

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

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

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

JOURNAL OF EDUCATION

FOR

Upper  Canada.

Vol. IV.

TORONTO, JUNE, 1851.

No. 6.



PERSPECTIVE OF A VILLAGE SCHOOL HOUSE IN ALLENDALE, NORTH PROVIDENCE, RHODE ISLAND.

(For plan of interior arrangement see page 84.)

CONTENTS OF THIS NUMBER.

	PAGE.
I. Modern Systems of Education and their Founders—No. 3. Dinter,	81
II. A Visit to Girard College, Philadelphia,—Communicated by T. H.,	82
III. The Ancient Roman System of Education,	83
IV. SCHOOL ARCHITECTURE—Three Illustrations,	84
V. MISCELLANEOUS. 1. The Beauty of Life. 2. Tellurian (Illustrated.) 3. The Voyage of the Dead. 4. Education of Mechanics. 5. Colonial Empire of Great Britain. 6. Curiosities of Art. 7. Empire of China. 7. Impressions in Youth. 8 Philosophical Sentiment. 9. Derivation of Yankee. 10. Frugality. 11. Haroun al Raschid. 12. Moral from Longfellow. 13. Taxes like Vapours. 14. The Heart's Arguments. 15. Study of the Classics, and three other short articles,	85
VI. EDITORIAL. 1. Official Circular to Local Superintendents on the Distribution of the School Fund for 1851. 2. Text Books—Municipal Councils. 3. Governor General's Prizes in the Normal School. 4. Hints to Teachers, . .	88
VII. EDUCATIONAL INTELLIGENCE: 1. Canada. 2. Prince Edward's Island. 3. Jamaica. 4. British and Foreign. 5. Sweden. 6. India. 7. United States.	91
VIII. LITERARY AND SCIENTIFIC INTELLIGENCE.	94
IX. Editorial and Official Notices—Advertisements.	96

Such was the celebrated pledge of this memorable man ; and nobly did he, by his untiring energy and industry, redeem his solemn vow to promote popular education among his fellow countrymen.

Gustavus Fredrick Dinter, or, as he was at a later date more generally styled, School-Councillor Dinter, was born in Borna, near Leipsic, in Saxony, in 1760. A cotemporary memoir states, that he first distinguished himself as principal of a Teacher's seminary in Saxony, whence he was invited by the Prussian government to the station of School-Councillor for Eastern-Prussia. "He resides at Koenigsberg, and spend about ninety days in the year in visiting the schools of his province, and is incessantly employed nearly thirteen hours a day for the rest of his time, in the active duties of his office : and that he may devote himself the more exclusively to his work, he lives unmarried. He complains that his laborious occupation prevents his writing as much as he wishes for the public, yet, in addition to his official duties, he lectures several times a week, during term-time in the University at Koenigsberg, and always has in his house a number of indigent boys, whose education he superintends, and, though poor himself, gives them board and clothing. He has made it a rule to spend every Wednesday afternoon, and, if possible, one whole day in the week besides, in writing for the press ; and thus, by making the best use of every moment of time, though he was nearly forty years old before his career as an author commenced, he has contrived to publish more than sixty original works, some of them extending to several volumes, and all of them popular. Of one book, a school catechism, fifty thousand copies, were sold previous to 1830 ; and of his large work, the School-Teacher's Bible, in 9 volumes 8vo., thirty thousand copies were sold in less than ten years.

"He is often interrupted by persons who are attracted by his fame, or desire his advice ; and while conversing with his visitors, that no time may be lost, he employs himself in knitting ; and thus not only supplies himself with stockings and mittens, suited to that cold

MODERN SYSTEMS OF EDUCATION AND THEIR FOUNDERS.

GUSTAVUS FREDRICK DINTER,—BORN 1760, DIED 1831, *ÆTAS*, 71 YEARS.

No III.

"Ich versprach Gott : Ich will jedes preussische Bauerkind für ein Wesen ansehen, das mich bei Gott verklagen kann, wenn ich ihm nicht die beste Menschen-und Christen-Bildung schaffe, die ich ihm zu schaffen vermag."

"I promised God, that I would look upon every Prussian peasant child as a being who could complain of me before God, if I did not provide for him the best education as a man and a Christian, which it was possible for me to provide."

Dinter's Letter to Baron Von Allenstein.

climate, but always has some to give away to indigent students and other poor people. His disinterestedness is quite equal to his activity, and of the income of his publications he devotes annually nearly five hundred dollars to benevolent purposes. Unweariedly industrious, and rigidly economical as he is, he lays up nothing for himself. He says, "I am one of those happy ones, who, when the question is put to them, 'Lack ye any thing?' (Luke xxii. 35,) can answer with joy, 'Lord, nothing.' To have more than one can use is superfluity, and I do not see how this can make any one happy. People often laugh at me, because I will not incur the expense of drinking wine, and because I do not wear richer clothing, and live in a more costly style. Laugh away, good people; the poor boys also, whose education I pay for, and for whom, besides, I can spare a few dollars for Christmas gifts and New-year's presents, they have their laugh too."

Dinter, in his autobiography, gives some surprising specimens of gross incapacity in teachers, even subsequent to 1819. The following anecdotes are from that interesting work, *Dinter's Leben von ihm selbst beschrieben*.

In the examination of a school in East Prussia, which was taught by a subaltern officer dismissed from the army, the teacher gave Dinter a specimen of his skill in the illustration of scripture narrative. The passage was Luke vii., the miracle of raising the widow's son at Nain. "See, children, (says the teacher,) Nain was a great city, a beautiful city; but even in such a great, beautiful city, there lived people who must die. They brought the dead youth out. See, children, it was the same then as it is now—dead people couldn't go alone—they had to be carried. He that was dead began to speak. This was a sure sign that he was alive again, for if he had continued dead he couldn't have spoken a word."

In a letter to the King, a dismissed school-master complained that the district was indebted to him 200705 dollars. Dinter supposed the man must be insane, and wrote to the physician of the place to enquire. The physician replied that the poor man was not insane, but only ignorant of the numeration-table, writing 200705 instead of 275. Dinter subjoins, "By the help of God, the King and good men, very much has now been done to make things better."

In examining candidates for the school-teacher's office, Dinter asked one where the Kingdom of Prussia was situated. He replied that he believed that it was in the southern part of India. He asked another the cause of the ignis fatuus commonly called Jack-with-the-lantern. He said they were spectres made by the devil. Another being asked why he wished to become a school-teacher, replied, that he must get a living somehow—a very common reply, even in Canada.

A military man of great influence once urged Dinter to recommend a disabled soldier, in whom he was interested, as a school-teacher. "I will do so," says Dinter, "if he sustains the requisite examination." "O," says the Colonel, "he doesn't know much about school teaching, but he is a good moral steady man, and I hope you will recommend him to oblige me." D.—O yes, Colonel, to oblige you, if you in your turn will do me a favour. Col.—What is that? D.—Get me appointed drum-major in your regiment. True, I can neither beat a drum nor play a fife; but I am a good, moral, steady man as ever lived. Of course neither appointments were made.

A rich landholder once said to him, "Why do you wish the peasant children to be educated? it will only make them unruly and disobedient." Dinter replied, "If the masters are wise, and the laws good, the more intelligent the people the better they will obey."

Dinter complained that the military system of Prussia was a great hinderance to the schools. A nobleman replied that the young men enjoyed the protection of the government, and were thereby bound to defend it by arms. Dinter asked if every stick of timber in a house ought first to be used in a fire-engine, because the house was protected by the engine? or whether it would be good policy to cut down all the trees of an orchard to build a fence with to keep the hogs from eating the fruit?

Towards the close of his autobiography, he says respecting the King of Prussia, "I live happily under Frederick William; he has just given me one hundred and thirty thousand dollars to build churches with in destitute places; he has established a new teacher's seminary for my poor Poles, and he has so fulfilled my every wish for the good of posterity, that I can myself hope to live to see the time when there shall be no schoolmaster in Prussia more poorly paid than a common labourer. He has never hesitated, dur-

ing the whole term of my office to grant me any reasonable request for the helping forward of the school-system. God bless him. I am with all my heart a Prussian. And now, my friends, when ye hear that old Dinter is dead, say, 'May he rest in peace; he was a labourious, good hearted, religious man; he was a christian.'"

Dinter's personal history may be thus summed up: He was first a pastor at Kitzscher, near Borna; afterwards, in 1797, director of the Normal Seminary of Friedrichstadt, near Dresden. In 1807 he exercised the functions of Minister at Gëritz; and in 1816 was named doctor in theology, member of the Council of Public Instruction at Königsberg and School-Councillor. He wrote extensively upon the subject of primary instruction. These writings are very popular in Germany. He died in 1831, highly respected and lamented by the Prussian nation.

A VISIT TO GIRARD COLLEGE, PHILADELPHIA.

To the Editor of the Journal of Education for Upper Canada.

SIR,—Among the many objects of interest presented to a stranger visiting the city of Philadelphia, none has so much attraction for the educationist as that noble monument of philanthropy—the Girard College for Orphans—an Institution erected and endowed through the munificence of a private citizen of that city, for the maintenance and education of "poor male white orphans." Availing myself of the opportunity which a short stay in Philadelphia afforded, I visited the Institution for the purpose of obtaining such information, in regard to its management, &c., as would be interesting and useful; and, having obtained the usual order for admission, I waited upon the President, Mr. ALLEN, who, after a few remarks in reference to our system of education in Upper Canada, very kindly offered to conduct myself and friends through the College, and afford us whatever information we desired. With much pleasure we accepted his kind offer, and accompanied him through the several buildings which are set apart for the lecture-rooms of the College.

There are five separate buildings connected with the Institution, all built of marble, and situated upon a nice plat of ground, about half-an-hour's walk from the centre of the city. The main building, which is built in imitation of a Grecian temple, is surrounded by thirty-four marble columns, each surmounted with exquisitely sculptured Corinthian capitals, and resting upon a platform sixteen feet high, which makes a fine promenade of about 15 feet wide, and is accessible by steps on all sides of the building. The other buildings are without ornament, and are used as residences for the President, Professors, and matrons, and also contain the dormitories for the pupils, and dining-rooms, lavatory, wardrobe, &c. Upon entering the spacious hall of the college, the first object which meets the eye is a marble statue of its founder, STEPHEN GIRARD, representing a low-sized, benevolent, yet eccentric-looking old gentleman, in plain citizen's dress, with his hands crossed before him. A smile plays upon his countenance, as if he were pleased at the wonder and admiration which the product of his wealth creates in the mind of the visitor; or as if he were in the act of welcoming the poor destitute orphan to a noble home where, (to use the words of his will,) "the purest principles of morality are instilled into the youthful minds of its inmates, so that upon their entrance into active life, they may, from inclination and habit, evince benevolence towards their fellow-creatures, and a love of truth, sobriety, and industry."

On either side of the statue, doors lead to the chapel on the left, and the directors' room on the right;—two spacious apartments. The chapel is plainly furnished. Across one end is a raised platform, set apart for the directors and officers of the institution, in the centre of which stands the President's reading desk. Bibles and hymn-books are placed on the boys' seats throughout the chapel for their use while attending prayers every morning and evening. The directors' room is much about the same size as the chapel, and contains, besides the furniture usually required for a board-room, portions of the household furniture of Mr. GIRARD. In this room is preserved a valuable and interesting document,—a copy of a vote of thanks passed at a public meeting of the citizens of Philadelphia, expressive of their appreciation of Mr. GIRARD's services during a plague which visited that city about 30 years since. The President, in alluding to it, informed us that while almost every one else was appalled and terrified at the visitation, Mr. GIRARD exerted himself both in person and by his wealth, to re-

lieve the distresses of the unfortunate; and, on one occasion, was seen carrying on his back to the burying-ground, the corpse of one of the victims of the plague—there being few or none to undertake the office. Beyond the chapel and board-room are lecture-rooms, having galleries capable of accommodating about five hundred persons in each.

The President next conducted us to the lecture-rooms on the second floor, which are about the same size as the rooms underneath. In each of them we found the pupils under the charge, either of a professor, or a female teacher, and all intent upon their exercises. The scene in one of these rooms reminded me very much of the exhibitions I have witnessed at the Model School in Toronto. A class of boys were engaged at a sum in arithmetic, at the blackboard, under the tuition of one of the female teachers, and, at every question, hands were raised in token of their anxiety to be permitted to answer it; but only one being allowed to speak at a time, some had to be disappointed, while the one selected, proud of exhibiting his knowledge, shouted it in a manner that showed his appreciation of the selection. The stairs leading to the upper lecture-rooms, as well as the lobbies,—which are supported from the hall by beautiful marble columns—are also of marble. The reverberations in the hall and lobbies are like the echoes in a large cave; and, when after speaking or calling in a loud tone, can be heard for several seconds echoing on from one part of the building to another. It was found, shortly after the college commenced, that the reverberation of sound, produced by the vaulted ceilings of the lecture-rooms, rendered it impossible for the teachers to proceed in the discharge of their duties. This had to be remedied by introducing artificial ceilings of canvass, by which means the reverberation is destroyed, and the arches left undisturbed. The vaulting of these rooms was rendered imperative by the will of Mr. GIRARD, in order—as I suppose—as well to dispense with the use of wood in the building as to have a sufficient support for the marble floors of the rooms above.

On the third floor, are the library, and museum, &c., which are lighted from the roof; but not being able to procure the key, we could not obtain admittance. We then ascended a narrow stairs, and passing through passages between the arches which support the roof, emerged into the open air and stood for the first time upon the most remarkable roof I had ever seen, which is, I think, one of the greatest curiosities connected with the building—a roof of marble! Six thousand tons of marble are here spread out upon the roof of a building 218 feet long, and 160 feet wide, at a cost of some thousands of dollars, and is supported by arches springing from the columns which surround the building on the outside. On a clear day, a fine view of the city and surrounding country can be obtained from the roof of the college; but as the rain poured down in torrents, accompanied with violent gusts of wind, shrouding everything in mist, we were unable to obtain a glimpse of any object save part of the college grounds and the cloudy vapour which enveloped the city, so that we were glad to rush from the scene and take shelter under the marble, since we could not endure the peltings of the storm on it.

