



# JOURNAL OF EDUCATION.

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**SUMMARY.**—**EDUCATION:** The Colleges of Canada—The University of Toronto, by Hon. P. Chauveau, (continued).—School days of eminent men in Great Britain, by John Timbs, (continued).—Suggestive hints on improved secular instruction, by the Rev. Richard Dawes, (continued).—Hints on oral teaching.—Peddled books and newspapers.—Monotony of school exercises.—Charity among teachers.—Thoughts on education, from various authors.—**OFFICIAL NOTICES:** Appointment of School Commissioners, &c.—Separation and erection of School Municipalities.—Notice to Directors of Institutions claiming aid on Superior Education fund.—Notice to the Secretaries-Treasurers of the Boards of School Commissioners and of Trustees of Dissident Schools.—Diplomas granted by the Board of Examiners. Donations to the Library of the Department.—Situations wanted.—**EDITORIAL:** Eleventh conference of the Teachers' Association in connexion with the Jacques-Cartier Normal School.—Tenth conference of the Teachers' Association in connexion with the Laval Normal School.—Report of the Superintendent of Public Instruction for 1858.—Extracts from the Reports of the Inspectors of Schools, (continued).—**MONTHLY SUMMARY:** Educational Intelligence.—Literary Intelligence.—Scientific Intelligence.—Miscellaneous Intelligence.—**ADVERTISEMENT.**

## EDUCATION.

### THE COLLEGES OF CANADA.

#### III.

#### The University of Toronto.

(Continued from our March issue.)

There are three classes of students admissible to the College: 1st. *Undergraduates*, that is to say, those who have passed the matriculation examination in any University in Her Majesty's dominions, or in the College. 2nd. *Students*. Those who desire to attend during our academic year or term, two or more courses of lectures. 3rd. *Occasional students*. Those who desire to attend but one course of lectures.

Undergraduates are required to attend such lectures and examinations, in all the departments appointed by the University, as are necessary for students of their respective standings, and also to reside, during the period of their attendance, in the College, or in such other houses as may have been selected by their parents or guardians, or approved by the President.

The Academic year consists of two terms: the first (*Michaelmas*) extending from October 1st to December 22nd, and the second (*Easter*) from January 7th to May 18th. By the calendar for 1859, the following courses of *studies* appear to have been organized: a course of study in Art, a course of study in Civil Engineering, a course of study in Agriculture, and a preliminary course of study in Law.

The course of study in Arts is divided into four years; the following languages are taught: English, French, German, Italian, Spanish, Latin, Greek, Hebrew, Chaldee, Syriac and Arabic. In the first year undergraduates are not required to learn Hebrew. In the second year they are not required to learn French, German and Hebrew, but any one of the three at their option. In the third and fourth years they are not required to learn both "Greek and Latin," and "French and German," but either at their option. They may also omit Hebrew, Chaldee, Syriac, Arabic, Spanish and Italian. The other subjects taught are Theology and evidence of Christianity, Mathematics, History, Logic, Ethics and Metaphysics, Natural Philosophy, Natural History, and Physical Geography. There are also exemptions in the same manner for these branches, and a right of option left to the candidate. The course of study in Civil Engineering is divided into two years. It embraces Mathematics, Natural Philosophy, English, French, Chemistry and Chemical Physics, Applied Chemistry, Mineralogy, Geology, Physical Geography, Geodesy, Drawing, and Civil Engineering, including rudiments of Architecture and Engineering Finance, practical use of Instruments, &c. The course of study in Agriculture is also divided into two years, and embraces, besides the subjects comprised in the course of civil engineering,—with the exception of French, and of the special branches,—History and diseases of farm animals, and practice of Agriculture. The preliminary course of study in Law does not extend over a year, during which the following subjects are taught: Greek and Latin, English, French, History, Logic and Ethics. Students in Law attend the lectures on the above subjects with students in Arts of the second year. There are numerous scholarships, prizes and honors open to competition.

The University Library, which includes the College Library, contains about 13,000 volumes. The Museum of Natural History contains already several large collections that of birds amounts to 1,000, including a very large pro-

portion of the native birds; and that of Botany, 6000 species, among which will also be found most of our native plants. The geological and mineralogical sections of the Museum contain upwards of 6000 specimens, exclusive of a special Canadian collection increased by valuable additions from the collection of the provincial geologists. The apparatuses of Natural Philosophy are numerous. The number of chemical products is about 1500, that of minerals used in arts 400. Considerable additions of articles illustrative of manufactures are now being made. This, in connexion with the Magnetical and Meteorological Observatory, is certainly a great advantage to those students who are desirous of acquiring a practical knowledge of astronomy, meteorology, and of the strange phenomena of terrestrial magnetism. The new building of the Observatory (1) is of a rectangular form, about fifty four feet from north to south, in the direction of the magnetic meridian; forty four feet from east to west, and sixteen feet in height, exclusive of the roof. At the north-western corner, with its lower portion included in the above horizontal dimensions, is a square tower, sixteen feet by sixteen feet, and forty three feet in height, which is used for supporting the anemometer. Besides the main body there are three rooms connected by two passages forming a cross. The extreme length of the whole building is thus 126 feet, and its greater width 73 feet. The institution is well provided with all the instruments necessary for the observation of the changes in the magnetic elements, and for recording the meteorological condition of each day. The regular staff employed in the work consists at present of the Director, Professor Kingston, and three observers.

The several chairs of the College are all filled by gentlemen of high standing in their respective branches, and a short biographical sketch of each of them, which we have procured from various sources and among others from Mr. Hodgins' Educational Directory, will, we have no doubt, be read with interest.

The learned President, Dr. McCaul, is a distinguished graduate of Trinity College, Dublin. He took his degree with high honors; being first of the first class, and gold medalist. He is also a member of the Royal Irish Academy. As a classical author he is well known by his editions of *Longinus*; *Herodotus*, B. I.; *The Satires of Horace*; and *Selections from Lucian*. He has also published *Lectures on Homer and Virgil*; *The Horatian Metres*; *The Terentian Metres, with a Sketch of Ancient Comedy*; and *the Metres of the Greek Tragedians*; in addition to which, considerable attention has been excited by a series of learned papers on Latin inscriptions, which have appeared in recent numbers of the Canadian Journal.

The Rev. James Beaven, D. D., a graduate of Oxford, filled the Divinity professorship, until its abolition in 1850. Since then, he has held the professorship of Metaphysics and Ethics. He has edited *Cicero de Finibus Malorum et Bonorum*; and is the author of a work on Natural Theology.

Henry Croft, D. C. L., Professor of Chemistry and Experimental Philosophy; completed his scientific education at

the University of Berlin. He is a Fellow of the Chemical Society, and has obtained a high reputation for his papers on chemistry, as well as for his discoveries in that science. In forensic chemistry he is without an equal in the province.

John Bradford Cherriman, M. A., Professor of Mathematics and Natural Philosophy; is a distinguished graduate of the University of Cambridge; he took a high rank as a Wrangler at that University, in 1845; and was subsequently elected to a fellowship in St. John's College. He is known among scientific men for his learned papers on the higher mathematics.

Daniel Wilson, L. L. D., Professor of History and English Literature; filled the office of Secretary to the Society of Antiquaries of Scotland, of which he is a Fellow; and in 1853,—subsequent to his removal to Canada,—on the death of Mr. Arago, creating a vacancy in the rank of Honorary Members,—he had the distinguished honor conferred on him of being elected to the vacant rank. Dr. Wilson is the author of *The Memorials of Edinburgh*; 2 vols. 4to.; *Oliver Cromwell and the Protectorate*; and other works; but that by which he is most widely known is his *Prehistoric Annals of Scotland*; a large and important work, which has been commended by Dr. Latham, Hugh Miller, and other distinguished writers; and favourably reviewed in the Athenæum, and the English Reviews. During the last four years, Dr. Wilson has edited the *Canadian Journal*.

The Rev. William Hincks, F. L. S., Professor of Natural History; has held important professorships, both in England and Ireland; and occupied the Chair of Natural History in Queen's College, Cork, previous to his acceptance of his present professorship. He has contributed papers on his favourite study of Botany to the British Association, of which he was an early member, and to the Linæan Society, of which he has been for many years a Fellow.

Edward J. Chapman, F. C. S., Professor of Mineralogy and Geology; filled the Chair of Mineralogy in University College, London, until his appointment to his present professorship. He has had extensive experience as a mining engineer; and has published works of high authority in his special department of science; of which the principle are, his: *Description of the Character of Minerals*; and his *Practical Mineralogy*.

James Forneri, L. L. D., Professor of Modern Languages; is a graduate of the University of Padua. Among his published works may be specified: *Remarques sur l'Italie*; *Strenna e Capo d'anno al popolo Italiano*; and *El Heroe del Trocadero*.

Professor G. T. Kingston, M. A., Professor of Meteorology, was in the first class in Mathematics, at Cambridge, in 1846. He holds his chair along with the Directorship of the Provincial Magnetic Observatory; the duties of which chiefly engage his time.

George Buckland, Esq., Professor of Agriculture; is well known as the active Secretary of the Board of Agriculture for Upper Canada; and the Editor of the *Agricultural Journal*.

