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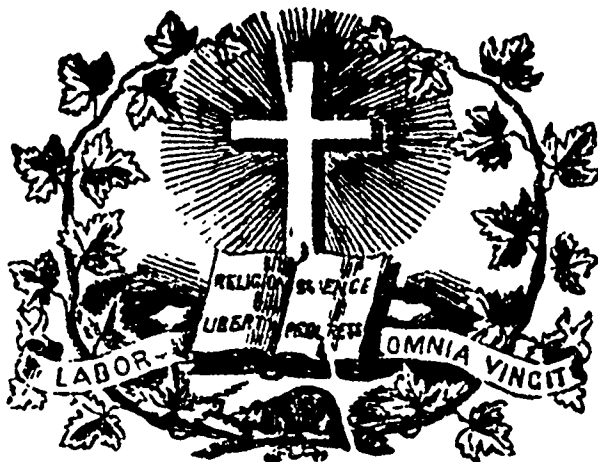
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JOURNAL OF EDUCATION.

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SUMMARY.—**LITERATURE.**—Poetry: A Lecture delivered in French at a séance of the French Canadian Institute, Ottawa, by the Revd. Ed. McDonnell Dawson.—**EDUCATION:** What becomes of Teachers?—Employment of Teachers.—English Public Schools Inquiry.—Pickings from Blue-Books.—**SCIENCE:** Canadian Geology.—**OFFICIAL NOTICES.**—Ministry of Public Instruction.—Appointments: Inspectors of Schools.—School Commissioners.—School Trustees.—Annexations, Separations and Erections of School Municipalities.—Board of Examiners.—Wants: An experienced Teacher wants a situation.—**EDITORIAL:** Distribution of the Common-School Fund.—Taxation for Education in Quebec and Montreal.—On Some Characteristics of British-American Mind, by Principal Dawson, LL.D., McGill University, Montreal.—Agricultural Education by Lord Aylmer.—**MONTHLY SUMMARY:** Educational Intelligence.—Literary Intelligence.—Scientific Intelligence.—Notes and Memoranda.—Meteorological Intelligence.

LITERATURE.

Poetry. (1)

A Lecture delivered in French, at a sitting of the French Canadian Institute of Ottawa, on Friday the 26th February 1868, by the Rev. Ed. MACDONNELL DAWSON.

No excuse need be offered for commencing with Poetry. The Poets were the earliest instructors of mankind. They were the Sages and Theologians of the primitive ages. Their language was indeed highly privileged; for God himself was pleased to make use of it in communicating his will to men. The greatest of his chosen servants who acted as his ministers and ambassadors to the world, were eminently poets. What could equal the sublime strains of Isaias and Ezekiel, the plaintive notes of Jeremias, the varied harmony of David, or the entrancing songs of Solomon, the wisest of men? This King, so renowned for his learning, was also the greatest poet of his time. His poetical compositions were remarkably numerous. (III. Kings 4; 42.) "Solomon also spoke three thousand parables; and his Poems were a thousand and five." Who has not heard of the

(1) It may be proper to observe that it was resolved to insert the Lecture on the Poets of the Canadian Provinces, in the *Journal of Education* at the request of the Hon. Thomas D'Arcy McGee. It was the last or almost the last request that the Hon. and lamented gentleman ever made to any friend in this world. The Lecture, as already mentioned, was delivered in French to a French Canadian Society, — *The French Canadian Literary Institute of Ottawa.*

The French Canadian Poets of the Province of Quebec are treated of as well as the Poets of that Province and those of the other Provinces of the Dominion who have written in English.

The Poets forming the subject of the Lecture will be given in the order in which they were delivered. It is presumed that such readers of the *Journal* as prefer French to English Poetry, will have as little objection to this arrangement as was shewn by the audience to whom the Lecture was addressed.

Bards of ancient times? Among the Celtic Nations especially, they enjoyed much respect, and a high social status. They were not unfrequently the Rulers of their people, and they always possessed political power. This may have had its inconveniences, which however were outweighed by the many blessings that attended this salutary and civilizing influence. It was a powerful corrective to the despotic tendencies of warlike chiefs; and it kept within bounds the selfishness of the powerful and the theories of politicians. Whilst it prevailed, the numerous Celtic people of the pre-Christian ages enjoyed a degree of civilization and refinement quite unknown to the Frank and Saxon. No wonder if poetry and its votaries exercised so much power of old in the world; for song is of heavenly origin. It is the language of those who dwell in Heaven. Did not the beloved Disciple when he beheld in vision (Apoc. 15; 2, 3.) the celestial abodes, hear the servants of the most High "singing the song of the Lamb," whilst they held in their hands "the harps of God?" Are we not also informed (Luke II; 13, 14.) that when announcing the Saviour's birth "a multitude of the Heavenly Host were heard praising God" in these sublime strains: "Glory be to God on high, and on earth Peace to men of Good will?"

Honor then to divinely Poetry! If it has enshrined the Myths of Pagan Antiquity and so preserved the early traditions of the human race which they wonderfully shadow forth, it expresses also those sublime conceptions of the Patriarch and Prophet world, together with those revelations from above, those manifestations of the Divine mind which constitute our Religious System. Few, only a select few, are privileged to speak its language. Fewer still are gifted to discourse in its loftier strains.

That Canada, so young a Country as yet, should have produced any Poets at all is more to be wondered at than that it should have produced so few. Such a thing as *learned leisure* is scarcely known in these regions, so lately a howling wilderness, so recently snatched from their wild forest state, and from the possession of the bear and the wolf. Who, in so new a state of Society as Canada presents, has time to labour in the field of Literature, or who, can gather and enjoy its fruits? Where there is so little appreciation of literary efforts, is it matter of surprise that such efforts should be proportionally few. Every species of labour deserves its reward. In whatever field the *labourer* is employed, *he is worthy of his hire.* The Poet even must enjoy this meed. Nor does he toil for such sordid gain. He, more, far more, than men generally, is above mere material considerations, but, he is entitled to his reward. And if he find it not in the good taste and the appreciative mind of his fellow-countrymen, where in this world, shall he look for it? He speaks not the language,—he knows not the sentiments of foreign lands. He must have his audience at home. And it must consist of those, who have everything except perhaps his genius, in common with him,—the same country, the same kindred, the same feelings, the same tongue and the same destiny. Grant him this and he will rejoice in his abundant recompense. Our Canadian Poets enjoy not as yet,

any such advantages. They are not known as they ought to be known. Such an evil, time only and the growth of knowledge, can remedy, as it will one day be remedied. Meanwhile, let all the friends of letters not only aspire to, but also labour to bring about this most desirable consummation.

In naming to you the Poets of Canada, this evening, I shall not pretend to class them according to their merits. Let it suffice for the present, to enumerate them in such order as I have been able, rather hurriedly, to collect their names and some particulars of their lives, I leave it to those dictators in the republic of letters,—the critics,—to assign to each one, his proper place on that far famed hill, the summit of which so few can reach. I would not, however, have it to be understood that I aim at presenting to you a complete Canadian Parnassus. Whilst those Poets only will be noticed whose works are decidedly before the Canadian public, and have attracted more or less critical attention, others of equal merit perhaps, may be omitted, either because they are less known, or because I have not yet become acquainted with them.

PART I.

BRITISH CANADIAN POETS.

Allow me now without further preface, to offer to you a cursory view of our British Canadian Poets. We are all, indeed British Canadians. But you will understand that I speak of such Canadian Poets as have written in English.

MR. ISIDORE G. ASCHER may surely be classed among our Canadian Poets. Although born at Glasgow, Scotland, and now a Citizen of the British Metropolis, he acquired his early knowledge of Letters in Canada, having come, or rather having been brought by his family, to this country when only eight years of age and having spent here about thirty years of his life. The date of his arrival in Canada is 1835. He went to England in 1864. He leads there the life of a literary man contributing to the more celebrated periodicals, &c. Critics speak of his *genuine poetic feeling*, his melody of *diction and happiness of expression*. An edition of his earlier lyrical compositions, together with more recent pieces having been published in 1863, under the title of "VOICES OF THE HEARTH," was speedily exhausted.

Colburn's Monthly says, referring to this work: "We lose ourselves in that indescribable absence from sensual objects which is a vision of our higher humanity."

Henry Giles writes in the *Boston Transcript* that "the moral spirit throughout (this same work) is of the highest."

The later poems of Mr. Ascher give proof of more matured poetic ability. I cannot give a better idea of his style than by quoting one or two pieces. What a beautiful allegory is not "SLEEP AND DEATH?"

The gentle night, tranquil as Eden's calm,
Before the voice of Sin disturbed the air,
O'er crept and nestled to the weary earth.
The moonbeams stole to kiss her loveliness,
And blent their mellowed splendour with the dark,
To beautify the shadows of the world.
And then, the unchanging galaxies of Heaven
Flashed out eternal rays, to stamp the night
With glory and immutability.
Then flew with lightning wing, through quickened space,
Two messengers from Heaven, clad alike
In purity and calm ineffable.
The splendid vesture of the gentle night
Clung to the skirts of both: a crown of stars
Circled the head of one, whose beauty seemed
Diviner than her sister's; soon they touched
The summit of an undulating hill,
Bordering the noisy haunts of busy men:
And the red moon, showering yellow flames,
Illumed the clumps of furze and trailing weeds
To seeming asphodels and amarantus!
With arms enfolded tenderly o'er each,
As if a subtle sympathy of love
Had knit their souls, they hushed their dreamy flight;—
Then sleep, beneficent, scattered abroad
Th' invisible seeds of slumber, taking root
Within the jaded hearts of human kind,
To blossom into gossamer flowers of dreams,
Casting a fragrance through the resting brain
Lightly and fleetly in an aerial maze.
Then puling Infancy, and fretful Age,
And querulous Youth, and sighing Maidenhood,
Lay smiling in the beauty of repose;
And Heaven-born Peace, unconscious of her power
Through shadowy chambers entered noiselessly,
And dimpled Innocence with loveliness,

And flung a chustering calm and tender smile
On faces harsh with cankering toil and care;
Then Sleep, enraptured at her marvellous work,
Like one accused of kindness, who might droop
A lowly glance, unwilling to be praised.
In bright contentment gazed upon the earth,
Upon the happy dwellings wrapt in calm,
And gave her sister Death, this utterance:
"What song exultant can be praise to God
For choosing me to lavish good on man?
When Night, stamping her holiness on earth,
Flies at the tender touch of warbling Dawn,
Men clasp my memory, and bless my name;
What truer recompense can angels know
Than homage of a prayer and grateful love?"
Then Death—a quiet sadness in her tones,
A tender melancholy in her smile,
Her starry eyes suffused with starry tears,
Such as immortals weep—gave answer thus:
"If casting forth the heavenly balm of good,
And earning gratitude of lasting love,
Is even angels' highest privilege,
O would that I might earn a grateful prayer!
Alas! men hate me in their restless fear,
For I am, in their thought, an enemy,—
A cruel, bitter vengeful enemy."
Then Sleep replied:

"What boots it that men fear,
Not knowing what they fear, as children dread
The ominous darkness of a lonely room,
As palsied Age may loathe to scan the past,
The ruined chasm of the buried years,
Filled with a wasted heap of cankering hopes,
Defeated plans and baffled aims of Youth;—
Not deeming Endless Wisdom shattered them.
We both are peaceful messengers from God;
Thy touch may hush, like mine, the sorrowing soul,
And banish evermore the groans of pain;
The peace I breathe is but a fleeting calm,
But thine is like the eternal calm of stars!
My love a boon for earth, but thine for Heaven!
The dead Day summons me to heal men's griefs
The pallid Dawn enfolds me in her arms.
And the world wakes to cares of yesterday;
But thy far reaching endless love, like His,
Which finite wisdom never wholly grasps,
Casts infinite peace upon the soul of man,
Who wakes to bless thee in Eternity!"

The angel ceased, and Death in speechless joy
Drooped on the arm of Sleep, and perfect calm,
Shedding a blissful sanctity o'er each,
Likens the angels to our mortal eyes!

One more Piece from Mr. Ascher and I think I shall have quoted enough to justify public opinion and the eulogies of learned critics.

THE FALLING SNOW.

Fall, like peace, O gossamer snow!
While searching winds are roaming abroad;
Fall, in your wealth, on the world below,
Like a blessed balm from God!

Fall, like kisses upon the earth,
That is cold and cheerless and full of woe,
And fill its heart with a sense of mirth,
Silent and loving snow!

Fall, in your wonderful purity,
Fair as a bride's unsullied dress;
Fall from heaven's immensity,
On our autumn dreariness.

Fall like a lover's phantasy
That the heart of a maiden might yearn to know;
Fall like a loving memory
On a soul o'erladen with woe.

Fall like the light of an infant's smile,
That sweetly beams for a mother alone;
Fall like hope when it dawns awhile
On a doubting heart of stone.

Fall like tears that leave us resign'd
When the soul submits to a hapless doom ;
Fall like light that falls on the blind,
On a life o'ersteeped in gloom

Fall like the bounties God has given,
While the mournful winds are piping abroad ;
Fall like the hints we have of heaven,
Like a blessed balm from God !