After visiting the dormitories and lavatory,—which strongly reminded me of my school-boy days, and with them the reminiscences which early rising and cold water on frosty mornings always excite in my mind—we were informed by the President, that as the dinner hour had arrived, we would have an opportunity of witnessing how the pupils are taught the lesson of patience—a piece of instruction they receive every day. Entering the dining-room with the boys, we could observe the regularity and order with which each proceeded to the seat allotted to him at the table,—at each of which one of the matrons presided to serve the dinner. The countenances of the boys showed, that although they were to submit to the inculcation of that virtue which so few possess, and which is so difficult to acquire, they knew that the exercise which followed was associated with the most agreeable sensations. When all were seated, one of the boys at each table, whose duty it was to act as waiter, rose up and carried the plates of his fellows to the head of the table to be supplied; after which he attended to himself, and took his seat. During the time he was thus occupied (about four or five minutes) the boys who had been supplied first, waited patiently with their dinner before them and their napkins arranged, ready for the attack, but not daring to commence. The tinkle of the President's bell told them that all were supplied, and that grace was about to be said. In a moment they were as still as possible, and remained so while

the President asked the Divine blessing upon the food provided: but as soon as he had concluded, a second scarcely elapsed before the work of demolition commenced, and proceeded with the vigour usually evinced by school-boys on such occasions.

From a remark of the President, while the boys were at dinner, I was induced to observe their countenances, and although not a professed physiognomist, was much surprised to find that, of about three-fifths of them, I could distinguish characteristics of the nation to which their parents or forefathers had belonged. The soft, quiet expression of countenance and the light hair of the Saxon, were easily distinguished, from the lively, animated, and humorous countenance of the Celt, although all in the Institution are native Americans. Some of the pupils are descended from the early settlers; but the majority are the children of English, Irish, and Scotch parents. The number at present in the college is 304.

The Institution is managed somewhat like our Normal School. The chief controlling power is a Board of Directors, who appoint the officers and admit the pupils. This Board is subdivided into committees: thus there is a Committee for the several departments of "Household," "Accounts," "Admission and Discharge," and "Library." For any article of books, stationery, &c., required in the several schools, the President sends a requisition to the Committee on Instruction which decides whether so much of the article is required, or not. After it has been approved by them, the list is sent to the store from which such articles are obtained, and a bill and the articles sent to the college. At the end of each quarter, when the accounts are sent in, the Committee by which the order was approved, is the first to audit them; then the Committee on accounts, and lastly the Board of Directors; after which, the Board sends a requisition to the Commissioners of the Girard Estate for the amount—which is payable at the Treasurer's office by warrant from the Mayor of the city.

There is one extraordinary restriction connected with this bequest to which I would merely refer before closing my remarks: namely, the exclusion of clergymen of all religious denominations from visiting or holding any office in the college. On every order for admission to visit the institution, the extract from Mr. Girard's will, excluding them from all connection and intercourse with the College, is printed, so that no clergyman, knowing the restriction, can conscientiously enter an institution from which all his order are expressly excluded by the will of its founder. The reasons assigned for this extraordinary provision in Mr. Girard's will are, that the discussion of questions involved in a difference of religious creeds narrows the mind and has the effect of making the disputants denominational bigots; and that the proper time for persons to join themselves to a religious denomination is when they have arrived at maturity and are capable of judging between right and wrong. At the same time he has not attempted to interfere with the religious faith the pupils may have adopted before their entrance into the college, nor with the religious instruction afforded them by their mothers or friends during their stay in it; but has expressly desired that upon each pupil's entering life, he should attach himself to some body of Christians. That the late Mr. Girard was right in excluding ministers of religion from his college in the manner he has, is an opinion in which few in this country I think will be found to coincide,—much less to advocate and defend either the necessity or justness of such policy in reference to any educational institution.

Toronto, May, 1851.

T. H.

THE ANCIENT ROMAN SYSTEM OF EDUCATION.

A virtuous but rigid severity of manners was the characteristic of the Romans under their kings, and in the first ages of the republic. The private life of the citizens, frugal, temperate, and laborious, had its influence on their public character. The (*patria potestas*) paternal authority gave to every head of a family a sovereign authority over all the members that composed it; and this power, felt as a right of nature, was never resisted. Plutarch has remarked, as a defect in the Roman laws, that they did not prescribe, as those of Lacedæmon, a system and rules for the education of youth. But the truth is, the manners of the people supplied this want. The utmost attention was bestowed in the early formation of the mind and character. The excellent author of the dialogue *De Oratoribus* (concerning orators) presents a valuable picture of the Roman education in the early ages of the commonwealth, contrasted with the less virtuous practice of the more

refined ages. The Roman matrons did not abandon their infants to mercenary nurses. They regarded the careful nurture of their offspring, the rudiments of their education, and the necessary occupations of their household, as the highest points of female merit. Next to the care bestowed in the instilment of virtuous morals, a remarkable degree of attention seems to have been given to the language of children, and to the attainment of a correctness and purity of expression. Cicero informs us that the *Gracchi*, the sons of Cornelia, were educated, *non tam in gremio quam in sermone matris: in the speech more than in the bosom of their mother.* That urbanity which characterized the Roman citizens showed itself particularly in their speech and gesture.

The attention to the language of the youth had another source. It was by eloquence, more than by any other talent, that the young Roman could rise to the highest offices and dignities of the state. The *studia forensia (forensic studies)* were, therefore, a principal object of the Roman education. Plutarch informs us, that among the sports of the children at Rome, one was pleading causes before a mock tribunal, and accusing and defending a criminal in the usual forms of judicial procedure.

The exercises of the body were likewise particularly attended to; whatever might harden the temperament, and confer strength and agility. These exercises were daily practised by the youth, under the eye of their elders, in the Campus Martius.

At seventeen the youth assumed the manly robe. He was consigned to the care of a master of rhetoric, whom he attended constantly to the forum, or to the courts of justice; for, to be an accomplished gentlemen, it was necessary for a Roman to be an accomplished orator. The pains bestowed on the attainment of this character, and the best instructions for its acquisition, we learn from the writings of Cicero, Quintilian, and the younger Pliny.

School Architecture.

The engraving on page 81 presents a view of the village school-house erected by Z. Allen, Esq., at Allendale, North Providence, after designs by T. A. Teft, of Providence. It is situated in a beautiful grove, on a little knoll which admits of a basement room in the rear, originally designed for a library and reading-room for the village, but now occupied by a primary school. It is built of stone in a style very common in structures of this kind in England. The main room, which is intended for a school-room, although for the present used for lectures, and religious exercises, is very appropriately finished—the walls being made to represent stone work of a very subdued neutral tint, and the ceiling, supported by wooden tracery, is finished partially in the roof, leaving the necessary open space above to protect the room from the effects of excessive heat and cold. The ceiling, wainscoting, seats, desks, and doors, are grained in imitation of oak. It is thoroughly ventilated, and warmed by air heated in a chamber below.

In this very pleasing specimen of the Elizabethan style, and other varieties not commonly introduced into structures of this kind, Mr. Teft has broken, in Rhode Island at least, the dull monotony of the wretched perversions of architecture which characterize the village and country school-houses of New England. We have already in the second Volume of this *Journal* presented a few specimens of the Elizabethan style, in front and side elevations, for large and small schools, which can be easily modified to suit the wants of particular localities.

In many neighbourhoods it is a matter of economy to build of stone, and where this is the case, the style of architecture should be adapted to the material:

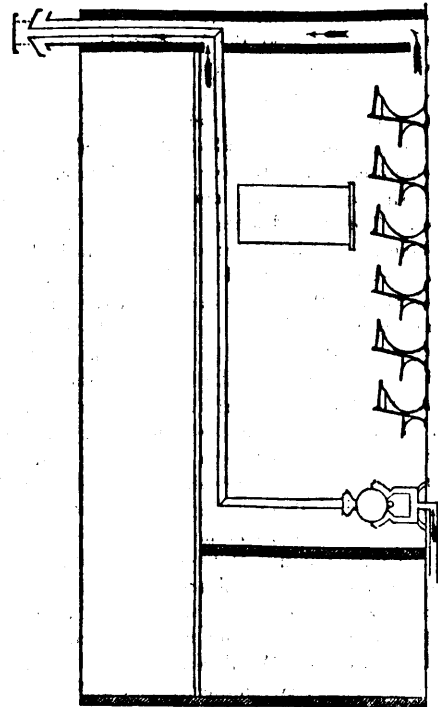
The style and arrangement of the seats and desks is indicated in figures 2 and 3. The end pieces are of cast iron, and so shaped, as to facilitate the sweeping of the room, and the pupils getting in and out of their seats, and at the same time are firmly attached to the floor by screws. This building is 30 feet by 20 feet.

The room is heated by a *ventilating school stove*, designated both for wood and hard coal. Fresh air is introduced from outside of the building by a flue beneath the floor, and is warmed by passing along the heated surfaces of the stove as indicated in the following section.

The smoke-pipe is carried in the usual way, high enough to prevent any injurious radiation of heat upon the heads of the pupils

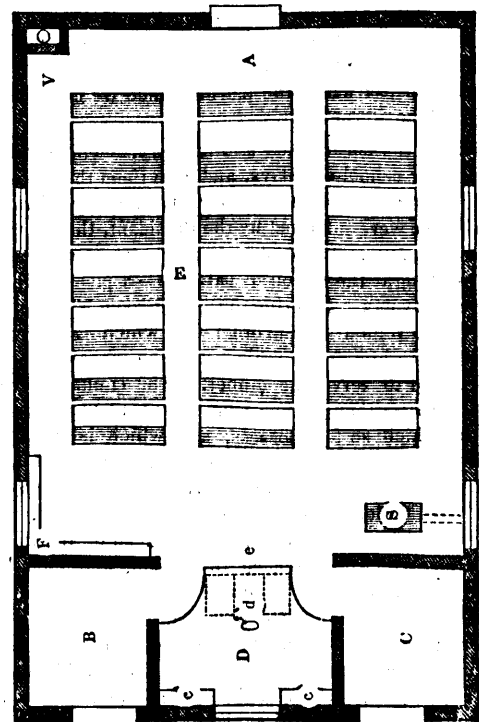
below, to the centre of the opposite end of the room, where, after passing through the ceiling, it enters the ventilating flue, which, commencing at the floor, is carried up through the attic and out above the roof, as shown in figures 2 and 3. The heat of the smoke-pipe produces a lively upward current of the air in the upper portion of the ventilating flue, sufficient to draw off the lower stratum of air near the floor, and at the same time draw down, and diffuse equally through the room, the fresh air which is introduced and warmed by the stove at the opposite end.

FIG. 2.



- A—Front entrance.
- B—Girls' entrance and lobby.
- C—Boys' do. do.
- D—Teachers' platform.
- E—Seat and desk for the pupils.
- S—Ventilating school stove.
- V—Flue for ventilation.
- F—Seats for classes at recitation.
- d—Teacher's desk.
- e—Library of reference in front of teacher's desk.
- e—Closets for school library and apparatus.
- f—Fence dividing back yard.

FIG. 3.



Miscellaneous.

THE BEAUTY OF LIFE.

"Truly the light is sweet, and a pleasant thing it is for the eyes to behold the sun."
Solomon.

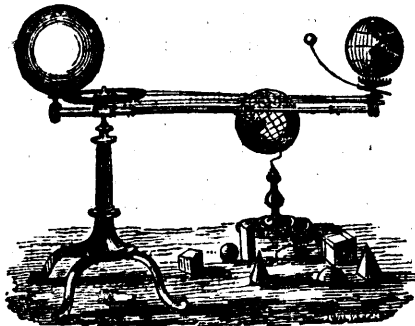
Life is beautiful ; its duties
Cluster round each passing day,
While their sweet and solemn voices
Warn to work, to watch, to pray.
They alone such blessings forfeit,
Who through sloth their spirits cheat ;
Or, in selfish stupor sitting,
See the rust their armour eat.

Life is beautiful ; affections
Thrill with joy its golden string,
In its opening blossoms nestle,
Bird-like 'mid its branches sing,
Smiling rock its cradle slumbers,
Guard with pride its youthful bloom,
Fondly kiss its snow-white temples,
Dew the turf that decks its tomb.

Life is beautiful with promise
Of a crown that cannot fade ;
Life is fearful with the threatening
Of an everlasting shade.
May no thoughtless worldling scorn it,
Wandering wide in folly's maze ;
Duty, love, and hope, adore it,
Let its latest breath be praise.

A SWARM OF BEES.

B patient, B prayerful, B humble, B mild,
B wise as a Solon, B meek as a child ;
B studious, B thoughtful, B loving, B kind ;
B sure you make matter subservient to mind
B cautious, B prudent, B trustful, B true,
B courteous to all men, B friendly with few ;
B temperate in argument, pleasure, and wine ;
B careful of conduct, of money, of time ;
B cheerful, B grateful, B hopeful, B firm,
B peaceful, benevolent, willing to learn ;
B courageous, B gentle, B liberal, B just ;
B aspiring, B humble, because thou art dust ;
B penitent, circumspect, sound in the faith ;
B active, devoted, B faithful till death ;
B honest, B holy, transparent, and pure ;
B dependant, B Christ-like, and you'll B secure.



THE TELLURIAN.

As this instrument is now introduced into a great many of our Canadian schools we give an illustration of it, together with the following explanatory sketch of its uses and value :—

The tellurian is designed to illustrate all the phenomena resulting from the relations of the Sun, Moon, and Earth to each other. The most important of these phenomena are the succession of day and night, the change of seasons, the change of the Sun's declination, the different lengths of day and night; the rising and setting of the Sun north of east in summer, the changes of the Moon, solar and lunar eclipses, spring and neap tides, the later daily recurrence of the tides, length of days on the Moon, the appearance of the Earth to observers on the Moon, the harvest Moon, the difference of a synodical and sidereal revolution of the Moon, the precession of the equinoxes and the difference of a solar and sidereal year. All these phenomena may be explained by the tellurian, with a clearness and simplicity that bring them within the comprehension of a child. Before passing to an explanation of the manner in which they may be illus-

trated, I shall describe the construction of the instrument, and give directions for its adjustment.

CONSTRUCTION.—The Tellurian, as seen by the cut, consists of the stand, the arm, the three fixed pulleys, the handle, the three moveable pulleys, the inclination wire, the Moon's orbit plane, the extension screw, and the three balls representing the Sun, Earth, and Moon. Of these three balls the globe is three inches in diameter, the small ball seven-eighths of an inch, giving nearly the true proportionate size of the Moon ; and the large ball five inches ; the true proportionate size of which would be nearly twenty-eight feet. The proportionate distance of the Moon from the Earth would be seven and a half feet ; while the earth should be placed at the distance of two thousand nine hundred and sixty-nine feet from the Sun. It is perceived that an instrument giving the true proportionate sizes and distances could not well be constructed ; and were it constructed, would require either a telescope or microscope to examine it. Notwithstanding the proportions are not preserved in the tellurian, the causes of the various phenomena appear much more clearly than if they were.