In addition to these, the Lectureship of Oriental Literature is filled by Joseph M. Hisschfelder; and the classical

(1) Hodgins' Canada Educational Directory.

Tutorship, by the Rev. A. Wixon, M. A., a distinguished graduate of the University, and classical gold medalist of 1847.

PIERRE J. O. CHAUVEAU.

(To be concluded in our next.)

### School days of Eminent Men in Great-Britain.

By JOHN TIMBS, F. S. A.

(Continued from our last.)

#### CVIII.

JOHN BUNYAN, AUTHOR OF "THE PILGRIM'S PROGRESS."

Who has not read *The Pilgrim's Progress*?—"a book," says Southey, "which makes its way through the fancy to the understanding and the heart: the child peruses it with wonder and delight; in youth we discover the genius which it displays; its worth is apprehended as we advance in years; and we perceive its merits feelingly in declining age." Lord Macaulay has said of Bunyan: "though there were many clever men in England during the latter half of the seventeenth century, there were only two great creative minds. One of these minds produced 'The Paradise Lost;' the other, 'The Pilgrim's Progress.'"

John Bunyan was born in the village of Elstow, within a mile of Bedford, in the year 1628, in a cottage which remained in its original state to our time. Bunyan's descent, to use his own words, "was of a low inconsiderable generation; my father's house," he says, "being of that rank that is meanest and most despised of all the families in the land." He was, as his own statement implies, of a generation of tinkers, and born and bred to that calling, as his father had been before him. His parents had several other children; but they were able to put their son John to school in an age when very few of the poor were taught to read and write. The boy learnt both, "according to the rate of other poor men's children," but soon lost what little he had been taught, "even," he says, "almost utterly." Southey is of opinion that Bunyan's parents took some pains in impressing him with a sense of his religious duties; otherwise, when, in his boyhood, he having but few equals in cursing, swearing, lying, and blaspheming, he would not have been visited by such dreams and such compunctious feelings as he has described.

"Often," he says, "after I had spent this and the other day in sin, I have in my bed been greatly afflicted, while asleep, with the apprehensions of devils and wicked Spirits, who still, as I then thought, laboured to draw me away with them." His waking reflections were not less terrible than these fearful visions of the night: and these, he says, "when I was but a child, but nine or ten years old, did so distress my soul, that then in the midst of my many sports and childish vanities, amidst my vain companions, I was often much cast down, and afflicted in my mind therewith: yet could I not let go my sins."

But these impressions soon passed away, and were forgotten in the society of Bunyan's village companions: according to his own confession, he ran headlong into the boisterous vices which prove fatal to so many of the ignorant and the brutal. Yet, though he became so far hardened in profligacy, the sense of right and wrong was not extinguished in him, and it shocked him when he saw those who pretended to be religious act in a manner unworthy of their profession. Some providential escapes, during this part of his life, he looked back upon as so many judgments mixed with mercy. Once he fell into a creek of the sea, once out of a boat into the river Ouse, near Bedford, and each time was narrowly saved from drowning. One day an adder crossed his path; he stunned it with a stick, then forced open its mouth with a stick, and plucked out the tongue, which he supposed to be the sting, with his fingers; "by which act," he says, "had not God been merciful unto me, I might, by my desperateness, have brought myself to an end." If this indeed were an adder, and not a harmless snake, his escape from the fangs was more remarkable than he was aware of. A circumstance which was likely to impress him more deeply, occurred in the eighteenth year of his age, when, being a soldier in the Parliament's army, he was drawn out to go to the siege of Leicester; one of the company wished to go in his stead; Bunyan consented to exchange with him; and this volunteer substitute, standing sentinel one day at the siege, was shot through the head with a musket-ball.

Bunyan, probably before he was nineteen, chanced to "light

upon a wife," whose father, as she often told him, was a godly man: the young couple began housekeeping without so much as a dish or spoon; but Bunyan had his trade, and she brought for her portion two books which her father had left her at his death: *The Plain Man's Pathway to Heaven* was one; the other was Bayley, Bishop of Bangor's *Practice of Piety*. These books he sometimes read with her; and they begat in him some desire to reform his vicious life, and made him fall in eagerly with the religion of the times, go to church twice a-day with the foremost, and there devoutly say and sing as others did;—yet, according to his own account, retaining his wicked life. How he was first reclaimed through a Puritan sermon against Sabbath-breaking; how he joined a Baptist congregation in Bedford, and became its preacher; was next apprehended for holding "unlawful meetings and conventicles," and was imprisoned in Bedford gaol 12½ years; we have no space to tell. His library, while in prison, consisted but of two books—the Bible, which he read intently, and especially historically; and Fox's *Book of martyrs*, which copy is now preserved in the Bedfordshire General Library. While in prison, he wrote several works, including *The Holy War*, and *Grace abounding to the Chief of Sinners*, a narrative of his own life and religious experience. But his chief work is *The Pilgrim's Progress from this World to that which is to Come*, which has been translated into most of the European languages.

#### CIX.

ISAAC BARROW AT THE CHARTER-HOUSE.

Dr. Isaac Barrow, the eminent mathematician and divine, was born in 1630, in the city of London, where his father was linen-draper to Charles II. The young Barrow was first sent to the Charter-house, where he was only noted for his idleness and love of fighting; he was on this account removed to a school at Felstead, in Essex, where he abandoned his idle habits, and studied so successfully, that his master made him a sort of tutor to Lord Fairfax, of Ireland, then a boy in the same school. The fortunes of his family had now begun to suffer for their staunch adherence to the royal cause, and the young student must have given up his career of learning had not Dr. Hammond, Canon of Christchurch, given him the means of completing his education. He died 1677, aged 47.

Few persons ever attained such a deserved reputation in such various branches of science and learning, whose life was so short, as the celebrated Isaac Barrow. His sermons will remain specimens of profound erudition, of splendid eloquence, and of the manner in which a subject may be exhausted,—so long as the Church of England and the English language exist. For his mathematical proficiency he received the highest honours from the University of Cambridge; and he was elected to the mastership of Trinity in 1672. He was a great writer of poetry; and at one time studied anatomy, botany, and chemistry, with a view to the practice of physic.

#### CX.

DRYDEN AT WESTMINSTER AND OXFORD.

John Dryden, (or Driden,) one of the greatest masters of English verse, was born on the 9th of August, 1631, in the parsonage-house of Oldwincle All-Saints, Northamptonshire. The house is still standing, and a small apartment in it is still known as "Dryden's Room." He received the rudiments of his education at Tichmarsh, or at the neighbouring grammar-school of Oundle. "We boast," says the inscription at Tichmarsh, on the monument erected by Dryden's relative, (Mrs. Creed,) "that he was bred and had his first learning here, where he has often made us happy by his kind visits and most delightful conversation." He was afterwards admitted a King's scholar at Westminster School, under Dr. Busby, for whom he contracted a warm and lasting regard. He was not, however, indifferent to the Doctor's severity in the use of the rod; for the poet compares his over-correction of some verses to "our Master Busby," who "used to whip a boy so long till he made him a confirmed block-head." Yet Dryden was so strongly impressed with Busby's high moral character and excellent system of tuition, that he placed two of his sons under him. The Doctor was the first to discover and encourage Dryden's poetical talent; but of his performance in this way when at Westminster, the only record we have is, that he translated the third Satire of Persius as a Thursday night's exercise. Other pieces of a similar kind were produced, and remained in the hands of Dr. Busby, but were never recovered. Here also, while yet a King's scholar, in 1649, Dryden wrote an *Elegy on the Death of Lord Hastings*, and some commendatory verses on the *Divine Epigrams* of his friend, John

Hoddesdon, both of which were published in the following year.

In the library at Westminster School is a small portion of a form which bears, in upright letters, the name I. DRYDEN, believed to have been cut by the boy-poet with a penknife: it is kept cased in glass, and is ornamented with gold and diamonds. There was also within the present century to be seen the poet's name written upon the wall of a room in the Manor House, Chiswick, which was frequently resorted to by Busby and his pupils. Dryden came up as a Westminster scholar to Trinity College, Cambridge, May 11, 1650. Of his career at College, almost the only notice in the archives is dated July 19, 1652: "put out of Commons for a fortnight at least," confined to the walls, and sentenced to read a confession of his crime at the fellows' table during dinner-time—this offence being disobedience to the vice-master, and "contumacy in taking the punishment inflicted by him." He took his degree of Bachelor of Arts, and was made Master of Arts, but never became a Fellow of the College; and he always entertained feelings of aversion for Cambridge, which he did not hesitate to avow in the Prologues he wrote many years afterwards for delivery at Oxford. Dryden has left these interesting memorials of his early studies:—

"For my own part, who must confess it to my shame, that I never read anything but for pleasure, history has always been the most delightful entertainment of my life."—*Life of Plutarch*, 1683.

"I had read Polybius in English, with the pleasure of a boy, before I was ten years of age."—*Character of Polybius*, 1692.

