Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

- ☐ Coloured covers/ Couverture de couleur
- ☐ Covers damaged/ Couverture endommagée
- ☐ Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/ Le titre de couverture manque
- ☐ Coloured maps/ Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/ Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/ Planches et/ou illustrations en couleur
- ☑ Bound with other material/ Relié avec d'autres documents
- ☑ Tight binding may cause shadows or distortion along interior margin/ La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- ☐ Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/ Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

- ☐ Coloured pages/ Pages de couleur
- ☐ Pages damaged/ Pages endommagées
- ☐ Pages restored and/or laminated/ Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached/ Pages détachées
- ☑ Showthrough/ Transparence
- ☑ Quality of print varies/ Qualité inégale de l'impression
- ☑ Continuous pagination/ Pagination continue
- ☐ Includes index(es)/ Comprend un (des) index

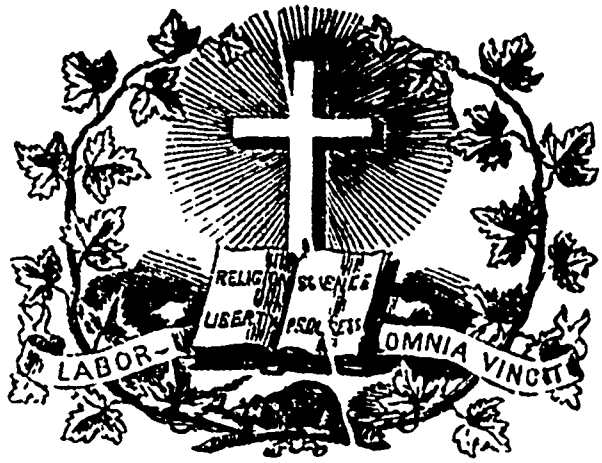
Title on header taken from:/ Le titre de l'en-tête provient:

- ☐ Title page of issue/ Page de titre de la livraison
- ☐ Caption of issue/ Titre de départ de la livraison
- ☐ Masthead/ Générique (périodiques) de la livraison

☐ Additional comments:/ Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
								✓			



JOURNAL OF EDUCATION.

Volume XII. **Quebec, Province of Quebec, July, 1868.** **No. 7.**

LITERATURE.

POETRY.

(Written for the Journal of Education.)

THE FINAL RECKONING.

By Mrs. Leprohon.

T'was a wild and stormy sunset, changing tints of lurid red
Flooded mountain top and valley and the low clouds overhead;
And the rays streamed through the windows of a building stately—high,
Whose wealthy high born master had now lain him down to die.

Many friends were thronging round him, breathing aching heavy sighs—
Men with pale and awe struck faces, women too with weeping eyes,
Watching breathless, silent, grieving, he whose sands were nearly run
When with sudden start he muttered, "God! how much I've left undone!"

Then out spoke an aged listener with broad brow and locks of snow,
"Oh patriot, true to country and her welfare, say not so,
For the long years thou hast served her, thou hast only honour won,"
But from side to side still tossing, still he muttered "much undone!"

Then the wife with moan of anguish like that of stricken dove,
Murmured; "Husband, truer, fonder, never blessed a woman's love;
And a just and tender father both to daughter and to son,
But more feebly moaned he ever, "oh! there's much! there's much undone!"

Quickly then a proud stern soldier questioned "Say will not thy name
Long descend in future story, linked with honour and with fame,
For thine arm was prompt in battle and thy laurels nobly won,
True patriot, soldier, citizen, who' then remains undone?"

Then the dying man upraised him; at his accents loud and clear,
Into silence men lapsed quickly, women checked each sob and tear;
And he said; "To fame, home, country, my heart, my thoughts I've given,
But, tell me, oh ye dreamers, what I've done for God on Heaven?

It was not for Him I battled with the sword or with the pen,
Nor for his praise I thirsted, but that of my fellow men,
And amid the light now flooding this my life's last setting sun,
I see, misguided word ing, how much I have left undone."

Thicker darker fell the shadows, fainter grew his flutt'ring breath.
Then a strange and solemn stillness, t'was the awful hush of death:
Hope we that a tender Saviour to gentle pity won,
May judge in loving clemency, whate'er he had left undone.

LONGFELLOW IN ENGLAND.

Welcome to England! thou whose strains prolong
The glorious bede-roll of our Saxon song;
Ambassador and Pilgrim-Bard in one,
Fresh from thy home—the home of Washington.
On hearths as sacred as thine own, here stands
The loving welcome that thy name commands;
Hearths swept for thee and garnished as a shrine
By trailing garments of thy Muse divine.
Poet of Nature and of Nations, know
Thy fair fame spans the ocean like a bow,
Born from the rain that falls into each life,
Kindled by Dreams with loveliest fancies rife;
A radiant arch that with prismatic dyes
Links the two worlds, its keystone in the skies;
The noblest creatures of those dreams of thine,
From Hiawatha to Evangeline,
Here thou wilt find, where'er thy footsteps roam,
Loved as the cherished Lares of each home.
What prouder refrain heartens to the core
Than thou hast sung in brave Excelsior?
Where sounds more gladdening 'mid this earthly strife
Than the sweet clarions of the *Psalm of Life*?
None but the rarest *raconteur* may grace
The mimic contest where most yield thee place
Say which, for either, fairer wreaths produce,
Irving's Astoria or thy Flower de Luce?
Which haunted hostel lures more guests within,
Hawthorne's Seven Gables or thy Wayside Inn?
Turning thy pictured page, what varying dyes
Shine through each latticed margin's new surprise!
Here the swart Blacksmith, smirched with grime and tan,
Tears in his eyes, yet every inch a man.
Here, 'mid the rice-field, heaving his last breath,
The poor Slave-monarch dreams himself to death,
Here, while without loud raves the tempest's din
Here, while around the revellers brawl within,
The dying Baron thro' the grave's dark goal
Seeks Christ's redeeming passport for his soul.
Who hears not now, stormed down among thy leaves,
The rain that poured like cataracts from the eaves,

Roared through the kennels, lashed the streaming panes,
Flooded the squares, the streets, the courts, the lanes,
Raging like seas that o'er some foundering wreck
Swell thro' the scuppers from the swimming deck?
Cool, teeming, plenteous, soul-refreshing showers,
Quaffed by parched earth and by the thirsting flowers,
Nor less by those who listened to thy song
As, like Lodore's, thy deluge dashed along,
Where subtler solace than thy gentle voice
From riven hearts can draw till griefs rejoice?
Answer, what oft-repining woe o'erpowers,
That lay serene, the Reaper and the Flowers!
So large thy sympathies, thy hand can trace
Charms in each clime and glory in each race:
So penetrant thy love, its gaze can find
God in the flower, His breathings in the wind;
Mesh with mere hempen coil in Rope-walk spun
All human joys and ills beneath the sun;
Wake with grand echoes of responsive rhymes
Long silent notes of mediæval chimes:
Nay, hear in hush of serried arms arrayed
"The diapason of the cannonade."
'Mid purgatorial fires, in heaven, in hell,
Thy dauntless soul hath lately dared to dwell,
Passing o'er burning marl, where Dante trod
With Virgil's ghost, to Beatrice and God.
Yet, rarely gifted Nature to translate,
Reflect not others, thus: thyself create.
Ring out once more in thy own golden lines
Life's inner meaning, not the Florentine's—
Thou who hast given thy dreamings to our sight
And syllabled the Voices of the Night:
Thou who hast sung, as none but thou could sing,
The tender legend of the Angel-King:
Thou who around with affluent hand hast thrown
The heavenly largess of thy benison,
Regarding none as alien to thy breast—
Columbia's Poet, hail as England's Guest!

C. K. *London Times.*

"PEACE HATH HER VICTORIES." (1)

I.

To people wastes, to supplement the sun,
  To plant the olive where the wild-briar grew,
To bid rash rivers in safe channels run,
  The youth of aged cities to renew;—
To shut the temple of the two-faced god—
  Grand triumphs these, worthy a conqueror's car;
They need no herald's horn—no lictor's rod—
  Peace hath her victories, no less than War.

II.

To raise the drooping artist's head, to breathe
  The word despairing genius thirsts to hear,
To crown all service with its earned wreath,
  To be of lawless force the foe, austere;
This is to stretch a sceptre over Time,
  This is to give our darkling earth a star,
And belt it with the emerald scroll sublime—
  Peace hath her victories, no less than War.

III.

To stand amidst the passions of the hour
  Storm-lash'd, resounding fierce from shore to shore;
To watch the human whirlwind waste its power,
  Till drowned Reason lifts her head once more;
To build on hatred nothing; to be just,
  Judging of men and nations as they are—
Too strong to share the councils of mistrust—
  Peace hath her victories, no less than War.

IV.

To draw the nations in a silken bound—
  On to their highest exercise of good;
To show the better land above, beyond
  The sea of Egypt, all whose waves are blood;
These, leader of the age! these arts be thine,
  All vulgar victories surpassing far;
On these all Heaven's benignant planets shine—
  Peace hath her victories, no less than War.

T. D'Arcy McGee.

Paris. 1867.

(1) The above lines have just appeared—so far as we know for the first time—in *The Broadway*—published simultaneously in London and New York. There is no mistaking the authorship.

CANADIAN HISTORY.

Memoirs of the Richelieu.

No. 3.—St. Johns.

There are few places in Canada of more historic interest than St. Johns. Though it was not the theatre of any great battle to which its name is attached, it is connected with nearly every expedition of any note that took place in the great wars which the French, English and Americans waged for the mastery of New France.

Its situation at the head of navigation in the direction of Lake Champlain, pointed it out to the early French engineers as a proper place for the erection of defensive works. Accordingly, as far back as 1758, Montcalm built fortifications there during the campaign rendered memorable by the victory of Carillon (Ticonderoga), the surrender of Fort Frontenac and the evacuation of Fort Duquesne, situated on the present site of Pittsburgh. The remains of these ancient works are still visible, a little in the rear of the present barracks and adjoining the railway line.

The next year, 1759, Quebec fell and the country passed into the hands of the British, who made no use of Fort St. Johns for over fifteen years. But at the outbreak of the American Revolution, the importance of this frontier post was immediately recognized, and Sir Guy Carleton, then Governor General of Canada, rebuilt and enlarged the fortifications of Montcalm.

In the autumn of 1775, St. Johns offered the first serious resistance to the American forces that had been despatched by Congress to invade and capture Canada. Gen. Schuyler, at the head of a considerable army of Continentals (as the American militiamen were then called), appeared before St. Johns, in September of that year. Being deceived by scouts as to the strength of the fort, he fell back to Isle-aux-Noix, where he was replaced by Gen. Montgomery, who on the arrival of reenforcements, immediately resumed the campaign. He led his advance guard boldly in face of the northern front of the fort. Here he had a skirmish with a detachment of the garrison, which was just returning from a successful sally. From the position of Montgomery's troops this first action must have taken place on the present site of our peaceful town, probably quite uninhabited at that time. The place was thickly planted with forest trees and the ground damp and marshy so much so, indeed that the American Commander, a few days after, shifted his position to the north west of the fort on a higher plateau, in the neighborhood of the ridge that leads up to Bernier. Here he threw, up regular breast-works and began siege operations. A few days', experience soon convinced Montgomery that he had to do with a valiant garrison, and that nothing short of a bombardment could make him master of the fort. This he was unable to effect, for want of single ordnance, and he would most probably have been obliged to withdraw on the approach of the winter, but for two fortunate circumstances.

The first of these was the capture of the garrison of Chambly, which furnished him with much valuable war material. We shall relate this episode in full in our next paper. The second was the failure of Carleton to reenforce the St. Johns' garrison. When the Governor learned of the fall of Chambly, he left Montreal with a considerable force and attempted to cross at Longueil, on the rafts and bateaux. Here he was met by a detachment of Americans who lay in wait for him. Just as he was

about to land, they opened on his boats with grape and canister, capturing one and driving the others across the St. Lawrence. News of this success was immediately despatched to Montgomery, who communicateted it to Major Preston, the valiant commander of the besieged garrison, along with a summons to surrender. Preston demanded four days of armistice, to decide upon his course. This was refused by Montgomery, who declared that he was willing to grant honorable terms to an enemy who had displayed so much fortitude and bravery, but that he was in a position to prosecute the siege with renewed vigor, and demanded an unconditional surrender. The fact was that the Americans, besides being emboldened by their successes at Chambly and Longueil, had erected a powerful battery within 700 feet of Fort St. Johns, and also a strong block house on the Iberville side of the river, bearing direct on the works and mounted with one gun and two mortars.

Major Preston, feeling his helplessness and complete isolation, at length consented to capitulate. He obtained honorable terms. The place where his troops laid down their arms was the open plain between the fort and the American breastwork, now traversed diagonally by the railway to Montreal.

The siege had lasted six weeks, and the garrison which surrendered consisted of five hundred regular British troops and one hundred Canadian volunteers. There were a few civilians, too, included among these, whether residents of St. Johns or its environs we have not been able to ascertain.

The Americans captured 39 pieces of cannon from 2 to 22-pounders, 2 howitzers, 7 mortars, 800 stand of arms and a scanty supply of ammunition.