Of the three fixed pulleys, only the upper and larger one is seen in the figure. There are three corresponding moveable pulleys on the end of the arm, each moving independently of the other. The upper pair of pulleys, one moveable and one fixed, being connected with a cord passing around both, serve to give motion to the Moon around the Earth. The middle pair, connected by a cord in a similar manner, give a slow motion to the moon's orbit plane. The lower pair, being both of the same size and connected with a cord, preserve the parallelism of the inclination wire or axis of the earth.

The extension screw is used to tighten the cords when they become slack by use.

ADJUSTMENT.—In setting up the instrument, screw the upright standard, to which the arm and fixed pulleys are attached, into the circular base ; place the moveable pulley, with the orbit plane, on the wire at the end of the arm ; arrange the cords around the respective pairs of pulleys, crossing the cord which goes around the upper pair, (this is the longest cord of the three ;) place the globe on the inclination wire, and the sun or large ball on the wire in the handle ; then turn the stand so that the dividing line, between Aries and Pisces, on the horizontal circle on the large fixed pulley, shall be on the east side of the center ; again, by applying the thumb and finger to the lower moveable pulley, turn the inclination wire and globe on it, so that the north pole of the globe shall be directed toward the north star. The instrument is now adjusted.

If by means of the handle the arm is turned around, it will be observed that the sun and the earth revolve around a common center of gravity ; that the sun revolves on its axis by coming in contact with the large pulley ; that the moon revolves around the earth thirteen times, while the earth goes round the sun once ; that the parallelism of the earth's axis is maintained, always pointing toward the north. The revolution of the earth on its axis is effected by striking the globe lightly with the finger. The motion of all the balls should be from west to east in the southern part of their orbits.

THE VOYAGE OF THE DEAD,

A FEARFUL AND TOUCHING INCIDENT IN THE ARCTIC SEAS.

During a period when so much anxiety prevails respecting the fate of Sir John Franklin, every thing relating to the Polar Regions is of interest. The following sketch, from the Westminster Review, is one of the most thrilling nature.

One serene evening in the middle of August, 1775, Capt. Warrens, the master of a Greenland whaleship, found himself becalmed among an immense number of icebergs, in about 77° of north latitude. On one side, and within a mile of his vessel, these were closely wedged together, and a succession of snow-coloured peaks appeared behind each other as far as the eye could reach, showing that the ocean was completely blocked up in that quarter.

Capt. Warrens did not feel altogether satisfied with his situation ; but there being no wind he could not move one way or the other, and he therefore kept a strict watch, knowing that he would be safe as long as the icebergs continued in their respective places.

About midnight the wind rose to a gale, accompanied by thick showers of snow, while a succession of tremendous thundering,

grinding and crashing noises gave fearful evidence that the ice was in motion. The vessel received violent shocks every moment; for the haziness of the atmosphere prevented those on board from discovering in what direction the open water lay, or if there actually was any at all on either side of them. The night was spent in tacking as often as any cause of danger happened to present itself, and in the morning the storm abated, and Capt. Warrens found, to his great joy, that his ship had not sustained any serious injury.

He observed with surprise that the accumulated icebergs, which had on the preceding evening formed an impenetrable barrier, had been separated and disarranged by the wind, and in one place a canal of open sea wound its course among them as far as the eye could discern.

It was two miles beyond the entrance of this canal that a ship made its appearance about noon. The sun shone brightly at the time, and a gentle breeze blew from the north. At first some intervening icebergs prevented Capt. Warrens from distinctly seeing any thing but her masts; but he was struck with the strange manner in which her sails were disposed, and with the dismantled aspect of her yards and rigging. She continued to go before the wind for a few furlongs, and then, grounding upon the low icebergs, remained motionless.

Capt. Warren's curiosity was so much excited, that he immediately leaped into his boat with several seamen, and rowed toward her. On approaching he observed her hull was miserably weather-beaten, and not a soul appeared on the deck which was covered with snow to a considerable depth. He hailed her crew several times but no answer was returned.

Previous to stepping on board, an open port-hole near the main chains caught his eye, and on looking into it, he perceived a man reclining back on a chair, with writing materials on a table before him; but the feebleness of the light made every thing indistinct. The party went upon deck, and having removed the hatchway, which they found closed, they descended to the cabin. They first came to the apartment which Capt. Warrens viewed through the port-hole. A tremor seized him as he entered it. Its inmate retained his former position, and seemed to be insensible to strangers. He was found to be a corpse, and a green damp mould had covered his cheeks and forehead and veiled his open eyeballs. He had a pen in his hand and a log-book lay before him—the last sentence on the unfinished page ran thus:

"November 14, 1762.—We have now been enclosed in the ice seventeen days. The fire went out yesterday, and our master has been trying ever since to kindle it again, without success. His wife died this morning. There is no relief—"

Capt. Warrens and his seamen hurried from the spot without uttering a word. On entering the principal cabin, the first object that attracted their attention was the dead body of a female reclining on a bed, in an attitude of deep interest and attention. Her countenance retained the freshness of life, and a contraction of the limbs showed that the form was inanimate.

Seated on the floor was the corpse of an apparently young man, holding a steel in one hand and a flint in the other, as if in the act of striking fire upon some tinder which lay beside him. In the fore part of the vessel several sailors were found dead in their berths and the body of a boy was crouched at the bottom of the gangway stairs.

Neither provisions nor fuel could be discovered any where; but Capt. Warrens was prevented by the superstitious prejudices of his seamen from examining the vessel as minutely as he wished to have done. He therefore carried away the log-book already mentioned and returned to his own ship, and immediately steered to the southward deeply impressed with the awful example which he had just witnessed of the danger of navigating the Polar seas in high northern latitudes.

EDUCATION OF MECHANICS.

It is always understood that a regular course of training and study is essentially necessary to qualify young persons for the learned professions, for theology, law, and medicine. In all civilized and enlightened countries, academies have been founded, colleges erected, professors appointed, and lectures delivered, for the express purpose of imparting to students a knowledge of those branches of education which have a more immediate reference to these distin-

guished professions. Every one admits the propriety and utility of such institutions, and such regulations for scientific purposes and pursuits. But no such care and attention has hitherto been bestowed, or considered necessary, in the education of mechanics. Few, comparatively, of this most useful class of men are theoretically acquainted with the fundamental principles of their respective trades, and fewer still with the collateral and general branches of physical science. There can be no doubt that Mechanics' Institutes, which are only of modern origin, were intended to convey such information, and these popular and useful institutions, in the large cities of Britain, we believe, adhere, in many instances, strictly to the objects contemplated at their original formation. It would be well for mechanical men, if such a laudable design were kept more prominently in view, in the lectures which are delivered in these institutions. There is an ample field of study for the most diligent and successful mechanic in his own occupation, which has hitherto been only partially cultivated. This truth has been forcibly impressed upon our mind when perusing an admirable address on the nature and importance of the education of Mechanics, delivered before the Mechanics' Institute of Toronto, by the Chief Superintendent of Schools for Upper Canada.* The learned lecturer, the Rev. Dr. Ryerson, in explaining the nature of the education which ought to be sought by and provided for mechanics, after mentioning in the first place, that they ought to know how to read and write correctly their native language; that they should be correct in their actions as well as in their words; that they should have some knowledge, in the second place, of the constitution of the government under which they live, and of their rights and duties as citizens; remarks, in the third place, that they ought to have some knowledge of the nature of the substances with which they will have to do, as well as some acquaintance with the principles on which they may be moulded or modified and rendered subservient to their purposes.—*Halifax (N. S.) Guardian.*

THE COLONIAL EMPIRE OF GREAT BRITAIN.

The following striking reflections upon the capacity and resources of the British Colonial Empire, as exhibited at the great industrial congress of the world in London, indicate the important influence which a participation in that peaceful tournament of nations may have upon the destiny of these youthful states and empires. The impression which has been made upon the mind of England by the colonial display has been profound and lasting:—

I suppose this wondrous collection of objects will make a different appeal to every imagination, and impress every mind in a different manner. The most powerful impression I received was on turning down into Canada, and wandering among the products of that world we call our Colonies; those strange grains, and woods, and animals, and fruits; those barbarous utensils, arms, and ornaments, mixed up with all the evidences of English civilization, those works of living savage populations—our fellow-subjects. Neither the mass, nor the perfection of all that Birmingham, and Sheffield, and Manchester contribute, gave me such an awful sense of the power and the responsibility of England, as these contributions of our remotest and wildest settlements to their glorious mother country.

CURIOSITIES OF ART.

It is singular how many men have directed their energies of mind to perfecting toys, which, although displaying wonderful inventive powers, yet have never conferred any benefit on mankind, nor ever have been used for any other purpose than as a piece of amusement—the childish exhibition of masculine mind, the fame of foolery, and the foolery of fame.

Thus Jerome Faba, an Italian Priest, and a native of Calabria, exercised himself in a species of industry, wonderful for its difficulty. He finished a work of boxwood, which represented all the mysteries of passion, and which he put into the shell of a walnut. To him was attributed a coach the size of a grain of wheat, within which there were to be seen a man and a woman, a coachman who drove it, and horses that drew it. These were presented to Francis I., and Charles the Fifth.

In China, the tomb of Confucius has been made in a small miniature, no longer than a nut, but wonderfully composed of precious

* See *Journal of Education for U. C.*, Vol. II, pp. 17-25.

metals, and adorned with a profusion of gems; but its value consists of the labour of execution. Its landscapes, dragons, angels, animals, and human figures, would require several pages of description, which would without a view of the model, prove tedious and unintelligible.

Charles V., of Spain had a watch which was confined in the jewel of his ring; and a watchmaker in London presented Geo. III. with one set in the same manner. Its size was something less than a silver two-pence, and it contained one hundred and twenty-five different parts, and weighed altogether no more than five penny-weights and seven grains.

The tomb of Raphael, executed by an Italian named Raccavalva, is indeed a wonder. It is only twelve inches in height, and from an inch to four inches in diameter. It is adorned with various architectural ornaments, in the richest style of Gothic, also figures of the Virgin and Child. The work is said to be of unrivalled merit and beauty. The model is contained in a case of wrought gold, and is itself of box-wood. The general design may be considered architectural, embellished with several compartments of sculpture, or of carving, consisting of various groups of figures. These display different events in the life of Christ. Some of the figures are less than a quarter of an inch in height, but though thus minute, all are finished with the greatest precision and skill; and what renders this execution still more curious and admirable, is the delicacy and beauty with which the back and distant figures are executed.

THE EMPIRE OF CHINA.—The statement of the increase of population in China will occasion surprise to those who have not examined the subject, and may lead to some useful reflections in relation to the prospective destiny of our own and other countries. The Tsing or Manchu dynasty commenced in China in the year 1664, but the whole of the eighteen Provinces were not quieted under the new yoke much before the year 1700. Prior to this period, China had been distracted both by internal revolutions and by wars against her external invaders. Since that period, peace has almost universally prevailed, and along with it the development of the country in the extension of the arts and in population. By the census of 1710, ten years after the last date above mentioned, and only 140 years ago, the entire population of the empire was only 27,241,129, about equal to the present population of the United States. In 1753, 43 years afterward, it had increased to 103,050,060. In 1793, the estimate population given to Lord Macartney was 333,000,000. By the census of 1812, probably the most reliable of any, it was 362,447,183, and the most prevalent estimate at this day, is 400,000,000, or nearly one half of the whole population of the globe. Thus, in 140 years the population of China has augmented from 27,000,000 to 400,000,000. The empire of China is divided into the Eighteen Provinces, known among us as China; Manchuria the country of the Manchu Tartars who conquered China, and the colonial possessions including Mongolia, Ili, Koko-nor and Tibet. The area of the whole empire is 5,300,000 square miles. It has a coast line of 3,350 miles, and is coterminous with Russia for a similar distance. Manchuria and the provincial possessions are not unusually populous. The eighteen provinces of China proper are about equal in area to the twenty-eight states of this Union previous to the admission of Texas, Iowa and California. The several provinces in a size about equal to the average of the Western American States. The population of China proper is now equal to 268 persons to the square mile, which is about the same as that of Lombardy in Italy, but several of the Eastern Provinces have more than twice that proportion. At the same ratio of increase which has heretofore held good from our beginning as a nation, the same augmentation of our population which has occurred in China during the 140 years past, will occur here within the next 80. The population of the United States has hitherto doubled every 20 years or thereabout, and there has been a falling off in the ratio during the latter portion of the period. Assuming the population now to be 25,000,000, this ratio will make it in 20 years 50,000,000, in 40 years 100,000,000, in 60 years 200,000,000, and in 80 years, that is, A. D. 1930, it will reach 400,000,000—the present population of China. If we suppose, then, this augmentation of population to take place within the twenty-eight states, and leave the population of the states farther west to be made up from the new sources of emigration,

opened by presenting another frontier on the Pacific,—then within the life-time of the child now born, the population of all these states will equal in density the present population of China; and that of these eastern states will, probably, like the eastern or maritime provinces of China, be found running up to 671,705, and 850 persons to the square mile which is the present population of Cheh Kiang Ngan Hwui and Kiang respectively, being considerably more than one person of the acre.

IMPRESSIONS IN YOUTH.—Parents and others should remember that very lasting impressions can be made on the minds and on the hearts of youth. The great Frederick of Prussia once called on his nephew, afterwards Frederick III, when a lad, to recite to him; and drawing from his pocket an edition of La Fontaine's "Fables," pointed out one for translation. It so happened that the youth had been familiar with that particular fable, and so did it fluently. Upon being praised for his improvement, "I informed him," said Frederick William in after life, "of my having previously translated it. His face brightened up, and patting me on the cheek, he said, 'That's right, my dear Fritz! always be honest and honourable. Never seem to be what thou art not; but be more than thou appearest to be.' That admonition made an indelible impression on my heart; and though I disliked falsehood from my childhood, from that time I have hated and detested all species of dissembling and lies."

A PHILOSOPHICAL SENTIMENT.—Governor Wright, of Indiana, advocating the establishment of a common school system in that State, says: "If we do not pay for the education of the boy, we shall surely pay double for the ignorance of the man."