The next Poet on whom I must bestow a few words is a native Canadian,—the late JOHN McPHERSON who was born at Liverpool, Nova Scotia, in 1817, and who died 1847, in the Province of his nativity. This child of the Muses gave proof of a serious and studious mind in his early boyhood. Delicate health, together with the hard and thankless profession of a schoolmaster sadly marred his genius. Troubles, difficulties and disappointments were his lot through life. He was so delicately sensitive that the least word of criticism robbed him for a time of tranquillity and happiness. I am not aware of any other work published in his lifetime than his poem of 16 pages "THE PRAISE OF WATER." A prize was awarded to him for this work as the best Poem on temperance. His posthumous work "THE HARP OF ACADIA" consisting of moral and descriptive poems in 298 pages 12mo, and published by his friend Mr. J. S. THOMPSON, attracted much attention. It has been warmly eulogized by the most competent judges. The poems which it contains do not evince great imaginative power, nor are they rich in gorgeous descriptions, or the fire of sustained passion, "but," says that accomplished authoress Miss CLOTILDA JENNINGS, "they are melodious, tender and original. They are not the reflex of his reading, they are his own genuine utterance. Grace and perspicacity of expression, usually one of the charms last acquired by accomplished and well trained authors, seem to have been the unconscious possession of this one ; and when we remember how little he was aided in this way by the society of fluent talkers, the suggestions of judicious critics, or the influence of early discipline, we venture to conclude that he was taught and endowed very much as the ravens are fed and the Elies clothed."

EDWARD J. CHAPMAN, Professor of Mineralogy in University College, Toronto, although devoted to scientific studies, has produced some poetical compositions of very great beauty ;—a proof, if any were needed, that Poetry and Science are not antagonistic. His chief poetical work is called "A Song of Charity," published at Toronto in 1857. Critics are agreed that this learned Professor possesses the genius of Poetry.

MR. BIGNEY, a native of Nova Scotia, but now resident at New Orleans, has published a work of 258 pages 16mo, called "the Forest Pilgrims and other Poems." Some of the purely imaginative pieces in this work are spoken of by critics as being of a high order of merit.

MISS MARY J. HALZMANN of Nova Scotia has written some elegant fugitive pieces in verse for the press of that Province.

MR. DANIEL CAREY, an eminent Journalist of Quebec, has enriched the literature of the country with some very meritorious poetical compositions.

MRS. RHODA ANN FAULKNER, (née Paige), was born at Hackney, near London, England, in 1826. This very accomplished Lady had scarcely given proof of her fine poetical talent in a little work called "Wild Notes from the Backwoods," when she was called from this earthly sphere. Mr. Dewart relates a pleasing but melancholy circumstance connected with her early death at Cobourg in 1863. He had written to ask some contributions for his "Selections." Her husband replied that through severe illness, she was unable to comply with this request. A few weeks after, "Wild Notes" was sent to Mr. Dewart by Dr. Powell of Cobourg, with a request to insert some pieces from it in his work, and stating at the same time that the author had died the week before. One of the Pieces which Mr. D. selected,—"DREAMS," and which I need ask no apology for quoting, would alone suffice as an enduring monument of her genius :

Dreams, mystic dreams, whence do ye come—
In what land far off is your fairy home—
From whence off at night do ye hither stray—
Where aye do ye flee at the dawn of day ?
Ye ne'er can fold your wand'ring wings,
Ye wild unfathomable things !

Come ye from a beautiful world afar—
The land where the lost and the loved ones are,—
That ye oft bring back in your shadowy reign
The sound of their voices to earth again,
And their sunny smiles and their looks of light,
In the silent hours of the quiet night ?

Ye have brought again to the mother's breast
The child she hath laid in his grave to rest,
And lo ! she hears him prattling at her knee,
And she watches with joy his infant glee,
And kisses again that fairest young brow
That can meet but a worm's caresses now.

Ye have opened the captive's prison door,
And he stands on his own hearth-stone once more,
And his Sire is there with words of blessing,
His Mother with tears and fond caressing,
And a Sister's form to his heart is clasped,
And a Brother's hand in his own is grasped.
And he feels nor fetter nor galling chain,
He is safe ! He is free ! He's home again !

The murderer lies in his murky den,
His crime ever hidden from human ken.
Of his victim's fate few ever may know,
None ever may tell who hath struck the blow ;
But dreams ! ye have brought to his sight again,
Him whom his hand hath remorselessly slain—
With his ghostly smile and his glassy eye
And his finger pointing in mockery.
O dreams ! ye are strange and terrible things,
When ye come in the might of conscience' stings !

Lo ! the child lies down in his cradle bed ;
And his soft hand pillows his drowsy head,
And his parted lips have a cherub smile,
Untouched e'er by sorrow, unstained by guile ;
Falls Heaven's sweetest light on his baby brow,
And he lists to the "Angels' whisper" now.
O bright are ye, dreams, and beautiful things
When ye visit the child on Seraph's wings !

The warrior dreams of the laurel wreath,
And he rushes on to the field of death,
The minstrel dreams of the ne'er fading bay,
While pouring his soul in his fervid lay ;
And the soldier lies with thousands as brave,
And the minstrel fillets a nameless grave

Oft the Statesman dreams of ambition's dower,
Of the pride of wealth and the pomp of power,
Of a people's trust and a people's love
That the waning years of his life may prove ;
And when age hath palsied both brain and limb,
Oh, sad is the waking awaiting him !

The lover oft dreams of a mortal brow
To shine ever blessed and bright as now ;
Of an earthly love which no power may change,
No sorrow e'er darken, nor time estrange,
That shall know no shadow, no fear, no fall,—
Oh his is the wildest dream of them all !

We are dreamers all, we shall still dream on,
Till the vision of life itself be done,
Till the weary race to the goal is run,—
Till the fevered pulses are checked and chilled,
Till the fluttering heart is for ever stilled,
Till the final struggle at length is o'er,
And we quiet lie down to dream no more.

You may not all be aware that British America claims an OLIVER GOLDSMITH. This gentleman whose sweetness of versification and happy smoothness of expression have been praised by critics, was a collateral descendant of the celebrated OLIVER GOLDSMITH who wrote that beautiful and justly admired poem :

Sweet Auburn, loveliest village of the plain !

He attained the rank of Commissary General in his native Province,—Nova Scotia. He devoted much of his time to literary pursuits and published a Poem of 144 pages called "The Rising Village," which reached a second edition in 1834.

THE REV. ARCHIBALD GRAY, Rector, (Ch. of Eng.), of Digby, Nova Scotia, has published "Shades of the Hamlet and other Poems." This work, it has been said, must add to the lustre of our native genius.

SARAH and MARY E. HERBERT have published a volume (237 pp.) of Miscellaneous Poems under the title of "The Eolian Harp," which entitles them to a distinguished place among the Poets of British North America.

MISS CLOTHILDA JENNINGS is an accomplished prose writer as well as a Poetess. Few of her writings have appeared separately. Her "*Linden Rhymes*" in a volume of 152 pages 18mo, under the assumed name of "*Maud*" were published at Halifax in 1854. The following year she published "*The White Rose in Acadia*," and "*Autumn in Nova Scotia*," a prize tale and Poem. As a proof of her poetical talent, it may be mentioned that the poem which she composed in honor of the Burn's Centenary Celebration, was so highly thought of by the Committee in London, that they caused it to be included in "*The Burn's Centenary Wreath*," (London, 1859.) In 1855 Miss Jennings won the prize offered at Halifax on the occasion of the general public exhibition of the products of the Province of Nova Scotia, for the best Tale and Poem illustrative of the history, manners and scenery of Nova Scotia.

THE HONORABLE JOSEPH HOWE, M. P., so well known as a Politician and Orator, has written verses occasionally in the course of his long career. A little Poem entitled "*Melville Island*," which he published in his earlier days, has been much praised. The best proof of the high appreciation of his fellow-countymen is to be found in the fact that one of his best poetical compositions "*THE SONG FOR THE CENTENARY*" of the foundation of Halifax, written in 1849, has been set to music. It opens in the following bold and patriotic strain:

"Hail to the day! when the Britons came over,
And planted their standard with sea foam still wet!
Above and around us their spirits shall hover,
Rejoicing to mark how we honor it yet.
Beneath it the emblems they cherished are waving,
The Rose of old England the road side perfumes;
The shamrock and thistle the North winds are braving;
Securely, the May-flower blushes and blooms."

MISS HELEN MAR JOHNSON was born at Magog, Province of Quebec, in 1835. Her too early death occurred at the same place in 1863. This Lady may be said to have been born with the genius of Poetry. At the age of fifteen she composed elegant verses. Only five years later, she published a volume of poems (249 pages) which was received with great favor. Her diction was spoken of as rich and varied, not unfrequently pleasingly figurative and the versification as regular and pleasing. Her wonderful gift of song, however is more apparent in her unpublished compositions, some of which may be seen in Dewart's "Selections." This gentleman, himself a Poet, expresses a very high appreciation of Miss Johnson's genius. "Her Poetry," he observes, "is characterized by unaffected simplicity, genuine sensibility, often tinged by sadness, a deep sense of the insufficiency of earthly good, and ardent aspirations after the things that are unseen and eternal." Her love of Poetry was a perennial source of solace to her in the trying circumstances of her short and suffering life. The deep feeling of melancholy which pervades some of her compositions may be partly ascribed to this state of suffering, and to the idea, always present to her mind, that her days were drawing to their close, as well as to her poetic genius. It belongs to such minds to be eminently pathetic, and this is always skin to melancholy. The deep pathos which characterizes the genius of Miss Johnson is chiefly shown in the pieces which Mr. Dewart has preserved, "*I shall Depart*," "*To a Dandelion*," and "*Good Night*." At the risk of rendering you melancholy for a moment, I shall quote this last piece. The sweetness and affection which it breathes, will relieve somewhat its awful solemnity.

GOOD NIGHT.

Mother, good night! my work is done,—
I go to rest with the setting sun;
But not to wake with the morning light,
So, dearest Mother, a long good night!

Father, good night! the shadows glide
Silently down to the river's side,
The river itself with stars is bright,
So, dearest Father, a long good night!

Sister, good night! the roses close
Their dewy eyes for the night's repose,—
And a strange damp mist obscures my sight,
So, dearest Sister, a long good night!

Brother, good night! the sunset flush
Has died away, and a midnight hush
Has settled o'er plain and mountain height,
So, dearest Brother, a long good night!

Good night! good night! nay, do not weep;
I am weary of earth, I long to sleep;
I shall wake again with the dawning light
Of eternal day;—good night! good night!

"THE WATCHER" is not without a tinge of melancholy, but you will be pleased to observe how graphically this poem describes some of the things that are apt to happen in the course of a Canadian winter.

Night comes, but he comes not! I fear
The treacherous ice: what do I hear?
Bells? nay, I am deceived again,—
'Tis but the ringing in my brain,
—O how the wind goes shrieking past!
Was it a voice upon the blast!
A cry for aid? My God protect!
Preserve his life—his course direct!
—How suddenly it has grown dark!—
How very dark without!—hush! hark!
—'Tis but the creaking of the door;
It opens wide and nothing more,
Then wind and snow came in; I thought
Some straggler food and shelter sought;
But more I feared, for fear is weak,
That some one came of him to speak,
To tell how long he braved the storm,
How long he kept his bosom warm
With thoughts of home, how long he cheered
His weary horse that plunged, and reared,
And swallowed through the drifted snow
Till daylight faded, and the glow
Of hope went out,—how almost blind,
He peered around, below, behind,—
No road, no track, the very shore
All blotted out.—one struggle more
It is thy last, perchance, brave heart!
O God! a reef! the masses part
Of snow and ice, and dark and deep
The waters lie in death-like sleep;—
He sees too late the chasm yawn;
Sleigh, horse and driver, all are gone!
Father in Heaven! It may be thus,
But thou art gracious,—pity us!
Save him, and me in mercy spare!
What 'twould be worse than death to hear.
—Hark! hark! am I deceived again?
Nay, 'tis no ringing in my brain,
My pulses leap, my bosom swells—
Thank God! it is, *at its last*!

EVAN MCCOLL, a native of Scotland. This Poet whom Canada now claims, was born at Loch Fyne side in the year 1808. He was and is still known there as "The Mountain Minstrel." Since the days of McLachlan, McLeod and Macdonald of Crief, no writer has done so much honor to the Gaelic language. It was indeed his mother tongue, and he owed it, as he paid to it, the tribute of his earliest poetical compositions. His first work, "*A Collection of Poems and Songs in Gaelic*," at once secured for him a high place among the Bards of his country. On the appearance of these poems, the critics were pleased to pronounce him second to none among Celtic Poets. His inimitable "*Ode to Loch Duich*" shewed how he appreciated the picturesque scenery of his native hills and Lochs,—that "land of the mountain and the flood," which has often been the Poet's theme. No wonder if he loved that land, and so dearly loved it, that when his Father and family emigrated to Canada in 1831, he could not be prevailed upon to accompany them. It was not till 1850, and when compelled by the state of his health to seek a change of air and scenery, that he visited Canada. He soon decided on remaining in this country; and an appointment in the Provincial Customs of Kingston induced him to make his home in that City. He is the Bard of the Caledonian Society there; and he has composed several Poems for its annual celebrations. Some of these are much admired, and his "*Robin*," composed for the "Burns' Centenary Festival," is considered by the Kingston critics, quite equal although, indeed, this is saying a great deal, to the Countess of Nairn's very pathetic song "*The Land O' the Leul*." In 1846, Mr. McColl published a volume of Poems and songs in English. These compositions also have commanded the attention of eminent critics. Dr. Norman McLeod whilst finding fault with some imperfections of Rhyme, says "there are thoughts so new and so striking,—images and comparisons so beautiful and original,—feelings so warm and fresh that stamp this Highland peasant as no ordinary man."

This audience, I am sure, will hear with pleasure one of Mr. McColl's English songs. It alludes to scenes with which you are familiar,—"*The Lake of the Thousand Isles*."

(To be continued in our next.)

EDUCATION.

What Becomes of Teachers?