The fall of St. Johns created much anxiety in Montreal and Quebec. It opened the way for the march of the American invading army and supplied it with an excellent base of operations. Carleton had tried hard to prevent the advance of Montgomery and had not succeeded. Nothing now prevented this officer from proceeding to Montreal. Carleton's only hope was that the approach of the cold season and the insubordination in Montgomery's camp would give him time to concentrate his forces.

The St. Johns' garrison surrendered, Nov. 1st, 1775. The Americans took immediate possession of the fort and retained it just 6 months, till May 1776, when they were driven out of it by Burgoyne.

The block house built by Montgomery on the other side of the river was still visible up to a few years ago.—*St. John's News.*

The British Colonial Empire.

The London *Times* of a recent date has the following:—The Blue book in which the Colonial office lays before parliament statistical accounts of our colonial and other possessions contains this year no less than 634 folio pages. The volume has become so large that a small "Statistical Abstract" has been found acceptable. Our Indian possessions are described as having an area of 956,436 square miles with a population of 144,948,356, the native States of India (as distinguished from British India) having an area of 596,790 square miles, and a population of 47,909,199, besides which there are in India 1,254 square miles of native States under the French or the Portuguese Government, with a population of 517,149. The area of our North American colonies is 632,361 square miles, with a population of 3,701,461; and this does not include the vast territory administered by the Hudson's Bay Company. Australia contains an area of 2,582,070 square miles, and a population of 1,599,580; the British West Indies an area of 88,683 square miles, and a population of 1,097,627; the Cape of Good Hope and Natal 119,322 square miles, and 485,676 people; Ceylon 24,700 square miles, and a population of 2,049,728. Our other colonies being added, the general total is an area of 5,427,232 square miles, and a population of 154,810,787 souls; and this notwithstanding some omissions on account of returns not received—the aborigines of British Columbia, and some 150,000 persons on the 6,000 square miles of the Gold Coast settlement. The parent State, the United Kingdom, has an area of no more than 160,000 square miles, and a population not much exceeding 30,000,000. The public revenue of these vast possessions abroad was nearly £63,000,000 in the year 1865, the year for which these returns are made; it approaches that of the mother country. Not so the public debt; it is not quite £140,000,000. The tonnage entered and cleared in 1865, exclusive of the coasting trade, was about 26,000,000. The imports into these British possessions in 1865, including bullion and specie, amounted in value to £128,375,053; worth more than £66,000,000 were from the United Kingdom. The exports amounted to £141, £268,102; £75,419,159 of these exports went to the United Kingdom. These great possessions sent forth, for the supply of the world in that year, wool of the value of £12,234,580; raw sugar, £7,158,163; coffee, £3,308,963; wood, £3,877,530; fish, £1,668,260. India alone, in the year ending April, 1865; sent out raw cotton of the value of £37,573,637. Such is the British colonial empire. Queen Victoria is monarch of all here surveyed. The supply of cotton was of exceptional amount during the great American conflict; but most of even these great figures have already become an under statement, for population, production, and consumption alike have increased and are increasing."

EDUCATION.

What is, and may be, meant by teaching "English."

A paper read before the College of Preceptors, England, by J. D. M. Meiklejohn, Esq., M. A, Dr. W. B. Hodgson, occupying the chair.

The strong tide of new life in Education, which is bringing with it so many good things for the future of the English nation, bears towards us few better gifts than the profound interest in our mother tongue which is being everywhere excited among English men and English women. In spite of the fact, that the greatest poets and thinkers and novelists that the world can show have used the English language as their instrument, the conscious respect shown to this instrument for hundreds of years has been but slight; and it is only within the last forty or fifty years that its build, its physiology (if the term may be used), and its history have come to be studied. Not till the works of Grimm, Latham, Guest, Garnett, Müller, and others, appeared, did we know anything about its history; so far as our text-books went, we had no right to believe it had a history at all. On the contrary, the schoolboy was early taught, as an orthodox dogma on which the shadow of doubt had never fallen, that the English language was a stiff, rusty-jointed, and pedantic lingo, which sprang full-grown and fully equipped from the brain of an American gentleman of the name of Lindley Murray. But the positive marks of contempt for the English language lie in one word over many hundred years, and are not difficult to find. A poet, Waller, in the end of the seventeenth century, himself in the higher ranks of authorship, writes thus about the English language:—

> Poets may boast, as safely vain,
> Their works shall with the world remain;
> But, bound together, live or die—
> The verses and the prophecy.
>
> But who can hope his lines should long
> Last in a *daily-changing* tongue?
> While they are new, envy prevails;
> And, when that dies, *our language fails.*
>
> When architects have done their part,
> The *matter* may betray their art;
> Time, if we use *ill-chosen stone,*
> Soon brings a well-built palace down.
>
> Poets that *lasting* marble seek,
> Must carve in Latin or in Greek;
> *We* write in sand; *our language grows,*
> And, like the tide, our work o'erflows.

Here we have a man who was contemporary with Milton, who had read and studied Chaucer and Spenser and the works of the great Shakespearian drama, calling his native tongue "*ill-chosen stone*," material that cannot last, and that must bring down into dust and nothingness any thought and skill that may have been put into it—nay, going so far as to say that an English author writes in "*sand*," and that nothing that has a chance of immortality can be written in a tongue that is "daily changing." This contempt of the literary class found its ready counterpart among the learned, who unanimously neglected the study of their native language, and who left to half-educated or utterly uneducated men the task of codifying the laws of English Grammar, and of raising a standard by which to judge between what was good and what was bad English. It is true that such men as Ben Johnson and Milton wrote English grammars for the young; but both left their books on this subject quite incomplete. For good or for evil, moreover, we have no Academy, nor do we seem likely to have one; although it is pretty plain that a learned body of this character would have made the work, both of the schoolmaster and of the pupil, more easy, more definite, and more successful. Till within forty years ago, any systematic view of the laws and organism of the English language has been left pretty much to quacks, whose ignorance and incapacity have been surpassed only by their bad taste. And even to-day, the domain of knowledge occupies only a small corner of the subject, and still leaves a wide region for individual fancy and subjective opinion to wander about in at their own sweet will. A most amusing example of this occurred not long ago. Dean Alford published, in *Good Words*, a series of unconnected notes on the English Language, under the title of "The Queen's English."

These notes were subjected to a sharp rattling fire of criticism from Mr. Washington Moon. As these two gentlemen came before the public in the attitude of authorities on a subject about which everybody thinks he knows something, and as there was no want of dogmatism or positiveness in their oracular utterances, it might have been supposed that they had made a study of the English Language, of its history, and of some of its most remarkable phases. Or it might have been expected that they were so well read in the authors of at least one period, and that their tastes and ears were so highly cultivated that they could detect a false note or an illegitimate idiom with unerring sense. Nothing of the kind. Both of these gentlemen—Arcadians both—present us with subjective prejudices instead of objective knowledge—with *I should think* and *I believe*, instead of *This is the custom* and *This phrase has always been used;* and a discussion on a noble growth like the English Language degenerates into a personal squabble between two writers in a magazine. The two following facts will enable us to form a sufficient estimate of the capabilities and claims of these gentlemen to sit in judgment on the language. The Dean, after stating that the word *its* is not to be found in the Bible, adds the following wild guess—as a substitute for a piece of information which he might have found in a dozen books that have been published within the last ten years:—"The reason, I suppose, being, that possession, indicated by the possessive pronoun *its*, seemed to imply a certain life or personality, which things neuter could hardly be thought of as having." Now the ignorance in this sentence is simply complete. I was going to say that every schoolboy knows—but it is the literal fact that many schoolboys know, for the fact is stated in several schoolbooks—that the true reason for the absence of the word *its* from our translation of the Bible is the very sufficient one that the word *its* did not exist at the time that translation was made. Mr. Moon, on the other hand, devotes a long discussion, and an appendix besides, to the question of the correctness of the phrase *It was I*, or *It was me;* and he sagaciously comes to the conclusion that, if the phrase is in answer to such a question as *Whom did you see?* and if the answer is made in the form *It was me you saw*, then *me* is rightly in the objective case, for it is governed by the verb *saw*. This is hardly credible; but it is to be read in Mr. Moon's book, Through several pages, both of text and appendix it seems never to have entered his mind that [whom] *you saw* is a sentence of itself, and cannot govern or have anything to do with any word in the principal sentence *It was I*. Here, then, on the one hand we have ignorance that might have been cured by the reading of a book so widely known and so popular as Archbishop Trench's "Study of Words;" and, on the other, blundering that a village schoolmaster could have corrected,—erecting themselves into authorities, and giving forth their decisions *ex cathedrâ*. Of course, the narrower the field of knowledge, the wider the plain over which fancy can wander; and these gentlemen might well complain that arithmetic and geometry are no longer "matter of opinion," for they might then display in these regions original and imaginative powers quite as astonishing. Ignorance like this is, of course, fast disappearing; but there is still much to do. And such errors seem to keep their hold in schoolrooms and on school-books longer than anywhere else; and it requires more force to dislodge them from these haunts than from books that have a circulation among what is called the general public.

The two things usually taught in schools under the name of English, are *Grammar* and *Composition*.

I. I need not say a word about such books as those of Lindley Murray or William Lennie. I believe they still linger about in a few dark places; but the small remainder of their days is numbered, and it is hardly possible that they can trouble "ingenuous youth" much longer. But they have left their evil mark both upon school-books and upon teaching. They have left a heritage of ill in bad logic, stupid metaphysics, rules that are unnecessary or inapplicable, definitions that are not convertible, distinctions that are unintelligible, and divisions and subdivisions that perplex, confuse, and annoy the mind of the learner. It may fairly be doubted whether these two books have not caused more mental anguish than has been produced by the guillotine, and whether they have not weakened and disgusted very many more minds than they have educated or edified. Among other diseases, they have inoculated writers of grammars with a mania for divisions and subdivisions that leads them and their readers into the queerest labyrinths. For example, I find in a little grammar, otherwise sensible, published the other day, the following division of Adverbs into classes.—Adverbs of *time*, of *place*, of *manner*, of *causation*, of *affirmation*, and of *negation*. Very good; there is, so far, no great harm done. But we are not let off with this; the writer at once goes on to say:—"Perhaps the following classification may be more acceptable to some Teachers:—Adverbs of *quality*, of *affirmation*, of *contingency*, of *negation*, of *explaining*, of *separation*, of *conjunction*, of *interrogation*, of *pre-eminence*, of *defect*, of *preference*, of *equality*, of *inequality*, of *gradation*, of *in a place*, of *to a place*, of *toward a place*, of *from a place*, of *time present*, of *time past*, of *time future*, of *time indefinitely*, of *time definitely*, of *order*, AND of *quantity*!! This author knew his public. He well knew that Schoolmasters and Teachers are the most overpaid and underworked body of men in the kingdom; that they do next to nothing, and have almost nothing to do; and that they would welcome as mere sport the duty of drilling this array of distinctions into the brain of a lad, and of pumping them out of him again day by day—to their amusement and his profit—by an almost interminable host of "never ending, still beginning" questions. Another writer, more popular and more able than the last, but almost as much infatuated by this mania, who tells us in his preface that his "work is *practical* rather than strictly scientific" (as if there were even *one* man in England just now who could write a scientific grammar, still less a scientific grammar for schools), divides adverbs into nine classes, and conjunctions into sixteen. Among these are adverbs that express *manner* by *quality*, *manner* by *degree*, and *manner* by *affirmation*—whatever these ideas may mean. Among the conjunctions are conjunctions of *purpose*, of *condition*, of *concession*, and so on. Now, I respectfully submit to this experienced audience, whether such distinctions and divisions as these have any place in grammar at all. It seems to

me that they belong to the domain of logic; or, if to grammar, then to the grammar of style, or what is commonly called rhetoric. It seems to me that these writers, despondent at their having, seemingly, so little to teach in grammar, are in the habit of making poaching-raids upon the demesnes of logic and metaphysics, bringing away with them any field-stuff or worthless rubbish they may find lying about. If these distinctions had any influence on the formation of words, or on the form of subordinate sentences, it would be well to give them. But all kinds of sentences may be made and may be parsed without their aid; and why the feet of boys and girls should be clogged with festoons of this logical tangle it is difficult to see, except on the supposition above mentioned, that Teachers have very little to do, and that a few turns on the logic crank will strengthen their intellectual muscle. It appears to me that to put all the distinctions in this short Grammar of 132 pages into the head of a boy, and to drill him in them until they became his organs and intellectual tools, would require, on a moderate calculation, some five or six years of steady, hard work, at the rate of two to three hours a day. And the result, when gained, would be of no great value. What possible claim have these men, or any man, to say: "You shall not learn anything about the make or growth of the English language unless you indoctrinate yourself in several hundred of my fiddle-faddle distinctions; the English language and my book are one- and on no other plan has it been growing up for the last fourteen centuries."