Hence Dryden is concluded to have spent more time over Thucydides, Tacitus, and the rest of the Greek and Roman historians, than he gave up to the poets, ancient or modern. He cultivated slowly the poetical faculty; he was nearly thirty years of age before he published his poem on the death of Cromwell; and his early productions followed each other at long intervals. His *Essay on Dramatic Poesy*, elegantly written, is the earliest regular work of the kind in the language, and contains the manly avowal—the first after the Restoration—of the supremacy of Shakspeare. Dryden's language, like his thoughts, is truly English: his verse flows with natural freedom and magnificence; his satire is keen and trenchant; and the style of his prose is easy, natural, and graceful. He was made Poet-Laureate, but deprived of his office by the Revolution. "The prose of Dryden," says Sir Walter Scott, "may rank with the best in the English language. It is no less of his own formation than his versification; is equally spirited and equally harmonious."

#### CXI.

##### SIR CHRISTOPHER WREN AT WESTMINSTER AND OXFORD.

Thousands of the indwellers of the capital which Sir Christopher Wren has adorned with no fewer than forty public buildings, are, probably, unacquainted with the extent and variety of the abilities and acquirements of this great architect and excellent man. Sceldom has the promise of youth been so well redeemed as in Wren. He was born in 1632, at East Knoyle, in Wiltshire, of which parish his father was then rector. He was a small and weakly child, whose rearing required much care. He was educated at home by his father and a private tutor, until he was placed under the special care of Dr. Busby, at Westminster School, having at the same time Dr. Holder as a mathematical tutor. Aubrey describes young Wren as "a youth of prodigious inventive wit," of whom Holder "was as tender as if he had been his own child, who gave him his first introduction into Geometry and Arithmetic; and when he was a young scholar at the University of Oxford, was a very necessary and kind friend." The first-fruits of young Wren's inventive faculty was put forth in 1645, in his thirteenth year, by the production of a new astronomical instrument, which he dedicated to his father, with a dutiful Latin address, and eighteen hexameter verses. This invention was followed up by an exercise in physics, on the origin of rivers, and by the invention of a pneumatic engine, and a peculiar instrument in gnomonics. His mind ripened early into maturity and strength; he loved the classics; but mathematics and astronomy were from the first his favourite pursuits.

In his fourteenth year, Wren was admitted as a gentleman-commoner at Wadham College, Oxford, where, by his acquirements and inventions, he gained the friendship of Dr. Wilkins, Seth Ward (Bishop of Salisbury), Hooke, whom he assisted in his *Micrographia*, and other eminent scientific men, whose meetings laid the foundation of the Royal Society. In his fifteenth year, he translated Oughtred's *Geometrical Dralling* into Latin; and about this time he made a reflecting dial for the ceiling of a room, embellished with figures representing astronomy and geometry, with their attributes, tastefully drawn with a pen. He next took out a

patent for an instrument to write with two pens at the same time; and he invented a weather-clock, and an instrument wherewith to write in the dark.

In 1654, Evelyn visited Oxford, and went to All-Souls, where he says, "I saw that miracle of a youth, Christopher Wren." He ranked high in his knowledge of anatomical science; he made the drawings for Dr. Wilkins's *Treatise on the Brain*; and he was the originator of the physiological experiment of injecting various liquors into the veins of living animals. In 1653, he was elected a Fellow of All-Souls; and by the time that he had attained his twenty-fourth year, his name had gone over Europe, and he was considered as one of that band of eminent men whose discoveries were raising the fame of English science. In 1657, he was appointed Professor of Astronomy at Gresham College; three years later, Savilian Professor at Oxford; and received the degree of D. C. L. in 1661. It was after delivering his lecture on Astronomy at Gresham College, on Nov. 28, 1660, that the foundation of the Royal Society was discussed; and its archives bear the amplest testimony to his knowledge and industry, as exhibited in his commentaries on almost every subject connected with science and art. His inventions and discoveries alone are said to amount to fifty-three.

Wren's scientific reputation probably led to his being, in 1661, appointed assistant to Sir John Denham, the Surveyor-General; and in 1663, he was commissioned to survey and report upon St. Paul's Cathedral, with a view to its restoration, or rather, the rebuilding of the body of the fabric. The Great Fire decided the long-debated question whether there should be a new cathedral. He was the worst paid architect of whom we have any record: his salary as architect of St. Paul's was only 200*l.* a year; his pay for rebuilding the churches in the city was only 100*l.* a year; and it is related that on his completion of the beautiful church of St. Stephen, Walbrook, the parishioners presented his wife with 20 guineas!

With all these architectural pursuits, Wren found time to preside at the Royal Society, and take part in experiments: many great men have shed lustre upon its chair; few to a greater degree than Sir Christopher Wren.

#### CXII.

##### NEWTON AT GRANTHAM AND CAMBRIDGE.

The childhood and education of that master-mind which, by the establishment of the theory of Gravitation, "immortalized his name, and perpetuated the intellectual glory of his country," next demand our attention. Isaac Newton was born in 1642, in the manor-house of Woolsthorpe, close to the village of Colsterworth, about six miles south of Grantham, in Lincolnshire. He was a posthumous child, and was of such a diminutive size when born, that he might have been put into a quart mug. At the usual age he was sent to two small day-schools at Skillington and Stoke, two hamlets near Woolsthorpe, and here he was taught reading, writing, and arithmetic. At the age of twelve he was sent to the grammar-school at Grantham. According to his own confession, Newton was extremely inattentive to his studies, and stood very low in the school. When he was last in the lowermost form but one, the boy above him, as they were going to school, kicked him on the stomach; Newton subsequently challenged the boy to fight, the combat took place in the churchyard, and Newton was the victor; his antagonist still stood above him in the form, until, after many a severe struggle, Newton not only gained the individual victory, but rose to the highest place in the school.

Newton had not long been at school before he exhibited a taste for mechanical inventions. With the aid of little saws, hammers, hatchets, and other tools, during his play-hours, he constructed models of known machines and amusing contrivances; as a wind-mill, a water-clock, and a carriage, to be moved by the person who sat in it; and by watching the workmen in erecting a wind-mill near Grantham, Newton acquired such knowledge of its mechanism, that he completed a large working model of it, which was frequently placed upon the top of the house in which Newton lived at Grantham, and was put in motion by the action of the wind upon its sails. Although Newton was at this time a "sober, silent, and thinking lad," who never took part in the games of his schoolfellows, but employed all his leisure hours in "knocking and hammering in his lodging-room," yet he occasionally taught the boys to "play philosophically." He introduced the flying of paper kites, and is said to have investigated their best forms and proportions, as well as the number and position of the points to which the string should be attached. He constructed also lanterns of "crumpled paper," in which he placed a candle, to light him to school in the dark winter mornings; and in dark nights he tied

them to the tails of his kites, which the terrified country-people took for comets. Meanwhile, in the yard of the house where he lived, Newton was frequently observed to watch the motion of the sun; he drove wooden pegs into the walls and roofs of the buildings, as gnomons, to mark by their shadows the hours and half-hours of the day. It does not appear that he knew how to adjust these lines to the latitude of Grantham; but he is said to have succeeded, after some years' observation, in making them so exact, that anybody could tell what o'clock it was by *Isaac's Dial*, as it was called; and, probably, about this time, he carved two dials on the walls of his own house at Woolsthorpe, one of which is now in the museum of the Royal Society. Newton also became expert with his pencil: his room was furnished with pictures, drawn, some from prints, and others from life, in frames made by himself: among the portraits were several of the King's heads; Dr. Donne; Mr. Stokes, his teacher at Grantham; and King Charles I; also, drawings of "birds, beasts, men, ships, and mathematical diagrams, executed with charcoal on the wall, which remained till the house was pulled down in 1711." Although Newton stated that he "excelled particularly in making verses," no authentic specimen of his poetry has been preserved; and in later years, he often expressed a dislike for poetry. During the seven years which he spent at Grantham, to the society of his schoolfellows he preferred that of the young ladies who lived in the same house, and he often made little tables, cupboards, &c., for them to set their dolls and their trinkets upon. One of these ladies, when she had reached the age of 82, confessed that Newton had been in love with her, but that smallness of income prevented their marriage.

When Newton had reached his fifteenth year, he was recalled from the school at Grantham to take charge of his mother's farm: he was thus frequently sent to Grantham market, to dispose of grain and other agricultural produce, which, however, he generally left to an old farm servant who accompanied him, and Newton made his way to the garret of the house where he had lived to amuse himself with a parcel of old books left there; and afterwards he would entrench himself on the wayside between Woolsthorpe and Grantham, devouring some favourite author till his companion's return from market. And when his mother sent him into the fields to watch the sheep and cattle, he would perch himself under a tree with a book in his hand, or shaping models with his knife, or watching the movements of an undershot water-wheel. One of the earliest scientific experiments which Newton made was in 1658, on the day of the great storm, when Cromwell died, and when he himself had just entered his 16th year.