YANKEE, DERIVATION OF.—The word Yankee is nothing more than the word English so transformed by the imperfect pronunciation of the natives of Massachusetts—Yenghis, Yanghis, Yankies. The orthography of this much-used epithet, which is not given, we believe, in any English or American work, was communicated to M. Philarete Charles by one of the best-informed men of that province. In a curious book on the round towers of Ireland, the origin of the term Yankee-doodle was traced to the Persian phrase, "Yanki dooniah," or "Inhabitants of the New World." Layard, in his book on Nineveh and its Remains, also mentions "Yanghinia" as the Persian of America.—*From Notes and Queries.*

EARLY FRUGALITY.—In early childhood you lay the foundation of poverty or riches in the habits you give your children. Teach them to share everything with their playmates; but never allow them to destroy anything.

HAROUN AL RASCHID never built a mosque without adding a school to it. He was cotemporary with Charlemagne, and is known to almost every child, through the kindly medium of the "Arabian Nights."

Look not mournfully into the Past—it comes not back again. Wisely improve the Present—it is thine. Go forth to meet the shadowy Future, without fear and with a manly heart.—*Moral deduced from LONGFELLOW'S "Hyperion."*

Taxes for the support of schools are like vapours, which rise only to descend again to beautify and fertilize the earth.

Our greatest glory is not in never falling, but in rising every time we fall.

THE HEART has its arguments, as well as the understanding, *i. e.* in favour of humanity.—*Pascal.*

Light as a gossamer is the circumstance which can bring enjoyment to a conscience which is not its own accuser.—*Carleton.*

The study of the Classics bestow exquisite taste, and is also one of the solid foundations of oratory.—*Brougham.*

AMBITIOUS MEN are most in the power of the blasts of fortune as the tallest trees are in those of the storm.

JOURNAL OF EDUCATION.

TORONTO, JUNE, 1851.

[OFFICIAL.]

Circular to Local Superintendents of Common Schools on the mode of distributing the School Fund among the several School Sections for the year 1851.

SIR,—I address this Circular to you on the subject of distributing the school fund for the present year among the several school sections placed under your charge. The first clause of the 31st section of the school act requires each local superintendent, "as soon as he shall have received from the county clerk a notification of the amount of money apportioned to the township or townships within the limits of his charge, to apportion the same, (unless otherwise instructed by the Chief Superintendent of Schools,) among the several school sections entitled to receive it, according to the average attendance of pupils attending each common school, (the mean attendance of pupils for both winter and summer being taken,) as compared with the whole average number of pupils attending the common schools of such township."

It is clear from the clause of the Act thus quoted, that if no instructions be given by the Chief Superintendent of Schools on the apportionment of the school money by local superintendents, the average attendance of pupils must be the basis of such apportionment. The power given to the Chief Superintendent as to the basis of apportioning the money to the several school sections under your charge, was designed merely to prevent the introduction of the new principle of apportionment without proper notice and against the wishes of any county. I have no desire or interest on the subject, except that which will be most acceptable to the people at large and most conducive to the education of their children. The principle of aiding those who help themselves, and in proportion as they do so, appears the most equitable, and best calculated to call forth local effort. To keep the schools open both summer and winter, and to secure the largest and most regular attendance of pupils. But at the same time, all parties concerned ought to have a year's notice that the amount of school money to be apportioned to them the following year would depend upon their exertions, and not upon the accidental circumstance of the number of children of school age resident in their section. In order, however, to render the administration of the law on this point harmonious with the wishes of the people, the several County Councils have been consulted; and I have received replies from most of them. The purport of the greater part of the replies is in favor of apportioning the school money to each section the current year according to the ratio of school population, and not of school attendance; in some of the replies no wish is expressed on the subject; and in one or two instances, County Councils have expressed a wish to have the moneys apportioned upon the basis of last year's attendance, as contemplated by the letter of the law.

The following Municipal Councils have expressed a wish that the basis of the distribution of the school fund for 1851, should be that of school population, as reported for 1850, viz:—

1. The County of Norfolk.
2. The United Counties of Northumberland and Durham.
3. The United Counties of Stormont, Dundas, and Glengarry.
4. The United Counties of Frontenac, Lennox and Addington.
5. The County of Peterborough.
6. The United Counties of Essex and Lambton.
7. The County of Prince Edward.
8. The County of Carleton.

The following have expressed a wish that the distribution of the school fund for 1851 be according to the average attendance of pupils as contemplated in the 1st clause of the 31st section of the School Act, viz:—

1. The United Counties of Huron, Perth and Bruce.
2. The County of Middlesex.

The remaining Counties have either expressed no opinion at all, or else have not yet transmitted their opinion on the subject to the Education Office.

With the wishes thus expressed it is my desire to comply. I have therefore to request, that in all cases where your County Council has either expressed no opinion on the subject, or has expressed a desire that the former method of apportioning the school money the current year should be continued, you will apportion the same according to the ratio of children between the ages of five and sixteen years resident in each school section as compared with the whole number of children of school age in the Township. But if your County Council has expressed a wish that practical effect should be given to the new provision of the law on this subject, you will then apportion the school money to the several sections under your charge according to the average attendance of pupils during the past year "the mean attendance for both winter and summer being taken."

Two questions have been proposed to me by several local Superintendents, as to the basis of apportioning the school money to the several school sections. The first is, whether a school section in which the school is kept open only six months is entitled to an apportionment equal in amount to another section with the same number of pupils in which the school is kept open nine or twelve months? I answer, that the law having prohibited the payment of school moneys in aid of any section in which a school shall not have been kept open six months during the preceeding year by a legally qualified teacher, the period of six months has been regarded as the minimum of a school year. Yet as the law does not require the local superintendent to pay to the orders of the trustees of a school section in which a school may have been kept open six months *all* that may have been apportioned to such section for the year, there is room to consider the question as to whether two sections equal in school population should receive an equal amount of aid from the school fund, though in the one the school should be kept open only six months during the year, and in the other twelve. Thus far, each section in which a school has been kept open six months during the year by a qualified teacher, has received the full amount of the apportionment for such year. That course I think should not be departed from the current year. But the question involved may, I think, form a proper topic of remark and consultation at the county school conventions, which I hope to be able to attend during the ensuing autumn throughout Upper Canada.

The second question which has been proposed by several local superintendents, relates to the mode of apportionment where the average attendance of pupils, and not school population, is made the basis of apportionment to the several school sections of a township. To ascertain the average attendance of pupils at a school for a given period, involves no difficulty; but I am asked, how the "mean attendance of winter and summer is to be obtained?" I answer, that in the directions which have accompanied the blank forms of trustees reports during the last 2 or 3 years, it is stated that "the term *summer* in the report is intended to include the half year commencing in April and ending in September, and the term *winter*, the half year commencing in October and ending in March;" or in other words, the *summer* part of the school year commences in the *spring*, and the *winter* part in the *autumn*. Should the "average winter attendance" of pupils in a school section be 50, and should there be no school in such section during the summer, the "mean attendance of pupils in winter and summer" in such section would be 25; but should there be a school in such section during the summer, and the average attendance be 40, then the mean attendance of 50 in the winter and 40 in the summer, would be 45.

These remarks on the modes of apportioning the school moneys, will I hope be sufficient to guide you in performing this part of your duty the current year. In the contemplated school conventions next autumn, we will confer on this as well as on other important subjects connected with the working of our school system.

I have the honor be,

Sir,

Your obedient Servant

E. RYERSON.

EDUCATION OFFICE,
Toronto, 28th June, 1851.

TEXT BOOKS—MUNICIPAL COUNCILS.—We are happy to learn that several Municipal Councils have lately made arrangements to procure and deposit in the clerk's office specimen copies of all the national books, maps, &c., recommended by the Council of Public Instruction for Upper Canada. The following extract from the proceedings of the Municipal Council of the counties of Essex and Lambton, transmitted to the Education Office by S. S. Macdonnell, Esq., the County Clerk, explains the object which the Council has in view :—“ Resolved * * * that the sum of £15 be granted to the Circuit Board of Essex, to enable the Board to procure one copy of each of the text-books authorised and recommended by the Council of Public Instruction, and also maps and scientific apparatus adapted for the use of common schools, to remain in the office of the Board of Public Instruction of Essex, as well for the convenience and use of the Board, in conducting examinations of candidates for teachers' certificates, as for specimens open to the inspection of those interested in common schools.”

The Municipal Council of the counties of Huron, Perth, and Bruce, have already supplied the County Board with a similar set of books ; and the Municipal Council of the county of Peterboro' have completed the necessary arrangements for establishing a *depôt* for the sale of the national books, maps, &c., at the lowest possible prices. The township of Percy has also ordered a supply of the national books for a similar purpose. These local *depôts*, in connexion with the provincial depository for books, maps, and apparatus, &c.—now about being established—will afford every facility to each school section in Upper Canada for procuring the best and cheapest description of school requisites.

We reflect with much satisfaction upon these gratifying indications of cordial co-öperation on the part of the people themselves in the great work of promoting popular education.

THE GOVERNOR GENERAL'S PRIZES IN AGRICULTURAL CHEMISTRY, &c.

We subjoin a few of the answers returned by Mr. R. W. Hermon, the successful candidate for the first of the two prizes in Agricultural Chemistry, &c., which His Excellency the GOVERNOR GENERAL has been pleased to establish in the Normal School for Upper Canada. The answers, as well as the questions themselves, will serve to indicate the extent to which the subject of Agriculture, in its relation to Chemistry, is introduced into the Normal School. It must be borne in mind that the time allowed for answering the whole of the questions—twenty in number—was three hours ; thus affording, on an average, nine minutes for each question. The words printed in italics we have inserted for the purpose of rendering the answers more complete. The whole number of marks fixed upon by the examiners, as equivalent to full and complete answers to all the questions, was 209. Mr. Hermon obtained the highest number—141, and the first prize was therefore adjudged to him.

Question 1. State the composition of the Atmosphere and some of its most important properties.

Answer. The most important substances contained in the atmosphere are, nitrogen, oxygen, carbonic acid, vapour of water, and a small quantity of ammonia.

The exact quantities in 100 parts, are,

Nitrogen,	79	} 100
Oxygen,	20	
Carbonic Acid,	$\frac{1}{1000}$	
Water, a small variable quantity.		
Ammonia, a trace.		

Its most important mechanical properties consist in the diffusion of its gases, its elasticity, *weight*, and power of suspending vapour of water.

Its chemical properties it owes to some of the gases of which it is composed, namely, CO² (carbonic acid,) and O, (oxygen) ; the former is the most active agent in the decomposition of rocks and the inorganic portion of the soil ; the latter is chiefly instrumental in converting the organic portion of the soil into carbonic acid and water, which constitute the most important parts of the organic food of plants.

Ques. 2. Describe good natural surface or agricultural soil, and the mode in which it originates.

Ans. A good natural surface soil should contain siliceous sand, silica, alumina, peroxide and protoxide of iron, carbonate of lime and magnesia, silicate of potash and soda, phosphate and sulphate of lime, decaying vegetable matter, (humus) ; and a small quantity of nitrogenous organic matter. Chloride of sodium (common salt) is also generally present in good arable soils. These substances are variously compounded. They originate from the decomposition of rocks.

All granite rocks are composed of silica, in combination with peroxide and protoxide of iron, potash, soda, lime, magnesia, and alumina ; all of which, with the exception of iron and alumina, combine readily with the CO² (carbonic acid) of the atmosphere, forming soluble carbonates of those bases. These are gradually washed out by rains, dews, &c., and conveyed away to the vallies, being there deposited in the form of beds, with clay or sand, as the case may be. Now, water entering the pores thus left in the rocks, freezes during the winter season, expands, and gradually disintegrates the rock, forming a siliceous sand, which, owing to the increased surface thus exposed, is soon further decomposed by the various chemical agents existing in the atmosphere. A soil is thus gradually formed from the solid rocks ; and when vegetable matter has slowly accumulated in it, it constitutes common arable land,

Ques. 4. (1.) On what rock does the subsoil repose in Canada West ? (2) State the geological periods to which those rocks belong, (3) and furnish a list of other fossiliferous strata, of more recent date, in the order of their deposition.

Ans. (1st.) Upon the Lower Silurian, and in some parts of the province upon the Upper Silurian.

(2nd.) They belong to the primary fossiliferous strata.

(3rd.) The fossiliferous strata lying above the silurian, arranged in descending order, are,

- | | |
|--------------------------|----------------------------|
| 1. Post pliocene | } (drift and boulder, &c.) |
| 2. Newer pliocene | |
| 3. Older do. | |
| 4. Miocene | } Tertiary group. |
| 5. Eocene | |
| 6. Chalk | } Secondary group. |
| 7. Green sand | |
| 8. Wealden clay | |
| 9. Upper oolite | |
| 10. Middle do. | |
| 11. Lower do. | |
| 12. Lias | |
| 13. Newer red sand-stone | |
| 14. Older new red do. | |
| 15. Coal measures | |
| 16. Old red sand-stone | |

Ques. 6. Describe the general structure of a plant, also the functions of its roots and leaves.

Ans. Plants consist of roots, stem, branches, and leaves. The functions of the roots are,

1st. To sustain the plant in an upright position.

2nd. To abstract from the soil the various kinds of food, both organic and inorganic, from which the plant builds up its structure.

The leaves act as a stomach, a mouth, and lungs. Their office as a stomach is, to decompose or digest the food which is conveyed to them by means of the *roots and stem from the soil*, or taken in by their stomata from the atmosphere. As mouths, they absorb the gases of the atmosphere, such as CO² and vapour of water ; some plants (as clover) obtain nitrogen also directly from the air. As lungs, the leaves give off oxygen during the day, and carbonic acid during the night. The carbon of the absorbed carbonic acid, uniting with the elements of water, forms dissolved woody fibre, (C¹² H⁸ O⁶) &c., which, being conveyed down the stem, (*inner bark*), is gradually deposited in the solid form.

Ques. 7. Of what substances does the organic food of plants consist, and in what forms does it exist in the atmosphere and soil ?

Ans. Of carbonic acid, water, ammonia, NO³ (nitric acid) and nitrogen in the pure state.

They exist in the atmosphere in the forms of carbonic acid, vapour of water, and ammonia.

They exist in the soil in the forms of,

1st. Carbonic acid and decaying vegetable matter.

2nd. Water in the fluid state.

3rd. Ammonia in the free state, and in the form of nitrate of ammonia.