The fact is, writers of Grammars for the young have gone astray for want of a distinct goal in view - they have been drawn hither and thither by the demands of the subject on the one hand, and by the needs of the pupil on the other—by a desire to present a logically-consistent theory of universal Grammar at one time, and by the necessity for explaining the individual laws and peculiarities of the English language at another. Perhaps the most deranging influence has been the influence of Latin. Dominated by the presence of Latin, our English Grammar, like the needle on board an iron ship, has guided everybody's steps in a wrong direction. This unhappy influence prevailed in literature down to the end of the seventeenth century, and even longer; it has prevailed in schools down to the present time. We have, for example, Dryden saying;—"How barbarously we yet write and speak, I am sufficiently sensible in my own English. For I am often put to a stand in considering whether what I write be the idiom of the tongue, or false Grammar and nonsense, couched beneath that specious name of Anglicism; and have no other way to clear my doubts but by translating my English into Latin." And in like manner, in schools we have all kinds of nonsense about adjectives *agreeing* with nouns—and, in general, every possible attempt made to compel the Grammar of English to conform to that of the Latin.

II. And what are we to say of the teaching of composition as evidenced by the books that are most generally used for teaching it?

It is difficult to conceive what purpose the writers of these books can have set before themselves in compiling them. Judging from the series of exercises they give, their purpose seems to have been to create penny-a-liners—to teach a style that no living breathing mortal ever used in speech or on paper, unless it were some fourth-rate Grub-street hack of the last century--to train their pupils to substitute long-winded phrases for knowledge and for ideas, and to write an English in which *Bottom* is translated beyond all possibility of recognition. I shall bring my proofs of these statements from three or four of the most widely-used and most modern books on the subject. All of them have been published within the last year or two. Here is one that calls itself a "*Practical* Text-book of English Composition," and which tells me that, if I value what it calls *purity of style*, I am not to use the phrases "*by dint* of argument," "not *a whit* better," or ever say that "the tables were turned."

Another, which has gone through eight editions, in a chapter on what it calls "Propriety of Style," tells me that, instead of saying *heap up*, I must use the "elegant" term, *accumulate*; instead of *shut out, exclude*; instead of *broke his word*, the highly "elegant" phrase, *violated his promise*. The author of this book goes further, and says, "'I *will have mercy* and not sacrifice,' should be, 'I *prefer* mercy to sacrifice'"! [The italics are his own.] This gentleman, in his preface, says:—"Nor would it be difficult to point out numerous violations of grammar in the pages of Addison and Swift..... Yet these men had, in addition to their classical attainments, frequented the best company, and had attained, as far as the low state of grammatical knowledge would then allow, to correctness of expression." Shade of Scriblerus! where will this gentleman stop! What a pity it is that Addison, Swift, Locke, Barrow, and Tillotson, besides attending to correctness of expression, did not *attend* the "Collegiate and Commercial Academy," presided over with so much taste and elegance by the author of this remarkable work. Another "practical" manual for English Prose Composition gives, as a model for imitation, the following elegant English. "The polar bear is a tremendous and formidable beast. Its average length, when full grown, appears to vary from six feet to seven. There are instances on record of its attaining a much greater magnitude," and so on.

If, again, we consult these books to find out what kind of subjects they wish their readers to practise their powers of writing on, we do not discover any great change on the stupid moralties of the last generation. The first of the books I have mentioned above calmly meets the young writer—who is supposed to be between twelve and fourteen—with the questions, "Which do you prefer—a classical or commercial education? State your reasons." "What inferences are you entitled to draw from the extension of railways to all parts of the country?" "*Prove* a future state of rewards and punishments." The first request is an impossible one, the second is absurd and senseless; and the third is surely beyond the powers of most grown-up people. Our puristic friend offers for consideration and discussion such subjects as—"On the Importance of a Good Character;" "On Novels;" "On sympathy and Benevolence;" and "On Solitude." Or he puts such mildly broad, questions as—"Is Law or Physic more advantageous?" "Is Agriculture or Commerce preferable?" Now who among well-read and grown-up people have more than two or three notions to rub against each other on such subjects as *Sympathy, Solitude, Benevolence?* And, if we had, and cared to commit them to paper, who among us would think of wasting his time in reading them?

But there are three prime errors that haunt the teaching of composition. It is perhaps unfortunate that this word *composition* was ever applied to the writing of English. This term strikes the wrong key note for the pupil at first; it makes him imagine that he is to string stilted and imposing phrases together; that he is to make something "out of his own head," which, in general, contains nothing; and that he is to say that nothing in the most roundabout style he can possibly attain to. It is a pity that composition is not simply called *writing*—and that the term *handwriting* is not restricted to what sometimes figures under the queer term *caligraphy*. But this by the way. The three errors I mean, are:—

(1) The use of the Analytic Method;
(2) The practice of Amplification;
(3) The custom of "Paraphrasing."

I. There is no doubt but that the practice of what is called *Analysis* is of immense benefit to those who are thoroughly drilled in it. The application of the categories of *noun, adjective*, and *adverb* to phrases and to subordinate sentences—for Analysis is this and nothing more—makes a boy quickly seize and understand the build of a sentence, however long, and enables him at once to detect any error, either in the grammar or in the construction of it. But the application of the Analytic method to the creation of sentences—to the writing of a story or of an English paper on some subject that the pupil can comprehend—is entirely reversing the order of nature. There is a rather clever book on

"Composition" by a rather clever man, in which this method is pursued throughout. We have consequently exercises like this:—

Make twelve sentences on the formula

$$A^2 + B^2 - C^4.$$

Now it is as natural to make a sentence as it is to walk or to dance; but nature will not allow her operations to be interfered with by a semi-algebraic consciousness like this. In teaching a child to march, you don't tell it to move the gastrocnemius and the soleus muscles; although these *are* the muscles which it does move when it attempts to walk. To introduce consciousness into either operation is to introduce disease—it is to introduce failure. The longer such a course of training is pursued, the more disastrous must be the result; the more must the mind of the pupil be enfeebled, and any healthy natural power of style that lay in him will probably be killed off. Let us fancy what kind of writings we should have had from Defoe from Swift, or from Sir Walter Scott, if they had trained themselves on this wretchedest of all actual and possible methods. There can be no other goal to a road of this kind than poverty of thought, pedantic stiffness of expression, and unnatural affectation.

It requires no great profoundness to see this. It is plain that analysis is the opposite of synthesis; that the mind in creation does not and cannot analyse; that, when it begins to analyse, creation must stop; and that, in one word, the two—*ex vi termini*—exclude each other. Set a boy to produce sentences, and he can afterwards employ analysis as a test of their correctness and self-consistency—but it is impossible for him to make and to analyse at the same time. No man saw this more clearly than Göthe; and he put into the mouth of Mephistopheles an excellent exposure of this capital blunder. I can imagine a teacher falling into this blunder once, or, perhaps, twice; but what is to be said of a person who writes a whole book on this plan? The better and more complete the book, the worse and more deleterious are its effects. The fact is, it is in composition as in reading. In reading, as Archbishop Whately shows, the farther the reader can withdraw his attention from his own voice and confine it to the matter—to the feeling and to the logic of the matter—the better. In the same way, the farther the young writer can withdraw his attention from the form of the clauses he is writing—*at the time* he is writing—the more chance there is for him to express himself with all his natural vigour and clearness. Consciousness destroys grace; and yet here we have a book for the elaborate production of consciousness in the most natural movements of the mind. Who ever yet learned noble and graceful manners by studying eighteenpenny books on etiquette? The fact is, this gentleman has made the elaborate blunder of mistaking the helm for the motive power of a ship—the governing balls for motive power of the steam-engine.

II. The practice of Amplification, which is a very important part of composition as commonly taught, is quite as reprehensible. It is often combined with a process called *Variation*, which is not so bad as its twin-brother, but which has, nevertheless, a tendency to destroy the natural good taste of a pupil. There is high authority for the practice of this verbosity and phrase-spinning. Lord Jeffrey tells us, in one of his letters, that, when he was a briefless barrister, he was in the habit of spending five or six hours a day in amplifying and "translating" passages from great English writers, and that this practice gave him immense facility in writing for the *Edinburgh Review*. I have no doubt it did. I have no doubt that it enabled him to make double as much *copy* as he could otherwise have done. But what is the result? No one now reads Lord Jeffrey's criticisms; there is hardly an idea in the whole of his three volumes; or, if there is, it is but as a grain of wheat in a bushel of chaff. If we want to train penny-a-liners, if the maximum of *copy* be the aim of our endeavours, then by all means let us teach boys to call *fire the devouring element*, to use such phrases as *signify assent* for *say Yes, to give utterance to a sentiment* for *to remark;* and to say, instead of "The sun shines," "The source of light disperses its rays." (1)

The central falsity in this process is the same as in the last. The attention of the pupil is forcibly and artificially concentrated on words and phrases, when he ought to have his mind full to the brim of the facts, the feeling, or the logical connection of what he is writing.

III. The third fault—that of *Paraphrasing*—occupies perhaps a still larger place in all systems of teaching Composition. It also goes by the name of "Turning poetry into prose." Special books have been written for the teaching of this vile art alone. I have one before me now; and this is what it makes of Shakespeare's Song of Ariel, the music and the style of which are of the most exquisite subtlety;—

> "'Full fathom five thy father lies;
> Of his bones are coral made;
> Those are pearls that were his eyes;
> Nothing of him that doth fade,
> But doth suffer a sea change
> Into something rich and strange.'

"The general import of this passage may be readily apprehended; it is simply this:—A person, supposed to have been drowned, is described as undergoing various transmutations of his corporal nature, through some mysterious agency by which the sea assimilates to its own native products whatever is deposited in its depths.

"The meaning in detail, however, is not easily developed, on account of the indefinite allusiveness of the poet's fancy.

"PARAPHRASE.—Thy father lies under the waves, fully five fathoms down. His bones are converted into coral; what were his eyes are pearls. His frame suffers no decay; but every part of him is changed by its new situation into some rare sea-treasure."

Such pitiable stuff condemns itself.

The following is the model given by another book of a paraphrased form from one of Gay's Fables:" Two young bears setting out on one occasion from the covert of a forest, chanced, in what seemed to them a lucky moment, to light upon a beehive laden with the rich and inviting store of the laborious race of honey-makers. With joyful but inconsiderate eagerness," &c. &c. This is quite enough. This is the language spoken in "No Man's Land"; and it is not the natural language of any speaker or writer in this half of the nineteenth century. I am not here raising the old controversy under a new form between what is called Saxon English and Latin English; the question here and now is between English and no English at all—between the English of life and thought, and the so-called English of a cranky and effete pedantry.

Now, it may be at once granted that, by setting a pupil to write a paraphrase, the teacher may most easily find out whether the pupil understands the language of the poet. But at what a cost is this done? At the cost of destroying all natural taste and appreciation, of training him to despise all poetry whatsoever, of teaching him an abominable slang that he must unlearn as quickly as he can when he leaves school and begins to write with his eyes open. The very models of such paraphrasing ought of themselves to warn every teacher of sense and knowledge from a practice so demoralizing. And yet this practice is pursued in some schools with a fell perseverance that must destroy every germ of natural good taste. The habitual reading of good poetry ought to have preserved everybody against so glaring a blunder. For few critical dogmas are more firmly established than this: that the best poetry cannot be turned into prose; that it cannot properly be translated at all; and that the highest poetry exists only when the thought and the expression form one indissoluble whole. In what other words could we convey the ideas, and the force of the ideas, presented in Shakespear's phrases—"Life's

(1) Parker.

fitful fever," "To lie in *cold obstruction* and to rot," "*Flatter* the mountain tops with sovran eye;" or in Romeo's words to Juliet's corpse,—

> "Thou art not conquered; beauty's ensign yet
> Is crimson in thy lips and in thy cheeks,
> And Death's pale flag is not advanced there."

A *perfect* style can be altered only for the worse; and no one can have reached a right appreciation of the best in style until he has become fully convinced of this its quality of essential untranslatableness. Chemists tell us that the diamond and charcoal are composed of precisely the same chemical elements; but the unknown nexus is different. We can turn diamonds into charcoal, but the process is not a profitable one; it would be if we could turn charcoal into diamonds. You have, In Paraphrasing, the words; but the words are but a *caput mortuum*, the soul is gone.

> "Dann hat er die Theile in seiner Hand,
> Fehlt, leider! nur das geistige Band.
> *Encheiresin Naturæ* nennt's die Chemie,
> Spottet ihrer selbst und weiss nicht wie."

A house is built of bricks; but the house is not the bricks. There is the design, the construction, and fifty other things. When the living bond is broken, the parts only corrupt; and these paraphrastic compositions are as offensive to the mind as a decaying body is to the senses.

But, after all, it is easy to criticise. True and honest criticism, however, always presupposes the existence in the mind of the critic of a better plan or system than the one criticised; just as it is the new leaf on the tree that pushes off the old and dead one. Allow me, then, very shortly to indicate what kind of studies in English may well take the place of those which I have been trying to show the faults of.

I do not think the following programme would be unreasonable or burdensome. I propose, then, that all pupils should, before leaving school, learn:—

I. The History of the Language. And in this would be included—
   (*a*) Grammar, and
   (*b*) Etymology.

II. To write English (Composition).

III. Certain parts of English Literature. And this would include
   (*a*) The History of the Literature.
   (*b*) Examination of passages.
   (*c*) Learning by heart.