Newton's mother was now convinced that her son was not destined to be a farmer; and this, with his uncle finding him under a hedge, occupied in the solution of a mathematical problem, led to his being again sent to Grantham School, and then to Trinity College, Cambridge, which thence became the real birthplace of Newton's genius. We have not space to detail how he mastered Sanderson's *Logic*, and Kepler's *Optics*, before he attended his tutor's lectures upon those works; how he bought a book of *Judicial Astrology* at Stourbridge Fair, and to understand its trigonometry, purchased an English *Euclid*, which he soon threw aside for Descartes' *Geometry*; his long continued observations upon a comet in 1664; his first discovery of Fluxions in 1665; his first study of Gravity, suggested to him by the fall of an apple from a tree while sitting in his garden at Woodsthorpe; his purchase of a glass prism at Stourbridge Fair; his first application to optical discoveries; his construction of telescopes, &c. But we cannot leave him without remarking that late in life, ascribing whatever he had accomplished to the effect of patient and continuous thought rather than to any peculiar genius with which nature had endowed him, he looked upon himself and his labours in a very different light from that in which both he and they were regarded by mankind. "I know not," he remarked, a short time before his death, "what I may appear to the world; but to myself I seem to have been only like a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me." How touching is this sense of humility, and contrast of the littleness of human knowledge with the extent of human ignorance!

## CXIII.

## WILLIAM PENN AT OXFORD.

William Penn, whose name has become "throughout all civilized countries a synonyme for polity and philanthropy," was born October 14, 1644. He grew up into a graceful and promising child at Wanstead, in Essex, and was sent to learn the first rudiments of scholarship at a grammar-school at Chigwell, then recently founded

by the Archbishop of York. When he was eleven years old, his father, Admiral Penn, was arrested by order of Cromwell for his alleged share in the failure of an attack on Hispaniola; and young Penn "a quick-witted and affectionate child, was overwhelmed with melancholy" at his father's arrest. While in this state of mind, he was one day surprised in his room, where he was alone, with an inward and sudden sense of happiness, akin to a strong religious emotion; the chamber at the same time appearing as if filled with a soft and holy light." This incident has been regarded by some as a miracle,—by others as a delusion; but Mr. Hepworth Dixon, the earnest biographer of Penn, considers the lively and sensitive child being in a morbid condition of mind; and his father being in a few days set at liberty, "it is probable that the glory which filled the room and the feeling which suffused his frame were simply the effects of a sensitive temperament over-excited by the glad tidings of this release." His father then retired with his family into Ireland, where William "rapidly improved, under a private tutor from England, in useful and elegant scholarship. He exhibited already a rare aptitude for business. In person he was tall and slender, but his limbs were well knit, and he had a passionate fondness for field sports, boating, and other manly exercises. In the elementary parts of education he had already made such progress that the Admiral thought him ready to begin his more serious studies at the University; and, after due consideration, it was resolved that he should go to Oxford." After a year's delay, to Oxford he went, where he matriculated as a gentleman commoner at Christchurch, of which Dr. John Owen was Dean: South was Orator to the University; and here were Wilmot, Earl of Rochester, and "the noblest and most notable of all ornaments of Oxford at that day,"—John Locke. Penn proved at college a hard student, a skilful boater, and adventurous sportsman; his reading was solid and extensive, and his memory excellent. His great pleasure and recreation while at Christchurch was in reading the doctrinal discussions to which the Puritan idea had given rise; and the preaching of the new doctrines taught by George Fox, and the threatened restoration of popish usages, led Penn and others into forcible opposition to the orders of the Court, for which they were expelled the University. For a boy, he left Oxford with a profound acquaintance with history and theology. Of languages he had more than an ordinary share. Then, and afterwards, while at Saumur, (in France,) he read the chief writers of Greece and Italy in their native idioms, and acquired a thorough knowledge of French, German, Dutch, and Italian. Later in life he added to his stock two or three dialects of the Red Men. Upon his return to England, Penn's father entered him as a student at Lincoln's Inn, that he might acquire some knowledge of his country's laws. He did not remain long in London, but returned to Ireland; and at Cork, hearing an old Oxford acquaintance preach the doctrines of George Fox, from that night Penn became a Quaker in his heart.

(To be continued.)

## Suggestive Hints towards Improved Secular Instruction.

BY THE REV. RICHARD DAWES, A. M.

## XI.

## NATURAL PHILOSOPHY.

(Continued from our last.)

*Another of Leslie's experiments.* Take a cubical vessel, made of tin, one surface blackened, a second scratched, the third more roughened, and the last smooth; fill it with boiling water, and place the differential thermometer near it, and turning each side in succession towards it, it will be found that the quantity of heat radiated, or thrown off from the different surfaces, will be in the order mentioned above. Professor Leslie covered the surface of the vessel with thin plates or layers of different substances of different colours, and noted the number of degrees which the thermometer rose, and thus ascertained the radiating power of each particular covering.

Lamp-black.....	100°	Clean lead.....	19°
Writing-paper.....	98	Iron, polished.....	15
Tarnished lead.....	45	Tin-plate.....	12

He then, instead of blackening or otherwise meddling with the faces of the tin vessel, made it perfectly smooth, and covered the bulb of the thermometer with the different substances, and found

by the way in which it was affected, that they absorbed heat much in the same way as they had before radiated it when on the tin vessel.

His experiment of heat reflected from parabolic reflectors is a very curious one, and they are well worth the expense of purchasing, in order to try the experiment, from the instruction it gives. A pair of these reflectors is a useful apparatus in a school.

Although heat is emitted from every point in the surface of a hot body in all directions, it is not emitted in all directions with the same intensity. The intensity of the heating ray is as the sine of the angle which it makes with the surface, and therefore those rays have the greatest heating power which are emitted at an angle of  $90^\circ$ .

As an instance of roughened bodies absorbing heat and then radiating it again, and of polished surfaces reflecting it—take the case of a blackened rough fender and polished fire-irons—the latter are generally nearer the fire than the fender, touch them and they will be found much the coolest; the fender having absorbed the heat, the irons reflected it.

The different degrees in which bodies absorb heat depends also on colour.

Dr. Franklin observed, that when he laid pieces of differently coloured cloth upon snow, it melted more rapidly under the dark colours than the light. And black and red inks, for example, when exposed to the sun, become heated in different degrees from their absorbing the light which falls upon them, and consequently the heat, in different degrees; while pure water seems to transmit all the rays equally, and is not sensibly heated by the passing light of the sun.

The teacher should also note the difference between the radiation of heat from the sun and that from any other bodies—that from the sun passing through air and glass, water, &c., the other not, or if so, in a very slight degree.

The following experiment, attended with no expense, affords a good practical hint—two old tea-pots will serve, one of white metal, the other of black earthenware.

Fill them with boiling water, or with hot water from the same kettle—after standing a given time, place a thermometer in them, and it will be found that it will stand much higher in the metal one than in the other; showing that for the purposes of making tea the metal one is the better, not radiating the heat so rapidly; but if placed before the fire the black one will absorb heat better than the other. A black earthen teapot loses heat by radiation, in the proportion of 100; while one of silver or other polished metal loses only as 12.

Thus hot water running in a blackened pipe or rough one, will give out its heat more rapidly than in a polished smooth one.

A solid, when changed into a fluid state, absorbs heat—some solids soften in melting, as wax, tallow, butter, and then become fluid; others, as ice, change at once.

In changing from a fluid to a state of vapour, heat also is absorbed; on the contrary, bodies in passing from vapour to fluid, and from fluid to solid, give out heat.

Water in freezing gives out heat, while in the melting of snow and ice heat is absorbed; hence the chilling cold felt in a thaw after there has been a great fall of snow; also the gradual melting, in consequence of the latent heat in changing from snow into water.

Fluids become vapour also at different temperatures, their boiling-points depending upon the pressure of the atmosphere, which varies with the altitude above the level of the sea, as well as from other causes; they may also be heated beyond their boiling-point in the atmosphere, by subjecting them to artificial pressure.

The following questions will suggest a few important things, on which the teacher who wishes to understand this subject may inform himself.

Why, as water in boiling becomes vapour, and, as it were, boils away, does its temperature not rise above  $212^\circ$ ? When all converted into steam at  $212^\circ$ , what would take place if immediately condensed? What has become of all the heat required to convert the water into vapour, and how would it show itself when the steam is condensed?

If the steam were heated above  $212^\circ$ , how is its expansive force increased? Simply as the temperature, or in a higher ratio?

The disruption of vegetable substances produced by the passage of the electric fluid through a tree is caused by the intensity of the momentary heat converting the fluid of the wood into steam.

At what temperature does water vaporize?

What do you mean by saying that a liquid boils?

Describe the relation between the boiling power of a liquid and

the pressure of the atmosphere above it—specify the effect on this boiling-point.

1. By artificially attenuating } this atmosphere.
2. By artificially condensing }

What is high-pressure steam?

Why, when a mass of ice is dissolved from the heat of a room, or in a vessel on the fire, does the temperature of the water not rise, so long as any ice-remains undissolved—(test this by placing a thermometer in melting ice), and why does it rise as soon as it is all melted?

Water being kept perfectly still, may be cooled many degrees below the freezing-point, but if shaken, ice would immediately be formed. The extent to which it freezes at once when shaken depends upon this, whether the quantity of heat given out on freezing is sufficient to raise the temperature of the rest higher than  $32^\circ$ . If, for instance, the mass is cooled to  $10^\circ$  below the freezing-point, then only  $1/14$ th is immediately frozen, and in becoming solid it has given out sufficient heat to raise the temperature of the rest up to the point of freezing.