Ammonia is formed in the atmosphere by the action of lightning, which decomposes the vapour of water. The hydrogen and oxygen of which the water is composed, while in their nascent state, combine with the nitrogen of the air, forming H^3N (ammonia,) and NO^5 (nitric acid.) These again combining form nitrate of ammonia, which is brought down by rain and deposited in the soil, whence it is abstracted by plants, and constitutes a very important part of their food.

Ques. 9. (1) How do plants appropriate food? (2) Name some manures which might be advantageously employed for the purpose of furnishing plants with inorganic nutriment, and give illustrations.

Ans. (1.) (Answer to the first question incomplete.) A very large proportion of the absorbed food goes to build up their structure. They deposit starch in their seeds and roots, for the purpose of supplying the young plant with nutriment before it throws out its leaves and attains sufficient size and strength to extract food for itself from the medium, air and soil, in which it grows.

(2nd.) Lime, gypsum, wood-ashes, bones, and marl.

1.—Lime supplies of its own substance the quantity of that material required by the plant.

2.—Gypsum supplies, not only lime, but also sulphur, a substance especially required by plants for the due formation of their seeds.

3.—Wood-ash contains large quantities of carbonate of potash, soda, &c., together with phosphorus (phosphates) and sulphur, (sulphates) which would be of immediate benefit to plants.

4.—Bones consist of about,

Gelatine,	35 lbs.	} in 100 lbs.
Phosphate of lime,	55 "	
Carbonate of do.,	9 "	
Oils and fats,	$\frac{1}{2}$ "	
Salts,	$2\frac{1}{2}$ "	

All of the above substances act very beneficially as food for plants when applied to the soil.

Ques. 10. Enumerate some of the most important properties of water

Ans. 1st. The perfect mobility of its particles.

2nd. A very great solvent power.

3rd. A capability of assuming many different forms, as for instance,—

a. The solid (ice.) b. The liquid (water.) c. The gaseous (vapour.) d. In combination with other bodies.

4th. The property of being heaviest at 40 degrees of temperature. If water followed the almost universal law by which bodies become heavier when they assume the solid state, than in any other form, we should have the most important parts of the world in such a condition, as regards temperature, as to render them uninhabitable by man and animals generally. For if ice and snow were heavier than water, they would accumulate year after year at the bottom of oceans, lakes, &c., and thus cause a great decrease of temperature.

5th. When water is converted into ice it possesses the property of giving off 45 (?) degrees of heat.

6th. When ice is converted into water, 140 degrees of heat are rendered latent : and when into steam, 1,000 degrees.

Ques. 12. (1) State the reasons why a judicious rotation of crops is necessary. (2) Instance some rotations applicable to Canada. (3) Distinguish between species of cultivated vegetables which exhaust the soil of particular mineral ingredients.

Ans. (1st.) By a judicious rotation of crops the agriculturist consumes, with the greatest possible economy, the various mineral ingredients, naturally present in, or artificially supplied to the soil. Economy in this respect is of particular importance, as one of the chief causes of diminishing scales of produce arises from the want of soluble mineral ingredients. But, in a judicious rotation, while a plant of one family is growing, the inorganic substances required

by a plant of another family are accumulating in a soluble state, and therefore capable of assimilation.

(2nd.) Rotation course.

1. Fallow. 2. Wheat (flint plant.) 3. Peas (lime plant.) 4. Potatoes (potash and soda.) 5. Oats (flint plant.)

(3rd.) <i>Flint Plants.</i>	<i>Potash and soda plants.</i>	<i>Lime plants.</i>
Wheat,	Beet root,	Peas,
Oats,	Turnips,	Beans,
Rye,	Mangel wurtzel,	Vetches,
Barley,	Indian corn,	Tobacco.
	Potatoes,	

Hay partakes of the character of all the above species.

Ques. 13. What are the effects of draining, ploughing, and fallowing ?

Ans. The beneficial effects of draining are mainly due,

1st. To the increased porosity it gives to the soil ; a current of air is thus permitted to circulate about its particles with every change of temperature.

2nd. By the removal of superfluous water, air is permitted to pass into the soil and exercise its decomposing influence. Draining also deepens the soil and permits the rapid expansion of the roots of plants.

3d. To the alteration it produces in the mechanical properties of the soil, rendering it loose permeable and more easily worked.

4th. To the great assistance it affords various manures in exerting their beneficial effects. The object of ploughing is to render the soil loose and friable, to expose its particles to the atmosphere, and to destroy noxious weeds.

By a fallow, a large amount of appropriate inorganic substances are rendered soluble in water, and thus capable of assimilation by plants.

Ques. 14. Describe the different forms of manure applicable to this country : state their effects, and the best mode of preserving and applying those which are liable to waste.

Ans. Common farm-yard manure, stable manure—(for mineral manures see answer to question numbered 9.) Both kinds are eminently rich in all the principles required by plants. They return to the soil all those substances which are abstracted by cropping. They also supply the deficiencies which may exist in impoverished or unfertile soils.

The best mode of preserving farm-yard manure is to pile it in heaps in the yard, or other convenient and sheltered place. It is advisable to dig a small trench round the heap, and sink a barrel at one extremity, so that the fluid which drains from the heap may be collected, and occasionally thrown upon it. The liquid portion of farm-yard manure is by far the most valuable.

Ques. 18. Trace the course of the food in ruminating animals.

Ans. From the mouth, the food having been well masticated, passes into the paunch or first stomach, where it undergoes a softening process. From the paunch it is conveyed into the second stomach, and having been there rolled into pellets, it is returned to the mouth to be remasticated (the cud.) The food is then conveyed into the third stomach, where it undergoes a second softening process. It is then passed into the fourth stomach, and subjected to the dissolving influence of the gastric juice, which changes it into chyme. From the fourth stomach is it propelled into the duodenum, and there receiving the bile and pancreatic juice, it is converted into chyle and absorbed by lacteals. The unnutritious portion passing on, is finally given off as excrementitious matter. From the lacteals the chyle passes into a vessel called the receptacle of the chyle, from which it is conducted by a trunk provided for the purpose, into a large vein, where it at once mingles with the venous blood.

HINTS TO TEACHERS.

DRAWN UP BY THE ARCHBISHOP OF DUBLIN.

N.B.—Please to observe that the square [brackets] as distinguished from the common (parenthesis) denote a word or phrase equivalent to the one before; and are used to guard the learner against mistaking it for a different thing. It is thus I should speak in geometry of "trilateral figures" [or "triangles."]'

The best mode of teaching any science may mean,—

1. The best for the teacher's ease; (such as the books in "question and-answer;" which the learner is set to get by heart : for him the books are ill adapted ; but they are good for the writer and book-

seller, because they sell; and for the master, because they save him trouble).

2. The best, to make pupil shew off at a made up examination.

3. The best for grounding him speedily and soundly in the science.

All teachers question their pupils, if there is even any attempt or pretence of advancing them properly.

Questioning is of three kinds:

1. Preliminary [or preparatory] questioning: (relates to the future.)

2. Instruction—questioning: (to the present.)

3. And examination—questioning: (to the past.)

All three, very few persons employ designedly: the last two are used by all who at all deserve the name of good teachers: the third alone is employed by probably the majority.

1. The first consists in asking (orally or on paper) questions relative to what the pupils is about to learn, to try what notions or guesses he may form on each point.

This is an increase of trouble to the teacher, and in the outset, taxes the efforts of the pupil by compelling him to think. In the end it will be found that he has learnt much more rapidly and with more interest, more correctly, and more permanently.

This mode is seldom employed designedly; but a man often finds how advantageously he has employed it, for himself by accident; when he has learnt a subject, for instance, by sitting down to write a book upon it.

If the teacher will have the courage to use this method systematically, by every day putting before his pupils questions relative to what they are next to learn, he will find himself doing wonders.

2. The second consists in asking questions as to the lessons actually before the pupils, to see how far they understand each passage, and can state it in their own words.

3. The third consists in examining them as to what they have learnt, to try how well they retain it.

These three processes have been compared to the ploughing, the sowing, and the harrowing of a field.

N.B.—You will judge, from what has been said, what is the best, and what the second best mode of advancing your pupils.

N.B.—You should frame examples for them; and teach them to do so themselves. It is not necessary that they should remember quite perfectly and readily each lesson before proceeding to the next: but they should clearly understand as they go on; and they should not advance far ahead of what they have perfectly learnt. In particular, the technical terms and definitions should be as familiarly known as the alphabet. For technical language is an encumbrance to those not quite familiar with it, and a great help to those who are.

Educational Intelligence.

CANADA.

Public Examination of the Model School.—On the 29th and 30th of May, the annual examination of the Model School took place in the presence of numerous audiences. The exercises on Friday commenced with the examination of the senior division of the school, in the elements of Natural Philosophy, by Mr. Sangster. We were not a little surprised and pleased to hear upwards of one hundred children answer, with great rapidity and exactness, many very searching questions in elementary mechanics, and show a perfect familiarity with the rationale of the mechanical powers in their practical application. From eleven to twelve o'clock, the senior division was examined by Mr. McCallum, in practical arithmetic geometry, and book-keeping. The boys appear to have acquired a very correct knowledge of the principles of arithmetic; examples were given in almost every department of the subject, yet the children never seemed to be at a loss for the proper rule, although no books were allowed to be used, except for the purpose of finding the logarithms of numbers by the tables. We observed that the children were occasionally desired to call out a formula from which a rule or rules were derived, interpret it, and give examples in illustration. The number of formulæ required to be explained to the children, amounted, we were informed, to about fifteen, giving rise when properly interpreted, to between sixty and seventy arithmetical rules, and being, in fact, an epitome of arithmetic. Some geometrical problems were solved with great neatness and accuracy by some of the boys on the black-board. They were examined in the first and second books of Euclid, and acquitted themselves very creditably. During the examination of the senior division in the school by Mr. McCallum, the junior division, consisting of about one hundred young children, were attracting the attention and exciting the admiration of spectators in the gallery, by their rapid and amusing answers to questions put to them by Mr. Sangster, in what are called Object Lessons, a mode of instruction required to be witnessed in

order to be appreciated or understood. During the afternoon of Friday Mr. McCallum conducted an admirable examination of the first division, consisting of about one hundred boys, in English history. In the galleries the younger children were questioned in geography and arithmetic. The answers elicited by the admirable mode of examination adopted by both teachers, was highly gratifying to the audience. We learned from gentlemen who had been present during the whole period, that Saturday's examination in grammar and geography surpassed that of the previous day. The answers in mental arithmetic were given by urchins from 9 to 13 years of age, with a rapidity and accuracy that called forth repeated, though silent, manifestations of surprise from the audience. This portion of the examination was conducted by Mr. Sangster, and well did he fulfil his duty. The utmost order reigned throughout the classes, and the mode in which three hundred children entered the rooms, stood up before their seats, and at the word of command simultaneously became seated, and behaved themselves in an orderly and decorous manner during the entire day, impressed us very favourably with the arrangements in practice. The examination closed with God save the Queen, sung by about 200 children, led by their instructor in vocal music, Mr. Walsh. The Rev. A. Lillie then addressed the audience and children in a very appropriate and feeling manner. He spoke of the examination he had the pleasure of witnessing from the commencement to the close, as one that far surpassed his expectations, notwithstanding the high opinion he had previously entertained of the masters of the Model School, and the conductors of the Normal School. —[Abridged from the British Colonist.

School Section No. 15, Malahide.—We have attended the examination of the school in section 15, Malahide, taught by Mr. Alex. Weldon, late student at the Normal School. The pupils were examined on the philosophy of language, natural philosophy, and general and biblical history. We were much gratified in observing the facility with which the pupils traced the prominent events of scripture history, and acquitted themselves in composition, vegetable physiology, embracing classification of the vegetable world; arithmetic, algebra, geometry, geography, mental arithmetic, &c. We feel it not only our duty but also a pleasure to bear our testimony to the qualifications of the teacher, and the advancement of the pupils; and we hope that the advantages of Normal School training will be generally diffused and more highly appreciated.

SAMUEL C. PHILP, *Wesleyan Minister,*

CHARLES BROWN, *Clergyman of the Church of England,*

PHILIP HODGKINSON, *J. P.*

Aylmer, June 18th, 1851.

School Libraries in Beckwith.—We have had a practical illustration of what can be done with even a fraction of the profits of the "fool's penny," in the purchase of one hundred and seventy-eight neatly bound octavo volumes, containing from three to four hundred pages each for school libraries for the township of Beckwith, out of the tavern license money of last year, which was laid aside for that purpose by the township council, who doubtless considered that, as the sale of liquors has a tendency to demoralize, degrade, and lay waste the public mind, that the best thing that they could do to counteract the evil effects of the traffic, would be to purchase, with the mere modicum of the money squandered, which came into their hands, works of a moral and philosophical tendency, to be placed in the hands of the youth that they may be armed with knowledge which may assist to enable them to resist the temptations to which they may be exposed. If such was their object we agree with them, that to educate the youth is one of the best means of reforming the world.—[Carleton Place Herald.

Toronto University.—The following new chairs have been established in the Toronto University:—History of English literature, salary, £350; Modern Languages, £350; Natural Philosophy, £350; Natural History, £350; Geology and Mineralogy, £350; Civil Engineering, £250. The first five will give their whole time to their duties; but this will not be required of the professor of civil engineering. A statute has been passed by the University providing for the religious instruction of the students of the different denominations, by a separate "professor of divinity," to be appointed by each denomination. The Chancellor has also established a gold medal "for the encouragement of the study of the evidences of natural and revealed religion."—[Toronto Correspondent N. Y. Commercial Advertiser.

PRINCE EDWARD'S ISLAND.