And I beg to be allowed to make a few remarks upon each of these heads.—*Educational Times.*

(*To be concluded in our next.*)

Information for the People on Education.

Perhaps there is no fact in the course of a teacher's career that is borne in upon him by more irresistible evidence than the amazing ignorance of the vast mass of the public in regard to the nature, method, and objects, of education; and this ignorance is characteristic, not merely of the lower classes, but of the higher classes as well. It is plain that only a very few have deliberately thought on the nature of education. The rest content with floating notions on the subject, are carried away by the most absurd opinions, and often sacrifice the best interests of their children to a whim or fancy of the moment. And the worst of all this ignorance, and the surest sign of its deep rootedness is, the circumstance that all the time people imagine they know very well about education; that, in fact, they are not only able to judge of its nature, but to reform existing methods. Several public men, who know nothing about methods of education, are liberal in giving their opinions on them, and, indeed, some of them have expressed their decided opinion that, if they were just to turn teachers for a year or two, they could perform such wonders in the teaching way as the world has never seen yet.

What is the cure for all this? This is a question which ought to engage the attention of all those who have the interests of true education really at heart. There is no use in this country of agitating for a thorough system of education, if the public cannot be carried along with us. Nay, there is comparatively little use in establishing the best methods of education in schools, for the public will not care for a sound education. They will rather, in their present state, trust to show and gentle delusions. Before education can be effectively given, we must have the sympathy of the parents. And it is worth while to consider for a moment what can be done in this direction.

Now, first, every teacher can be a missionary in this cause. Let him carefully study the subject of education in all its aspects, and let him, whenever opportunity occurs, speak out his mind boldly notwithstanding the prejudices which he may have to encounter.

In the second place, the establishment of special faculties of education in our universities would tend to spread just views of education, not only among teachers, but among all educated men. The existence amongst us of men specially devoted to investigations into the nature, methods, and aims of education, would be of itself calculated to attract attention to the subject, and these men might powerfully influence the whole current of British thought on the subject. And those who attend universities might find it of advantage to listen to a course of lectures on education, even though they had no intentions of being teachers.

And, lastly, we must work with might and main for the better education of women. Mothers exercise a very powerful influence on the destiny of schools. This influence is not always for the best. They have not been trained to appreciate a sound education. They scarcely know what it is. They merely wish their sons to be dealt with gently; and he who flatters their tender feelings, though it be at the expense of the best interests of their children, will in all likelihood have their sympathy and support. The higher education of women is closely connected with the higher education of men; and if better means were provided for the thorough intellectual discipline of women's minds, we should find a very great change for the better in the training of the other sex.—*Museum.*

SCIENCE.

BIOLOGY.

DISINFECTANTS. (1)

Dr. Letheby, Health Officer of the city of London, has recently made the following report

The several disinfectants which I have largely tested are the following:—

1. Chlorine gas.
2. Chloride of lime.
3. Carbolate of lime.
4. Carbolic acid.
5. Chloride of zinc (Sir William Burnett's fluid).
6. Chloride of iron.
7. Permanganate of potash (Condy's liquid).
8. Animal charcoal.

Each of these disinfectants has its own particular value, and may be used on certain occasions in preference to any of the others. Thus:—

1. *Chlorine Gas*, being a very diffusive body, is best suited for the disinfection of places which cannot easily be reached by

(1) This is a most important article but more particularly at *this* season.

other disinfectants. I have used it largely for the disinfection of the vaults of churches, where the atmosphere has been so charged with offensive and dangerous organic vapors, let loose from the contents of the decaying coffins, that the workmen could not enter the vaults with safety. In this manner all the vaults of the city churches have been disinfected, and the contents of them put in order and covered with fresh mould. I have found also that chlorine is best suited for the disinfection of rooms where, as is the case with the poor generally, the occupant cannot be removed for a thorough cleansing; and I have employed it with great advantage in places where persons have been sick with fever, scarlet fever, small-pox, and cholera. The process which I adopt is the following: About a teaspoonful of the black oxide of manganese is put into a teacup, and there is poured over it, little by little, as occasion requires, about half a teacupful of strong muriatic acid (spirit of salt). In this manner the chlorine is gradually evolved, and the action is increased, when necessary, by stirring the mixture, or by putting the teacup upon a hot brick. As chlorine is heavier than atmospheric air, it is best diffused through the room by putting the mixture upon a high shelf. The quantity of chlorine thus diffused should never be sufficient to cause irritation to the lungs of those who occupy the room, and yet it should be sufficient to be distinctly recognisable by its odor. If it be properly managed, the chlorine may be thus diffused through the atmosphere of the room, even during its occupation by the sick.

2. *Chloride of Lime* has been very largely used in the city during the recent epidemic of cholera. The inspectors have sprinkled it upon the floors of the houses occupied by the poor, and have scattered it about the cellars and yards. In some cases, it has been used with water for washing the paint-work and the floors of rooms. Altogether, indeed, with an average staff of 45 men, we have used rather more than 7 tons of chloride of lime in this manner in disinfecting every week about 2,000 of the worst class of houses in the city, and the results have been most satisfactory.

3. *Carbolate of Lime*, which is a mixture or rather a chemical compound of carbolic acid and lime, has been used in many cases where the smell of chloride of lime or its bleaching action has been objected to. It has been used by dusting it by means of a dredger over the floors of rooms and cellars: but as the disinfecting power of this substance is destroyed by chloride of lime, it is of great importance that they should not be used together. The carbolate of lime which we have employed contains 20 per cent. of carbolic acid. It is essential that this should be its minimum strength, or its power is not sufficiently efficacious. The strength of it may be ascertained by treating 100 grains of it with sufficient muriatic acid, diluted with its own bulk of water, to dissolve the lime, when the carbolic acid is set free, and floats upon the liquid; this, when collected, should weigh 20 grains at least. The advantage of carbolate of lime is its continuous action; for the carbonic acid of the air slowly lets loose the carbolic acid, which diffuses itself through the atmosphere in sufficient quantity to act as a disinfectant, and it does not destroy the color of clothing.

4. *Carbolic Acid* has been used as the sole agent of disinfection for privies, drains, and sinks, and for the sewers and the public roads. In the former case it has been used in its concentrated state by pouring it at once into the privy or drain, but in the latter case it has been diluted with about 2,000 times its bulk of water and sprinkled by means of the water-carts upon the public way. In this manner about 1,000 gallons of carbolic acid have been used in the city thoroughfares; and the acid getting into sewers, we have observed that the usual decomposition of sewage has been arrested, and instead of a putrefactive change with the evolution of very offensive gases, the sewers have been charged to a slight extent with carbonic acid and marsh gas. As there are many coal-tar acids now sold for carbolic acid, it is of importance that the adulteration should be recognized. This may be done by observing the strength of the soda solution which will dissolve the tar acid. All the inferior acids are insoluble in a weak solution of caustic soda.

5. *Chloride of Zinc* (Sir William Burnett's fluid, or, as it is sometimes called, Drew's disinfectant) is well suited for the disinfection of the discharges from sick persons, but it is hardly applicable to any other purpose. The liquid should be of a proper strength, as having a specific gravity of 1,594, water being 1,000, and it should contain about from 50 to 54 per cent. of solid chloride of zinc. A tablespoonful of this liquid is sufficient to disinfect each discharge from the body.

6. *Chloride of Iron* is applicable in exactly the same manner as chloride of zinc, and is only suited for the disinfection of the discharges from the body. It should have a specific gravity of 1,470, and should contain about 40 per cent. of metallic chloride.

7. *Permanganate of Potash* is only suited for the disinfection of drinking-water; for not being a volatile disinfectant, and being very slow in its action and requiring much of it for any practical purpose, it is not available as a common disinfectant: besides which it attacks all kinds of organic matter, and will therefore destroy clothing and be neutralized by every species of organic substance. As a disinfectant of water, however, in localities where good filters of animal charcoal cannot be obtained, it may be usefully employed to disinfect water by adding it thereto until the water retains a very pale but decidedly pink tint. The permanganate which is sold generally has a specific gravity of 1,055, and contains about 6 per cent. of permanganate of potash. It will take more than a pint of this liquid to disinfect a pint of the rice-water discharge from a cholera patient, and even then the disinfection is very uncertain.

8. *Animal Charcoal.*—I may state that, for the disinfection of water and the removal of dangerous organic impurity. I have ascertained by experiment that the best treatment is first to filter the water through animal charcoal, and then to boil it for a few minutes. It may then be safely drunk.

The disinfection of bedding and all articles of clothing is best effected by exposing them in an oven to a heat of from 260° to 300° Fahrenheit. The exposure should be sufficiently long to insure the thorough heating of every part of the material to that temperature. When such a process cannot be used, the clothing should be put into boiling water, and kept there until the water cools to the common temperature.

I refrain from entering into any explanation of the mode of action of these several disinfectants; for, whether the agent of disease is a living germ, capable of reproducing itself in the human body under certain conditions,—as most likely it is,—or whether it is an unorganized, or, even as Dr. Richardson supposes, a crystalline compound, the practical results are the same, and are unquestionable; and, in conclusion, I would say, by way of summary, that for the disinfection of sick-rooms, chlorine and chloride of lime are the best agents; for the disinfection of drains, middens, and sewers, carbolate of lime and carbolic acid are the best; for the discharges from the body, carbolic acid, chloride of zinc, or chloride of iron are the best; for clothing, the best disinfectant is heat, above 260°, if a dry heat, and 212°, if a wet heat; and for drinking-water, filtration through animal charcoal and a boiling temperature.

I may mention that the best disinfectant for stables and slaughter-houses is a mixed chloride and hypochlorite of zinc, and it has the advantage of mixing freely with the liquid matters of the slaughter-house, and not tainting the meat with any unpleasant odors. We have used it very largely for this purpose, and it is also applicable to the disinfection of houses in place of chloride of lime, which it much resembles in its chemical nature and mode of action.

Dr. Harris, registrar of the New York Board of Health, has written a circular on the subject of disinfectants, and the manner in which they should be used, from which the following are extracts:—

"In this memorandum the words infection and disinfection are employed just as they are commonly understood, as referring

to the preventible causes that are concerned in repropagating specific kinds of disease. These causes are:—

" 1. The specific infectious property or substance of any one of the pestilential disorders.

" 2. The local impurities and moisture of the house and grounds where the outbreaks of disease have occurred, or are liable to occur.

" 3. The foul exhalations and atmospheric impurities which injure health or help to propagate pestilential epidemics.

" Experience has proved that it is possible by certain chemical agencies wholly to destroy or prevent the operation of the specific infection or contagion of any disease; but, to do this, it is necessary that precise rules should be observed in applying the disinfectants, and, as regards cholera and typhoid fever, it is especially important that the infective discharges from the sick should be desinfected as soon as voided from the body, and that whatever clothing or surfaces may have been soiled by such discharges should be disinfected as soon as practicable. The fact should also be borne in mind, by all persons who have charge of infected things, that the infective property or virus of some diseases, and of cholera especially, is capable of rapid increase in filthy places, and in a foul, damp atmosphere. Therefore, the cleansing and disinfection of such places should, if possible, precede the arrival or outbreak of any such pestilential infection. Every unclean and damp place about dwelling-houses, warehouses, factories, places of assemblage, passenger vessels, railway dépôts, and hotels, should be made and kept perfectly clean and dry. All drains, privies, and water-closets should be kept as clean as possible, and should be thoroughly purified before cholera comes into the neighborhood. Such cleansing and disinfection give the surest protection against all epidemics.

" *Quicklime*—to absorb moisture and putrid fluids.— Use fresh stone lime, finely powdered; sprinkle it on the place to be dried, and in damp rooms place a number of plates or pans filled with the lime powder. Whitewash with pure lime.

" *Charcoal Powder*—to absorb putrid gases.—The coal must be dry and fresh, and should be combined with lime; this compound is the ' calx powder,' as sold in the shops.

" *Chloride of Lime*—to give off chlorine, to absorb putrid effluvia, and to stop putrefaction.—Use it as lime is used, and, if in cellars or close rooms the chlorine gas is wanted, pour strong vinegar or diluted sulphuric acid upon your plates of chloride of lime occasionally, and add more of the chloride.

" *Sulphate of Iron (Copperas) and Carbolic Acid*—to disinfect the discharges from cholera patients, and to purify privies and drains.—Dissolve 8 or 10 pounds of the copperas in a common pailful of water, and pour this strong solution into the privy, water-closet, or drain, every hour, if cholera discharges have been thrown in those places; but for ordinary use, to keep privies or water-closets from becoming offensive, pour a pint of this solution into every water-closet pan or privy seat every night and morning. If there is cholera in the house or in the district, let carbolic acid be added to this iron solution: one-half pint of the fluid acid to 5 gallons of the solution. Bed-pans and chamber-vessels are best disinfected with this mixed solution, using a gill at a time.

" *Permanganate of Potassa*—to be used in disinfecting clothing and towels from cholera and fever patients, during the night, or when such articles cannot be instantly boiled.—Throw the soiled articles immediately into a tub of water in which there has been dissolved an ounce of the permanganate salt to every 3 gallons of water. Boil the clothing as soon as it is removed from this colored solution.