In this country the average time spent by teachers in their employment is very short. In other professions this time is usually the entire period of life between early manhood and old age. It is seldom that a physician, lawyer or minister, abandons his profession till death or old age intervenes. This fact is observable in most human employments. A man becomes a mechanic or a tradesman, with the expectation of spending the greater part of his life in his chosen occupation. In teaching, however, the case is strikingly different. A very large proportion of those who are now in the schools of our State will, within a short time, be found in other employments. Comparatively few, even of those who are known as professional teachers, spend more than fifteen years in the school room. It is pertinent to inquire, then, *What becomes of teachers?*

He who examines the annual report of the State Superintendent will probably learn that at least seven thousand out of nine thousand teachers in Michigan are women. It is not difficult to form a probable conjecture as to what will soon become of a large proportion of these. If sensible, as most of them are likely to be, they will marry before they have taught a year on the average. We are now speaking of those who set out with a deliberate purpose to become teachers. It is no empty compliment to say of such that they very readily find good husbands. Did not a certain Governor once take a colony of New England schoolma'ams to the West? All along their lines of travel we may find the *protégées* of Governor Slade, once teachers, now loved and honored housewives. Of ninety per cent of lady teachers it may be said with truthful brevity, *they marry*. Now, we may ask, "What becomes of the men?" Has any one failed to observe how large a proportion of professional men have been teachers? Probably one-half of all the men who are teaching in Michigan to-day design to enter the profession of law, medicine, or theology. Teaching accords with the tastes of such, affords some leisure for study, and, withal, is a ready way of raising funds for an ulterior object. Of the other one-half a comparatively large number will teach for only a few terms, and will then settle down to some manual employment. Only a small per cent of the whole number design to teach permanently; and even a large proportion of these are forced by one circumstance or another to engage in some other vocation. Practically, therefore, teaching is not a profession; it can scarcely be called an employment. It is merely an *avocation*—a halting place on the road to some coveted destination.

The next query is, *Why is this so?* To a great degree this state of things involves its own continuance. Paradoxical as it may seem, teaching is not a profession, because men do not devote their lives and talent to it; and men do not this because teaching is not a profession. The two motives which induce men to enter a profession are *philanthropy, and money*. The motive is sometimes a mixed one: but as matters now stand, it would seem that these two elements are inversely proportional, the field offering the best facilities for one being barren of opportunities for the other. No one thinks of becoming a lawyer, for the good he may do mankind, and the clergyman who expects to receive more than a competence is visionary to the last degree. What is the nature of the teacher's motive? So far as those are concerned who look directly towards another calling, an answer is scarcely required. They seldom look beyond the salary which shall enable them to reach a desired position. But there are others who teach from choice, and are not looking towards an ulterior object. These are they who constitute the profession of teaching, if, indeed, there be such a profession. It is with reference to these that we ask why they do not continue to teach. If we mistake not, there are two causes which have a direct and constant tendency to induce teachers to abandon their profession.

We do not live in patriarchal times, when men led a nomadic life, to-day pitching their tents beside some water-course, and to-morrow journeying towards another camping ground. Men have ceased to be sojourners, and eagerly fix upon some spot where they may have a home, a sacred spot, around which the hand of affection gathers whatever may minister to the wants and the longings of the human soul. When the Trojan women left their burning city, they embraced the door-posts of their houses as a last token of their veneration for homes made sacred by alternate triumph and disaster—by special joys and the presence of the *penates*. There is a profound and controlling sentiment in the human heart, which causes us to long for fixed habitations where we may continue to enjoy the society of those we love—where we may rest under the shade of the trees we have planted, and where at last we may rest from our labors. The love of home is the universal inspiration of the world's toilers. We are content to labor and to suffer if only we may be soothed and refreshed by the sacred consolations of our homes. Here the worries of life do not intrude, here envious tongues are silent, here misrepresentation does not seek her victim. What advantages for the gratification of this sentiment does the teacher's life afford? In a majority of cases, such a home as his tastes require is an impossibility. A house and grounds, books and pictures, presuppose an adequate income, such, as not one teacher in fifty receives. This is not the place to inquire why this is so; but it is sufficient for the present purpose to state the fact which is patent to all. It is not true that teachers are chiefly, or even largely, influenced by the mere question of salary; and yet in these days of high prices it is necessary to look very carefully to one's resources. One of the causes which draw teachers into business or into the practice of other professions is the certainty of a mere liberal compensation. The education, industry, and tact necessary to successfully administer the affairs of a public school would, if devoted to other pursuits, yield a generous income.

But even granting that a teacher may be able to have a home as the result of his labors, what is the influence of the certainty that he can it enjoy it but for a brief period? The position of the teacher in this respect is anomalous. To every active citizen of this world there is a constant liability to run counter to the feelings, wishes, or interests of those with whom he has to do. Men's sentiments with respect to duty and propriety are infinitely varied; and each one is subject to criticisms as varied as the phases of human character. In the voyage of life, there is not merely a single Scylla and Charybdis, but every inch of progress is made hazardous by confronting dangers. Our liability to incur censure is increased by the multiplied relations in which we stand to others. Law presupposes relations, and the solitary dweller in a wilderness is alone free to do as he chooses, save only with respect to his Creator. A single companion would at once place him within the reign of human law, and as the community should successively add to its members individual relations and responsibilities would be correspondingly multiplied. This same principle obtains in schools. The number of pupils determines the relations which they sustain to each other and to their teacher. Through each pupil, the teacher is brought into relations with a family, and through successive families with a whole community. What is the nature of these relations? It is one of instruction and also of discipline. What is to be taught, when taught, and how taught, are each questions which admit of widely different views. And then, as to discipline, it is hard to conceive of a matter involving such delicate and weighty issues. In every community, there are those who object to every species of punishment; others sanction corporal punishment, but do not agree as to the occasion, mode, or degree. In all these respects the teacher must act with some uniformity. All must be taught upon the same general plan, and for the same offence one cannot be whipped and the other dismissed with a pious admonition to do so no more. Upon these accounts, as well as upon others which will suggest themselves, the teacher stands in

most intimate and varied relations, not only to his pupils, but to the community in which he lives; and by reason of this his every act is subject to the most varied interpretation. So far the teacher's position does not differ in kind from that of other persons; but another fact makes it peculiarly critical. Suppose all persons were obliged to employ a physician who had been hired at a fixed salary. Among his patients are believers in allopathy, homœopathy, hydropathy, etc., etc. Imagine, if possible, the occasions, real or supposed, which might induce a criticism upon his professional course. How long would one hold such a position, dependent upon the will of the community? In what essential respect does this differ from the teacher's position? The second cause which affects the continuance of teachers in their profession is the certainty that they cannot enjoy a permanent home. Multitudes are content to labor for a mere sustenance; but few are willing to always forego the enjoyments of a real home. Under the present system of education, this state of things is unavoidable. A clear understanding of the difficulties which lie in the way of the teacher, and a catholic charity for the imperfections incident to humanity, will modify, but cannot altogether change this feature of the teacher's life.

Having thus attempted to show what becomes of teachers, and why they abandon their profession, we are led to inquire into the effects produced by this state of things. Education, the most comprehensive of all sciences and the one which directly involves the dearest interests of humanity, is to-day in a rude state, having no well-digested system of practice, and but few clearly defined principles. Rational practice it scarcely dreamed of. Empiricism is master of the field. How have other sciences grown to their present state? As history is the essence of innumerable biographies, so each science is the aggregate net result of individual discoveries in a particular field of investigation. The present generation of chemists received by inheritance the discoveries of all who preceded them; and they will transmit to their successors all this, and in addition whatever new truths they have themselves discovered. In the historical development of each science two things are essential, an acquaintance with all the facts previously discovered, and a zealous search after new truths. How is it with educational science? Recall the names of all who have devoted themselves to this subject. The list is a very short one. Name those who have stood forth prominently, even for a short time, as noted teachers, and have made valuable contributions to this science. The number is but little larger. Name the books which bear directly upon the science of education. In the next place, how many teachers of to-day first learned all the great facts which have been discovered in this department, before entering upon the duties of their profession? The answers to these questions are obvious, and the facts which they disclose may be traced directly to a sufficient cause—the lack of permanent devotion to the pursuit of teaching. When men in sufficient numbers choose teaching as a permanent employment, and carry into their work a spirit of scientific inquiry, there will be substantial and noticeable progress in the science and art of teaching. But before this can be done, there must be a radical change in our educational system. What the coming system shall be is the great social problem of the age.—*Michigan Teacher. (In New-York Journal of Education.)*

Employment of Teachers.

There is something radically wrong in the constant change of Teachers that is taking place in almost every school section in the province. Those who have lived in Great Britain or Ireland, know how strikingly it contrasts with the permanency of the situations of teachers in those countries. How often this circumstance is deplored by parents as well as teachers; and yet the evil continues. As matters stand, no teacher can count on holding his situation longer than a year, however efficient he may be. Hence, as a general thing, teachers make their profession a stepping-stone to some other calling, and after a few years abandon it to other

youthful aspirants, who in turn follow their footsteps, just at the time when they begin really to know how to discharge aright the responsible duties imposed upon them. So long as this state of things continues, the cause of education will be retarded: and, instead of schools being wrought up to the highest state of efficiency by teachers of long experience and thorough familiarity with their work, they will be left to the management of novices pursuing their calling more from necessity than choice, and longing for the day when something permanent shall turn up and rid them of the capricious uncertainties of scholastic employment. Instead of engaging a teacher year by year, let him receive his appointment with the understanding that he shall retain it so long as he gives satisfaction and that he shall not be dismissed, nor relinquish his post, without at least three months' previous notice.—*Bruce Reporter. (Ontario Journal of Education.)*

English Public Schools Inquiry.

A report of the English Schools Inquiry Commission was during the last Session, presented to Parliament. We find an abstract in one of our English contemporaries which we subjoin. It refers mainly to middle class education:—

"Much complaint is made of the want of method and supervision of the schools. The controlling authority has hitherto been vested in the Court of Chancery, but in the schools, everything is unregulated, and each master does pretty much as he pleases. The Commissioners divide the schools into three classes: endowed, private, and proprietary. The two last have grown up as correctives of the endowment system, which has been the nucleus of English education for centuries. There are about 3,000 endowed schools many of which have large incomes. King Edward's school, at Birmingham, has a present income of £12,000 and expects to have £50,000 before 1900. The net income of all the schools of this class mentioned in the report is £200,000 a year, and the total number of pupils educated is 36,874. There are said to be over 10,000 private schools, and 12,000 pupils in proprietary schools.

"These last only educate a small number, and the middle class are mainly dependent upon the endowed schools, which are of a very inferior grade. It seems incredible that so much money should be spent with so little result, yet this is actually the case. Birmingham with its £12,000 a year, teaches 400 boys. Leeds, with an income of £1,481, teaches 237 boys. Manchester expends £2,527 upon 230 boys, and in other places the proportion is about the same.

"Besides the small number of pupils the amount of instruction given in these schools is very limited. They are called "classical" in their course, yet in most cases the barest outline of reading, writing, and arithmetic, and a little grammar and history, is all that is given. In some instances, even these are not taught. Magnificent endowments are wasted in teaching the most elementary knowledge.

"The Commissioners complain of the monopoly enjoyed by the clergy of the Established Church, in educational affairs. The utmost exclusiveness is practiced by them, and few if any Dissenters are allowed any share in the management. The schools are often in very unsuitable situations, and wanting in ventilation, cleanliness, and other sanitary essentials.

"The Commissioners advise the abolition of this clerical monopoly and gratuitous teaching; the improvement of the course of study, and the appointment of an Education Board or a Minister of Education to have entire control over all the schools. Much trouble has resulted from the abuse of charitable endowments, and it is proposed to authorize a revisionary care over these, so as to properly carry out the wishes of their founders."—*Ibid.*

Pickings from Blue-Books.

As few of our readers can be expected to wade through the volumes now issuing on Secondary education in England, we select one or two extracts which may be interesting and amusing, if not instructive.

Here is a specimen of the spelling of a hopeful, eleven years old—

"The Arabs have all been wandering tribes and have dell in tenests amid the trackls derets which coverer a large porteon of their contry. There erly history is very imperfectly knon. The first event that is wort recording was the birt of Mahomet. This took place at Mecco a satiy on the border of the Read Sea in the year 570 of the Cinatien era. Till the age of tewlve Mahomet was a coaml drive in the dester. He after was spent much of his time in Soloua. His dwelling was a lasme cave weri he pretened to be empolyed in pray and metation. When he was forter yeary old he set up for a prothp."

The spelling of the last word is truly delightful.

"One boy told me," says an Inspector, "that Jehovah was king of Egypt in the time of Moses; another, that there were seven apostles; and the majority of the class did not know which of the apostles betrayed the Lord, and whether the 'olive'—a word constantly recurring in the passage—was an animal, vegetable, or what it was, none could tell."

In another part we learn that,

"Of decimal fractions they knew next to nothing; and I suspect that even the schoolmasters, who confine themselves to teaching commercial arithmetic, would be puzzled with many a division sum in decimals. One indeed disputed the fact that $(\frac{2}{3})^2 = \frac{4}{9}$. Another informed me, with great gravity, that $\frac{3}{4} = .75$, as a fact not generally known!"

"In a Norfolk school, which professed to give instruction in ancient history, I was informed by one boy that Alexander the Great was a king of England, and by another that he was a king of France."

INFLUENCE OF PARENTS.

Perhaps there is no school in the Kingdom, certainly there is none in my district, where the interference of parents is more tolerated than in the Berwick Corporation Academy. At that school, one parent, after threatening to "double up" the rector for correcting his son, actually forbade the boy to attend the rector's classes. The consequence might easily be predicted: "The boys in the rector's classes were the most ignorant and insubordinate I have seen anywhere."

INFLECTION OF VERBS.

"To the question, How is the past tense of verbs found? I have received a vast number of answers like this one: 'By adding d or ed, as sing, sang.' One girl answers the question simply thus: 'More, most.'"

HISTORY.