The circumstance of water, when cooled below  $39^\circ$  of Fahrenheit, expanding when further reduced in temperature, should be noticed—this is shown from ice being lighter than water—from the bursting of water-pipes when frozen.

How beautiful the design of Providence in this arrangement, that when the surface water is near the freezing point, being lighter than that which is underneath, it cannot sink. If it had followed the general law, rivers would begin to freeze from the bottom, and become a solid mass of ice—fish and all the other inhabitants of the water would be destroyed: ice is also a bad conductor.

Why can the human body bear to be brought in contact with air at a much higher temperature than with a fluid—with a fluid than with a solid, such as hot iron?

A fluid boils, when its temperature is raised to such a point that the elasticity of its vapour is sufficient to overcome the pressure which is acting upon it: whether from the cohesiveness of the substance itself, the pressure of the atmosphere, or any other artificial pressure.

This explains the principle of a vessel called Papin's Digester, made to extract all the nutritive matter from bones. It is a cylindrical vessel, capable of resisting great pressure; closed by a stopcock, which will resist a pressure of many atmospheres. Of course, in this, water may be heated far above the ordinary boiling-point, and from its greater heat, most animal substances are made to dissolve.

The boiling-point is not changed by bodies mechanically mixed in a fluid—as sand in water; but it is by all those chemically united with it. All soluble salts retard the boiling point of water, and substances such as starch, mechanically mixed with it, retard its cooling. 1

The processes in the arts and manufactures carried on by distillation and evaporation should be noticed. The continual evaporation going on at all temperatures from every part of the surface of the globe—land and water, animal and vegetable—increasing the transparency of the atmosphere, sometimes when most charged with vapour it is most transparent—at others forming clouds, descending in rain to supply our rivers and springs, and to sustain the whole animal and vegetable world.

Formation of vapour absorbs heat, and therefore produces cold—instance a wet towel applied to the temples in case of headache—sometimes wrapped round a bottle containing anything which requires to be cooled—damping the mats in a doorway—a damp bed a very dangerous thing, for want of exercise to generate heat in the body, so as to counteract the cold in drying, etc. That evaporation produced cold had been known in warm climates from an early period, but this had escaped notice in the more temperate ones, until after the invention of the thermometer, when it was soon perceived that on the bulb being wetted, the mercury immediately fell in the stem.

The following may be taken as a way of applying this knowledge to the teaching of children:

*Sugar from the sugar cane.* The juices are pressed out by passing the cane between heavy rollers; this contains, besides sugar, a great deal of water—the water is driven off by boiling—will go away slowly by evaporation.

A current of air over anything that is wet takes the moisture up

1 The reader will see some interesting tables on the freezing and boiling points of liquids, &c., on the melting-points of solids, such as fat, metals, &c., at the end of the volume on Heat in Lardner's "Cyclopædia;" as also on their expansions at different temperatures.

in vapour, as it passes over the surface; this changing the wet upon anything into vapour is called evaporation, and produces cold; dip your finger in water, when there is so little wind that you do not know from what quarter it comes, and you will find the finger colder on one side than the other; this is the side on which the wind blows; and it is colder because there is a greater evaporation on that side of the finger than the other. The sailor knows this, and when he is becalmed at sea, and does not know from what quarter the wind blows, he wets his finger in his mouth, and holds it up to the air, the cold side is the wind side.

After a shower of rain on your clothes, and whilst they are drying on your back, do you not feel much colder than you did before?—this is the cold arising from the wet on your clothes becoming vapour—and for this reason you should not sit in your wet clothes after you get home.

Why does your ink get thick by standing in the inkstand? This, after what you have heard, you can answer yourselves.

In cold weather, you will sometimes observe a quantity of water collected at the bottom of the panes of glass in a room—you recollect warm air holds up more vapour than cold—the warm air in the room coming in contact with the glass, which is cold from being in contact with the cold air of the atmosphere, is immediately made cooler; this causes the vapour in it to condense on the surface of the glass—become water—it then runs down, and collects in large drops on the wood. What becomes of it? Point out how it is perhaps first absorbed by the wood—is changed again into vapour—again mixes with the atmosphere—reappears in rain—fertilizes the fields, &c.

With the aid of a sectional model of the steam-engine, and knowing something of the elastic power of vapour—that its force of elasticity increases in a much higher ratio than that of its temperature—that when reduced below a certain temperature it is immediately condensed—the teacher would be able to explain many of the more important parts of the machine, showing how steam may be adapted to the purposes of man as a moving power.

He would explain how the steam enters alternately below and above the piston rod, and is carried off—by its elasticity giving an up and down motion to the large beam which sets the machinery in motion—pointing out the parallel motion at the end of the beam, causing the piston rod always to move in the same vertical plane—the up and down motion of the beam causing two dead points, one at its highest, the other at the lowest point of its motion—how the contrivance of a fly-wheel, by its momentum when once set in motion, carries the machinery over the dead points, etc.

Then again—the importance of having a great quantity of fire surface in the boiler, in order to generate steam rapidly—the saving of fuel by this—the different kinds of boilers in order to effect it—the nature of safety-valves—that a safety-valve is, in fact, a weak part of the boiler made to give way when the elastic force of the vapour, from increased temperature, becomes so great as to endanger its bursting—the valve opens (or ought to do), at a pressure much below that which would burst the material of which the boiler is made—gauges for measuring the pressure on every square inch surface at which the engine is working—nature of an atmospheric safety-valve opening inwards, and why wanted, &c.; that if the steam inside the boiler is suddenly condensed, the boiler would have a tendency to collapse, and an atmospheric valve would guard against this.

Again, when the water in the boiler is very low, the fire-surface of the boiler above the water would become heated in a very high degree; danger from this, in an engine not stationary, as in a steam-boat, of the water, from the rolling motion of the boat, being thrown over the heated surface, and all converted into steam, and an explosion taking place—not perhaps immediately, but after the heated surface was cooled down to a certain temperature.

The boiler of the locomotive steam-engine is of a tubular kind, in order to expose as much surface as possible to the fire; and in this engine, as there can be no fly-wheel to get over the dead points, there are in each machine two engines at work, the dead points of which are at right angles to each other, so that they never occur together.

The following from Herschel's "Discourse on the Study of Natural Philosophy," will give the reader some idea of these hidden powers of nature when called into action, and show him how much they are perhaps beyond anything he may have been in the habit of imagining them.

"It is well known to modern engineers that there is virtue in a bushel of coals, properly consumed, to raise seventy millions of pounds weight a foot high. This is actually the average effect of an engine at this moment working in Cornwall. Let us pause a

moment and consider what this is equivalent to in matters of practice.

"The ascent of Mont Blanc from the valley of Chamouni is considered, and with justice, as the most toilsome feat that a strong man can execute in two days. The combustion of two pounds of coal would place him on the summit.

"The Menai Bridge consists of a mass of iron, not less than four millions of pounds in weight, suspended at a medium height of about 120 feet above the sea. The consumption of seven bushels of coals would suffice to raise it to the place where it hangs."

It will, perhaps, be difficult to understand the following description of what may be called the mechanical effects of a jet of steam without having recourse to diagrams; but they are curious, and as the same thing may in some measure be tried by a current of air blown or sent rapidly through a hollow tube, this may suggest simple things of an interesting kind.

A jet of steam issuing outwards in any direction, but suppose vertically from an orifice, will ascend into the air, with greater or less force, according to its temperature and elasticity, and will by its momentum displace the air which it meets with in its upward course. The jet will be rendered visible by the steam being condensed, and the effect of this jet upon the flame of any burning substance—or any light substances brought near to the axis of it—by its attracting them (a current of air setting in on all sides towards the axis of the jet), is striking and worthy of attention.

Take a piece of tow, dipped in spirits of wine and placed at the end of a rod, set it on fire, and approach the flame near the axis of the steam jet; when held a little above the orifice from which the steam proceeds, the flame will be attracted in a slanting direction, and the angle which the flame makes with the axis of the jet increases as the distance from the orifice increases, up to a certain point, when it becomes a right angle; elevated above this, it again assumes the position it had below this point, until it is elevated beyond the influence of the jet, when it of course assumes a vertical position.

This is better shown by taking a circular piece of iron, with a handle attached, and wrapped round with tow: moisten it with spirits of wine and kindle it, then place the circle of flame across the axis of the jet—up to a certain point above the orifice, the flame will assume a conical appearance; here it will set itself at right angles to the jet, and appear a flat disc of flame—above this point the flame will again become a conical surface, until being further elevated, it gets beyond the influence of the jet, and assumes an undisturbed position.

Light bodies when placed in the jet, or heavy bodies within certain limits, when placed in it, will be supported, or a flat surface of any kind held in the hand at a certain distance from the orifice will be forced upwards; but brought close to the surface in which is the orifice of the jet, it will be held down with considerable force.

It is from these properties of a jet of steam, that it has been proposed to ventilate coal and other mines, by creating a strong current of air up one shaft, to be supplied by a down current from another, which could be regulated at pleasure, and in such a way as to produce even a gentle breeze or a perfect hurricane in the mine.