" *Carbolic Acid (fluid)*—may be diluted at the rate of from 40 to 100 parts of water to 1 of the fluid acid. Use this solution for the same purposes as copperas is used; also to sprinkle upon any kind of garbage or decaying matter, and on foul surfaces, or in drains.

" When used to disinfect clothing, carbolic acid of good quality should be thoroughly mixed with its own quantity of strong vinegar, and next be dissolved in 200 times its own quantity of water, before the clothing is immersed in it. This mixture with vinegar insures such complete solution of the carbolic acid that the clothing will not be ' burned ' by undissolved drops of acid when disinfected in the carbolic water. This weak solution (1 part to 200) will not injure common clothing. But to destroy clothing, as well as infection, instantly, use the acid diluted only 10 to 30 times its own quantity of water.

" The disinfecting and antiseptic power of good carbolic acid is so great that 1 part of it to 50 or 100 parts of water is sufficient for ordinary purposes.

" For drains, sewers, foul-heaps, stables, and privies, the cheap ' dead oil ' of coal tar, or the crude carbolic acid, answers every purpose when freely applied. Coal tar itself is available as a disinfectant to paint upon the walls of stables, privy vaults, and drains. By mixing with sawdust or dry lime, coal tar or crude acid may be used on foul grounds or heaps of refuse.

" *Boiling or high-steam Heat.*—Whenever foul clothing and infected things can be boiled, or have a boiling heat steadily applied and kept up for an hour, this is one of the simplest and best modes of disinfection. But until such high heat is actually applied to the infected things, some one of the disinfecting solutions must be used. A common steam tub (in a laundry or elsewhere) with a tight cover is a good disinfecting vat."

Annual of Scientific Discovery.

Another Observatory at Quebec.

The authorities of the Laval University are having an observatory erected upon the flat roof of the large building, for astronomical purposes. The construction of this observatory will be such, that, with the assistance of rails, it will be moveable and offer many additional advantages to the explorers of the heavens. The fine telescope imported last year from Europe, by the Rev. Mr. Bolduc, will be mounted in this observatory in a few weeks hence; and with its aid we may hope that to Quebec shall yet belong the honor of adding something new to the discoveries in astronomy. This splendid instrument has a magnifying power of 840 times. The reflector is of silvered glass, of the highest degree of polish attainable, and its curve, which is parabolic, was traced on the principles indicated by the Foucault system. Its diameter is sixteen and a quarter inches; the focal length of the tube is about two feet; and it is supplemented by a smaller telescope, technically called a " Finder," being used to search out heavenly bodies before the minuter examination is entered upon. The University telescope is of the equatorial kind, having two axis of motion at right angles to each other, one of which is parallel to the axis of the earth, both axis being illustrated by graduated circles in metal. The mechanism of this telescope is of the most solid kind, though as intricate as clockwork; and by its aid, when fixed upon a star, it can be set in motion and made to move so steadily and uniformly round its terrestial axis as to keep constantly in view the heavenly body under examination. The site of the University is said to be well adapted for observation, affording a clear view from the north-western promontory of Quebec across the valley of the St. Charles and the harbor, for at least five-eights of the horizon, and by its great elevation dominating that portion of the view covered by the city and suburbs. The Laval University merits the gratitude of every citizen, for this latest of a series of acts beneficial to science and lending lustre to our ancient city.—*Mercury.*

OFFICIAL NOTICES.

Ministry of Public Instruction.

BOOKS SANCTIONED BY THE COUNCIL OF PUBLIC INSTRUCTION.

The Council of Public Instruction at its meeting of the 10th ult., sanctioned the use of the following books in the Schools of the Province of Quebec. This sanction was confirmed by His Excellency, the Lieutenant Governor of the Province, by a minute in Council on the 16th ult.

1o. Syllabaire, for Elementary Schools only, by Messrs. Juneau and Lacasse, Quebec, 1868.

2o. Traité de chimie agricole, by Dr. Larue, Quebec, 1868.

3o. Traité d'analyse grammaticale, by Mr. Napoléon Lacasse, Quebec, 1867.

4o. Grammaire de Bonneau et Lucat, revised by M. Michaud.

5o. Traité de l'art épistolaire, Sorel.

These last four may be used in Model and Elementary Schools.

6o. Nouveaux éléments de la civilité chrétienne, for Elementary Schools only, C. Delagrave & Co., Paris.

H. H. MILES,
Secretary to the Council.

NOTICE.

In view of the new postal law making *unprepaid* letters liable to *nearly double* postage on delivery, all letters or documents, addressed to the Hon. the Minister of Public Instruction, *must be prepaid.*

JOURNAL OF EDUCATION.

QUEBEC, PROVINCE OF QUEBEC, JULY, 1868.

Mr. Whitworth's Scholarships.

We would beg to direct the attention of our readers and all friends of education, especially technical education, to the official circular, reproduced in our pages from the columns of the *Canada Gazette* of 11th inst., on Mr. Whitworth's Scholarships.

Technical education has been a prominent topic with the British Public for some time, but more particularly since the Paris Exhibition, where the stern logic of facts gradually dispelled the illusion that the British workman was in his own line unrivalled. There he discovered that the superiority lay on the side of the continental workman.

Very soon those interested in the disclosure began to cast about for a remedy.

At length there has come a definite practical recognition of the importance of improving the education of British workmen. It ought to be, beyond doubt, a national burden since it is the national welfare that is ultimately at stake.

No doubt it will devolve on the masters to take the initiative of which Mr. Whitworth has the credit of having set the first example of bold munificence. The sum represented by a yearly interest of £3,000 stg., is a princely donation to any cause, and deserves a civic crown.

Not less praise worthy is the care with which Mr. Whitworth has considered the problem how to expend this money to the best advantage, or the judgment he has shown in his decision.

His breadth of view equals his munificence, for he includes India and all the British Colonies, advantage of which we earnestly hope our Canadian youth will avail themselves.

CIRCULAR.

MR. WHITWORTH'S SCHOLARSHIPS.

Copy. Downing Street.

30*th May*, 1868.

SIR,—At the request of the Lords of the Committee of Council on Education, I have the honor to inform you of the endowment by Mr. Whitworth of certain Scholarships for Mechanical Science. As will be seen from Mr. Whitworth's Memorandum,

Science Form, No. 293. South Kensington, May, 1868.

he proposes that "Thirty Scholarships of "£100 each should be open to all of Her "Majesty's Subjects, whether of the Uni- "ted Kingdom, India, or the Colonies, who do not exceed the "age of Twenty-six years, and be held either for two or three "years, as experience may prove to be desirable."

I have the honor to be,
Sir,
Your most obedient humble Servant,
BUCKINGHAM & CHANDOS.

The Viscount Monck,
&c., &c., &c.

SCIENCE AND ART DEPARTMENT OF THE COMMITTEE OF COUNCIL ON EDUCATION, SOUTH KENSINGTON.

Mr. Whitworth's Scholarships for Mechanical Science.

At Whitehall, the 5th day of May, 1868.

By the Right Honourable the Lords of the Committee of Her Majesty's Most Honourable Privy Council on Education.

My Lords read Mr. Whitworth's letter of 4th May, 1868, transmitting a memorandum on his Scholarships and on the establishment of sixty Exhibitions of £25 each for the present year, preparatory to the competition for his Scholarships, and requesting that the Science and Art Department may conduct the necessary examinations and correspondence.

Their Lordships have great pleasure in acceding to Mr. Whitworth's request, and giving every assistance in their power in carrying out his patriotic munificence.

Manchester, 4th May, 1868.

SIR,—Referring to your letter of March 28th, by which you transmit me a copy of the Minute which the Lords of the Committee of Council on Education had passed in acknowledgment of my endowment of Scholarships for promoting Mechanical Science, and to the concluding sentence of the Minute, which invites further suggestions and offers to render assistance in carrying out the intentions of the endowment:

1. I beg leave to enclose for the information of the Lords of the Committee of Council on Education a memorandum on the subject of the endowment which I trust will meet with the approval of their Lordships, and that they will cause it to be circulated, and the necessary correspondence arising out of it to be conducted by the Science and Art Department.

2. I would beg leave to ask the Lords of the Committee of Council on Education to undertake the examinations for these Scholarships.

3. As respects the preparation of the necessary details for the examinations in the use of tools, I am willing to be responsible myself with the aid of friends, and I propose to obtain the consent of a few gentlemen to advise with me from time to time in whatever may arise in the future for my consideration.

4. In reply to the invitation of their Lordships to submit any suggestions, I venture to submit for consideration whether honours in the nature of Degrees might not be conferred by some competent authority on successful students each year, thus creating a faculty of Industry analogous to the existing faculties of Divinity, Law, and Medecine. I am of opinion that such honours would be a great incentive to exertion, and would tend greatly to promote the object in view.

5. I venture to express a hope that the Government will provide the necessary funds for endowing a sufficient number of Professors of Mechanics throughout the United Kingdom.

3. In conclusion, I inform you that the necessary arrangements for securing the endowment have been made, and I have given instructions for the preparation of the Draft of a Deed of Trust, which will be sent for the approval of the Lord President.

I am, Sir, your obedient Servant,

To Henry Cole, Esq, JOSEPH WHITWORTH.

Secretary of the Science and Art Department.

Memorandum on Scholarships for Mechanical Science.

To be competed for in May, 1869.

1. Having offered to the Lords of the Committee of Council on Education to "found thirty scholarships of the annual value of one hundred pounds each, to be applied for the further instruction of young men natives of the United Kingdom, selected by open competition for their intelligence and proficiency in the theory and practice of Mechanics and its cognate sciences, with a view to the promotion of Engineering and Mechanical Industry in this country," I propose that the following should be the general arrangements in the first instance, which may be modified after the first competition has taken place in May, 1869.

II. That the thirty Scholarships of £100 each should be open to all of Her Majesty's subjects, whether of the United Kingdom, India, or the Colonies, who do not exceed the age of twenty-six years, and be held either for two or three years, as experience may prove to be desirable; that ten Scholarships should be competed for and awarded in May, 1869, at the annual National examinations in Science, provided that a sufficient number of candidates prove themselves to be competent: that the successful candidates should be required to spend the period of holding the Scholarships in the further satisfactory prosecution of the studies and practice of Mechanical Engineering, and pursue their studies according to the spirit of the endowment, making periodical reports of them: that the Student should state where he proposes to pursue his studies, the Lord President of the Council deciding if the proposal can be allowed, also if the Student's progress be satisfactory, and the manner in which it shall be tested from year to year. In deciding if the plan of study proposed by the Student be satisfactory, as much latitude as possible may be allowed. If the Student wish to complete his general education, instead of continuing his special scientific study, he may be permitted to do so. He may go to the Universities or Colleges affording scientific or technical instruction, or he may travel abroad. The successful artisan should be encouraged to study Theory, and the successful competitor in Theory aided in getting admission to machine shops and other practical establishments. All further details would be hereafter prepared and issued by the Science and Art Department.

III. The Candidates must be of sound bodily constitution.

IV. The first competition should be in the following theoretical subjects:—

1. Mathematics (elementary and higher)
2. Mechanics (theoretical & applied)
3. Pratical Plane and Descriptive Geometry, and Mechanical and Freehand Drawing.
4. Physics.
5. Chemistry, including Metallurgy

And in the following handicrafts:—

1. Smiths'-Work.
2. Turning.
3. Filing and Fitting.
4. Pattern Making and Moulding.

V. No Candidate should obtain a Scholarship who has not shown satisfactory knowledge of all the following theoretical subjects:—

1. Elementary Mathematics,
2. Elementary Mechanics,
3. Practical Plane and Descriptive Geometry and Freehand Drawing.

with the power to use more of the following classes of tools:—

a. The Axe.
b. The Saw and Plane.
c. The Hammer and Chisel.
d. The File.
e. The Forge.

I propose that the maximum number of marks obtainable in the theoretical subjects and those obtainable by the most skilled workmen should be about equal.

VI. My object in devising the foregoing scheme has been, while requiring a practical acquaintance with a few simple tools as a *sine qua non*, to render the competition accessible on fairly equal terms to the Student who combines some practice with his theory, and to the artisan who combines some theoretical knowledge with perfection of workmanship.

Preparatory Exhibitions of £25 for the year 1868.

VII. As the Scholarship Scheme can only come into full operation by degrees, I propose from the fund ultimately available for the scheme at once to create sixty Exhibitions or Premiums, of the value of £25 each tenable until April, 1869, and to place them at the absolute disposal of the governing bodies of the following Educational Institutions and Towns, in order that they may award them to youths under twenty-two years of age, who may thus be aided to qualify themselves, and must undertake to compete for the Scholarships of £100 in May, 1869.

VIII.

8. Exhibitions to Owens College, and 2 to the Grammar School, Manchester, the seat of my Workshops.
3 University of Oxford,
3 University of Cambridge,
3 University of London.