History is a great point in some girls' schools. Here is a specimen of some of the written answers given to the Inspector's questions. The Inspector says "it would have been easy but tedious to add to the collection"—

Lord Bacon. Henry III. He discovered a great many things in chesmistry, and discovered gunpowder.

Lord Beacon was a celebrated philosopher, and he invented gunpowder.

Sir Thomas Moore. Lord Chancellor of England. Wrote plays, and lived in Henry IIIV. reign.

Sir Thomas More. A poet in the reign of Victoria.

Burke. A navigator.

Burke was an elegant writer, and his works have been universally read.

Geffey Chaucer was born in 1323, died 1400. He has called the father of English poetry, and his works justify this appellation.

Sir. I. Newton, George IV., astronemor.

Dr. Johnson, one of the brightest lumanirics of the 18th century.

Sir. W. Scott flourished in the reign of Elizabeth.

Milton was a celebrated poet. His best poem is Paradise lost and regained. His character is best portryated in Dryden's celebrated verses—

"Three poets, in three distant ages born,
Greece, Italy, and England did adorn;
The force of nature could no further go—
To make a third, she joined the former two

These extracts are from Mr Hammond's report on schools in Northumberland and Norfolk.

We give a specimen of spelling, furnished to us by Mr Stanton, from a school in Devon or Somerset. There were twenty equally bad. We have not space for the original, but some perseverance will enable the reader to make out the meaning.

BY A BOY AGED THIRTEEN, AT AN ENDOWED GRAMMAR SCHOOL.

"He was burred in the church at Cong, and a remarkable circumstance occurred at his furinal. Has the body was being carried to the grave a man who stood on an encemense in a loud voice forbaid the inturnats of the body in a spot in which they discease had unjutsly seasc. That very spot he cried lies this sight of my futhers house and I sommon the departed soul the divine trefurnal to answer for the crime. All present were struck by the sollam appial and the mans charge being found to be just he emidatly recieved sadfaction for wrong. William is discribed by the wrippers of the time has possing the sighs and strengt of a gaint. He was turn and revengfful but of a commanded spirit. Although very fare from beign one of the best he onduilty was one of the amilest or English monarch."

We cannot afford space for an extract from a leader in the Times. It may be sufficient to say, that free competition is spelled "Fhre copetician," and juicy pears, "jusy pairs." Artemus Ward could not have done better.

Here are some beauties culled from various reports:—

HISTORY (FROM A MIDDLE CLASS SCHOOL, BOYS).

Bill of Attainder was passed by Charles I. to pardon rebels.
Habeas Corpus, a bill passed by Edward I. to protect a man's body.

National Debt is what we owe other nations, and was intended to be paid off by the South Sea Bubble, but it didn't answer.

It was brought on the nation as the Government had a large debt, but the people did not care about paying it.

Charles I. was a weak man; he was separated from his wife, but in a few years lived together in peace.

There was also taxes called ship-money, to carry on the wars with, and also the great rebellion.

The Duke of Marlborough was killed at V'aterloo.

King Charles I. was beheaded by Bisho, Juxon because he would not let Cromwell be king.

Luther came to England to help Henry VIII. to bring about the Reformation.

GEOGRAHPY.—FROM AN UPPER CLASS GIRLS' SCHOOL (MIDDLE OF THE SCHOOL).

Geography questions in half year's work on the United States, Scotland, and Ireland:—

United States is remarkable for its ruins.

Its population is 3000000,—200,000,2000,000,000.

Each state manages its own affairs, has a Consul-general appointed by the people and a Governor by the Queen.

Each state has a King chosen by the people and a House of Commons and Lords.

The capital of United States is Mexicon.

It is governed by a Queen, a Council and 2 representatives.

It is very subject to earthquakes and all the houses are built low in consequence.

The population of Scotland is 2300000 square miles [repeated by two others *totidem verbis*].

The religion of Scotland is Protestant the people are Catholics.

One quarter of the inhabitants of the globe live in Scotland.

The religion is Catholic.

Oats are the favourite food of the people.

The climate of Scotland is in a very thriving condition.

Ireland is nice and clean in some places and dirty in others ; it exports tallow, candles and cork.

It is very flat and has many deserts and plains.

Ireland is flat ; the occupation of the people is to dig potatoes,

Its ports are Aberdeen and Dundee and it exports fish.

FRENCH.

(From the first and second classes of an Upper Girls' School, with a residence Governess, and only French spoken during most of the day.)

The letters I have received are charming ; I will send some of them.—Translated thus,

Les lettres que j'ai eues sont charmantes, je les enverrai.

Les lettres que j'ai reçues sont charmantes, j'en enverrai à leur.

None were correct.

Again,—

I know it as well as he.

Je sais il comme bien comme il.

French into English,—

L'hotesse dormait d'ans une coin de la cuisine.

(By a pupil aged sixteen)—The hostess slept in a —— with the cook.

(By a pupil aged twenty-two)—The hostess slept in a —— with her cousin.

ARITHMETIC.

Question.—Subtract one thousand and one from one hundred million forty thousand seven hundred and six.

Out of 46 answers, only 5 were satisfactory ; 39 were utterly worthless.

Specimens,—

- | | |
|------|-----------------------|
| (1.) | 100040706 |
| | 000101000 |
| | 100939706 |
| (2.) | 100000000400000007006 |
| | 10001 |
| | 100000039999970005 |
| (3.) | 140706 |
| | 100001 |
| | 40706 |

Of course it is not asserted that these are fair specimens of the schools examined. But it must be remembered that many teachers refused admittance into their schools. And it may reasonably be assumed that the schools unexamined are, to say the least, not better than those reported on.

We get here and there a glimpse of the qualifications of the men and women who can teach young ideas how to shoot in so extraordinary a fashion. A schedule of questions (1) was sent to the teachers,—Museum.

SCIENCE.

Canadian Geology.

In the London Quarterly (July 1868, art. VII.—Siluria, a History of the Oldest Rocks in the British Isles and other Countries, by Sir Roderick J. Murchison Bart., K. C. B. Fourth Edition. London, 1868) we find the following on Canadian Geology :

(1) We shall give these and the answers returned, in our next.

'Siluria' forms in itself a sort of cyclopaedia of palaeozoic geology. It furnishes a large amount of information regarding the geological structure of the British Islands, and even of foreign countries ; it gives copious details comparing the older formations throughout Europe and America ; it contains a storehouse of data from which the order of succession among the early races of marine invertebrates is made out. Nor among this crowded array of facts are there wanting topics provocative of interesting speculation. Sir Roderick himself halts now and then in his laborious grouping of details to point out their relation to more general questions, and there are many places which naturally suggest a similar task to the reader. The book is one which has established for itself a place in every geological library. It is therefore almost beyond the pale of periodical criticism. But the present edition, in the additions which it has received, offers an opportunity of reviewing one or two of the most generally interesting discoveries recently made in the geology of the older formations, and of noticing some of the topics which are at this moment the chief subjects of discussion among geologists.

Foremost among the new announcements, is the story of the *Eozoon Canadense*, in other words, the account of a formation infinitely older than the Silurian, yet containing traces of lowly forms of organized beings. Until only a few years ago, it was believed by many geologists that life was first breathed upon the globe during the accumulation of those vast masses of sandstone, grit, and slate that underlie the lowest members of the Silurian system. Hundreds and thousands of feet of rock, piled bed above bed and representing a succession of ancient sea-bottoms, had been searched with care, but only a few rare and humble forms of life had been discovered. It was thence inferred that these barren rocks represented an early period of the earth's history when the waters of the ocean were correspondingly devoid of life, and that the growing numbers of the fossils found in the succeeding formations, showed how when living things at last appeared, they obeyed the command to increase and multiply. And what helped to foster this belief was the mystery that hung over the beginning of these earliest geological records. In this country, at least, no base had been found to the Cambrian rocks which had yielded the most ancient organisms. It was not known on what they rested, whether they were the oldest stratified rocks, or whether vestiges of still more ancient sea-floors might not lie buried deep beneath them.

But a series of investigations had been in progress in Canada which were destined to throw much light upon this subject, and, indeed, to open out a new and still older leaf of the earth's history. Charged with the conduct of the Geological Survey of the Canadian Province, Sir William Logan, with a quiet energy and perseverance which have happily overcome all the hindrances whereby at different times the very existence of his Survey was imperilled, has found a formation of great thickness lying below all those hitherto known. He has traced it over an extent of country equal in size to France, and it may reach much further. It consists of rocks of a highly crystalline character—such as gneiss, mica-schist and quartzite—rocks which in the early days of geology would have been regarded as vestiges of the first crust of the planet as it cooled from a molten condition. Treating this formation, however, as he had dealt with the other stratified deposits of the province, in conjunction with his small but able staff of assistants, he mapped out its folds and contortions, following its different bands of rock from river to river ; even through wild regions where the primitive state of the country has not yet been modified by the settler. The announcement of his discovery was received with no little interest in this country, and the interest increased when the further tidings came not only that the newly-detected formation was of vast thickness, and could be surveyed in detail, but that it actually contained two distinct divisions, the younger of which lay upon the previously upturned edges of the older. For this fresh fact furnished another proof, if any such addition had been needed, that

Sir William had brought to light not a mere congeries of crystalline masses erupted from a heated interior, but a great stratified formation formed out of the waste of pre-existing rocks. That the one portion lay unconformably upon the other showed that the older strata—undoubtedly formed under the sea—had been elevated by subterranean action, and partly worn away again by the atmosphere and the waves before the newer strata, derived from this denudation, were laid down. Hutton had long ago said that geology revealed no traces of a beginning, and though here Sir William Logan has carried us inconceivably further back into the history of our planet, we are as far as ever from detecting any evidence of a truly primitive rock. We see traces of the same kinds of action as are still in operation around us—rocks being ground down into sediment, and the sediment carried into the sea, there to form new rocks, which in time are raised up into land and worn away as before. But there was one feature of the Canadian discovery which inspired a hope that eventually we might be able not only to carry back in this way the history of existing geological causes, but to find that life appeared upon the globe long anterior to that dim, obscure Cambrian period, during some part of which it had been thought to have had its beginning. Among the old crystalline rocks of Canada—named Laurentian, from their development along the northern shores of the St. Lawrence—there lay some extensive beds of limestone. Now, though chemical or other forces had so mineralized and changed these rocks from their original character of marine sediment that their true stratified nature could hardly be recognised save on the large scale, and though able chemists maintained that the limestones were chemical and mineralogical segregations, having no connexion with organic action like the limestones of more recent formations, still the hope could not be thrown aside that some fortunate observer might chance to light upon traces of fossils in these, the oldest known calcareous beds in the world. Sir William Logan himself had looked long and anxiously, but without success. He had indeed detected a suspicious object in the limestone which seemed to him to be organic, and to resemble some of the so-called corals of the Silurian series. But the specimen was too obscure for identification. At last, he was able to submit to Dr. Dawson, of Montreal, another portion, in which that naturalist recognised the structure of a foraminifer. So important an announcement deserved all the confirmation which could be obtained for it. The specimens were accordingly placed in the hands of Dr. Carpenter, our highest authority on the microscopic structure of such organisms as the Canadian fossils were believed to be. By him the decision of Dr. Dawson was fully borne out, and the true organic nature of the substance confirmed. The fossil has been named the *Eozoon Canadense*, and up to the present time is the oldest relic of life which has been found upon the globe. It is believed to have grown in aggregated masses, forming reefs of rock, like the coral-reefs of our own day. Hence like the thick masses of limestone in which it is found may be due in large measure to the secretive powers of these humble animals.

The Laurentian rocks must have been separated by a vast lapse of time from the next formation which succeeds them. For during that interval they had been changed from the state of sand, mud, and gravel, into gnarled crystalline gneiss, schist, and quartzrock, and in that altered state had been anew exposed to denudation. It is beyond that immense gap that Sir William Logan's discovery enables us to throw back the beginning of life. But this is not all. The upper member of the Laurentian series is likewise separated from the lower by an unconformability, which represents the passing of another enormously protracted period. We must carry back the history of life even beyond that second interval: for it is in the lower of the Laurentian rocks that the *Eozoon* has been found. And having reached that far point, we await the onward march of discovery, knowing that even now, we have not reached the beginning, that the Laurentian rocks must have a bottom, which as yet has not been reached, and that beneath them there may per-

haps lie still earlier records of waves that beat upon the land, and of living things that grew and died beneath them.

While chronicling this Canadian discovery—which marks an epoch in the history of geology—Sir Roderick Murchison has been able in this new edition of his book to announce the completion of his own researches, whereby a representative of the Laurentian rocks has been shown to exist in this country, and the whole of the Scottish Highlands has been brought into relation with the rocks of the rest of the island.

OFFICIAL NOTICES.

Ministry of Public Instruction.

APPOINTMENTS

The Lieutenant-Governor of the Province of Quebec, by an Order in Council, dated the 25th ult., was pleased to approve of the following nominations:

SCHOOL INSPECTORS

Mr. Edouard Carrier, formerly a Teacher, to be Inspector of Schools for the Counties of Dorchester and Lévis, in the room and stead of F. E. Juneau, Esq.

F. E. Juneau, Esq., to be Inspector of Schools for the Counties of Montmorency, Quebec, and Portneuf, and for the Catholic Schools of the City of Quebec.

SCHOOL COMMISSIONERS

The following Gentlemen to be School Commissioners for the following Municipalities:

St. André d'Argenteuil, County of Argenteuil: Mr. Washington Johnston, in place of Mr. Donald Loyachan whose term of office had expired,—the *election* not having taken place within the time required by law.

St. Albert, County of Arthabaska: Mr. Charles Déry, in the room and stead of himself,—no *election* having taken place.