The same principle may be shown by taking a hollow tube of glass, or of tin, having two arms at right angles to each other for the convenience of blowing through; otherwise a straight tube would do as well, and one end terminating in a perforated pasteboard, or tin disc, of a few inches diameter, through the centre of which the tubular opening runs, then blowing violently through it, and placing another piece of pasteboard, or tin over the opening from which the air proceeds, it will be found to be violently attracted—if the apparatus be turned downwards, so that the current instead of ascending is blown towards the ground, the under surface will be lifted up.

If water is poured into a bent glass tube, open at both ends, and a current of air is blown violently across one end, the water in it will be found to rise.

(To be continued.)

### Hints on oral Teaching.

To secure the attention of a body of young children, while giving an oral lesson, is perhaps one of the most difficult parts of teaching that presents itself to a novice. If the pupil's attention can be obtained at the commencement of a lesson, generally, it is obvious that it may be easily maintained the remainder of the time, with a little experience on the part of the Teacher, as nearly all lessons

become more and more interesting as they advance towards the conclusion; and therefore the children will have a natural tendency to listen to the information given for their benefit, without giving the Teacher any extra exertion to maintain their attention.

The following suggestions for securing attention and good order while giving an oral lesson may perhaps be acceptable to some of our readers:

I. That the pupils be strictly prohibited talking, and be made to sit in a convenient manner, with their arms folded.

II. That the Teacher should stand at such a distance, and in such a position, as to enable every pupil to see his face.

III. That all black-boards, maps, diagrams, &c., required to illustrate the lesson, should be ready for immediate use when wanted, and placed in such a manner as to enable all the pupils to see them without moving from their seats.

IV. That the Teacher should make it a general rule never to leave the class while engaged in giving an oral lesson.

V. That, if possible, the Teacher should find some attractive name for his lesson, which will enable him to secure the attention of his pupils. This plan can be very successfully pursued in the giving of Scripture lessons. For instance, if the Teacher wished to give a lesson on "Noah," let the title of the lesson be changed to "The first shipwright," or some equivalent phrase. If on "Dives and Lazarus," to "The rich poor man and the poor rich man." If on "Jonah," to "The living ship." If on "Naaman," to "The little slave," &c., &c., &c. In some case (when most convenient) it would be a good plan to disguise the real name of the lesson, and not make it known until near the end.

VI. To divide each lesson into four parts, and, at the conclusion of each part, to examine the pupils on the part previously explained to them.

VII. At the conclusion to make an examination (oral) on the whole of the lesson given.

VIII. To place the *incorrigibles* (if any) nearest the Teacher, and to trouble them with the most questions at the time of examination.

If Teachers arrange their lessons in a logical and interesting way, they will find, that, after obtaining the attention of their pupils once, their lessons will afterwards be courted, and that no extra exertion will be required for the preservation of order and attention.—*Charles F. Redman in the English Pupil-Teacher.*

### Peddled Books and Newspapers.

"A good book is the precious life-blood of a master spirit, embalmed and treasured up on purpose to a life beyond life."—*Milton.*

"Books are men of higher stature, [Browning.]  
And the only men that speak aloud for future times to hear."—*Mrs.*

Yes, good books are worthy of this high praise. But good or bad, books and newspapers are now playing a most important part in popular education,—hardly second to that of the living teacher, whether in the pulpit or in the school-room. Their character and influence must not be left out of account, unless we can be content to see our efforts as teachers paralyzed and the public taste debased, or be willing to neglect a co-operative agency of greatest power.

The subject is one of no little difficulty, and we can only throw out a few hints that may possibly prove suggestive to other minds.

Our people are fond of books. Few families are so poor that they can not point you to a parlor table or cupboard filled with them. But what are they? We will venture to say that in three-fourths of these little libraries, at least one-half of the books have been purchased of itinerant book-peddlers, or subscription agents, and are either the unsaleable refuse of the cities, or compends of history, travels, third rate novels, got up by some "enterprising house," especially for the popular market in showy covers and with abominable wood-cuts. Not a small part of these are the lives of highwaymen, pirates, records of bold and wicked adventure. Every minister in the habit of visiting his people, and every school-master that has "boarded round," can verify the truth of this statement. The evil prevails most in the country, where the people feel more dependent on these strolling agents; and even in the large villages, how few families can show sterling or standard works in their collections? How few really good works, which issue month after month from the English and American press, are to be found, in comparison with works of little or no value, either to elevate the taste, inform the mind, or purify the heart? Thousands of dollars, rather, tens of thousands, are annually drained from the State by unprincipled book-sellers in the large

cities, for their worthless publications. It is not too much to say that the amount thus drawn from the State for second rate, worthless, and bad books—including such papers as the *New York Ledger* and *Mercury*, which even the genius of Everett and Bayard Taylor can not make respectable, and all the insipid love-story weeklies from Boston, New York and Philadelphia; including also many of our "fashionable" monthlies and our highly seasoned "yellow covered" religious" literature of all sorts and sizes, however recommended by men and Journals of whom we have a right to expect better things, the money, we say, thus drawn from the country during the last ten years, would have supplied every town with a school library of a choice collection of standard English and American authors.

Who can estimate the value of such libraries to our youth, to the character of our young men and young women, to society generally, in promoting solid attainments, sound views on all the great questions of life, in elevating the taste of the community and furthering the efforts of our public teachers?

What are we to do? Let all teachers and friends of education by word and example, at all fit times and places, at the fire-side, at town and country associations, and through the pen, resist this enemy that is coming in upon us like a flood, instruct the people on this evil, and so create a healthful sentiment. Let all parents look to the books and papers their children and themselves are reading, bravely purge their tables and book-shelves, and get a little honest light and heat by a bonfire of their otherwise worthless or bad books. And then buy only good books and take only good papers. If unable to trust your own judgment, consult not with the paid advertisements of the newspapers, but with some one upon whom you can rely. Never deal with irresponsible book-agents or peddlers.

And when you have got a good book, read it, and make your friends and neighbors read it. By-and-by it will not be the less valuable to you for its soiled and well-thumbed pages.—*Vermont School Journal.*

### Monotony of School Exercises.

All teachers have felt this creeping shade of depression and enervation, which naturally results from a regular order of exercises in the school-room. The teacher is not alone the sharer of this incubus of monotony; the same is both felt and acted in the person and spirit of the pupil. This is the rock upon which so many of the craft are ruined. This with that other, and not less dispiriting cause, the departure of a class of mind that held the front rank in the school-room, upon whose characters, the teacher has given the last stroke of his skill, ere crossing the threshold to struggle in life's battle. With them too often goes the life, the energy and the courage of the teacher. Having smoothed the rough boards of their minds, and fitted them for their position in the social fabric, he feels disheartened as a new supply of the rough materials rolls itself up before him for the same care, handiwork and burnishing process as before. The mind, upon which any one of these causes so operates, as to discourage and unfit it for labor, needs to look well to the nature of things, and see if there is not a remedy for this evil, which loses to the profession many of the noblest, and most successful of workmen. We think that the cause lies in the fact, of keeping within the narrow limits of instruction, and not enriching and amassing intellectual wealth—current truths connected with every branch we teach—to be imparted as freely as obtained. In so doing, we invigorate our own thoughts; keep in constant expectancy, the minds of those we instruct, and dispel wholly that appalling cloud of monotony, so begrimed with gloom and despair. Every task should be made a living embodiment, a real life, created anew, stripped of formality and dull verbiage. To effect this, the teacher must be an eclectic, a gleaner, a kaleidoscope, turning up new shapes and beauties at all hours in the day. Let us do this, and the flickering shadows of monotony will be lifted, and an intellectual sunlight will be felt reciprocally by both teacher and pupil.—*New-York Teacher.*

### Charity among Teachers.

"Charity suffereth long and is kind, charity vaunteth not itself, is not puffed up, doth not behave itself unseemly, is not easily provoked, thinketh no evil." What a beautiful picture is this. How this crowning excellence adorns human character. Nothing appears more beautiful in all the duties and relations of life. The charity that "envieth not and seeketh not her own,"—the beautiful economy of human happiness.

Yet I know a teacher who seldom speaks well even of any teacher but himself. He is a great critic on every system of teaching. He speaks only of the faults of our educational system. He is continually chiding the fraternity for their want of zeal and efficiency. He misconstrues words, motives and actions. He is not cordial with his fellow teachers. He sees in them insincerity and indifference. When this man sees his fellow rising by dint of hard labor and perseverance, the emotions of envy arise in his bosom. He much prefers to seize upon the foibles and magnify them, than to praise him that doeth well. He is quite certain that the reputation is not well founded, it is a precarious superstructure. This grumbler does not work cordially with any body else. His faith is weak in regard to the efficiency of the efforts of certain teachers and educators. He can not approve such measures. He has a finely spun theory of his own, which is precisely adapted to the wants of the times, and he is much surprised that his theory is so little appreciated. He can have no patience with systems of teaching that differ so widely from his own. He utters wholesale criticisms upon authors that do not incorporate his peculiar ideas of scientific propriety. His *system*, of course, is right.