And one to each of the following Universities, Colleges, and Public Schools:—

University of Durham,
University of Dublin,
University of Edinburgh,
Watt Institution, Edinburgh,
University of Glasgow,
Andersonian University, Glasgow,
University of St. Andrews,
University of Aberdeen,
To each of the Queen's Colleges at Belfast, Cork, Galway, Ireland,
King's College, London,
University College, London,
Eton,
Harrow,
Rugby,
Charter House,
Westminster,
Winchester,
St. Paul's, London,
Merchant Tailors,
Christ's Hospital,
City of London,
Shrewsbury,
Marlborough,
Cheltenham,
Chester,
Clifton,
Brighton,
Liverpool,

2 to the College of Preceptors,
3 To the Science and art Department.

I propose that the following Exhibitions shall be given to Artisans only:—

3 to the Society of Arts,

Also one for Artisans to each of the following towns:—

Birmingham,
Bristol,
Swansea and Cardiff,
Huddersfield, or Halifax,
Leeds,
Northampton,
Sheffield,

And if there be any of the above unapplied, they may be given by the Science and Art Department to any other Scholastic institution which makes satisfactory arrangements for affording instruction in Mathematics and Mechanics, Freehand and Mechanical Drawing.

IX. I would point out that the Exhibitions to Artisans may perhaps be increased to £50 for the year, by connecting them with the Science and Art Department, under the Minute of the 21st December, 1867.

(Signed) JOSEPH WHITWORTH.

Manchester, 4th May, 1868.

MINUTE ON MR. WHITWORTH'S OFFER TO ENDOW SCHOLARSHIPS

At Whitehall, the 27th day of March, 1868.

By the Right Honourable the Lords of the Committee of Her Majesty's Most Honourable Privy Council on education.

My Lords consider Mr. Whitworth's letter to the First Lord of the Treasury, dated 18th March 1868. In this letter Mr. Whitworth offers to found thirty scholarships of the annual value of one hundred pounds each, to be applied for the further instruction of young men, natives of the United Kingdom, selected by open competition for their intelligence and proficiency in the theory and practice of Mechanics and its cognate sciences, with a view to the promotion of Engineering and Mechanical Industry in this country; and he expresses hopes that means may be found for bringing Science and Industry into closer relation with each other than at present obtains here.

It is unnecessary now to repeat the thanks which the First Lord of Her Majesty's Treasury and the Lord President of the Council have already conveyed to Mr. Whitworth for his generous offer which they are convinced the country will fully appreciate.

Mr. Whitworth proposes that these scholarships should be tenable on conditions to be defined by a deed of trust regulating the administration of the endowment fund during his life, and that thereafter the menagement of this fund, subject to the conditions specified therein, should rest in the Lord President of the Council or other Minister of Public Instruction for the time being.

It is the wish of My Lords to see provision made in several large centres of manufacturing industry in the United Kingdom for affording to all classes of Her Majesty's subjects ample opportunities for acquiring instruction in the Sciences which are applicable to productive industry. My Lords are of opinion that by the union of local and private efforts supplemented as far as is proper by State assistance this provision will be best made.

This will be rendered easy if the munificent example set by Mr. Withworth shall be extensively followed by others.

My Lords will be happy to receive any further suggestions from Mr. Whitworth should he desire to make them, and to be informed if the Department can render him any assistance in carrying out his liberal intentions.

McGill Normal School.

PRESENTATION OF DIPLOMAS.

The annual public meeting for the presentation of diplomas to teachers in training in the McGill Normal School was held in the hall of the school on the 30th ult There was a fair attendance of ladies and gentlemen, in addition to the students of the school. Hon. Mr. Chauveau, Principal Dawson, Hon. Mr Ferrier, Professors Hicks, Johnson, Robins, Fowler, P. J. Darey and DeSola, and Rev. Mr. Bonar, Rev. Mr. McVicar, Rev. Mr. Gibson, and others where present.

Hon. Mr. Chauveau, Minister of Public Instruction, presided and opened the meeting with an address to the students. He said this was the eleventh time he had been called upon to confer diplomas upon teachers in training in McGill Normal School. Disregarding other calls of duty he had come there to-day, because he claimed a kind of parental relationship towards the school, as he had been one of its founders. With one or two exceptions he had attended every one of the annual meetings, so that he came amongst them again to-day as much for "Auld-lang-syne" as for the fulfilment of a duty. With regard to the system of public instruction taught in this Normal School, so much has already been said upon it that he would only be repeating were he to enter upon the subject. He stood before them on this occasion in a different position from that which he held when he last addressed them. At that time he had just arrived from England and the continent, where he had been making a tour of enquiry into the systems of education there, with a view to the improvement of our own system. He little thought then that, when he should next address them, he should be in such a different position—that he should be a political man. His present position, and the near approach of Dominion Day, might lead him to speak of the change that had taken place with regard to our political relations, and of the part they, as teachers, were called upon to perform. Those who were trained in the Normal School, and who would go out into the country as teachers, would, under God, largely control the destinies of the Dominion, and particularly of the Province of Quebec. The Dominion of Canada, with the exception of two or three Provinces, which, he hoped, would soon be annexed to the Dominion, was the only representative of British institutions on this vast continent. We were placed in a very peculiar position; one that was fraught with considerable danger, and the success of which depended mainly on our own exertions. But if, on the one hand, we had reason for apprehension from this exceptional position of a country, which was rapidly growing from a mere colonial state into something which, under the ægis of the mother country approached towards independence, on the other hand we had a great deal to be hopeful for compared with the neighboring Republic. Our country was small in extent, but we could boast of longer annals of those things which create a State than any other portion of America. He wished those English speaking teachers of the Province of Quebec not to lose sight of the fact that that portion of this country which to a certain extent seemed to belong more especially to French origin was still an heirloom of theirs. The glorious annals of new France were as much theirs as they were those of French origin. And if that fact had more prominence in the teaching of our schools, he considered, it would go a great length towards creating a real national spirit, a real Canadian feeling, without which we could never hope to obtain any high degree of strength or of respectability among other nations. The fact that we, in the Province of Quebec, were a people speaking two languages, professing two different creeds, should give no cause for apprehension, and need not be regretted. He believed that we were the stronger, from the fact of our belonging to two different nationalities. We had at our hand all the treasures which had been accumulated by the great men who wrote in both languages. One point which they particularly insisted on in the two Normal Schools which were more especially set apart for those of French and Catholic origin, was that the students should become masters of the English language. Similarly he had constantly insisted in the English Normal School upon the necessity of the pupils mastering the French language. In fact, it was almost necessary now that every one should be competent to read and write in both languages. As teachers, they would have double the advantage, double the chance of being employed, double the ratio of usefulness if they understood both languages. The various duties they would have to perform, and the position which they as teachers would hold had frequently been alluded to, and would again be alluded to by gentlemen who would address them. Still he could not refrain from alluding once more to that position and those duties. There were those who believed that their system of public instruction had not attained that degree of proficiency which might be required or hoped for. That might or might not be the case. At all events, any one who would compare the present state of things with that which existed some twenty-five or thirty years ago, must admit that very great strides had been made. They might not be able to point to such great statistical results as they could in other countries, but that they had arrived at permanent and important results was evident. In the United States and Ontario, they prepared their teachers in a shorter time than in this Normal School; but he must say that if McGill Normal School had followed the example of those countries in that respect it would have been a failure. The length of time they required teachers to train in the school was short enough to prepare any person for the important duties of teacher. According to the statistics of 1866—he had not the figures of '67—the aggregate number of pupils in the schools of the Province of Quebec was 206,000. In Ontario the number was greater, but their population was greater, and was not so much scattered as it was in our Province. Being more congregated in towns and villages, the children would attend school more regularly, and thus the discrepancy in the aggregate attendance for one year between Ontario and Quebec was greater than it would be if the attendance for five or ten years was calculated. The diplomas they were now about to receive were the reward of a year or two of hard study. The objection which had been raised against these Normal Schools was the large number of subjects to be studied. There wase some force in this objection, but it should be remembered that the essential subjects—such as reading, writing, &c, —subjects which every student was thoroughly drilled in were not many. Speaking of reading, he must say that it was not so simple a study as some people imagined. He had met with people who had received a high classical education, yet failed when they came to instruct pupils in the art of reading. Still he was glad to see that the art of reading had been particularly attended to in this school, and with great success. The great object of education was the culture of the mind, and he believed it was a mistake to suppose that this culture could not be obtained before a subject has altogether been mastered. In the short time they were at school, it would be impossible for them to master every subject; but what they did learn would go a great way in cultivating their minds and preparing them for a further study of the subject to which their attention was directed while at school. The further pursuit of those studies could be followed by them while they were engaged in teaching, and this would be a preventative against idleness and would make their occupation more pleasant and profitable, both to themselves and to

their pupils. The prominent feature of education as now carried on in this country, in Great Britain, France, Belgium, Prussia, and the United States was not so much teaching too many branches, as it was the cultivation of the human mind and the preparation of youths for their future destiny. He would again remind those who were about to receive diplomas of the importance of the profession which they had selected for themselves. They had received from the State an education which would fit them to be useful members of society, and therefore, they were bound, not only by feelings of gratitude, but by feelings of common justice, to make the most dutiful use of the means placed in their hands. They had received a first-rate religious, scientific and moral education; they had received that from the State, and therefore they owed to the State a portion of their energies and their exertions. They might expect to meet difficulties; but difficulties overcome only led to increased satisfaction and pleasure. They might not always see the fruits of their labors, but if they labored faithfully, good results would certainly follow, and this would compensate them for much of the toil and disagreeableness of their profession. They had received their training from men of large experience and high scholastic attainments, and now it was their duty to follow out the instructions of these men, and to train up the young so as to be a credit to themselves, to the Province, and to the McGill Normal School. (Cheers.)

Principal Dawson said he was happy to say that the school was fully equal to former years in point of numbers, and there was improvement in the attainments of the pupils. There was only one cause of regret, and that was, that of the whole number of teachers, so small a proportion were trained for the profession of teaching. He thought it was time the Legislature should consider the fact that while the Province was sustaining this institution at a large cost, so large a proportion of the teachers were those who received no training save what they received from the common schools. So that too many young persons entering the profession of teaching were untrained and incompetent for the work. As to how we were to improve this state of things it was perhaps not easy to say. Certainly that which would be a complete remedy would be for the Legislature to provide that no teacher should be employed except those trained in some Normal school. Whether we were prepared to make such a provision he did not know. But there might at any rate be some distinction made in point of title between teachers trained in the Normal schools and those who received no such training. They might be called Associates of the Normal School in which they were trained. That would be a cheap provision which might do some good. Another remedy which had been employed in other countries was that a higher salary should be paid to teachers trained in the Normal Schools. Again, our Normal School professors might be employed during the vacation in each year to visit those parts of the country where their own trained teachers were employed, and to convene Teachers Institutes. These visits could not but be of benefit to the teachers, and would give them a distinction above those not trained in the Normal Schools. Another point to which he would draw their attention was the study of agriculture in schools. The importance of this branch of knowledge could scarcely be overrated. Those who know nothing of the elementary principles of agriculture could not become good farmers. They had been teaching agriculture in the Normal School to a certain extent, but without any encouragement. The Trustees of Schools seemed to be indifferent about the matter; but if the Legislature were to grant a bounty to those teaching agriculture, it would give a great impetus to the subject, and would be the means of introducing the study of agriculture into many of our country schools. By this means, too, the teachers from the Normal School would receive an additional remuneration for teaching this branch. Notwithstanding some discouragement, he was happy to say that the results of the Normal School were satisfactory. The School Commissioners were beginning to understand better the difference between trained and untrained teachers, and there was every year a greater demand for Normal School teachers. The total number on their list of pupils at present was 62—5 males and 57 females. Thirty-two of these were from Montreal, and thirty from the country. They had recommended diplomas this year as follows: For Academic Diploma, 1; Model School Diploma, 11; Elementary Diploma, 35—47 in all. These numbers raised the total number of diplomas granted since the school commenced to 489, representing a total of 367 persons who received diplomas. In regard to the proportion of this number engaged in teaching, he had no accurate returns, and suggested the necessity of some regulation, by means of which they could always receive information of the number of their graduates engaged in teaching. But, according to the best information he could gather, 253 are or lately were engaged in teaching. Add to this number twelve who returned to the school for higher diplomas, and the total number of teachers in training accounted for was 265.

Hon. Mr. Chauveau then conferred the diplomas upon each of the graduates. The following is the list:

LIST OF DIPLOMAS GRANTED IN THE McGILL NORMAL SCHOOL AT THE CLOSE OF THE SESSION OF 1867-68.

1. ACADEMY DIPLOMA.

Robert Laing, B. A., of Buckingham.

2. MODEL SCHOOL DIPLOMA.

Elson J. Rexford, of South Bolton—Prince of Wales Medal and Prize; honorable mention in Art of Teaching, Bookkeeping, Arithmetic, Algebra, Geometry, Natural Philosophy, Agricultural Chemistry and Latin.

Cortez Fessenden, of East Bolton—Honorable mention in Mensuration, Arithmetic, Book-keeping, Algebra, Geometry, Natural Philosophy, Botany, and Agricultural Chemistry.

Margaret M. Bothwell, of Durham—Honorable mention in Elocution, Composition, English Literature, French, Agricultural Chemistry and Drawing.

Seneca P. Rowell, of Granby—Honorable mention in Arithmetic and Geometry.