Ste. Clotilde, County of Arthabaska: Mr. Gonzague Hébert, in the room and stead of himself,—the *election* being irregular.

St. Norbert, County of Arthabaska: Mr. Jean-Baptiste Beliveau, in place of Mr. David Talbot whose term of office had expired,—the *election* not having been held within the time prescribed by law.

St. Valère de Bulstrode, County of Arthabaska: Mr. Joseph Simoleau, in the room and stead of himself,—the *election* not having been held within the legal time.

Tingwick, County of Arthabaska: Messrs. Edward O'Keefe and Thos. Smith, in place of Messrs. Patrick Carlin and John Costello, who have finally quitted the Municipality,—the *election* not having been held within the time prescribed by law.

Acton Vale, County of Bagot: Mr. Narcisse Bouneau, in place of Mr. George Henry Mount who has finally quitted the Municipality,—the *election* not having been held within the legal time.

St. Come, County of Beauce: Mr. Narcisse Letourneau in place of Mr. George Rodrigue whose term of office had expired,—the *election* of July being irregular.

Paspébiac, County of Bonaventure: Mr. Adam Brotherton, in the room and stead of himself, and Mr. Louis Bruet, in place of Mr. John Horth, whose term of office had expired,—the *election* not having been held within the time prescribed by law.

St. Jean Chrysostôme No. 2, County of Châteauguay: Mr. James McNoughty, in place of Mr. James Lannarty whose term of office had expired,—the *election* being irregular.

Howick, County of Châteauguay: Mr. Arthur Smith, in place of Mr. Thomas Reid whose term of office had expired,—the *election* not being held within the time prescribed by law.

Harvey, County of Chicoutimi: Messrs. Jacques Bolduc and Auguste Laforest, in place of Messrs. Othon Gagnon and Alexandre Bonchard whose terms of office had expired,—no *election* being held in July.

Clifton, County of Compton: Mr. Simon C. Haynes, in place of Mr. Eraste Taylor whose term of office had expired,—the *election* not being held within the legal time.

Cap Chatter, County of Gaspé: Mr. George Picard, in place of Mr. Laurent Labrie who has finally quitted the Municipality,—the *election* not being held within the legal time.

Cap de Rosiers, County of Gaspé: Mr. Nicholas O'Connor, in place of Mr. Henry Packwood whose term of office had expired,—there being no *election* in July.

Pabos, County of Gaspé: Messrs. James McIsaac, James Forest, Jean Aspireau, Robert Duguay, and James Miles, Junior,—the *elections* having been irregular.

York and Haldimand, County of Gaspé: Mr Matthew Kerl, in the room and stead of himself, and Mr. George Rae, in place of Mr T Garrett,—the election not having been held within the legal time,—and Mr James Suddard in place of Mr Thomas Miller, incapable of acting on account of infirm health.

Parish of St. Joseph de Lévis, County of Lévis: Mr. Antoine Dumas, in place of Mr. Marcel Bernier, and Mr. François Bouquet, in place of Mr. Magloire Bégin,—the two replaced live outside the limits of the Municipality

Ireland, County of Mégantic: The Revd Mr Robert Grant Ward, and Messrs Edward Redman, James McKnight, Charles T. Bennett and Ths. Gill,—the elections of the preceding years having been irregular.

Ste Perpétue, County of Nicolet: Messrs Etienne Beauchemin, Etienne Rousseau, Abraham Martel, François Houle, and François Verville,—this locality having been recently erected into a School Municipality

Aylmer, County of Ottawa: Messrs Alexis Marcoux and James McArthur, in the room and stead of themselves,—the elections not having been held at the proper time.

Hartwell, County of Ottawa: Mr. Sévère Deguise, in place of Mr. Octave Lamarche whose term of office had expired, and Mr. Pierre Pilon, in the room and stead of himself

Portland, County of Ottawa: Messrs. Hugh Cosgrove, James McGuire, Antoine Chabouis, John Woods, and Thomas Lasalle,—the elections of the preceding years having been irregular

Litchfield, County of Pontiac: Mr. Ralph Grant, in place of Mr. Duncan Carmichael, who lives outside the limits of the Municipality.

Waltham, County of Pontiac: Messrs Edward Taylor, John Phelan, John T. Coghlan, John Landen, and Michael Donolau,—the elections of the preceding years having been irregular

St. Hyacinthe le Confesseur, County of St Hyacinthe: Messrs Jacques Bourbonnière, Charles Daviau, Laurent Soly, Jean-Baptiste Lamoureux, and Jean-Baptiste Scott,—the elections of the preceding years having been irregular.

Granby [Township], County of Shefford: Messrs Robert Ainslie, and Spaulding Powell, in the room and stead of themselves,—the elections not being legal.

Weedon, County of Wolfe: Mr Jean-Baptiste Brodeur in place of Mr Casimir Fontaine whose term of office had expired,—the election not having been held within the legal time.

St Bridget, County of Yamaska: Messrs Michael Purtell and Joseph Blanchette, in place of Messrs Edouard Lemire and Bernard Gunn whose terms of office had expired,—the election not having been held within the legal time.

SCHOOL TRUSTEES.

The following Gentlemen to be School Trustees of the Dissident Schools of the following Municipalities:

St Pie, County of Bagot: Messrs Humphrey Jackman, Jean-Baptiste Bousquet, Junior, and Marcel Guertin,—there being no Trustees then in office.

Sutton, County of Brome: Messrs Pierre Mativia, Michel Lusignan, and the Revd. Mr Joseph Quinn,—the elections of preceding years having been irregular.

Franklin, County of Huntingdon: Mr. Daniel Gordon, in the room and stead of himself, and Mr. Denis Leary, in place of Mr Michael Harvey, deceased,—the election not having been held within the time prescribed by law.

St Michel Archange, County of Napierville: Mr. John Forester, in place of Mr. Joseph Chyte whose term of office had expired,—the election not having been held within the legal time

ANNEXATIONS, SEPARATIONS AND ERECTIONS OF SCHOOL MUNICIPALITIES.

The Lieutenant-Governor of the Province of Quebec by an Order in Council, dated the 30 ult., was pleased to approve of the following changes:

County of Argenteuil: To annex, to the School Municipality of Grenville, No 3, the tract of land situated in the Township of Grenville, described as follows: bounded on the South by the Ottawa River, on the East by Rivière Rouge, on the West by the County of Ottawa, and on the North by the aforesaid Municipality No. 3.

County of L'Assomption: To separate from the School Municipality of St. Sulpice, Ile Bouchard, and to erect it into a separate School Municipality under the name of the School Municipality of "Isle Bouchard."

BOARD OF EXAMINERS.

The Lieutenant-Governor has been pleased to appoint the Reverend Charles Watson of Cowarville, a member of the Protestant Board of Examiners of Bedford in the room of the Reverend Robert Lindsay, resigned.

WANTS.

TO SCHOOL COMMISSIONERS AND TRUSTEES.

An experienced Male Teacher, holding a First Class Elementary Diploma [English], is desirous of an engagement in a Country School; has a good knowledge of Agriculture, can produce satisfactory testimonials from former employers, and give unexceptionable reference.

Address E Teacher, care of Mr. S. W. Evans, 19 Bleury St., Montreal

JOURNAL OF EDUCATION.

QUEBEC, PROVINCE OF QUEBEC, OCTOBER, 1868

Distribution of the Common-School Fund—Taxation for Education in Quebec and Montreal.

Many of our readers may not require to be informed of the principles which regulate the distribution of the Common-School monies amongst the School Municipalities of the Province, nor of those which govern the amounts of school rates to be levied. But to prevent mis-apprehensions from growing out of the late discussions on those subjects in the news-papers, coupled with occasional misstatements and incorrect inferences that have appeared in print, it seems good at this time to recal attention to the real facts concerned.

By law, (9 Vict. cap. 27, sec. 35,) the Superintendent of Education (Minister of Public Instruction) distributes the monies appropriated for Common-School purposes among the School Municipalities *in proportion to their population as ascertained at the last census in 1860-61*—excepting in the case of Quebec, which receives only *two thirds*, and of Montreal, which receives only *one-fourth*, of what would be receivable if the above named scales were adhered to throughout. The exception is provided for in section 44 of the act cited.

Thus Quebec in 1866 received out of the common school fund \$3851.84 and not \$5,777.76 which would have been its share but for the deviation from the general scale—and similarly Montreal had \$2,552.78 instead of \$10,211.12.

The cause of the difference as regards the shares coming to Quebec and Montreal is set forth in the Act, viz: *That these cities possess Educational Institutions which do not and cannot exist in the country parts.* In fact, if we have recourse to the Superintendent's report for 1866 we shall find in Montreal about 20 institutions for education enumerated of the character referred to in the Act, and receiving - not from the Common-School Fund, but out of that for Superior Education—aid to an amount exceeding \$9,000. It may be further stated, in support of the principle upon which the clause of the Act is founded, that in the two cities, there exist other educational opportunities supplied by religious bodies deriving no aid from the Common-School or the Superior Education fund. In Montreal, for example, at least 10,000 children receive education under the auspices of the Seminary, Congregation of Notre-Dame, the Christian Brothers, and the Grey Nuns.

Thus no inconsiderable burden is taken off the shoulders of the School Commissioners through the instrumentality of those other educational facilities and aids; and it is plain that the law would not have operated equitably had there been no compensating principle adopted such as has been shewn to exist in the statute. As regards taxation for school purposes, in each School

Municipality a sum is required to be levied to equal the amount derived from the Common-School fund as regulated by population. Conformably to this, it was intended that, say in the year 1866, the larger sums mentioned above, \$5,777.76 and \$10,211.12, should be those for which equivalents were to be provided by taxation; but owing to some doubts raised as to the interpretation of the terms of the statute, the practice of the Corporations of the cities has been to levy according to the smaller amounts. Thus, the school rates for Montreal and Quebec respectively have hitherto been fixed at \$3,851.84 and \$2,552.78 to equal the respective amounts of the grants.

Now it is a fact that the actual taxation for school purposes in those cities has been, heretofore, considerably less in proportion than that for any other part of the Province. In some instances, the rates of taxation in other municipalities have been between seven and eight times as much as for the cities—in none less than from two to three times as much. In the "Daily News" of Sept. 26th, and in some other newspapers, statistics have been published which prove the truth of the foregoing statement.

The law was, however, altered by the Local Legislature at its session last winter so far as it affected the cities of Quebec and Montreal. The effect of the change then adopted was substantially this—namely that, in future, there should be raised by taxation in each city a sum equal to three times the amount that would be receivable out of the Common-School fund in proportion to population, undiminished by the exception already mentioned. Thus, taking the full shares for Montreal and Quebec, viz:

\$10,211.12 and \$5,777.76 respectively, the school rates in the former city will amount to \$30,633.36 and in the latter to \$17,333.28 in place of \$2,552.78 and \$3,851.84 as heretofore.

It might perhaps be inferred that, at these increased rates, our cities will be more heavily taxed for Common-School education than other parts of the Province. But such is not the case. On the contrary, the relative rates for the city of Montreal and all the country School Municipalities taken together turn out to be in the ratio of *two to three*, if we estimate by population—or less than *one to four*, if we judge by comparison of the respective valuation of rateable property.

In order to place this matter before the minds of our readers in as intelligible and striking a form as possible, we append a portion of an article published by the "Montreal Daily News" containing the statistics which have been alluded to.

"The law of last session was not intended to remain unamended; but some measure was needed to provide increased educational facilities. The real question that arises is, whether the scale of taxation adopted be out of proportion to that for other communities—whether Montreal be taxed at a higher rate than other cities and municipalities. The best answer we can furnish is to adduce a statement showing the rate of taxation for education in Montreal, Quebec, and several other school municipalities in 1865-66, and a corresponding statement for the year 1868, which includes official returns from American cities and States. We can vouch for the accuracy of the figures we submit, and our readers will learn from them how lightly Montreal is taxed for educational purposes as compared with other centres of population.

1865-'66.	Montreal.	Quebec.	Three Rivers.	Sherbrooke (town)	St Hyacinthe (town).	Megantic (Co)	Kamouraska, Rimouski, Temiscouata (Co's).
Population	120,000	60,000	6,600	6,600	4,000	20,700	62,000
Valuation	\$38,000,000	\$15,000,000	\$2,429,500	\$803,200	\$457,900	\$1,185,500	\$5,688,800
Number of Ratepayers	17,500	12,500	424	329	800	2,722	12,155
Levied for education	\$6,500	\$3,850	\$1,720	\$1,020	\$1,955	\$9,089	\$18,713
Rate per head of population....	5 5-12 cts	6 5-12 cts	26 cts. with fees 18 cts. without	15½ c with fees 10 c without	49 cts. with fees 40 cts. without	43 cts. with fees 30 cts. without	30 cts with fees 22 cts without
Rate per \$100 valuation.....	1 7-10 cts	2½ cts.	7 cts.	12½ cts.	42 cts.	76½ cts	33 cts.

MEM.— Since in all the school municipalities, exclusive of Montreal and Quebec, the *monthly fees* are raised by a direct tax imposed on the heads of families, whether sending scholars to the Schools or not, it is just to include in the rates per head the calculations upon the total tax, school fees inclusive; in the above table, however, the results are also given *exclusive* of school fees. In calculating the rates per head for Montreal and Quebec, school fees are not included, since these are not raised by taxation in those cities. In Montreal and Quebec the monthly fees are paid by those sending scholars to the schools, nor are they uniform in the amount for different schools, nor exacted from those who are unable to pay.

SHOWING results under the operation of the new law of the last session of the Local Legislature, and comparison of taxation, &c in the Cities and rural municipalities; also some extracts from official returns in the United States.