Queen's County—Statistics—Free Schools.—From the report of the Visitor for Queen's County to the Board of Education, we learn that during the year ending the 24th of April, 1851, the following schools were in operation:—District schools under the act 7 vic., 8; district schools under the act 10 vic., 44; female, 9; acadian, 2; primary, 3. Total, 66; schools, and 2,956 scholars. Increase over last year, 3 schools, and 601 scholars. Calculating the numbers in the public and private seminaries,

not under my supervision, at 500, the total provided with instruction will approximate to 3,500. Guided by the census returns of 1848, and the probable ratio of increase since, the total number of children within the educational age, in Queen's county, may be estimated at 4,500, leaving a thousand, or nearly a third, who do not attend school. In regard to free schools the Visitor remarks:—As the whole system will in all probability shortly experience a careful revision, the question of the conversion of our district schools, into free schools, which has of late excited some attention, will not be overlooked. The district schools throughout a majority of the towns in Canada, are at the present moment free: property is assessed for their support, and one of the reasons assigned for such taxation, is, that a well instructed people afford greater security to the rights of property. The Editor of the *Journal of Education*, published in that province, a periodical which ought to be in the hands of every instructor of youth, makes the following observations with reference to this question:—"We look with confidence to the near approach of that day—and a glorious day it will be—when every common school in this province will be as free to every child in the land, as the water we drink, and the air we breathe," an aspiration which will find an echo in the breast of every person capable of appreciating the blessings of an enlightened education. Connected with the improvement of our educational system, it may not be out of place to advert to the fact, that there appears a growing interest on the part of the people, in the advancement of an interest mainly created by agricultural science, the operations of the Royal agricultural society, and by their able and useful publications. In order that these efforts should become a source of increased benefit to farmers, they should themselves acquire a knowledge of the elementary principles of husbandry upon which the suggestions they might receive, would be based: this may be done most effectually through the teachers of the district schools, in the way recently recommended by that society. The Board of Education for Upper Canada has adopted this method of diffusing elementary agricultural instruction throughout that country.

JAMAICA.

Public Education in Jamaica.—From a letter written by the Rev. W. H. Landon, late Superintendent of schools in the county of Oxford, which appeared in the *Montreal Witness* of the 19th ult., we select the following remarks regarding the system of education at present in operation at Jamaica:—"The system of instruction pursued, I apprehend, is defective. There are a good many schools in operation, and a large number of the young are enjoying the benefit such as it is; but a little learning—bare literary attainment, seems to be proposed as the end of education, and not the means of it. Words and formularies are taught as though it was for their own sake, and not as the vehicles of thought and knowledge. Hence, the best educated youths, with here and there an exception, are as unintellectual, as stupid, and as gross as those who have no education at all."

BRITISH AND FOREIGN.

Items.—The Queen has placed New College, London, in connexion with the University of London.—The scheme for turning the Exhibition to educational purposes, progresses very favourably, and the University of Oxford has lent its support to the movement.—Sir J. Dodson and the Attorney and Solicitor-General have given it as their opinion that the university commission is "not in any respect illegal or unconstitutional."—The Earl of Belfast has expressed himself favourable to the establishment of libraries for the use of the industrial classes, and has promised to deliver a course of lectures in aid thereof.—In Parliament, a resolution declaring the expediency of promoting the education of the people in England and Wales, by the establishment of free schools for secular instruction, to be supported by local rates and managed by committees, elected specially for that purpose by the rate-payers, after much discussion was defeated by a vote of 49 to 139.—In regard to Lord Melgund's bill for the exclusion of popular education in Scotland, the London correspondent of the *Colonist* writes:—"The noble mover's measure was intended to provide that certain public schools should be established, and supported by rate, in which religious and secular education should be entirely separated, so that children of all denominations might be taught together. Lord Melgund made a very forcible and able speech on behalf of his bill. He detailed, with great clearness and effect, the lamentable ignorance of the great mass of the lower orders—showed the inefficiency of the means at present existing for the purpose of instruction, and exhibited, with painful accuracy, the errors appertaining to the present system of education throughout the country. Clever and earnest, however, as was the noble lord's argument, he yet failed to convince the House of Commons that in endeavouring to extend education in Scotland, he ought not rather to enlarge the present system than propose a new one. Mr. F. Mackenzie, who led the opposition, demonstrated with great plainness and

power, that the feeling of Scotland generally was certainly against any departure from the principles which have so long and so beneficially prevailed in that country. Although a very talented speech was delivered by the Lord Advocate, and Lord John Russell, the House refused to read the bill a second time, by 137 against 124.—A great meeting of the 'National Society' took place on Wednesday last. The National Society is a great association of Church of England divines and laymen, for the purpose of affording pecuniary assistance to schools connected with the Anglican Church: and somehow or other the committee of council on education (i.e. the Government) has managed to get immense power into its hands over the funds of the institution, and dispenses them upon state, rather than upon church, principles. During the last four or five years the tractarian section of the society, has been striving very vigorously to disattach itself from this lay interference, and has agitated the society at its annual meetings very considerably upon the matter. On Wednesday another annual meeting took place, and the discussion was renewed with an acrimony which seemed out of character, when it is remembered that an archbishop was in the chair, and several members of the Episcopal bench took part in the proceedings, and that a considerable majority, both of speakers and auditory were clergymen. The result was that the tractarian party was utterly defeated, and that the Government will continue to be the almoner of the funds raised by the pious and charitable for the instruction of the untaught members of the community."

The British Educational Census of 1851.—The educational portion of the enquiry will extend itself to the whole machinery of secular or religious instruction, whether existing in the form of good literary institutions or schools. Of schools, the classification is somewhat numerous, embracing alike the "royal foundation" and the establishment for the ragged, the Sunday and the daily school, the public academy and the private, the classic and the commercial schools, whether held in prison or in workhouse; whether presided over by spinster, pedagogue, or dame; whether kept in order by discipline, moral, or application corporel, by French lessons and backboards or the birch. The master, mistress, or other superintendent of the school, will be required to state the name, date, and character of the establishment; the number, age, and description of the pupils; the branches of learning taught; the number and remuneration of the teachers; the dimensions of the rooms appropriated to teaching the religious denomination with which the school is connected, and the income and expenditure. In the case, however, of private establishments, no answer will be expected to such of the questions as refer to matters of finance, the object being simply to ascertain the number of persons undergoing any educational process, and the nature of that process.

Ragged School Union.—The annual meeting of this institution was held on Tuesday, the 20th May, in Exeter-hall. Lord R. Grosvenor occupied the chair. The honorary secretary read the report. It alluded to the rapid increase of the society since 1845. In that year there were 20 schools, 200 teachers, and 2,000 pupils; and the amount collected was £51. In 1846, there were 26 schools, 250 teachers, and 2,600 children; the amount collected, £320. In 1847, there were 44 schools, 450 teachers, and 4,700 children; amount collected, £637. In 1848, there were 62 schools, 822 voluntary teachers, and 80 paid teachers, and 7,000 children; sum collected, £696. In 1849, there were 82 schools, 929 voluntary, and 124 paid teachers, 9,000 children; sum collected, £3,632. In 1850, there were 95 schools, 1,392 voluntary, and 167 paid teachers, 10,900 children; the sum collected being £2,658. The decrease in funds was partly occasioned by the establishment of local ragged schools, not in connexion with the Union, and which had, to some extent, diverted the subscriptions from the society. During the year, 3 girls and 80 boys had been enabled to emigrate by the united effort of the union and local schools; 53 having gone to Australia, and 31 to America. This made the total number sent out under the auspices of the union, 307. The "Shoe-black Society," lately established in connexion with the union, employed 24 boys, whose average earnings were 8s. per week.

British and Foreign School Society.—The forty-sixth annual meeting of the supporters of this institution was held on Monday morning week, at the society's premises, Borough-road, Lord J. Russell in the chair. Among the gentlemen on the platform were Earl Fitzwilliam, Earl Waldegrave, Viscount Ebrington, M. P., Sir J. Boileau, the Right Hon. Fox Maule, M. P., Mr. Evans, M. P., Mr. Hindley, M. P., Dr. Lushington, the Rev. George Clayton, the Rev. Dr. Duff, the Rev. Dr. Ryerson, of Canada, the Rev. Thomas Binney, Mr. S. Gurney, &c. Previous to the public meeting the pupils were examined in the various branches of education pursued in the schools, and acquitted themselves in a highly creditable manner. The room was densely crowded, several hundreds being refused admission from want of sufficient accommodation. The Secretary read the annual report. It stated the society to be in circumstances highly favourable to its prosperity and permanence. The annual subscriptions had greatly increased during the year, and the Model schools

were full and efficient. 1,000 children were in daily attendance, and 26 pupil teachers had been apprenticed. The normal schools had been in vigorous operation; 116 young men and 134 young women had attended the classes. Of the entire number (250) no less than 153 had been appointed to schools. Difficulty was still felt in obtaining candidates who were sufficiently educated. 54 new schools had been opened, providing accommodation for 7,000 children. 81 grants of material had been made to schools, either at home or in the colonies. 22 ragged schools had been assisted. 24 schools had been supplied by temporary masters during the illness or other necessary absence of the teacher. The inspection of schools had been diligently carried out throughout the county, and public meetings had been held for the diffusion of education—335 visits of inspection had been made in London and the immediate neighbourhood—437 towns and villages had been visited by the agents of the society, and 64 public meetings had been convened and well attended. In the district of Lancashire alone, more than 80 teachers were labouring who had been trained by the society. In this district 30 schools had accepted government pupils. The depository and publication department had prospered, the amount of sales being very considerable. The schools generally were regarded as flourishing, provident funds and savings' banks spreading among them. A strong opinion in favour of the working of government aid was given by all who had accepted it, which had decidedly been of material benefit to the British and Foreign School Society. The foreign operations of the society had been extensive; schools had been aided in Canada, the West Indies, South Africa, the Mauritius, the East Indies, Australia, and the South Seas. The expenditure of the society still exceeded its income, on which ground an earnest appeal for new subscriptions was founded. The advantage of government aid, as stimulating and not depressing voluntary efforts, was powerfully urged, and the scriptural character of the instruction afforded by the society was prominently brought forward. The Society's income during the year has been £12,963, 9s. 8d., and the expenditure £13,125 18s. 1d. But, as more than £2,000 of income had been derived from the receipts of legacies, the necessity for increased donations and subscriptions was obvious. Dr. Lushington moved the adoption of the report. Earl Waldegrave seconded this resolution, which was carried *nem. con.* Earl Fitzwilliam moved the second resolution:—"That this meeting, fully estimating the value and importance of the society's operations, rejoices in its continued prosperity, and pledges itself to renewed exertions for its support and extension." This was briefly seconded by the Rev. G. Clayton, supported by Mr. Samuel Gurney, and carried unanimously. The Rev. Dr. Duff proposed, and the Rev. Dr. Ryerson, of Canada, seconded, a resolution of thanks to Her Majesty the Queen and his Royal Highness Prince Albert, for their continued favour and munificent support. This motion was also carried. A vote of thanks having been passed to Lord J. Russell and the Duke of Bedford for their patronage and support. Lord J. Russell rose and said—I beg leave to return you my most hearty thanks for the vote which has just been passed. * * *

With regard to another society, which is not yet established, but which is now endeavouring to make way, and rests upon secular education only—I should say again that this society has a great degree of superiority over that ground of education, because it takes the religious elements of man, by which he is to guide his conduct here and on which he is to found his hopes hereafter. Commending, therefore, as I am quite ready to commend, the efforts made by all other societies, I think, upon the whole, that we have not only chosen that which is best, but that which is best suited to the great majority of the people of this country. That we have not made greater progress, though this society has existed between thirty and forty years; and that, notwithstanding the efforts which have been made, the people of this country are not more generally educated, is, I think, a source of deep mortification. Having myself had the conduct of that part of the business of education undertaken by the State, I have always felt that it was a great misfortune that the difference of opinion prevailing prevented us from combining all into one more general system of instruction. But, however that may be, I at the same time, hope and believe what has been done by the Government of this country has not been without its effect. I think it should be acknowledged that the first grant proposed to Parliament on this subject was a grant of £10,000, which arose from the suggestion of a tried friend of education, and one of the early founders and patrons of this society—I mean my noble friend Lord Brougham. It should be said, likewise, that on proceeding further we found that while the treasury could undertake to distribute the sums allotted, it was impossible for the treasury, from its constitution, to make any difference between schools of one kind or of another—between schools which might hope to lay the foundation of permanent instruction, and those which were mentioned to-day as being founded and raised by one man, but which, in a few years fell into decay. It was therefore proposed (and I took a great part in the arrangement) that there should be a special committee of the members of the government appointed, who should make the distribution of these grants a matter of inquiry and examination, with the view both

to improve the quality of education, and to see that all the money distributed for the public grants was laid out with advantage for the permanent welfare of the country. The system has been under the direction of Lord Lansdowne, who has devoted great attention and labour to this subject, and, as I believe with the assistance of Sir J. P. K. Shuttleworth has contributed to the improvement of education in this country. I will only say further, that in returning to this place, which I have done with great pleasure, and in observing the progress which has been made in your schools, and the great success which has attended your efforts, I cannot but recollect, in former days, attending other meetings of this society, and having seen men of eminence, men, of piety, men of unwearied benevolence, who are now taken from us. At the meetings of the British and Foreign School Society I have seen Wilberforce pouring forth in his eloquent language and silvery voice his commendation of scriptural education. I have seen my late excellent friend, the Bishop of Norwich, with his zeal and energy, enforcing the doctrines which he thought right, and never concealing the sentiments of his heart. I have been here many years with one now taken from us—a friend whom I greatly valued; I mean the late William Allen, who took a part in this society, as he did in all other acts of benevolence, and I cannot but lament that we have these men no more. But I trust that a younger and active generation will supply their places, and that you will see, not only this society flourishing, but that the exertions making in the cause of education—as prejudices are dispelled—as men are brought nearer to one another—will, at length, result in a more general education of the poor. I feel that this is the time in which such efforts ought to be made. It has been said by some who have spoken to-day, and with great truth, that a parent is responsible for his children, and he should be called on to see that no son or daughter of his was ignorant of the truths of religion, nor of their duty to God and man. But, on the other hand, I think it might be said with great justice, that the parent has had some excuse who was unable, without the aid of his children, to obtain sufficient bread for his family, or a home to shelter them from the inclemency of the weather, or clothes to dress them. These are wants which a parent might justly allege as grounds why he could not afford to give his children that education which they might otherwise reasonably demand. But I trust and hope, that as comforts are increasing—and I believe the means of the great mass of the people are greater than they have been, of providing for their necessaries and comforts of life.—I trust and hope that you will perceive them more anxious for education. I think that there is not wanting in the people of this country the desire of all moral and spiritual good, and that they will be anxious, when they have the means, to confer those blessings on their children. (The noble lord sat down amid great cheering.) The meeting then separated.

SWEDEN.