Corinna S. Whinfield, of Grenvillle—Honorable mention in Composition, Agricultural Chemistry and Drawing.

Margaret J. Wilson, of Montreal, honorable mention in French and Latin.

Maria C. Smart, of Martintown.

Charlotte Shepstone, of Montreal.

Anna L. Shepstone, of Montreal, honorable mention in Elocution.

Mary E. Swallow, of Montreal.

Sarah C. Lampard, of Montreal.

3. ELEMENTARY SCHOOL DIPLOMA.

Amanda O. Carr, of Compton, honorable mention in Arithmetic, Bookkeeping, History and Grammar.

Elizabeth Willan, of Vankleek Hill, honorable mention in English Grammar, Composition and Zoology.

Mary A. Gibson, of Montreal, honorable mention in Geography, French and Zoology.

Ernest M. Taylor, of North Potton, honorable mention in Arithmetic and Geometry.

Elizabeth J. Foster, of Montreal, honorable mention in Bookkeeping.

Jane L. Hart, of St. Jean Chrysostom, honorable mention in Arithmetic and Algebra.

Florence G. S. W. Holmes, of Montreal.

Jessy C. Humphreys, of Ottawa.

Elizabeth Alexander, of Durham, honorable mention in English Grammar, Arithmetic, Book-keeping and Algebra.

Isabella Anderson, of Hinchinbrooke.

Jane McLaughlin, of Montreal.

Sophia Johnson, of Montreal.

Fanny McIntosh, of Montreal.

Mary Ann McLeod, of Montreal.

Maggie Thompson, of Montreal, honorable mention in Algebra.

Louisa C. Standin, of Eden, N. C.

Helen. T. McDonald, of Jamestown.

Jane Luttrell, of Montreal.

Catherine McDonald, of Cornwall.

Catherine C. Cole, of Papineauville.

Sarah S. Gladstone, of Montreal.

Annie Cliff, of Montreal.

Emma J. Greenlees, of Thurso.

Charlotte Kell, of Montreal.

Clara Hicks, of Montreal, honorable mention in English Composition.

Janet Harper, of Montreal.

Marion Patterson, of Montreal.

John H. D. Johnson, of Haldimand.

Bella H. Gardner, of St. Louis de Gonzague.

Catherine Harper, of Montreal.

Martha E. Perry, of Tanneries.

Jane A. Lucas, of Godmanchester.

Madeline A. Monk, of Ottawa.

Isabella Pinder, of Montreal.

Catherine Barron, of St. Jean Chrysostom.

Miss Bothwell, on behalf of the pupils, read the Valedictory, which possessed more than the usual merit of such papers, and was

highly spoken of by the Professors and other gentlemen who were present. Unlike some similar performances by young ladies, it was read in a clear, distinct voice, a fact which added additional merit to the beautifully expressed thoughts in which it abounded.

After the execution of a part song by a number of the lady pupils, under the leadership of Prof. Fowler, Prof Hicks read an address on behalf of the McGill Normal School.

Rev. Mr. Bonar then offered a few remarks on behalf of the clergymen who, during the last term, had charge of the religious instruction of the pupils, counselling them to work for the development of a true Christianity in their schools—the highest kind of education.

Hon. Mr. Chauveau wished to say a few words with reference to the Legislative changes suggested by Principal Dawson. He fully approved of those suggestions, but there were other people to consult besides himself. There was a feeling among a certain portion of the people against the Normal School; and, though some three-fourths of their graduates were engaged in teaching, yet it was continually asserted that numbers were educated, at the expense of the Province, for teachers, who never engaged in that profession. With regard to the suggestion that an additional grant should be given to teachers trained at the Normal Schools, he would say that the salaries were fixed by the School Commissioners, and it would be difficult to interfere with their powers. The teachers had to compete with untrained teachers, and sometimes had to accept a much smaller salary than they ought to receive. Still the demand for Normal School trained teachers was becoming greater every year. If an additional grant should be given to Normal School teachers by Government, it would, no doubt, be deducted from their salary by the School Commissioners, and thus their object would be defeated. But as education progressed, teachers would receive greater remuneration. The time might come when Government could grant more money for Common School purposes; but he could make no promises, as they did not know exactly the state of their finances. In conclusion, he wished the teachers who were about to leave the school every success. They were leaving the school with the best wishes of their teachers, and with his best wishes, who by his instincts and sympathies, was naturally their friend. Whenever they met with any difficulty in connection with their profession, he wished them to write to him and mark their letters private, or else call upon him personally, and, whatever business might be pressing upon him, he would be most happy to meet with them, and render them all the assistance in his power. (Cheers.)

After singing the National Anthem, the meeting separated.

Daily News.

Thirty-fourth Conference of the Teachers' Association in connection with Jacques-Cartier Normal School, held the 19th May, 1868.

Present: The Revd. Principal Verreau; Messrs. Inspectors Valade and Caron; Messrs. M. Emard, President; H. Bellerose, Vice-president; J. O. Cassegrain, Secretary; D Boudrias, Treasurer; U. E. Archambault, Librarian; A. Dalpé, I. Destroismaisons, A. Mallette, N. Gervais, M. Guérin, Councillors; A. Dupuis, C. Ferland, G. Martin, P. Marcoux, J. Guérin, J. E. Charland, G. Bissonnette, A. Primeau, M. Lapointe, H. B. Rousseau, N. Paquin, E. Croteau, C. H. S. Paradis, H. Rondeau, O. Gauthier, P. P. Angers, and the Pupils of the Normal School.

The minutes of the last conference were then read and adopted.

The election of officers was then proceeded with, and the result of the ballot was as follows:

Messrs. M. Emard, President; H. Bellerose, Vice-président; J. O. Cassegrain, Secretary; D. Boudrias, Treasurer; U. E. Archambault, Librarian.

On motion of Mr. Boudrias, seconded by Mr. Cassegrain, Messrs. N. Gervais, M. Guérin, A. Mallette, C. Ferland, A. Dalpé, I. Destroismaisons were named Councillors.

Mr. Bellerose then read a very instructive paper on the *method of teaching Geography*. The method, treated so ably in Mr. Bellerose's paper and which, at the present day, is seriously engaging the attention of the ablest educationists of Germany and England, consists in proceeding from the *known to the unknown*, adopting the synthetic method in teaching the Geography of the country in which we reside, and the analytic in treating of foreign countries. Some of its immediate results are, that it interests the pupil and does not overload his memory with terms of the meaning of which he is often ignorant; morever it is sure, expeditious and well adapted to the acquisition of solid as well as varied information. The association, having by a unanimous vote decided that extracts from Mr. Bellerose's paper should be published in the *Journal de l'Instruction Publique*, where all could appreciate it, and judge of its merits, further discussion became unnecessary.

After Mr. Bellerose's lecture, came up the discussion of the following subject:

What are the rights of the Teacher, 1o. on the part of the pupils, 2o. on the part of the parents, 3o. on the part of the authorities? Mr. Abbé Verreau, Messrs. Inspectors Valade and Caron, Messrs. Boudrias and Archambault took part in the discussion, which may be summed up as follows:

1o. The Teacher when in class has the right to the respect and obedience of his pupils. This respect and obedience are absolutely necessary: the pupil who has no respect for his Teacher is little likely to obey him: insubordination is the result of the want of obedience, and with insubordination in class it is impossible to succeed. The Teacher, however, in the exercise of this right, should make his pupils understand that it is in their interest that he thus acts, and that it is a sacred duty incumbent on him. Out of school he has equally the right to respect and obedience on their part; and may, and ought to control their conduct, if the honour of the school demands it.

2o. It is admitted that there exists a tacit understanding between the teacher and the parents regarding the education of their children. This work deserves their most serious consideration, and claims the active concurrence of their intelligence and energy. Their wills, should be one since they are both directed towards the same end, and from the intimacy of their relations with each other naturally arises, for the master, the right that he possesses, to the esteem, the confidence, the respect, and support of the parents.

3o. The Teacher has the right to the esteem and protection of the authorities civil and religious, in order that he may be enabled to discharge the duties devolving upon him.

The discussion of the foregoing was followed by an address, to Young Teachers, read by Mr. Inspector Valade, in which he demonstrated the sublimity of education and the importance of the Teacher's position, and encouraged them to persevere and march on in the path which they had chosen for themselves. This counsel, coming from on who has grown grey in teaching, and in a style which is peculiarly his own, was highly appreciated. It is to be hoped that they will be carefully studied by all who intend entering on the career of teaching.

Proposed dy Mr. Moïse Guérin, seconded by Mr. H. Rondeau:

That a vote of thanks be passed to Mr. Abbé Verreau, and to Messrs. Inspectors Valade and Caron, for having assisted at this conference, and for the kind words of encouragement that they have been pleased to address to the Teachers.—Adopted.

Proposed by Mr. A. Mallette, seconded by Mr. N. Gervais:

That the thanks of this association are due and are hereby tendered to the proprietors of *La Minerve* and *L'Ordre* for the sympathy they have always extended to the Teacher's cause, in publishing, *gratis*, the notices of their meetings.—Adopted.

Proposed by Mr. H. Bellerose, seconded by Mr. D. Boudrias:

That this meeting stand adjourned until the last Friday of August next at 9 A. M.—Adopted.

The two following questions will be discussed at the next conference:

"What is the best method of teaching English in our French Schools?"

And "Is it expedient to introduce into our French Schools spelling books similar to those in use in English Schools?"

J. O. Cassegrain,
Secretary.

Thirty-fourth Conference of the Teachers' Association in connection with the Laval Normal School, held 30th May, 1868.

Present: The Hon. Minister of Public Instruction; The Revd. Mr. Thos. A. Chandonnet, Principal; Mr. Abbé Albert Chavigny de la Chevrotière, Prefect of Study; Mr. Bruno Pelletier, President; Messrs. F. X. Toussaint, N. Lacasse, Norbert Thibault, J. B. Cloutier, D. McSweeney and Fortunat Rouleau; Messrs. F: X. Gilbert, Jos. Létourneau, C. Côté, Stanislas Fréchette, Frs. Simard, M. Ryan, G. Labonté, Jules Poliquin, W. Fortin, F. Morissette, C. Bouchard, Julien Cloutier, Teachers; and the Gentlemen in training in the Normal School.

When the meeting was called to order the President read two letters, one from the Secretary, Mr. Ls. Lefebvre, and the other from Mr. Pierre Gagnon—both expressive of regret at their inability to be present.

Mr. Thibault having been requested to act as Secretary, the minutes of the last conference were read and adopted unanimously.

The President then announced that there had been no meeting of the council, the previous evening, owing to want of a *quorum*. Messrs. J. B. Cloutier and D. McSweeney were requested to read their essays.

Mr. Cloutier dwelt forcibly on the importance of teaching *Arithmetic*, and Mr. McSweeney on School discipline.

At the instance of the Hon. Minister of Public Instruction, a Pupil-Teacher Mr. Chs. Chartré gave practical illustrations on the blackboard, of certain new and ingenious Arithmetical processes indicated in Mr. Cloutier's essay.

After this very interesting exercise was brought to a close, the following subject came up for discussion:

"Is it expedient to diminish the number of conferences and to change the dates at which they have been hitherto held?"

The Hon. Mr. Chauveau kindly consented to open the debate, and in his usual felicitous style addressed words of sage counsel to the members of the Association, demonstrating the great importance of their reunions as one of the great sources of intellectual improvement as well as of material interest.

In order to prove to the Teachers the immeasurable advantages to be derived from such meetings, he cited the name of the late Hon. T. D. McGee. He said that this eminent speaker had been preeminently a debater, and that his great renown as an Orator and Writer was due in a great measure (all allowance made for his natural talents) to the constant study and great care he gave to the preparation of his lectures and discourses.

The Hon. Gentleman also entreated the members of the Association to assist regularly at all the conferences; he morever suggested to them the idea of specially inviting the members of the Council of Public Instruction, the School Inspectors, and School Commissioners to attend their meetings.

In concluding, he complimented Messrs. Cloutier and McSweeney on the ability displayed in their essays, and requested them to have them published in the Journals of Education under his control.

Messrs. Thibault, Toussaint, Gilbert and Côté, then took part in the debate; but no decision was come to on account of the paucity of members present.

The President then announced that Messrs. F. E. Juneau and Napoléon Lacasse had just published un *Alphabet gradué* d'après une *nouvelle méthode*, and requested Mr. Thibault to review it. The latter consented, and said among many distinguishing features were three principal ones, viz: 1o. The happy gradation found throughout; 2o. The sign that the authors employ to indicate the *liaisons* to be made between certain words; 3o. The excellence of the models for reading. He besought all the teachers to introduce the work into their schools, because it was more rational and better adapted to the intelligence of children than any other similar treatise now in use in schools.

On motion of Mr. F. X. Toussaint, seconded by Mr. N. Lacasse it was

Resolved: 1o. That this Association has seen, with the greatest pleasure, the Hon. Mr. Chauveau's elevation to the important post of Minister of Public Instruction, a dignity to which his distinguished talents and experience justly entitle him.

2o. That this Association cordially thanks the Hon. Minister for having been pleased to assist at the deliberations of the conference.

