENCE.

— In France teachers find divers means of adding to their scanty pittances, which in that country are as slender as in Canada, and perhaps even more so. One of these means, and the most important is the rearing of bees. We translate the following extract from a French work published in Montreal by the late Amury Girod, adding that in the district of Montreal, and especially on Isle Jesus, many farmers avail themselves of this source of profit.

"The product of bees is considerable when the directions which I have given are followed out, for then no loss occurs. I shall make some calculations, taking as a basis one hundred hives. The cost of 100 hives at 21 francs is 2,100 francs. The number of swarms will be at least one hundred, but as some may die in winter, or be otherwise lost, let only 60 be reckoned upon—60 at 10 francs is 600 francs. As a good hive will yield 10 or 12 lbs. of honey and the smallest only about 2 lbs., the mean weight must be adopted, say 6 lbs to each hive or 600 lbs. in all. The price of honey ranges from 40 to 80 francs per hundred, which at the mean rate—60 francs—is 3600 francs —Total 4200 francs. Thus as the profits amount to about 50 per cent., it will be seen that bees will repay the pains bestowed upon them."

Bees, adds *l'Agriculteur*, cost nothing, as they feed everywhere without committing any depredation. The poorest can own hundreds of hives with only a small plot to enclose them, and our cold climate should not prevent us from keeping bees since they thrive well in Russia where the winters are even more severe.

— It is stated from Havana that the remains of Christopher Columbus, the discoverer of the New World, are again to be removed to a new and splendid cemetery, soon to be opened near that city. They are to be deposited in a silver urn, on which will be inscribed in letters of gold the most remarkable events of his great enterprise. A bronze statue is to be erected over them, representing the great discoverer in the attitude of revealing the grand mission of his wonderful life.

Columbus died Ascension day, the 20th of May, 1506, in about the 70th year of his age. His obsequies were celebrated with great pomp at Valladolid, and his body deposited in the Convent of San Francisco. Thence, nine years after, in the year 1515, it was removed to the Carthusian Monastery of Seville, where was likewise deposited the body of his son Diego. Twenty years after, in the year 1539, the bodies of both the admiral and his son were removed, with appropriate pomp and ceremonies, to the New World he had discovered, and interred in the principal chapel of San Domingo, Hispaniola. There they remained undisturbed for the period of 250 years.

In the year 1805, however, at the close of the war between France and Spain, all the Spanish possessions in the island of Hispaniola were ceded to France, whereupon a request was preferred to the French Governer to have the remains of Columbus removed to Cuba. The request was granted, and on the 20th day of December, 1805, the vault in the cathedral of San Domingo was for the first time in nearly two hundred years opened. "Within," says the record of the event, "were found the fragments of a leaden coffin, a number of bones, and a quantity of mould, evidently the remains of a human body. These were carefully collected and put into a case of gilded lead, about half an ell in length and breadth, and a third in height, secured by an iron lock, the key of which was delivered to the Archbishop. The case was enclosed in a coffin, covered with black velvet, and ornamented with lace and fringe of gold."

After appropriate funeral ceremonies, the body was taken on board the ship *San Lorenzo* and taken to Havana, where it arrived on the 15th of January, 1806. It was received in the most solemn manner, with all the honor given to a sovereign. "On arriving at the mole, the remains were met by the Governor of the Island, accompanied by his generals and military staff. The coffin was then conveyed between files of soldiery which lined the streets to the obelisk, in the Place d'Armes, where it was received in a hearse prepared for the purpose. Here the remains were formally delivered to the Governor and Captain General of the Island, the key given up to him, the coffin opened and examined, and the safe transportation of its contents authenticated."

The ceremony concluded, the solemn rites of the dead were performed by the Archbishop, and the remains of the great discoverer were again deposited in the wall on the right side of the grand altar of the Cathedral of Havana, where they have ever since remained, the object of reverence to all visitors of the island.—*Boston Traveller.*

—On a very conspicuous and beautiful green hill that overlooks the town of Cromarty, stand the Gælic Chapel of the Established Church. At the east end of the chapel, and about thirty yards distant from it, Hugh Miller's monument has been erected. It is a massive column of freestone about 54 feet high, on wich has been placed a statue, 10 feet high, of the great Geologist The face is towards the east. He is standing bare-headed, with his plaid thrown over his shoulder. On his right side is a pile of books, seven in number, while he is holding another book in his hand, resting on the others. These no doubt refer to the number of works that he has published. In his left hand he is holding a specimen of stone which he is intensely examining. It is said to be a good likeness. It is rather a singular circumstance that when a monument was proposed to be erected to the memory of the devoted Dr. Thompson, who sunk in the Crimea, Hugh Miller pointed out the spot; and that the spot is the very one in which his own monument now stands. The doctor's monument was erected at Forfestinstead of his native town of Cromarty. The inscription is as follows:—"In memory of Hugh Miller, and in commemoration of his Genius and Literary and Scientific Eminence. This monument was erected by his contrymen. Born at Cromarty, 10th Oct., 1802, died 24th Dec., 1856." The cottage where Hugh Miller was born is in sight of his monument. His mother is still living in it, but has been bedridden for a length of time. She could never be persuaded to leave it to go to a better dwelling place.

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