Education in Sweden.—The London *Watchman* publishes a full synopsis of educational operations in Sweden, translated for its columns by the Rev. George Scott, formerly Wesleyan missionary in that country. It appears that so late as ten years ago Sweden had no national system of education, and there were upward of a thousand parishes without a single school. Yet even then it was difficult to find a young person who could not read; that part of instruction being sedulously cultivated under the parental roof. Since then a national system of education has been introduced. The population of the entire kingdom is estimated at 3,358,867. The number of children of "school-age" is, 436,678. Of these there are in fixed schools, boys 81,422, girls, 62,104; in ambulatory schools, boys 67,120, girls, 59,058; in public academies (including the lower grammar school, the gymnasium and the university) 6,228; in private schools, boys 7,087, girls 10,378; taught at home, boys, 55,827; girls, 73,169. Total under instruction, in schools 293,397; at home, 123,996. Without instruction 14,285 of 436,678. The report states that 13,883 i. e., 13,119 boys and 6,764 girls, have acquired above the minimum amount of instruction fixed by the statute. Sunday Schools as known amongst us, could not be said to exist ten years ago, but now they seem to be generally introduced, and are attended by 13,177 boys, and 12,541 girls. Teachers, in fixed schools, examined 1606, unexamined 501; in ambulatory schools, examined 682, unexamined 669; in all, 3,458, of whom 218 are clergymen, and 690 organists or parish clerks.—[N. Y. Commercial Advertiser.

INDIA.

The Punjab.—The population of the Punjab is 2,500,000. Education is carried on extensively; at the present time, there are 1,385 schools, and 11,500 pupils. Sixteen of these schools are Mahometan girls' schools. The trigonometrical survey of India has just been published, the results of which will be most important to maritime geography. The conclusion of the trigonometrical survey may be expected in six or seven years. The grand total of area triangulated amounts to 477,044, and the grand total cost to 34,12,737 rupees, or about £312,339.

UNITED STATES.

Items.—The University of Virginia is attended at the present time by 374 students. . . . The President of Middlebury (Vt.) College, since his mission to Boston to raise a \$35,000 fund, has been at New-York, and added \$10,000 to the subscription, making the amount now raised about \$25,000. \$10,000 more are wanted to place the college in the position desired by its friends. . . . The Territorial University of Minnesota has been located at St. Anthony. The University building is to be erected immediately. The school fund has been so husbanded in that territory, as to secure to every child a good common school education, free of all expense to parents. . . . The Henry Female College, located at New Castle, Ky., was dedicated on the 23rd ult. There are at present attached to this institution 110 pupils. . . . The new University of Albany, N. Y., goes into operation in its several departments without the delay of erecting buildings, or procuring endowments. All these are to be self-supported, and to depend for their success on the reputation of the Professors, the value of their instructions, and the advantages held out to students in every branch of science. . . . The city school authorities of Cincinnati have purchased \$30,000 worth of *Holbrook's School Apparatus*, for the use of the City Schools. A set has been provided for each of the houses. Each set consists of a Tellurian, a cabinet of labelled specimens of minerals, a set of geometrical diagrams, and a numeral frame. . . . Mrs. Sigourney once sustained the honourable office of schoolmistress. She held an extensive correspondence with her pupils, and has just published a volume containing selections from her letters. They are quite interesting, full of good counsels and entertaining sketches.

The Law against Truancy from Schools.—The first cause under the new law on this subject came before Justice Rogers. Constable Spurr brought up a lad who was clearly proved by the testimony of the master, and others, to have been an habitual truant from the Mayhew School, whereupon the Justice ordered the boy to be committed to the House of Reformation for Juvenile Offenders, for the term of one month. The law takes cognizance of all children between the ages of 6 and 15, who wilfully absent themselves from the public schools; and the penalty for each conviction is a fine not exceeding \$20, or confinement in any of the municipal institutions, at the discretion of the Court.—[Boston Mail.

Literary and Scientific Intelligence.

Items.—The Rt. Hon. Richard Lalor Shiel is dead. The splendid orator, whose eloquence thrilled through every hearer, will be heard no more. His retirement to Tuscany, instead of prolonging his life, only accelerated his death. . . . Mungo Park's brother died lately in Scotland, at an advanced age. . . . The Royal Irish Academy has got possession of the inestimable ancient Celtic and Latin manuscripts of Sir Wm. Betham, £300 having been paid for them. . . . J. R. Hind, Esq., of Bishop's Observatory, Regent's Park, London, has discovered yet another planet, being the fourth first seen by him, and the fourteenth now known to exist between Mars and Jupiter. . . . On Monday week, the new Museum of Practical Geology, Jermyn-street, St. James's, was opened, under the auspices of his Royal Highness Prince Albert, in the presence of a numerous and brilliant assemblage of the nobility, and many literary and scientific persons of distinction. . . . A statue of Her Majesty is to be placed in the centre of the quadrangle of Holyrood Palace, to commemorate her Majesty's occupying, for the first time, that ancient palace of her ancestors. . . . We see it stated that, upon examination, agate, cornelians, and madrepores, have been found profusely scattered among the coarser pebbles in the southern portion of Mississippi. The same formation has been observed as far west as the Guadaloupe river, in Texas. . . . An Englishman by the name of Burgess has received permission to publish a Persian Journal in Teheran, and has commenced the publication with the support of the Prime Minister. . . . In the fifteenth century, one Matthew Flint, a dentist, received from Richard the Third, a grant of sixpence a day, on condition of his drawing the teeth of the poor of London without charge. . . . The highest price ever given for an English coin was obtained last year for a rial of Queen Mary, which was sold for £66. . . . The Chapter of Westminster Abbey has appointed two interpreters to assist the regular attendants in explaining the chief features to the numerous foreigners who daily visit the Abbey, which is now open to the public without charge, and will so continue. . . . Miss Martineau's English publisher has cancelled an engagement with her on account of her recent avowal of atheistical opinions. . . . There is no abatement in the furor respecting the great Exhibition, and the attendance of the public is on the increase. The receipts average \$15,000 per day. . . . Amongst the illustrious visitors in London at this time, is the famed German poet, Ferdinand Freiligrath, who has come over to visit the Exhibition. Another celebrity is a young Danish lady, of whose vocal powers the *Athenaeum* speaks in high terms. . . . The introduction of printing in the

Deaf and Dumb Asylum of Ohio, has been recommended by the select committee of the Senate of that State. It is proposed to print school books for gratuitous distribution to those who are not able to pay for them.

Statistical Items.—Correspondence.—Assuming the accuracy of the following returns, by a Swedish paper, of the number of letters posted in the countries named, and their proportion to the population, it will be seen how greatly this country is in advance of others:—

	Population.	Letters.
Great Britain,	29,000,000	320,000,000
Switzerland,	2,400,000	13,600,000
France,	36,000,000	108,000,000
Prussia,	16,500,000	75,000,000
Austria,	37,000,000	23,000,000

Stamps.—A return just issued to the British House of Commons of the aggregate number of stamps issued for newspapers, in the United Kingdom for the year ending 5th January, 1851, shows that the penny stamps issued for England amounts to £65,741,271, to Scotland, 7,643,045; and to Ireland, 6,302,728. The advertisement duty paid by metropolitan papers in the same period amounts to £66,873 15s; provincial papers, £65,672 6s. 6d.; Scotch, £18,685 11s. 6d.; and Irish papers, at the rate of a shilling per advertisement, £11,806 8s.

Plants.—The number of species cultivated in British gardens (including indigenous plants) is stated by Loudon to be 26,660.

Hindustan Newspapers.—There are in Hindostan twenty-six newspapers in the native language.

American Pianos.—In Boston, Philadelphia, Baltimore and New York, there are no less than 18,000 piano fortes manufactured and sold yearly.

Extent of London.—London has 300,000 houses, which cover an area fourteen miles along and seven miles wide. Between the 1st of January, 1839, and January, 1849, 64,058 new houses were built, forming 1,652 streets. London has more population than Greece, more than half that of Belgium or Holland, as much as all Hanover, and within half a million of half as much as Bavaria.

It is said that during the last seven years, two hundred miles of streets have been added to London. Villages, which not long ago were ten or twelve miles distant, are now virtually a part of this great city.

Census of Australia.—The population of Australia has nearly doubled within ten years.

Census of Canada, 1850.—A population table has been laid before Parliament, from which it appears that the population of Upper Canada is 813,485. In 1839, the population was only 407,515—showing an increase in 11 years of nearly 100 per cent.

Newspapers.—At a recent meeting of the London Tract Society, it was stated that there are no fewer than ten stamped newspapers of an infidel tendency, the circulation of which, throughout the country, is not less than 11,700,000. There are six unstamped newspapers, of which the circulation is 6,240,000. Of miscellaneous publications of evil tendency, there is a circulation not less than 10,400,000. Of the worst class of all, the circulation amounts to 5,250,000. In the United States there are, doubtless, as many as in Great Britain, when the population is taken into account.

Journaux.—Il y a 10 papiers-nouvelles publiés en Auriche, 14 en Afrique, 14 en Espagne, 20 en Portugal, 30 en Asie, 65 en Belgique, 85 dans le Danemark, 90 en Russie et en Pologne, 300 en Prusse, 500 dans la Grande-Bretagne et l'Irlande, 1800 dans le Etats-Unis et environ, 120 dans le Canada. — Il y a environ 30 publications françaises en Amérique.—[La Moniteur Canadiene.

Scientific Discovery, by Prof. Potter, formerly of Toronto.—Prof. Potter, of University College, and lately of King's College, Toronto, has made a communication to the *Philosophical Magazine* for last month, which is likely to produce a considerable sensation in the scientific world. Sir Isaac Newton had concluded from theory that the number of feet per second which sound travels in air of a given temperature and density should be a mean proportional between twice the number of feet which a body descends in vacuo in the first second of time, and the number of feet of altitude in an upright column of air of the given temperature and density, whose weight would represent the pressure of the air upon the base of the column. This deduction was found not to agree with the results of observation and experiment, and Newton's method of arriving at it has been on good grounds objected to. The velocity found by this rule comes out about one-sixth too small. Laplace gained great *clat* by his correction of this theory, grounded upon the consideration of the sensible heat developed on the sudden condensation of air when in a state of sonorous pulsation. This explanation, however ingenious, has been held by many mathematicians

and physicists to be untenable. Some even go so far as to say, that it would be equally valid to show that the formula of Newton gives too large a result, as to show that the result is too small. Mr. Potter states that he was an early disciple of the late Dr. Dalton in chemistry, and that he has always remained forcibly impressed by his great master insisting, in their lessons, on the necessity of considering the change in the distances of the centres of the atoms of gases during their condensation and rarefaction, when the elastic force and the heat and cold developed were the subjects of study. He has accordingly investigated the question according to the atomic view of the constitution of the air, and finds by exact mathematical reasoning that according to this law three times the number of feet descended by a falling body should be substituted for double the number, as given by Newton's formula. The Newtonian rule thus modified brings out the velocity of sound for a certain temperature of the air, 1122 feet and one-fifth of a foot per second. Sir John Herschel's data give the velocity at the same temperature, 1122 feet and three-fifths! This numerical accordance is, it must be allowed, most extraordinary, whatever may ultimately be judged of the validity of the reasoning by which it is obtained. The subject cannot fail to excite the attention of all the cultivators of physical science at home and abroad; and if the final verdict of competent judges should be in his favour, Mr. Potter will have reason to congratulate himself on the accession of reputation which will reward this brilliant and unlooked-for discovery.

The Great Exhibition.—Among the various things at the World's Fair, is a model of a hat manufactory, in all its departments, with moving automata, to illustrate all the operations of the workmen. It shows the progress of making a hat, from the raw material to its completion. The busy little workmen are represented by what artists term "lay figures" about six inches in height, and being jointed, the attitudes in which they are placed are faithful to life. In the model, every implement, as rules, blocks, brushes, iron, scissors, &c., are given to a scale, and specimens of the actual materials deposited, forming a perfect and highly interesting piece of workmanship. Another object of curiosity, which is likely to attract more than ordinary attention, particularly among the fairer portion of the visitors, is a *bal costume*, made by a Miss Solomons, of Lambeth, a self-taught body, not yet 20 years of age.

The London *Morning Chronicle* describes the opening of the Crystal Palace in three languages, in English, French and German. Those who cannot afford either the time or expense to visit the World's Fair, are to have an opportunity of seeing what the Crystal Palace is really like, by inspecting a beautifully executed model. This model, which has been made by Mr. Cogan, of London, contains 10,000 joints, &c. It has been carefully constructed by permission, from the drawings of the Royal Commissioners, and by actual and careful survey of the building during the progress of its erection, on the scale of one inch to twenty feet. So far we can judge the model is a perfectly correct representation of the Crystal Palace; and gives the spectator a better idea of the beauty and extent of that wonderful structure than any drawing or description possibly can do.

The Crystal Palace Beaten.—Dr. Duff, in his speech at the anniversary meeting of the Wesleyan Methodist Missionary Society in London, thus described one of the heathen temples of India:—"In Seringham you have the hugest heathen temple that can probably be found from the north to the south pole. It is a square, each side being a mile in length, so that it is four miles round. Talk of your Crystal Palace! Why, as a man would put a penny into his pocket you might put your Crystal Palace into the pocket of this huge pagoda. The walls are 25 feet high, and 4 or 5 feet thick, and in the centre of each wall rises a lofty tower. Entering the first square, you come to another with a wall as high, and with four more towers. Within that square there is another, and within that again another—and you find 7 squares, one within another, crowded by thousands of Brahmins. The hall for pilgrims is supported by a thousand pillars, and cut out of a single block of stone."

British and Foreign Bible Society.—At the usual monthly meeting of the committee of the above society, it was stated that, by dint of unwearied exertion, 3,217 district associations had been formed in Great Britain alone—has circulated during the last 45 years more than twenty-three million copies of the Scriptures, promoted the translation and printing of the sacred volume into 140 different languages or dialects, and expended nearly £3,500,000. Lord Bexley, the President of the British and Foreign Bible Society, has sent a donation of £1,000 to that important Institution, as the commencement of an "appeal" to enable them to extend their operations at this juncture.

The Bible contains 3,566,489 letters, 31,170 verses, 1,189 chapters, 66 books. The word "and" occurs 46,227 times, "Lord" 1,855, "Rev'd" only once. The 21st verse of the 7th chapter of Ezra contains the alphabet. The 19th chapter of 2nd Kings and the 37th of Isaiah are alike. The first man recorded as buried in a coffin was Joseph (5th Gen-

26 v.) No where but in the 1st chapter of 2nd Timothy is the word "grandmother" mentioned.