It was then decided that the subject discussed at this meeting be resumed at that of August next.

The following Gentlemen inscribed their names either as members of the conference, or as debaters: Mr. Abbé Chandonnet, Principal, Messrs. Ls. Lefebvre, N. Lacasse, Jos. Letourneau, Cléophas Côté, Bruno Peltier and Norbert Thibault.

The meeting then adjourned until the last Friday in August next.

BRUNO PELLETIER, President,
NORBERT THIBAULT, Sec. *pro tem.*

Books Received.

Donation to the Library.—The Hon. Minister of Public Instruction begs to thank Messrs. D. & J. Sadlier, Montreal, for "Life of St. Paul of the Cross," 1 vol. pp. 437.

The publishers will forward it free on receipt $1.13.

MONTHLY SUMMARY.

EDUCATIONAL INTELLIGENCE.

— The Duke of Marlborough has withdrawn his Education Bill. In his speech in the House of Lords, announcing its withdrawal, he said that he had been quite aware that some modifications would be necessary, but when these had been acceded to, he had felt every confidence that the measure, supported as it was by the Primate, would have been accepted by Parliament; but when he considered the state of business in the other House of Parliament, and the condition in which public affairs there had been placed, it was impossible for the Government to retain the slightest hope that a measure, involving discussion of such a very intricate character, had the slightest chance of passing into law this year. He had, therefore, no option but to withdraw his Bill.

A blue-book of 576 folio pages has been published, showing the area and gross estimated rental of every parish in England and Wales, and the number of schools in the parish receiving aid from the Parliamentary grant. A summary now issued states the total number of these schools receiving annual grants to be 6992, and the number aided not receiving annual grants 2271. The average numbers in attendance are stated as follows: In day schools receiving annual grants 895,418, and in day schools not receiving annual grants 132,413; in night schools receiving annual grants 45,558, and in night schools not receiving annual grants 11,479. The total average number of children in attendance in all these schools, 1,084,868, is 5.47 per cent. on the population of the parishes in 1861,—viz., 20.063,793; but it would be nearer to 5 per cent. on the population now. In the chief towns the average number in attendance is shown to be above the mean of 5 47 per cent. in Hull, Bristol, Plymouth, Leeds, Manchester, and Salford—in Salford reaching 7.4 per ct. The proportion is below the average in the metropolis (police district), where it is but 4 6 per cent, and the same ratio is found in Birmingham; in Newcastle and Sheffield it is still lower, and in Devonport it is as low as 2.14 per cent.

— The Council of the Royal Geographical Society has adopted a proposal of Mr. Francis Galton, vice-president of the Society, to encourage the study of geography in Great Britain by the offer, on the part of the Society, of prizes for competition in the principal public schools. The principle and details of the proposal have been examined by a special committee, and on their report the following course has been determined on by the Council:—1. To offer two medals of gold and two of bronze, of appropriate size and design; one of each to successful candidates in an annual examination, on subjects of political geography and physical geography respectively. The examination to take place in the beginning of 1869, and to be repeated in each succeeding year until further notice. 2. To invite to competition about 23 of the principal English public schools, and a proportionate number in other parts of the United Kingdom; the claims of other schools to be considered hereafter. The number of candidates in each school to be confined within such limits as the Council may hereafter determine. 3. The examination to be conducted by two examiners engaged by the Society, and to be carried out by sealed papers sent simultaneously to the schools.

— *United States.—College Endowments.*—The year 1866 was one of unexampled liberality to American colleges, and nearly all the institutions of learning in the country received donations and bequests in large amounts. From a table prepared in Yale College, it appears that, during the year, thirty-one American colleges received gifts in money to the amount of £500,000, besides large grants of public lands made by Congress during that year to institutions of learning having agricultural departments. Cornell University, in New York, received £130,000; Harvard University, near Boston, £60,000; Tuft's College, Massachusetts, £50,000; Yale College, at New Haven, £30,000; Baldwin University, in Ohio, £15,000; Dickinson College, in Pennsylvania, Chicago University, and Washington University of St. Louis, Missouri, £14,500 each. Others received smaller amounts.

— *Education in Pennsylvania.*—The State of Pennsylvania has a system of common schools, supported by the commonwealth, of which her people are quite proud. In 1860, she had 11,597 schools, in which were 13,194 teachers and 365,303 scholars. The expense of the system for that year was £500,000. In 1866, the system had greatly increased its usefulness, there being in that year 13.146 schools, with 16,148 teachers and 725,-312 scholars, while the total expenditure for the year was £800,000—which is believed to be a larger sum than was expended for similar purposes during the year by any other American state.

— *France.—Mme Marie Pape-Carpentier.*—The Halphen prize has just been awarded by the Academy of moral and political science to the above lady, whose life-story may be thus sketched. In 1835, at the age 19, she began her work of organisation and management in connection with infant schools, and she continued it in the provinces till 1847, when she was called to Paris to organise the first establishment founded in France for the training of infant-school mistresses. At the head of this

normal school she was placed, and still continues, as directress; and she can count upwards of 900 infant-school mistresses of her training. Mme Pape has been also singularly successful as a lecturer to women on infant-training and domestic management. Her published works are:—

1845. "The Management of Infant Schools," crowned by the French Academy, approved by the Council of National Education, translated into English, Italian, and Portuguese.

1849. "Practical Instruction in Infant Schools," crowned by the French Academy, and approved by the Holy See.

1858. "Object Lessons," crowned by the French Academy, translated into English and Russian.

1860. "New Spelling and Reading-Book for Infant Schools."

1862 "Gymnastic Games," for children, with illustrations and music.

1863. "Short Readings," with explanations.

1863. "The Secret of the Grains of Sand, or the Geometry of Nature."

There were four other candidates for the prize, viz, a village teacher, with 34 years' honourable service; an army surgeon, blind since 1840, and author of excellent elementary works; a school inspector; and an old teacher, whose works are said to form quite a library of information, useful to both pupils and teachers in elementary schools. What procured Mme Pape the preference was the importance at present of encouraging women, whose natural vocation seems to be the training and teaching of the young, to come forward and devote themselves to that work.

—*Educational Progress.*—Far as the schools of France are still from overtaking the whole population, the progress made since 1829, a date immediately preceding Louis Philippe's reign, and Mr. Guizot's education Bill, seems very great In 1829 there were 30,796 primary schools in France; now there are 69,699, independently of 32,000 adult classes, an appliance which had not then been thought of, and 3,572 infant schools, another appliance which, though thought of then, had been realized in so few instances, that no note of it was taken in the statistics of the time. The middle class schools have increased too though not by any means, of course, to the same extent. Again, in 1829, there was no free trade in education, no schools were allowed except those of government; now there is perfect freedom in every grade of education except the highest.

That is any Frenchman, may, certain conditions required by law in the interest of health and morality being fulfilled, open a primary school, or any higher school short of the highest, *i. e.* of those which do what we should call university work, the church has kept pace with the school. In 1829, the number of Roman Catholic Churches in France was 29,959, now it is 42,124.

LITTERARY INTELLIGENCE.

Samuel Lover.— The telegraph on Thursday brought us intelligence of the death of Samuel Lover, well and favorably known as the author of humorous stories and sketches illustrative of Irish characteristics. Mr. Lover was the son of a member of the Dublin Stock Exchange, and was born in that city in 1797. He first attracted attention as an artist, and became the most popular miniature portrait painter of the country at the time, ranking among his sitters, the then Marquis of Wellesley, Lord Lieutenant of Ireland, Lord Brougham and nearly, all the leaders of the Irish aristocracy. His tastes, however, soon led him to literature, and he contributed to a periodical of the time "Legends and Stories illustrative of Irish Character," the popularity of which procured him admission to the best society of Dublin. Removing soon afterward to London, he continued his Irish sketches, which were subsequently published in two volumes, and followed them with a series of contributions to magazine literature, the best known of which is "Handy Andy," first published in *Bentley's Miscellany* in 1838. He pubsished, also, a number of Irish songs, among them "Rory O'More," "Molly Carew, etc., "Molly Bawn," "The Four-leaved Shamrock," and several operas founded upon his own works. Finding his health failing under his literary labors, he composed a series of entertainments called "Irish Evenings," in which he recited extracts from his own works, and interspersed songs and music of his own composition. These proved exceedingly popular, and after continuing them for some time in London and the Provinces, he came to the United States in 1847, where he received a cordial welcome. Returning, he produced a similar entertainment from his trans-Atlantic experiences, which was equally well received. His latest works are "Treasure Trove," published in 1844, and "Lyrics of Ireland," in 1858.—*Daily News.*

— The essays for which the Cobden Club offer the prize medal this year are to be written on "The best way of developing improved political and commercial relations between Great Britain and the United States." The club was formed two years ago to advance the economical and political principles with which Mr. Cobden was identified; and its membership comprises the names of two or three hundred of the foremost Liberal statesmen and political writers in Great Britain. The prizes are open to universal competition.

MISCELLANEOUS INTELLIGENCE.

—The following observations, which we copy verbatim from an "Old Curiosity Shop," have reference to animals and exhibit their at least apparent knowledge of the sciences; also their professions, occupations, and enjoyments; Bees are geometricians, their cells are so constructed as, with the least quantity of material, to have the largest sized spaces and least possible loss of interstice. So also is the ant lion, his funnel-shaped trap is exactly correct in its conformation, as if it had been made by the most skilful artist of our species, with the aid of the best instruments.

The mole is a meteorologist The bird called the nine-killer is an arithmetician: so also is the crow, the wild turkey and some other birds The torpedo, the ray, and the electrical eel are electricians. The nautilus is a navigator, he raises and lowers his sails, casts and weighs his anchor and performs other nautical evolutions Whole tribes of birds are musicians. The beaver is an architect, builder, and wood-cutter, he cuts down trees, and erects houses and dams. The marmot is a civil engineer, he not only builds houses, but constructs aqueducts and drains to keep them dry.

The white ants maintain a regular army of soldiers. The East-India ants are horticulturists, they make mushrooms, upon which they feed their young Wasps are paper manufacturers. Caterpillars are silk spinners. The bird ploceus textor is a weaver, he weaves a net to make his nest. The primia is a tailor, he sews the leaves together to make his nest.

The squirrel is a ferry-man—with a chip or piece of bark for a boat, and his tail for a sail, he crosses a stream. Dogs, wolves, jackals, and many others are hunters. The black bear and heron are fishermen. The ants have regular day labourers. The monkey is a rope dancer.

The association of beavers present us with a model of republicanism. The bees live under a monarchy. The Indian antelopes furnish an example of patriarchal government. Elephants exhibit an aristocracy of elders. Wild horses are said to select their leaders. Sheep in a wild state, are under the control of a military chief ram.— Once a week.

METEOROLOGICAL INTELLIGENCE.

— The place of observation selected by France in the Peninsula of Malacca, to observe the solar eclipse on the 18th of August, has been explored and prepared with care. The King of Siam has signified his intention of being present at the labors of the commission. Independently of this expedition, the Academy of Sciences has nominated an astronomer for the same purpose to go to Masulipatum to act in concert with others sent from England.

—A remarkable mirage was lately witnessed at Dover, England, whereby the dome of the cathedral at Boulogne, France, was made distinctly visible to the naked eye, and by means of a telescope, the entrance to the port, its lighthouse, shipping, the hills surrounding the town, and neighbouring farmhouses, with their windows illuminated with the setting sun, were plainly distinguished. Even a locomotive and train were seen leaving the city and travelling towards Calais. The distance from Dover to Boulogne is about thirty miles.

—During a thunderstorm at Birmingham, England, meteoric stones from one eighth to three eights of an inch long, and about half those dimensions in thickness fell in immense quantities.

— Meteorological Report for month of June, 1868, Quebec, Latitude 46°48′30″ N.; Longitude 71°12′15″ W.; height above the St. Lawrence, 230 feet; By Sergt. John Thurling, A. H. Corps, Quebec. (1)

Barometer, highest reading on the 4th	30.148	inches.
lowest " 20th	29.372	
range of pressure	.776	
mean for month reduced to 32°	29.706	
Thermometer, highest reading on the 18th	93.2	degrees
lowest " 2nd	41.1	
range in month	52.1	
mean of all highest	78.8	
lowest	52.6	
daily range	26.2	
for month	65.7	
maximum in sun's rays, black bulb, mean of.	120.1	
minimum on grass	51 4	
Hygrometer, mean of dry bulb	69.5	
wet bulb	60.9	
dew point	54.1	
Elastic force of vapour	.419	inches.
The weight of vapour in a cubic foot of air	4 7	grains
Weight of vapour required to saturate do	3.0	
Mean degree of humidity (Sat. 100)	58	
Average weight of a cubic foot of air	518 8	grains.
Cloud, mean amount of cloud (0 10)	5 07	
Ozone, mean amount of (0-10)	1.01	
Wind, general direction of	Westerly.	
mean daily horizontal movement of	123 2	miles.
Rain, number of days it fell	7	
amount collected on ground	1.99	inches.
" 10 feet above ground	1.97	"

(1) The Returns from the Montreal Observatory were not received in time for this number.

PRINTED BY EUSÈBE SENÉCAL, MONTREAL.