It is evident that this man does not come up to the standard of perfect charity. And this is only a representative man. I trust the class is not very numerous. But, viewed from certain stand points, it is very evident that charity is a stranger guest among certain circles of teachers. And how this cripples the efficiency of the educational system. How it lowers the real dignity of the teacher's calling. There seems to be no apology for this. That ignorant and uncultivated minds should want the crowning grace of charity is no wonder. We can not well expect light in the midst of darkness. But it is unpardonable in him who is really competent to lead the youthful mind in the pathway of knowledge. Shall he permit himself to become a prey to the viler emotions of human nature? Shall he fail to practice what he should teach to others? Shall he step down from the high theater of his duties and squander his efforts in lower spheres?

The hands and hearts of teachers and educators should be closely joined. They can not afford to indulge in uncharitable feelings and efforts. Their work is a great work. It needs the united strength of every hand that can aid. How beautiful is charity, and where more beautiful than among a company of teachers? True charity is not incompatible with just criticism. But criticisms are not to be introduced at the mere bidding of a desire to seem critical. Forbear your criticisms until the right time and place. Put the most favorable construction upon the actions of your fellow teachers. Be as eager to receive as to give counsel. And "with what measure ye mete it shall be measured to you again."—*New-York Teacher*.

## Thoughts on Education from various Authors. (1)

### I.

#### VALUE AND ESSENCE OF A GOOD EDUCATION.

Most teachers sow plants instead of seeds; and do not proceed from the most simple principles.

First, the senses should be exercised; then the memory, then the understanding, and lastly, the judgment; and all by commencing as science does, with an induction.

The pupil should learn nothing by rote which he has not already comprehended.

He should learn nothing which is not useful either for one or another condition in life.

All the studies must form one whole; must proceed from one root.

Pupils should learn, not only to understand, but also to express what they understand.

Speech, and knowledge of things, must proceed together.

Reading and writing should be learned together.

Actual intuition of things is the most important part of instruction.

From this proceeds actual knowledge; what is perceived by the senses clings fastest in the memory; for which reason pictures are to be recommended.

Every art is learned by practice. The teacher must do the work before the scholar does it.

COMENIUS.

The best mode is to make the children learn the most useful things. Therefore the child himself must learn to form opinions; to which end instruction should often be given orally.

Justice and desire for knowledge must be planted in the child; he must likewise be early instructed in morality; which represents virtue in a lovely form.

The actions of a young person constitute the truest touchstone of what he has learned.

MONTAIGNE.

Few rules should be given to children; but these should be strictly adhered to.

It is best that rules should be found out by the practice of them.

Children should be managed with kindness and suitably to their character.

We should watch against all affectation in children, and should keep them natural, and preserve the beauty of their character.

For your children especially, what they learn should not be made a burden.

Children should not be overburdened with plays; the best are those they contrive themselves.

Children's lessons should not be made a servile labor to them.

Even their sports would become disgusting to them if they were forced to them.

Children should be influenced to love to learn, and should only be made to work when they are inclined to.

Still, children should not be permitted to be idle; and must be accustomed to drop occupations which are pleasant to them, to take up others not so agreeable.

LOCKE.

Precocious boys and youths may fancy they are doing a good thing, when, at a time when those of their own age are enjoying themselves with really childish occupations, they are, as it were, acting a part in the society of adults, are treated by them as equals, participate in their equivocal and often immoral amusements, make a figure in the eyes of vain girls and frivolous women, actually enter into a lover's relations with them, and altogether conduct themselves as if they had long outgrown the children's school, and attained to the condition of young men, who are beginning, after their fashion, to enjoy the life of the great and polished world.

But they are not conscious how indescribably repulsive this unnatural amphibious standing makes them to all men of correct feeling and understanding; and how far they are inferior to those boys and youths who preserve their gay free and innocent state of mind with which nature has endowed them, and which affords them a pleasurable relaxation from their hours of labor; who preserve the character of pure youthfulness.

What would the ancient Greeks or Romans say, to see our youths and boys, at an age when they ought to be enjoying themselves with their companions, appearing in the guise of a modern dandy, fitting from one gay ball to another, regularly attending the theatre, playing the squire of dames or the tender shepherd at tea-parties, introducing and singing the newest opera airs, and busied with all the little and pitiful affairs which the highest taste of the cultivated and modish world finds so beautiful, delightful and magnificent?

The youth precociously trained has no youth; and when he becomes a man, no pleasure and no amusement.

We must declare that all those fathers and mothers are deluded, who, as is unfortunately so often the case, are not as zealous about anything else as they are in using every possible means to make their sons, in their earliest youth, half-men-of-society.

KOHN.

As with plants, neglect or care in their tender youth contributes principally to their decay or flourishing; and as the immeasurable growth of the Roman Empire was justly ascribed to the courage and wisdom of those six kings who governed and protected its childhood, so, without doubt, the training and education of boyhood, and even at an earlier age, even if it is unobserved, and is noticed by no one, have an influence not equalled by the most persevering and assiduous industry in after years.

BACON.

There has been no period without persons entertaining the delusion that knowledge and education are to be considered the source of all evils. There was even a time when Rousseau, the corypheus of this class, was worshipped; Rousseau, who with deceptive and glittering eloquence, maintained that virtue had departed in proportion as the sun of enlightenment had risen above the horizon, and that with philosophers and artists, luxury and vices had come in; the sciences and arts, growing out of vices, astronomy from superstition, eloquence from ambition, hatred or flattery, geometry from avarice, physics from curiosity, morals from pride—these have enticed the human race out of their happy natural condition, and betrayed them into the depths of their present misery.

But aside from the fact that the realms of science and arts will as little be injured by this sort of declamation, as the rage of atheism has availed to overturn the everlasting pillars of religion in the human soul, it does not require long reflection to comprehend that Rousseau and his associates are viewing entirely and only from the misuse of the sciences and arts, not from the right use of them, and blaming the latter for what can only be charged against the former; in a word, that they are, as the proverb says, throwing away the child and the bathing-tub together.

And thus will it be to the end of time, even though whole armies of Rousseaus, like Vandals, should overrun Europe.

With unworthy teachers and pupils, science and education will bring harm and destruction, like a sword in the hands of an unskillful man; but under the charge of a truly wise man, they bring endless blessings.

But just as certainly as man was created, not to crawl on all fours in the depths of primeval forests, but to develop his mental and moral faculties, as plants are organized to bloom and bear fruit, just so certainly

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

he needs education, and only by means of it will become what he ought to become, man, in the highest sense of the word.

ANON.

The true victories, the only ones which we need never lament, are those won over the dominion of ignorance.

The employment most honorable, and most profitable to the people, is to labor for the diffusion and extension of the ideas of men.

NAPOLEON BONAPARTE.

Man becomes greater in proportion as he learns to know himself and his powers.

If man possesses the consciousness of what he is, he will soon also learn what he ought to be; let him have a theoretical respect for himself, and a practical will soon follow.

It is vain to expect great progress from the good tendencies of man; for in order to become better he must already be good. For this same reason, the revolution in man must proceed from the theoretical consciousness of his being; he must be theoretically good, in order to be practically so; and the surest preparation for a course of action consistent with itself is the theoretical conviction that the essential part of man exists only in unity and through unity.

For man, having once reached this conviction, will also see that unity in will and action must be as natural and necessary to him as the maintenance of his existence.

And from this, he will further observe, that unity in will and action are as natural to him as the mechanism of his body, and the unity of his consciousness.

SCHELLING.

The chief problem of education must be, not only to communicate to youth in an intelligible manner the sum of what man as man needs to know, but also to develop harmoniously and naturally the various faculties of the soul, so that the pupil himself shall learn how to investigate further after truth, and shall choose for his guides in life, the noble and most elevated ideas of the true, the beautiful and the holy; and lastly, that by gradual accustoming, in earnestness mingled with love, he may be led in the road of right, morality, religion and virtue.

True enlightenment consists in this; that man rightly comprehend his moral destiny, always have it before his eyes, refer to it all the manifold phenomena within and without him, and observe everything from its proper point of view.

HEYDENREICH.

We do not divert men from error merely by contradicting their foolish words, but by dissolving out of them the spirit of their errors.

It does not help one to see, to describe to him the night, and its dark colors and shadows. We can show what the night is only by lighting up, and what blindness is, by covering the eyes.

Just as little will one learn the right path to a place by being led about through all the side streets where he might go astray.

PESTALOZZI.

It is perhaps not hard to understand why so many persons prefer darkness to light; night to the brightness of day.

The fault may lie in the organization of their sensorium, which can not bear light.

Let the owl be asked whether day or night affords it the most pleasant sensations?

But there may be a fault on the part of the enlighteners themselves. They may disseminate harmful sparks of fire instead of the light of truth—may introduce more of corruption among men, than of moral improvement.

The visionary, the alchemist, the mystery-monger, as much think themselves enlightened, as other men think them fools, or what they are.

Enlightenment is recognition of truth, rejection of prejudice, delusion and superstition.

In order to diffuse enlightenment more generally, the intellectual faculties should first be as much as possible brought under good reputation; and instruction, encouragement to progress, and to the investigation of the truth, must be made universal.