1868.	Montreal	Quebec.	Total County Municipalities	City of Boston for 1868	Maine (State) for 1860.	Wisconsin, for 1868.	N. Hampshire.
Estimated population.....	130,000	60,000	1,075,000	192,000	628,300	900,000	
Estimated valuation.....	\$45,000,000	\$15,000,000	\$116,500,000	\$378,302,357	\$164,714,168	\$152,600,000	
Tax for education.....	\$30,633.36	\$17,333.28	\$361,000	\$589,000	\$477,131	\$908,152	
Rate per head.....	23¼ cts.	28 9-10 cts.	33¼ cts. nearly	\$3.06	75¼ cts	\$1.01 nearly	75 cts.
Rate per \$100.....	6 8-10 cts.	11 5-10 cts.	31 cts. nearly	15¼ cts	29 cts.	60 cts.	

MEM.— The above results cannot, of course, be regarded as other than an approximation to the exact truth, owing to the various causes of uncertainty necessarily involved. They afford, however, fair grounds for concluding that under the new law, as well as the old, Montreal will be, and has been, considerably less heavily taxed for educational purposes than other places, whether we found our estimate upon population or upon property.

As regards the comparison with the cities and States of the United States, the difference would be still more conspicuous, especially if recourse were had to returns from the larger western cities; and, if we were to take the authority of the Boston *Journal*, it would be seen that the city of New York alone appropriates \$2,946,950 for current school expenses for the year 1868-'69.

On Some Characteristics of British American Mind.

The substance of an address delivered by PRINCIPAL DAWSON, LL.D, before the Provincial Association of Protestant Teachers at Richmond P. Q.,—Aug., 1868.

The Provinces constituting British North America are about to enter on a new phase of existence which has been characterized by somewhat high political authority as a "New Nationality"—a designation which should import not merely the quality of being national or the fact of entering on a national existence, but also the possession of some definite national character. The question is thus raised (and it is a most important question for the practical educator): what is the prevailing character of the people of British North America?—In one aspect the national character of this country is very mixed and heterogeneous. The English, the Scottish, the Irish, the French, the Anglo-American and many other elements exist side by side in it, and are scarcely as yet beginning to be fused into a homogeneous mass. In another point of view the Canadian character is distinct from all of these. It requires very limited observation to discover that the Englishman of Canada differs from the Englishman of England, the Frenchman of Canada from the Frenchman of France, and so of the others. It would be a curious ethnological as well as educational problem to analyse this compound, weigh its several ingredients, and ascertain what part each of them sustains in the complex whole. But this would be a task for years of arduous labor. I propose nothing so extensive, but merely to glance at some of the mental characteristics of our British-American population; in that aspect in which they present themselves to the educator. As being myself a member of the class of our population referred to, I can surely do this without any offence.

The points of difference between the average Anglo-Canadian and the average Englishman depend mainly, 1st, on the Colonial relation; 2ndly, on the new and changing character of all things in this country; and 3dly on the absence of many of the social distinctions of the old world. The first of these causes, the Colonial relation, leads to an apathetic condition in regard to national affairs. In the relations of the Empire with foreign countries the Englishman at home is an active partner or feels himself to be so; the Colonist is only a sleeping partner or at most one who shares very indirectly in the triumph of success or the ignominy of defeat. A tendency to narrow local views, a want of large public spirit, a feeling of insignificance as compared with the inhabitants of the mother country, spring from this. Such a state of mind is further fostered by the fact that the portion of territory in which the Colonist has made his home has no imperial influence or recognition, is little known and little heard of—cannot identify itself with the unity of a great empire. The belittling influence of such causes is very manifest in most of the products of British-American Mind; and if we are ever to aspire to be anything deserving the name of a nation this must be laid aside. But how?—not surely by mere vain-glorious boasting about the future, or by cultivating a contempt for others who have preceded us in the race. It must be by educational enlightenment. Where ignorance is, there is apathy or senseless excitement. Knowledge alone can expand the mind and give scope for the exercise of the higher sentiments. We need to cultivate a larger interest in the history, institutions, and public affairs of the great Empire to which we belong. We need to cultivate in like manner a knowledge of, and interest in, the various sections of our own country. We need to give attention to the merits and successes as well as to the difficulties and failures of that magnificent experiment in self-government which is being carried on by men of our own race in the United States. The public press must be a main agent in this; but the teacher must do his part; of course without entering the domain of party politics; but using history, geography and the abundant crop of facts belonging to contemporary affairs, as his implements. The time evidently requires this, and that it shall be ably and wisely done; for whatever opinions may be entertained as to the new constitution of this country, there can be no question of its effect on the public mind; of the ferment which it has produced, and of the new aspirations which have been cultivated in connection with it, both by its friends and its opponents. Be it for weal or woe, every careful observer must see that the colonial mind is making an effort to cast its slough and to emerge into a new condition of existence.

The second cause to which I have referred is also potent in its influence. Young people reared in the absence of those restraints on the one hand, and of those opportunities of culture on the other which abound in older countries, necessarily acquire a peculiar independence and rough unfinishedness of character and deportment, constituting a

marked characteristic of the inhabitant of a new country. In one respect this is an advantage; giving great individuality, independence and self-reliance. In another respect it is apt to degenerate into that hard matter-of-fact selfishness which we sometimes attribute to our New England neighbours, or into that repulsive self-assertion which is popularly associated with the character of western backwoodsmen. In the more conventional life of cities it often assumes the form of a reckless devotion to unintellectual pleasures and gaieties rarely seen to the same extent in older countries. In so far as intellectual culture is concerned, the Canadian has his faculties awakened and sharpened by a great variety of pursuits and opportunities for observation; and if naturally well endowed, acquires a wonderful versatility and shiftiness; but he has usually slender opportunities for severe and regular mental training, and still less for culture of taste in matters of art. It might be supposed that he would have his mind turned strongly in the direction of the study and appreciation of nature; but this is greatly counteracted by what may be called the superabundance and inconvenient obtrusiveness of nature in a new country, and the consequent want of veneration for natural objects. In the old country a tree may be a historical object, a family memorial, in any case a thing of beauty, an object of regard. Here it may be merely so many cords of wood, perhaps a mere nuisance to be abated as soon as possible. I believe, however, that nature as manifested in this country, has already taken hold of the mind of young Canada, and is moulding it in its own image. More especially the intense earnestness of our climate, whether in its summer heat or its winter cold, in its sunshine or its showers, and the grand features of our rivers, lakes and plains, are having a decided effect on the character of the people. Besides this, Natural History studies are popular, and some signs begin to appear of a literature inspired by the features of our country. The educator has much to do here. To him belongs the task of imbuing the youth of this country with the literature and the art of older lands,—without injuring the noble energy and self-reliance of our young men,—and of chastening these within the bounds of high civilization.

I need not say much on the third cause which I have mentioned, the absence here of marked differences of social position. Its influence is very similar to that of the cause last mentioned, in so far as character is concerned. Its connection with the work of Education rests in the impossibility of having any indication before hand who are to occupy in a few years hence the positions of highest influence. No hereditary right opens the path to these to one more than to another, and the perpetual changes in position and occupation leave only that kind of certainty which attaches to the fabled wheel of fortune, that those who are down will soon be up, and those who are up will soon be down. On the other hand, in a country like this every one is necessarily his own master, whatever position he may occupy. In no circumstances can larger demands be made on the work of the educator, for here none of those settled conditions of things, which, by leading men to run constantly in one track, are substitutes for general intelligence, can be said to exist.

The differences of which I have spoken tend to diminish; for while on the one hand Colonial society is becoming more like that in older countries, on the other it is a curious feature of the time that in Europe society is becoming more and more democratic, and resolving itself more into that idea of the independence of the individual man and the rule of the sovereign people, which is indigenous in our newer social atmosphere.

The above remarks are but outlines of a great subject, to which I could wish to return with more deliberation. The general conclusion which I desire to deduce from them is that the work of enlightened teachers is of paramount importance in this country, and that it is the duty and interest of all teachers to study the peculiarities of the Colonial Mind, with the view of regulating its eccentricities and of cultivating and strengthening its higher and nobler parts, which with proper culture are capable of enabling this country to take a very high place relatively to its population among the peoples of the earth. My experience and observation lead me to believe that in no country is there a greater proportion of good heads and well-developed brains than in this, or better raw material for the work of education. We are not behind most other countries in the general diffusion of the elements of education. But if we would aspire to become a nation we must not rest solely upon these advantages. We must cultivate in the mass of the people a larger and more enlightened patriotism, a more active interest in public affairs, and a strong feeling for the prosperity and growth of our free institutions. We must also make large strides in the direction of science as applied to the arts of life; whether to agriculture as the great producer of the means of subsistence, or to mining, mechanical and chemical manufactures. We

must still more widely extend the benefits of a high and liberal education. These are the influences which will overcome the pettiness and imbecilities of our embryo condition as Colonists in a new country, and which with those higher moral and religious qualities in which our people are even now not deficient, will exalt us to the dignity of a people prosperous at home and respected abroad.

Agricultural Education.

In the Richmond Guardian of 3rd inst., we find the following remarks, made by Lord Aylmer at the Richmond County Agricultural Exhibition :

"I would however, with your permission, and that of the gentleman here, introduce a subject,—which I think one of the most important, to the farming interest of this country, that could be brought before us,—the education of farmers' sons. It is very evident that unless we unite as a body no improvement will take place amongst us. Our members of Parliament must be made to take an interest in the wants of the farmer, instead of the perfect indifference they now exhibit. I would therefore urge upon you the necessity of having agriculture taught in all our public schools. But before any very great change can take place in the present state of agriculture, several radical obstacles must be removed. The apathy of farmers must be overcome, the dignity of the pursuit must be felt by them. This great and fundamental cause of national wealth must receive encouragement from national legislation. The improvement of our agriculture is of the first importance to every class of our population, and that this improvement can in no way receive such efficient aid as by instructing the youth who are hereafter to manage it, concerns as well in the science as in the practice of their business. To be a good farmer involves a large amount of education, for the science includes in it, and requires for its proper understanding, a knowledge of botany, geology, veterinary surgery, variety of stock, chemistry, and mechanical science. With a proper elementary knowledge of these studies any farmer of intelligence would regard his farm as a school, where, as he walks along, he could learn by the rocks and the soil at his feet. The objection has been urged to the establishment of an agricultural school, that but few can share in its advantages. The same objection may be applied to all professional schools or colleges, for these accommodate but a fractional part of our youth. Every class shares indirectly in the benefits of existing schools, though they are not immediate participators in the instruction, because they serve to promote general knowledge and improvement in society. If farmers' sons were taught the science and practice of farming they would take a pleasure in it. As it now is they know nothing but the toil and drudgery of farming, which disgusts them, and it is on this account that young men leave us for the Western country, for there the agriculturist has by means of machinery much easier work and a better return for it. As our farmers become more intelligent they also will adopt improved machinery and acquire a knowledge of agricultural chemistry and geology.

"But the advantages of an agricultural school would be more general than the advantages of most other schools, as the results of its experiments, in husbandry, and the new plants, implements, and improved modes of culture which it would introduce, would become common property. The advantages of an agricultural school might be still more diffused, by making it a place of instruction for Common School teachers. Common School teachers should pass an examination in science connected with agriculture before getting a certificate. This would awake an interest in the science, and it would soon become as much a matter of course for our young men to study the laws of growth and soils as arithmetic and writing. The different breeds of animals, and the influence some breeds have upon all other breeds should be taught in schools. This is an important subject, for he contended that certain leading characteristics of particular

breeds might be impressed upon all others with which it might be crossed. His Lordship instanced the operation of this law, as especially existing among horses. He thought that farmers should have an accurate knowledge of these particular characteristics, and act upon the results mentioned; and this brought him to another topic, upon which he wished to say a few words. This was with regard to the prizes awarded at these shows. He thought they made a great mistake in giving so many prizes, and favoured larger and fewer ones, as no encouragement was given to importation. He contended that if this plan were adopted farmers would expend their prizes and be encouraged to improve the breed of animals. Another mistake he thought was made in giving the larger prizes to the female instead of the seed stock, for it was his experience that the male animal was the primary consideration in selecting stock for breeding from. His Lordship made some suggestions with regard to sheep raising, and then passed on to the subject of the Society's management of its affairs."

MONTHLY SUMMARY.

EDUCATIONAL INTELLIGENCE

—*A Minister of Education*—The proverb that "what is everybody's business is nobody's," has had ample illustration in educational affairs during the past session of Parliament. Education was the question of the day. There has been an inconceivable amount of speechifying, and commission-making on the subject. All kinds of reports have been issued, all kinds of opinions have been ventilated, all kinds of projects have been proposed. This is the talking side of the question. What have we to record in reference to educational action? Only one bill of any importance has been passed. The Public Schools' Bill was introduced at the commencement of the session. It lingered long in its passage through both houses. It was altered even at the very end of the session by the Lords, and after being patched up in some way or other, it passed them two days before the prorogation of Parliament, and finally it received the royal assent half an hour before that event. This is the one educational feat of the session, all the other palavers have ended as yet in nothing.

Earl Russell gave us a full statement of his opinions in a long and able speech, but his 'resolution' remained simple propositions.

The Conservative Government brought in a bill, dealing with the subject of education. It did not grapple with the subject thoroughly. It could have been merely temporary—but it had some good features, and some of its provisions were such as might ultimately have been very beneficial. The bill was put aside for "necessary business." A party question had arisen. It had taken a prominent place in the discussions of the house. The country must decide on this party question. Education, though infinitely more important, can with difficulty be made a party question. All are agreed that its importance cannot be over-estimated. All are agreed that its benefits reach to all classes of the community, and therefore as this is quite plain, the house cannot well divide on it, cannot appeal to the country on it. It therefore puts it aside. Such was the fate of the bill for popular education. Mr. Bruce made an effort to introduce his bill, and he deserved the best thanks of the community for his zeal, but his efforts were unavailing. The house had no time for his educational projects.