The Total Eclipse of the Sun, on the 28th of July, 1851.—On this occasion a total or partial obscuration of the Sun may be seen throughout the greater part of North America, (Mexico and the southern extremity of Florida being excepted,) throughout Europe, in the western, northern, and northeastern parts of Asia, in the northern and northwestern parts of Africa, in Greenland, &c., whilst the line of the central and total eclipse will pass over 191 degrees of longitude, or from the vicinity of Sitka, the capital of the Russian settlements on our northwest coast, to the southeastern extremity of the Caspian sea. But in no part of the United States will the eclipse be total; the greatest obscuration taking place at Cape Flattery, in Oregon, at the entrance of the Straits of Fuca, where the sun at 4h 56m, A.M., or twenty-four minutes after it rises, will be about five sixths (10 deg. 3 min.) obscured on the north side. At San Francisco the greatest obscuration will take place before the sun rises, but as the end of the eclipse may be seen, it is hoped it will be carefully observed not only there, but at every place in California and Oregon, where are suitable instruments, as a long time will elapse before another as favourable an opportunity offers for the determination of the longitude. Indeed, a total eclipse of the sun at any particular place so seldom occurs, that but a small part of those inhabitants of the earth, who remain stationary, ever have an opportunity of beholding this, the most sublime of all phenomena. In April, 1715, the sun was entirely hidden by the moon at London, and again in May, 1724, at Paris, but in the course of the long interval between those years, and 1901, and perhaps much longer, the shadow of the moon has not again passed, and will not, over either of those cities. The only total eclipse that has happened in Boston, since its settlement in 1630, as is believed, was that which took place under such very favourable circumstances, on June 16th, 1806, and by the list of eclipses from 1824 to 1901, originally published in the *Columbian Sentinel*, and afterwards in an abridged form in the *American Almanac* for 1831, it appears that there will not be any other, certainly within the present century; moreover, it is very probable that there are many places in this country, at which there has not been, since their settlement by Europeans, even one. It also appears, by the list above referred to, that in the course of the seventy-five years between 1826 and 1901, the shadow of the moon passes but three times over any part of our widely extended Atlantic coast, viz: on November 30th, 1834, over a small part of Georgia and South Carolina; on August 7th, 1869, of North Carolina and Virginia, and on May 29th, 1900, over part of Virginia. Annular eclipses, it is true, occur more frequently, as those of April, 1791, and February, 1831, were, and those of May, 26th, 1854, and September 29th, 1875, will be, visible in Massachusetts, or four in about a century and a quarter; but these eclipses, although beautiful, have little of the sublimity that attends a total obscuration. Rare therefore as is in general the occurrence of a central eclipse at any particular place it occasionally happens, that some places are, in this respect, especially favoured. Thus, the eclipse of July 8th, 1842 was, and that of the present year will be, central in Poland, in lat. 50 deg. 36 min. 7 North, long. 27 deg. 5 min. 5 East, so that the inhabitants of that spot will have an opportunity of beholding two total eclipses of the sun in the course of nine years. In this country the central path of February 12th, 1831, was crossed in Alabama by that of November 30th, 1834, and in Virginia by that of September 18th, 1838, and in 1853 the two eclipses of June 6th and November 30th, will both be central in the Pacific Ocean, in long. about 125 deg. West, lat. 2 deg. South; these are, however, but exceptions to the general rule, and the places thus favoured, nearly points on the surface of the earth. The width of the shadow of the moon on the 28th of July next, will vary as usual, whilst passing over the earth, but in Greenland, Norway, Sweden, and Prussia, it will be about 140 geographical miles. If, therefore, the central path given below, be carefully marked on a good map, and a line be drawn parallel thereto to the North, and another to the South, at the distance of seventy miles or a little less, therefrom, the places at which the eclipse will be total will be easily seen; there being of course some doubt as to those situated like Elsinour, just within the edge of the shadow, as a small error in the moon's tabular latitude is not uncommon. Within the lines thus drawn are included in America several of the Russian settlements South-east of Sitka, part of British Oregon, two of the forts of the Hudson's Bay Company on the Great Slave Lake, the winter harbour of Captain Ross in 1830, and of Capt. Parry in 1822, the Northern part of the Island of Disco, in Baffin's Bay, and several of the Danish villages on the Western coast of Greenland; and in Europe the Northern part of Iceland, the astronomical observatories at Christiana, Koenigsburg, Warsaw, and Nicolaeff, also the cities of Bergen, Gottenburg, Carlserona, Calmar, Frederickshall, Jorkoping, Dantzic, Elbing, Pillau, Jitomir and Cheroon; and in Asia, Tiffis and Bakou, between the Black and Caspian, besides many others of less note; but Sitka and Stockholm, Copenhagen and Odessa are not included within these limits, the two former being situated a little too far to the north, and the two latter to the south.

Editorial and Official Notices, &c.

LEAGUE OF THE HO-DR'-NO-SAU-NER :

Or Iroquois. By LEWIS H. MORGAN. 8vo. pp. 477. Rochester, N. Y., Sage & Brothers. Toronto, Wesleyan Book Room. Price, 12s. 6d.

Since the appearance of Schoolcraft's *Notes on the Iroquois*, we have met with no work devoted to the investigation of the history of the aborigines of this country characterized by so much intelligent research and sympathy with the noble races who once occupied these "forest lands," as this contribution of Mr. Morgan to Indian history and antiquities. The work itself is profusely illustrated with maps, engravings, and lithographs. Those of them which accompany "the Third Annual Report of the Regents of the University of the State of New York, on the condition of the State Cabinet of Natural History and the Antiquarian Collection connected therewith," are beautifully coloured, and appear exquisitely natural and life-like. The large map which accompanies this work exhibits the immense tract of country from the Hudson to the Ottawa, and from the St. Lawrence to Lake Erie, once the undisputed territory of the famous Six Nation Indians: *the People of the Long House*; together with the aboriginal names of their villages, lakes rivers, streams, and ancient encampments, and the courses of their principal trails.

The history of the Six Nations Indians must ever prove one of great interest to Canadian readers, connected as it is with the name of the celebrated Thayendaneoa, or Brant, and of the early settlement of numerous parts of this country by a portion of the once powerful league of the Iroquois. This work abounds in interesting and valuable references to early Canadian history. Its perusal cannot fail to excite the sympathy of all who love to contemplate the history of the early Indian tribes of this continent, before the "pale faces" debased and corrupted them. They were truly a dignified and noble race in their primeval state of uncontrolled and fearless independence; and deeply affecting and sad indeed is the story of the decline and fall of their once powerful empire on this continent.

As a matter of interest to many lovers of ancient Canadian typography, we select from the *appendix* to the work the following table, exhibiting the Indian names of the principal cities and places in Canada, with their signification in English, so far as it is known to the Iroquois historians:

Quebec—Ke-a-done-dä-a'-ga, *i.e.*, Two forts contiguous.
 Montreal—Do-te-ä'-ga, *i.e.*, Almost broken.
 Kingston—Gä-dai-o'-que, *i.e.*, Fort in the water.
 Toronto—De'-on-do, *i.e.*, Log floating in the water.
 Hamilton—De-o-na-sä-de'-o, *i.e.*, Where the sand forms a bar.
 Queenstown—Do-che'-hä-o', *i.e.*, Where the mountain dies in the River.
 Brock's Monument—Gus-tä'-ote. [Not given.]
 Chippewa—Jo-no'-däk. [Signification lost.]
 Welland River—Jo-no'-dok. [Signification lost.]
 Grand River—Swa'-geh, *i.e.*, Flowing out.
 Burlington Bay—De-o-na'-sä-de-o, *i.e.*, Where the sand forms a bar.

We are indebted to our American Book Agent, Mr. D. M. Dewey, of Rochester, for a copy of this interesting work.

We have to acknowledge the receipt of the following official Reports, Documents, Books and Pamphlets, at the Education Office :

- I. Report of the Superintendent of Public Education of Louisiana, January 21st, 1850. 8vo. pp. 17.
Hon. Alexander Dimitry.
- II. Fourth Annual Report, for 1850, of the Regents of the University on the condition of the N. Y. State Cabinet of Natural History, and the Historical and Antiquarian Collection annexed thereto, 14th January, 1851. 8vo. pp. 146.
Hon. T. Romeyn Beck.
- III. Report of the Commissioner of Public Schools, Rhode Island, January 25th, 1851. 8vo. pp. 6.
Hon. E. R. Potter.
- IV. Report of the Superintendent of Public Instruction to the General Assembly of Kentucky, for the year 1850, 31st January, 1851. 8vo. pp. 106.
Hon. R. J. Breckinridge.
- V. Smithsonian Contributions to Knowledge: containing an Ephemeris of the Planet Neptune for the year, 1832. By Sears C. Walker, Esq., Appendix I to vol. III.
Hon. G. B. Andrews, M. C.
- VI. Book of Oratory: containing selections from distinguished American and English Orators, Divines and Poets, &c. By E. C. Marshall, Esq., A. M. New York. 12mo. pp. 500.
D. Appleton & Co.
- VII. Popular Education for the use of Parents and Teachers. 16mo. pp. 467, by the late Superintendent of Public Instruction. State of Michigan.
Hon. Ira Mayhew, A. M.

- VIII. 1. Nouvelle Methode pour apprendre a bien lire: par Jean Palaret. 8vo. pp. 94.
2. Dissertation sur les methodes d'enseignement primaire: from M. F. E. Ju. Neau. 1846. 12mo., pp. 11.
3. Dissertation sur l'instruction primaire: par M. F. E. Juneau, 1847. 12mo., pp. 22.
4. Reglement de l'association des Instituteurs du District de Quebec. 1846. 16mo., pp. 11.
M. Felix E. Juneau.

YORK COUNTY BOARD OF PUBLIC INSTRUCTION.

EXAMINATION OF TEACHERS.

THE next Examination of Teachers, as ordered by the Board, will take place at the times and places following, viz:—

AT THE CITY OF TORONTO on Tuesday, the 22nd of July, at 9 A. M., in the Court House.—*Examining Committee*.—The Rev'd Messrs. John Jennings, John Barclay, John Roaf, H. J. Grasett, T. J. Hodgkin; and G. A. Barber, Robert Cathcart, J. McMurrich, Esquires, and Dr. Hayes.

AT BRAMPTON, on the same day and hour.—*Committee*.—The Rev. Messrs. J. Pringle, J. Wheeler, J. Campbell, J. McGeorge; A. Simpson, T. Studdart, Esquires; and Dr. Crumlie.

AT DUFFIN'S CREEK, on the same day and hour.—*Committee*.—Rev'd Messrs. R. H. Thornton, T. Wightman, A. W. Waddell; Dr. Foote, Ezra Annes, and W. Warren, Esquires.

AT RICHMOND HILL, on Monday, the 21st July, at 9 A. M.—*Committee*.—Rev'd Messrs. J. Boyd, T. J. Hodgkin, R. H. Smith; and Joseph Hartman and Thomas Nixon, Esquires.

The County Board will meet on Thursday, 24th July, in the Court House, CITY OF TORONTO, at 2 P. M., for the purpose of receiving Reports, granting Certificates to Teachers, &c.

JOHN JENNINGS, *Chairman*.

Office of the County Board, 2nd July, 1851.

The following Resolution was adopted by the Board, on the 25th March 1851:

Whereas by the 2nd section of the 29th clause of the School Act (13th & 14th Victoria, chapter 48) it is provided that no Certificate of qualification shall be given to any person as a Teacher, who shall not furnish satisfactory proof of good moral character. And whereas this Board (under date of Nov. 14, 1850) has resolved that such proof of moral character shall be the Certificate of some Clergyman recognized by law, bearing date not more than six months. And whereas this Board attaches every importance to strictly temperate habits, and good moral character. And whereas the Certificates of character by Clergymen have been in several cases granted to individuals, without sufficient enquiry into facts, and have besides often been expressed in too vague and general terms. And whereas it is highly desirable that a Certificate of Character granted by a Clergyman, should always carry proper weight and influence, and be received and acted upon without question.

Be it Resolved.—That it be therefore recommended to all Clergymen recognized by law, to exercise the utmost caution in granting Certificates of Character to Teachers.

JOHN JENNINGS, *Chairman*.

UNIVERSITY OF TORONTO.

NOTICE IS HEREBY GIVEN, by the *Caput*, that the following PROFESSORSHIPS are at present vacant, viz:

1. History and English Literature.
2. Modern Languages.
3. Natural Philosophy.
4. Natural History.
5. Geology and Mineralogy.
6. Civil Engineering.

The incumbents of the first five Chairs will be required "to devote their whole time and attention to the interests of the Institution, and to lecture, teach, and examine their several Classes at such hours, and for such periods as may be appointed by the constituted authorities of the University."

The Salary of each of these Professors is fixed by *Victorial Statute* at £350, Halifax currency, per annum. It is probable, that in addition to the fixed Salary, there will be other emoluments arising from fees.

Candidates are required, in accordance with the 24th section of the *Provincial Statute*, 12th Victoria, cap. 82, "to transmit to and deposit in the Bursar's Office of the said University their names, residence, additions, and testimonials," on or before November 19, 1851.

JOHN McCAUL, *President*.

University of Toronto, June 17th, 1851.

City papers will please give two insertions.

COMMON SCHOOLS—CITY OF TORONTO.

TO FEMALE TEACHERS.

THE Undersigned, Local Superintendent of Common Schools, has been authorized to EXTEND THE TIME for receiving applications, in writing, accompanied with testimonials, from persons duly qualified for the office of TEACHER to the Central Female School, about to be established in this City.

☞ SALARY £75 PER ANNUM.

Said applications to be sent in on or before the 15th July next, and to be post-paid.

By order of the School Trustees,

G. A. BARBER,

City Superintendent of Common Schools.

Toronto, June 27, 1851.

Globe and Colonist to copy twice; and the other city papers, once.

SCHOOL WANTED—by a Teacher who has attended the Normal School, and whose present engagement will terminate about the 12th August. Salary expected about £80 per annum. Respectable references can be given. Apply, (post paid) to J. C., box 9, Post Office, Toronto.

TORONTO: Printed and Published by THOMAS HUGH BENTLEY.

TERMS: For a single copy, 5s. per annum; not less than 8 copies, 4s. 4d. each, or \$7 for the 8; not less than 12 copies, 4s. 2d. each, or \$10 for the 12; 20 copies and upwards, 3s. 8d. each. Back Vols. neatly stitched supplied on the same terms. All subscriptions to commence with the January number, and payment in advance must in all cases accompany the order. Single numbers, 7d. each.

☞ All communications to be addressed to Mr. J. GEORGE HODGINS, Education Office, Toronto.