Not a whit better did the higher education fare. Mr. Coleridge re-introduced his bill for the abolition of Tests in the Universities of Oxford and Cambridge. It had to submit to bad usage: but he persevered and saw it pass the second reading. It went no farther; "necessary business," that is, party agitation, preventing it.

Scotland and Ireland have not been more successful in having their educational wants attended to. In Scotland, the Lord Advocate gave himself with all diligence to the preparation of a bill. He worked strenuously and with an anxious desire to do his best for his country. He got his bill ready. It was printed. It was submitted to the members of the cabinet. But party conflicts were impending, and Scotland is small and not riotous, and so its education bill may wait—till Scotland is riotous?

Then finally we come to Ireland. And here we have endless squabbling. Provision has been made for Ireland already. A strong conservative hand, now lost to us, but much missed, had sometime ago applied itself to the work of bringing Ireland into harmony with itself. Admirable provision was made for the education of the people. The system had produced great and good results. But the evil spirit which this system was intended to exorcise, and was really exorcising, does not go out in silence. It fumes and frets, and this fuming and fretting have frightened our present legislators. They have no faith. They will try to soothe the evil spirit, not expel it. And so for Ireland we have had proposals

of all kinds of retrograde measures from one party and another, but as yet, nothing has been done but to shake the present system and damage its usefulness

All these failures point to the necessity of having one man at the head of educational matters who shall be responsible for the state of education in the country. It is evident that there should be one man whose honour is at stake if educational interests are neglected, who should have the full praise if things go well, who should have the full blame if things go ill. And as education is not a party question, he should be as little as possible a party man. He should be a man who knows educational matters well, who takes a real and living interest in them, and who would be willing to stake his future reputation in history on the efforts he makes for the education of the entire community.—*Museum.*

—Dudley Campbell, writing on Compulsory Education, in the *Fortnightly Review*, says: Manchester may be taken as affording a fair specimen of the condition of the working-classes in the more populous districts of England. In the report for 1867 of the Manchester Education Aid Society, we find the following statements to the same effect as many others which had appeared in previous reports. "The following is a tabular statement of the educational condition of parents and young persons from 12 to 20 years of age:

- "Of 1672 fathers, 465 cannot read.
- "Of 1857 mothers, 815 cannot read.
- "Of 1860 persons between 12 and 20 years, 759 cannot read.
- "Nearly one-third of the fathers, almost one-half of the mothers, and about the same proportion of the young men and the young women, are in a state of profound ignorance!

"Those enquiries among the adult population have been confined to families whom the committee have assisted. It is only too probable that no higher standard of education prevails among families whose parents are able, but unwilling, to pay school-fees. It has already been stated that out of 8,427 children of school age, but not at school, 4,336 belong to parents who can pay for education. In other words, of every hundred not attending school, of school age, 51 belong to parents whose income is adequate to the payment of school-fees. No merely voluntary agency, such as the Education Aid Society, can make any impression on such parents.

Taking the total number of children of all ages above three years, living with parents or guardians, there were only 7,814 at school; while there were 10,205 neither at school nor at work. Thus, in every 100 children, living with parents or guardians, who are not at work, there are 43 at school and 57 not at school."

—*Illinois*—The new schedule of salaries in Chicago gives the Superintendent \$4,000; High School Principal \$2,500; Normal School Principal \$2,200; and District Principals, with three years' experience \$2,000 each. Lady teachers in lower schools receive from \$450 to \$700. The estimated school expenditures for the coming year are \$795,500, the salaries of teachers amounting to \$340,000. The salary of the President of the State Normal University has been raised to \$4,000 per annum.

—The *Hartford Courant*, Aug 1st, says:—

This Session of the General Assembly marks an important era in the history of education. The joint standing committee recommended, and both of branches the Assembly passed, the following measures:

1st.—The abolition of the odious rate-bill system, thus making the schools entirely free to rich and poor alike. In lieu of the rate bills of tuition, each town is required to levy an annual tax of not less than six-tenths of a mill on the dollar of the grand list for the support of schools. Unless the system shall work the reverse of what it has done in other states, the change will be one of great benefit to the cause of popular education.

2nd.—The distribution of a considerable proportion of the public money to the school districts on the basis of average daily attendance at the public schools. The money raised by a town tax of four-tenths of a mill on the dollar, amounts to \$120,000 a year.

3rd.—Among the last acts of the Assembly there was appropriated the handsome sum of \$3,000 for the support and encouragement of teachers' institutes.

The only drawback to this flattering picture is the failure to open the State Normal School.

—*Recent Gifts to our American Institutions.*—The *Congregational Quarterly* publishes a list of benefactions to American literary institutions during the past five years, compiled chiefly from the reports of the Society for Promoting Collegiate and Theological Education. The total makes the large sum of \$15,212,500. These are individual gifts and in addition to State appropriations. They are divided as follows:

Colleges.....	\$8,858,000
Theological Seminaries.....	1,359,500
Academies.....	1,850,000
Societies.....	540,000
Education.....	2,220,000
Schools.....	385,000

We give below a list of some of the institutions to which the largest benefactions have been made:

Colleges and Universities.

Amherst College, Mass.....	\$350,000
Baldwin University, Ohio.....	103,000
Brown University, R. I.....	180,000
College at Bethlehem, Pa.....	500,000
College of New Jersey.....	100,000
Cornell University, N. Y.....	870,000
Dartmouth College, N. H.....	121,000
Dickinson College, Pa.....	100,000
Hamilton College, N. Y.....	202,500
Harvard College, Mass.....	488,000
Hobart Free College, N. Y.....	112,000
Lafayette College, Pa.....	260,000
Lincoln College, Pa.....	100,000
Lombardy College, Ill.....	100,000
Madison College, N. Y.....	160,000
Marietta College, Ohio.....	100,000
Methodist College, N. Y. city.....	250,000
New York University, N. Y.....	180,000
Princeton College, N. J.....	181,000
Protestant Syrian College, Beirut.....	103,000
Racine College, Wis.....	100,000
Rochester University, N. Y.....	200,000
Rutgers College, N. J.....	255,000
Trinity College, Ct.....	100,000
Tufts College, Mass.....	500,000
University of Chicago, Ill.....	285,000
University of Lewisburg, Pa.....	100,000
Washington College, St. Louis, Mo.....	150,000
Waterville College, Me.....	150,000
Wesleyan University, Ct.....	137,000
Yale College, Ct.....	750,000
Collegiate and Theo. Institute of the Lutheran Church.....	360,000

Theological Seminaries.

Andover Theological Seminary, Mass.....	\$155,000
Auburn Theological Seminary, N. Y.....	75,000
Bangor Theological Seminary, Me.....	30,000
Baptist Theological Seminary, West Phil., Pa.....	280,000
Chicago Theological Seminary, Ill.....	80,000
Columbia Theological Seminary, S. C.....	72,000
Drew Theological Seminary, N. Y.....	250,000
Lane Theological Seminary, Ohio.....	50,000
Theological Institute, Hartford, Ct.....	70,000
Union Theological Seminary, N. Y.....	150,000
Union Theological Seminary, Va.....	42,000
Yale Theological Seminary.....	50,000

Academies.

Dean Academy, Franklin, Mass.....	\$ 125,000
Drew Female Seminary, Carmel, N. Y.....	250,000
Female College, Terre Haute, Ind.....	100,000
Peabody Institute, Baltimore, Md.....	1,000,000
Phillips Academy, Andover, Mass.....	25,000
Young Ladies' Seminary, Exeter, N. H.....	200,000

Societies.

Boston Society of Natural History.....	\$270,000
Institute of Technology, Boston.....	270,000

Education.

Education in Essex, Mass.....	\$140,000
Education in New Bedford, Mass.....	80,000
Peabody Fund for the South.....	2,000,000

Libraries.

Astor Library, N. Y.....	\$50,000
Library at Ithaca, N. Y.....	100,000
Library at Waterbury, Ct.....	200,000

Some gentlemen in New York city have raised \$60,000 to endow Dr. McCosh's chair in Princeton College, securing him \$4,000 a year, and leaving the present salary as a retiring pension to Dr. McLean. Robert L. Stuart gave \$40,000; John A. Stewart gave half as much, and Robert Bonner half as much as he. Robert Carter, who is thought to be at the bottom of the movement, has raised \$6,000 more to furnish the new President's house.—*Ontario Journal of Education.*

LITERARY INTELLIGENCE.

—The Imperial Library of Paris, the largest in Europe, possesses 1,100,000 printed volumes and 80,000 MSS. The library of the Arsenal has 200,000 volumes and 5,800 MSS. The Mazarine library, 150,000 volumes and 4,000 MSS., that of the Genevieve, 155,000 volumes and 2,000 MSS., that of the Sorbonne, 80,000 volumes and 900 MSS., and that of the Hôtel de Ville, 65,000 volumes. The total number of volumes contained in all the public libraries of France is 6,333,000, whereas those of Great Britain only contain 1,792,000 volumes. But the number of books possessed by private individuals must be incomparably greater in Great Britain than in France, the possession of books, and the habit of reading them, being the rule across the channel, whereas, here they are the exception. The public libraries of Spain, strange to say, are exceedingly rich and extensive; but little used. Those of Italy contain 4,150,000 volumes, consisting mostly of very valuable old works treating of ecclesiastical matters, with a very slight admixture of modern literature. Those of Austria contain 2,488,000 volumes: of Prussia, 2,010,000; of Russia 852,000; of Bavaria, 1,268,500; of Belgium, 510,000. The Public Library, at Brunswick has just been enriched with one of the most curious collections ever got together, viz: 40,000 play bills of all countries including a considerable number of the last century, and a series of programmes of itinerant theatres, which are even more curious than the others. The donor, Major Hanepler has been 20 years in collecting this singular gathering. The total contents of the libraries of Europe amount in round numbers, to about twenty millions of volumes. One of the most interesting collections of Paris is the extensive and highly curious gathering of all manner of old things known as the Cluny Museum, and which was originally formed and bequeathed to the State by the late renowned antiquarian, M. du Sommerard, is constantly being increased by purchases and gifts. One of the latest acquisitions made by this very curious establishment—so fittingly located in the Abbey of Cluny, itself the lineal descendant of a Roman Thermes, portions of whose mountainous masonry are incorporated into the present buildings—is that of three copper plates, worn very thin and covered with indentations, which have been taken from the tombs of the French Kings at St. Denis. On the first are the words, "Here lies the body of Louise-Elizabeth of France, daughter of Louis XV." On the second, "Beneath is the body of Marie-Adelaide of Lavoie, wife of Louis Dauphin, mother of Louis XV." On the third, "Here lies the body of Louis XIV, by the Grace of God King of France and of Navarre, who died at his Palace of Versailles, on the 1st September, 1715." But who could guess where these plates have been found? In the shop of a petty dealer, in old iron; and they still bear the marks of the nails which held them together as a saucupan!—*Paris Correspondent of the Montreal Herald.*

SCIENTIFIC INTELLIGENCE.

The Weights and Measures Metric system Bill. At a meeting of the Council of the British Branch of the International Decimal Association, Earl Fortescue, President, in the chair, the result of the recent discussion on the Weights and Measures (Metric system) Bills brought in by Mr. Ewart, Mr. Bazley, Mr. Baines, Mr. J. B. Smith, and Mr. Graves, was reported as in accordance with former decisions of the House. The second reading of the compulsory Bill was carried in 1863, by a majority of 35, the second reading of the permissive Bill in 1864, by a majority of 38, and the second reading of the compulsory Bill in 1864, by a majority of 152. Whereupon on the motion of Sir J. Bowring, seconded by Mr. Yates, it was resolved as follows:—

"The Council have seen with great satisfaction the affirmation of the principle of the introduction of the metric system in this country, by the passing of Mr. Ewart's Bill by so large a majority of the House of Commons."

—*Albert Medal*—The Council have this year awarded the Albert Gold Medal to Joseph Whitworth, "for the invention and manufacture of instruments of measurement and uniform standards, by which the production of machinery has been brought to a degree of perfection hitherto unapproached, to the great advancement of Arts, Manufactures, and Commerce."

—*Setting Type by Electricity*.—Among the many wonderful evidences of the ingenuity of mankind is the machine for setting and distributing type. This is now so perfected that I have now before me a book containing 24,993 ems of solid matter, or 34,255 ems of leaded matter, the type of which was both "set" and "distributed" in six hours and thirty-nine minutes by the machine. This is truly wonderful, but I want to say the wonder does not stop here. By means of one of these machines, located in the large newspaper offices in the principal cities, and connected by telegraph with the Capitol, the reporter or operator can set type himself, the machine standing in New-York or New Orleans, and he being in the Capitol. Or instead of setting type, he may produce a matrix—by operating a series of arms and levers having type attached, and made to strike upon a suitably prepared and moveable plastic surface—from which a stereotype may be cast ready for the press a few minutes from the time the speech is delivered, or the action had, whatever it may be. Speeches would still have to be reported by shorthand, simply because no one could

either write them out or set them up as fast delivered. The compositor having the shorthand notes before him, could then set the type from them upon the machine at a distance, or, if required, the shorthand notes could be translated as is now done, for the telegraph operator, and then set up and telegraphed. In the latter case the same labor of the operator that now sends the message would put it into type ready for the press, thus dispensing with the time and labor now required to write out the message and set up the type.

This seems to be a great step in the electrical progress of the age; and there is nothing to prevent its being done at once. It is simply a question of time and money—that's all.—*American Artisan.*

NOTES AND MEMORANDA

—*A Great Meteor at Warsaw*.—In "Comptes Rendus," Mr. Daubrée describes specimens of meteorites sent to the French Academy by the High School of Warsaw. It appears that on January 30, 1868 at 7 p. m. in the environs of Pultask not far from Warsaw, a globe of fire, seen from that city, passed through the sky with a velocity of 29 6 geographical miles in four seconds and a half, shining brighter than the moon, and passing from bluish green to dark red. Two great explosions occurred, followed by a prolonged rattle, and the hissing sound of fragments passing through the air. The fragments of the bolide were distributed over a surface of sixteen kilometres in an elliptical area, one of the largest pieces, weighing four kilogrammes fell in the village of Rzewaie. About three thousand fragments were picked up in different places, the biggest weighing seven kilogrammes, three or four others four kilogrammes, and the majority of much less size. Although the bolide itself moved rapidly, the fragments of the explosion marked the ground with a low velocity, and did not penetrate its icy surface. Their composition was nickel iron, sulphate of iron, chromium of iron, a silicate like powder, and another silicate acted upon by hydrochloric acid.—*The Student.*

—*Alcohol from Lichens*.—The "Archives des Sciences" for August contains a translation of a Swedish paper by Mr. Sten Stenberg showing the large quantity of amylaceous matter contained in certain lichens, among them the reindeer moss (*Cladophora rangiferina*) existing in immense quantities in certain countries of the north.

He converts the amylaceous matter into grape sugar by heat and acids, ferments it, and obtains alcohol, which he states to have an aromatic odour like that of almonds.—*Ibid.*

—*New Medicines from Cochín-China*.—Messrs. Coudamine and Blanchard have sent to the French Academy specimens of the bark of a tree called haofach, which the Annamites regard as a sovereign remedy against diarrhoea, dysentery, and colic. Another bark called *couden* had similar properties ascribed to it. Haofach is considered best for certain intermittent fevers, and *couden* preferred for diarrhoea and colic.—*Ibid.*

PROGRESS OF INVENTION.

—*Tanning*.—Mr. H. Miller Ragland has invented a process for preparing hides to receive more readily the action of tannic acid. After the hair and particles of flesh have been removed and the hides have been properly cleaned by the action of lime, the first step in this new process is to place the hides in water sufficient to cover them. The hides are to be placed in separately with the fleshy side upwards, and are to be sprinkled with bran in the following proportions:—

Light hides, for uppers, &c, each skin....	6 ounces.
Calf skins.....	3 "
Sheep skins.....	4 1/2 "
Heavy hides, for sole leather.....	14 "

In this vat the skins must remain until fermentation has taken place, which will be, in warm weather, in about two days, but in cold weather somewhat longer. After this, the skins must be removed and scraped from any adhering particles of lime or other substances.

When this has been done, the skins are subjected to the action of mustard seed, which forms the distinguishing characteristic in the process. It is carried out in the following manner:—A vat of proportionate size is filled with a sufficiency of water to cover the skins, and to this water there must be added for every hundred pounds weight of the skins, when dry, five pounds of ground Italian mustard seed, and five pounds of barley meal. When these ingredients have been thoroughly mixed with the water, the skins must be dipped therein, so that they may be perfectly saturated with it, and they must be left in this dip for the following length of time:

Calf, sheep, or goat skins.....	24 hours
Light hides and kips.....	36 "
Heavy hides for sole leather.....	48 "

When this time has expired the skins must be taken out and hung up to dry, but only partially, as when subjected to the next process they should still be in a damp condition.

The dip which has been described has a very powerful action on the skins; the combined action of the mustard seed, barley meal, and heat hereby generated, is to open the pores of the skins, and thus to render the remaining processes in tanning them by means of bark much more speedy than under any other methods hitherto known.—*Ibid.*

METEOROLOGICAL INTELLIGENCE.

Abstract of Meteorological Observations — From the Records of the Montreal Observatory, lat. 45-31 North; Long, 4h 54m 11 sec West of Greenwich, and 182 feet above mean sea level. For August, 1868. By Chas. Smallwood, M.D., LL.D., D.C.L.

DAYS.	Barometer corrected at 32°			Temperature of the Air.			Direction of Wind			Miles in 24 hours
	7 a.m.	2 p.m.	9 p.m.	7 a.m.	2 p.m.	9 p.m.	7 a.m.	2 p.m.	9 p.m.	
1	29.271	29.207	29.249	64.2	70.9	69.1	W	W	W	71.12a
2	.261	.254	.301	69.0	79.7	67.9	W	W	W	101.10b
3	.451	.547	.599	62.4	84.6	69.2	W	SW	SW	87.41
4	.768	.827	.850	63.1	82.7	67.9	W	NE	NE	77.10
5	.951	.957	.960	65.1	87.9	69.4	NE	E	NE	66.29
6	.957	.912	.850	65.2	87.9	70.0	NE	SE	SE	67.24
7	.807	.649	.499	68.9	85.9	68.2	SE	SE	NE	91.12
8	.479	.432	.562	68.3	75.4	65.0	SE	SW	SW	86.71c
9	.397	.411	.450	65.9	73.7	65.6	W	W	W	81.29d
10	.616	.674	.699	69.0	69.4	63.2	W	W	W	114.10
11	.674	.607	.648	60.3	61.4	60.0	W	NE	NE	91.10e
12	.662	.670	.699	57.2	69.9	61.7	NE	N	E	77.10
13	.651	.644	.650	55.2	70.4	63.9	N	W	W	88.21f
14	.660	.652	.649	62.0	73.9	68.0	W	W	W	104.24g
15	.600	.744	.510	65.0	70.1	63.7	W	W	W	211.10h
16	.789	.800	.848	56.7	68.2	56.0	NE	NE	N	197.41
17	.872	.894	.900	53.3	75.1	52.5	nbye	W	W	99.11
18	.845	.824	.700	58.0	69.4	73.0	W	WSW	WSW	84.29
19	.549	.584	.589	70.0	83.1	70.9	WSW	WSW	WSW	99.74j
20	.601	.647	.689	70.1	82.1	69.0	NE	WSW	W	101.24
21	.710	.849	.884	62.3	83.2	68.0	NE	NE	NE	111.21
22	.897	.846	.800	63.1	83.0	68.2	NE	NE	NE	77.29
23	.801	.744	.672	66.3	83.0	72.4	W	W	W	88.20
24	.575	.634	.662	65.2	87.6	76.0	SW	SW	SW	117.24
25	.766	.717	.749	68.0	87.9	75.0	SW	SW	WSW	212.10
26	.750	.847	.901	63.7	85.7	58.8	WSW	WSW	NE	91.21k
27	30.061	30.049	30.001	54.0	77.7	58.7	NE	NE	NE	77.49
28	29.864	29.810	29.916	56.6	74.3	67.4	NE	SW	SW	66.24
29	.614	.502	.462	63.7	80.1	76.2	SW	SW	SW	71.10*
30	.610	.662	.711	63.0	87.1	69.2	W	W	N	84.29
31	.844	.60	.11	60.1	78.6	69.4	NE	NE	NE	66.24

RAIN IN INCHES. — a, 0.343; b, 0.734; c, 0.114; d, 0.11; e, 0.102; f, g, Inapp.; h, 0.217; j, 0.395; k, 0.320; *0.036.

The mean temperature of the month was 69.94 degrees, which is scarcely a degree higher than the Isothermal for Montreal for the month of August, reduced from observations during a long series of years.

The highest reading of the Barometer was 30.061, and the lowest 29.207—giving a range of 0.854 inches.

Rain fell in 11 days amounting to 2.662 inches, and was accompanied by thunder on three days.

— Meteorological observations taken at Quebec, during the month of August, 1868. Latitude 46°48'30" N.; Longitude 71°12'15" W.; height above St. Lawrence, 230 feet; By Sergt. J. Thurling, A. H. C., Quebec.

Barometer, highest reading on the 27th.....	30.184 inches.
lowest " 1st.....	29.392
range of pressure.....	.792
mean for month reduced to 32°.....	29.677
Thermometer, highest reading on the 7th.....	87.5 degrees
lowest " ".....	47.3
range in month.....	40.2
Mean of highest.....	75.9
" lowest.....	55.7
" daily range.....	20.2
" of month.....	65.8
maximum in sun's rays, black bulb, mean of.....	111.7
minimum on grass.....	51.4
Hygrometer, mean of dry bulb.....	68.6
" wet bulb.....	62.7
" dew point.....	58.0
Elastic force of vapour.....	482 inches.
Vapour in a cubic foot of air.....	5.3 grains.
" required to saturate, do.....	2.1
Mean degree of humidity (Sat. 100).....	68
Average weight of a cubic foot of air.....	507.6 grains.
Cloud, mean amount of (0-10).....	5.7
Ozone, " ".....	1.2
Wind, general direction.....	Westerly.
mean daily horizontal movement.....	106.6 miles.
Rain, number of days it fell.....	15
amount collected on the ground.....	5.16 inches
" " 10 feet above ground.....	4.62

— From the Records of the Montreal Observatory for September 1868. By Chas. Smallwood, M.D., LL.D., D.C.L.

DAYS.	Barometer corrected at 32°			Temperature of the Air			Direction of Wind			Miles in 24 hours.
	7 a.m.	2 p.m.	9 p.m.	7 a.m.	2 p.m.	9 p.m.	7 a.m.	2 p.m.	9 p.m.	
1	29.411	29.571	29.720	66.7	70.1	59.3	W	W	W	124.10a
2	.849	.887	.891	54.1	74.0	59.4	NE	NE	NE	202.12
3	.999	.949	.901	54.2	74.0	58.9	NE	NE	NE	71.70b
4	.849	.712	.675	56.2	72.1	65.2	SE	SE	SE	94.10c
5	.549	.553	.560	61.2	73.2	62.0	W	W	W	89.24
6	.611	.574	.560	59.0	70.2	63.2	W	W	W	101.10
7	.550	.647	.649	58.4	61.0	56.0	NE	W	W	77.21d
8	.812	.721	.649	49.1	70.0	66.2	W	SE	W	68.19
9	.443	.441	.600	57.0	66.7	61.1	SE	SE	W	77.24e
10	.675	.662	.650	61.0	70.9	67.0	SE	SE	W	57.20
11	.710	.804	.811	64.0	76.9	68.7	SW	SW	SW	59.24f
12	.862	.811	.700	64.0	80.7	68.4	NE	NE	NE	91.11g
13	.600	.701	.849	66.1	76.2	60.5	SW	SW	nbye	94.21h
14	.950	.979	.999	55.1	79.8	60.0	W	W	W	88.29
15	.997	.817	.700	53.1	80.0	60.4	W	W	W	76.29
16	.423	.592	.761	56.0	70.2	45.0	SE	W	W	161.10j
17	.800	.833	.850	38.7	68.3	45.9	W	W	W	78.29
18	.949	.979	30.000	46.1	69.1	52.3	W	W	W	66.20
19	30.100	30.031	29.900	48.2	68.1	56.7	W	W	SE	51.29
20	29.726	29.497	.646	54.6	65.1	47.0	SW	SW	NE	89.00k
21	.850	.819	.750	38.0	58.0	44.0	W	W	W	101.29
22	.742	.637	.690	41.1	58.0	51.6	W	W	W	77.24
23	.500	.615	.716	51.0	54.2	49.1	SW	SW	SW	89.71*
24	.961	.911	.850	42.0	58.0	46.0	SW	W	W	101.20
25	.652	.509	.497	40.0	50.4	46.1	NE	NE	NE	99.10†
26	.700	.792	.800	42.0	58.3	41.1	W	W	W	91.21
27	.701	.614	.561	40.2	63.0	52.0	W	W	W	66.22
28	.362	.417	.525	52.2	63.4	55.0	SW	W	W	51.11‡
29	.541	.532	.600	47.0	52.0	44.1	W	W	W	69.20‡
30	.649	.502	.550	40.0	48.1	40.1	W	SW	—	101.16‡

RAIN IN INCHES — a, 0.036; b, g, †, Inapp.; c, 0.101; d, 0.303; e, 0.571; f, 0.121; h, 0.634; j, 0.396; k, 0.531; * 0.255; † 0.646.

The highest reading of the Barometer was on the 19th day, and was 30.100 inches, and the lowest was on the 1st day, 29.411 inches, giving a monthly range of 0.689 inches. The mean temperature of the month was 57.094 degrees, which shows a decrease of 31.6 degrees in temperature from the Isothermal for September, reduced from a long series of observations.

Rain fell on 15 days, amounting to 3.494 inches. The first frost of the Autumn occurred on the 17th day.

— Meteorological Observations taken at Quebec, during the month of September 1868. By Sergt. John Thurling, A. H. Corps, Quebec.

Barometer, highest reading on the 19th.....	30.230 inches.
lowest " 1st.....	29.450
range of pressure.....	.780
mean for month reduced to 32°.....	29.775
Thermometer, highest reading on the 11th.....	76.6 degrees
lowest " 17th.....	34.0
range in month.....	42.6
Mean of highest.....	62.4
" lowest.....	46.6
" daily range.....	15.8
" of month.....	54.5
maximum in sun's rays, black bulb, mean of.....	88.9
minimum on grass.....	46.0
Hygrometer, mean of dry bulb.....	56.4
" wet bulb.....	52.5
" dew point.....	48.7
Elastic force of vapour.....	.344 inches.
Vapour in a cubic foot of air.....	3.8 grains.
" required to saturate, do.....	1.2
Mean degree of humidity (Sat. 100).....	75
Average weight of a cubic foot of air.....	533.5
Cloud, mean amount of 0-10.....	7.2
Ozone " ".....	1.2
Wind, general direction.....	Easterly.
mean daily horizontal movement.....	113.3 miles.
Rain, number of days it fell.....	19
amount collected on the ground.....	6.38 inches.
" " 10 feet above.....	6.35
Snow, number of days it fell.....	1