Otherwise, there would never be more than a few enlightened persons; and there would be very many who would injure and persecute them.

WEIKARD.

In truth, what more elevates the soul, or more encourages virtue, enlarges and refines the impulses of the heart, as lofty opinions of the object of our existence? The universe, unlimited; infinite space and time; the sun which shines upon us, a spark from some superior sun; our immortal soul, allied to immortals, and—if it obeys God, destined to God's happiness.

WIELAND.

If childhood is educated according to the measure of its powers, they will continually grow and increase; while if forced beyond their strength, they decrease, instead of increasing.

SAINT AUGUSTINE.

During the first seven years, the child is pure and simple, like soft wax.

With the departure of boyhood comes the period when the child takes up all manner of faults; partly from his own tendencies, partly from his imitation of the evil which he sees. As the body grows, the mind increases along with it, and the secret feelings burst into flame.

Deficiencies in true education are the source of delusion and of all transgressions; the chief cause of violations of the laws of the mind.

In order that the invisible mind may be the dwelling of the invisible

God, the characteristic endowments of men are in the need of instruction.

PHILO.

Man takes his place upon the scene of life, provided with bodily and mental endowments such as no other being has, that we know.

All that he can become appears as a seed which awaits its development; a flower from which the fruit will be developed, and under favorable circumstances will ripen.

As in other organized beings, this development and training partly, follow unvarying natural laws without needing any help from without.

The body grows, its members enlarge and become useful. Manifold impulses appear. The senses receive impressions from the outer world. The reason becomes active, and even in its most imperfect manifestation gives a character which distinguishes man from the animal creation, not merely in degree, but in kind.

But, unlike animals, man has more need of foreign aid, from the moment of birth to the period of childhood and youth.

This aid must supply the place of the instinct of animals, and of the services which he afterwards receives from the free activity of his matured reason.

Without constant care and protection, the body, which man has in common with beasts, is in constant danger of injury or death.

Without the aid of other reasoning beings, that quality which distinguishes him from the unreasoning, can never approach that grade of completeness which its original perfectibility will admit; and the highest of its endowments, the reason, which is founded upon independent action, would, though it might attain to some strength, with difficulty attain to that fixed grade of elevation in which only it can appear as entirely perfected.

Without instruction from others the mind can acquire by its own observations upon the external world, some inconsiderable store of knowledge; but it would both gain this slowly, and would fail to gain a great additional mass.

Therefore, man needs education and instruction.

NIEMEYER.

(To be continued.)

## OFFICIAL NOTICES.



### APPOINTMENTS.

#### SCHOOL COMMISSIONERS.

His Excellency the Governor General in Council was pleased, on the 29th of May last, to appoint Messrs. William Walshorn, James Jackson, John Burns, Isaac Jeckell, and Joseph Seale, to be School Commissioners for the township of Morin, in the County of Argenteuil.

His Excellency the Governor General in Council was pleased, on the 4th instant, to appoint Mr. Moses Taylor a School Commissioner for St. Dunstan, in the County of Quebec.

His Excellency the Governor General in Council was pleased, on the 13th instant, to make the following appointments:—

County of Montcalm.—St. Liguori: Messrs. Dugas, junior, and Léon Ratelle, to be School Commissioners.

#### PROFESSORS.

His Excellency the Governor General in Council was pleased, on the 15th instant, to appoint Mr. Pierre Jacques Darey, Professor of French at the McGill Normal School, in the room and stead of Mr. Léon Fonteau, resigned.

#### SEPARATION AND ANNEXATION OF SCHOOL MUNICIPALITIES.

His Excellency the Governor General in Council was pleased, on the 29th ultimo:—

1. To divide the township of Chatham, in the county of Argenteuil, into two parts, and to erect them as separate school municipalities; the first comprising the first six ranges of the township, and to be called Chatham No. 1; and the second, comprising all the other ranges in the said township, from number seven inclusively, and to be called Chatham No. 2.

2. To separate the village of Melbourne from the township of Melbourne, in the county of Richmond, and to erect the village as a distinct municipality from the township.

3. To divide the school municipality of Fox and Griffin Cove, in the county of Gaspé, into two parts, each to form a new school municipality; and to erect the first under the name of *Rivière au Renard*, with the following limits:—from the *Cannes de Roches*, towards the north-east, to the *Petite Rivière au Renard*, towards the south-west, forming a tract of two leagues in extent; and the second under the name of *L'Anse à Grisfonds*, with the following limits:—from the *Trois Ruisseaux* to the *Cannes de Roches*, a tract of three leagues in extent.

4. To annex to the school municipality of the township of Harvey, in the county of Chicoutimi, that portion of the school municipality of St. Joseph, in the same county, extending from the River Vallier downwards to the boundary line of the said township of Harvey.

5. To separate the *Côtes des Prairies* and St. George, from the school municipality of St. Jérôme, in the county of Terrebonne, and to annex the same to the school municipality of St. Jérôme No. 4.

6. To separate from the school municipality of Ste. Geneviève, in the county of Jacques-Cartier, the *Côtes* or concessions of Saraguay (*Océraga*), and of St. Rémi, and to erect the same into a separate school municipality under the name of Ste. Geneviève No. 3.

His Excellency the Governor General in Council was pleased, on the 12th instant, to separate the parish of St. Charles Borromée, in the county of Joliette, into two parts, and to erect these into school municipalities; the first, under the name of the school municipality of the village of Industry, comprising that tract within the limits of the municipality of St. Charles Borromée, which is bounded, on the north-east, by the *Des Prairies* Road, from Joseph Deschamps' farm to the north-western boundary line of Joseph Beaudry's farm; thence, following the same line, to the River L'Assomption, and from the said River L'Assomption to the division line between François Paquin's farm and that of Charles Longpré; on the south-west, by the line (*trait-carré*) of the lands of the *Ruisseau St. Pierre*; on the north-west by the line dividing the farm of François Papin from that of Charles Longpré; and, on the south-east, by the line separating the domain of the Seigniors of Lavaltrie from the land of the widow Narcisse Perrault, now the wife of Jean-Baptiste Prudhomme, and from the land of Joseph Verseau; and thence by the north-west line of the land of Joseph Deschamps as far as Des Prairies road, with the addition of the Concession called *Vieux Moulin*; and the second, retaining the old name of St. Charles Borromée, shall comprise the remainder of the said parish of St. Charles Borromée.

His Excellency the Governor General in Council was pleased, on the 15th instant, to erect into a separate school municipality the sixth district or section of the school municipality of Beauport, comprising the three concessions called St. Joseph, St. Michel and Ste. Thérèse, by the name of the School Municipality of St. Michel de Beauport.

His Excellency the Governor General in Council was pleased, on the 23rd instant, to erect the village of Chicoutimi, into a school municipality, with the following limits: On the north, bounded by the River Saguenay; on the south, by No. 4 of the farm lots in the 9th and 10th ranges lying south-west of the Sydenham Road; on the west, by No. 1 in the 14th and 15th ranges lying south-west of the Sydenham Road; and on the east, by No. 74 in the first range north-east of Sydenham Road, No. 74 in the range on the west of the Sydenham Road, and Nos. 1, 2, and 3 in the third range on the south-west of the said Road.

Education Office, 28th May, 1860.

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

1st. That this year, no institution shall be entitled to or receive any aid unless the return, and demand therefor, be filed within the period prescribed, that is to say, before the first day of August next. No exception will be made under any pretence whatsoever.

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

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

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

5th. Institutions not on the list, who may be desirous of making the necessary return and demand, can obtain the requisite blank forms by applying for them at this office, between the 1st and 15th of June next.

PIERRE J. O. CHAUVEAU,  
Superintendent of Education.

Notice to the Secretaries-Treasurers of the Boards of School Commissioners and of Trustees of Dissident Schools.

The Secretaries-Treasurers are particularly requested, when preparing the semi-annual reports of their respective Boards, to mention the full yearly salary of the Teacher, including therein the value of the house rent, of the firewood, of the board, or of any other perquisites, if such be granted to him.

The Secretaries-Treasurers will also be pleased to calculate in dollars and cents, and to make all the necessary additions in the columns in which they are required. Thus, instead of merely stating that so many children pay so much a month in monthly fees, state the total of the amount, etc.

By order,

LOUIS GIARD,  
Secretary.

CATHOLIC BOARD OF EXAMINERS FOR THE DISTRICT OF MONTREAL.

Messrs. Eusébe Boutin, and Amédée Gagnon, have obtained diplomas authorizing them to teach in Model-Schools.

Messrs. Julien Bourgeois, Pierre Campbell, David Couture, and Alphonse Martin; and Misses. Adée Alary, Louise Alary, Luce Archambault, Hermine Beauregard, Joseph Bedard, Céline Rose Bélinge, Alodie Benoit, Caroline Birnes, Hermine Boyer, Catherine Bieault, Marie Hypolite Brunet, Domitilde Cadieux, Adèle Caisse, Octavie Cardinal, Céline Casavant, Dorothee Chapdeleine, Cléopâtre Chartier, Délina Cloutier, Céline Coursol, Onésime Cuiérier, Anne Delaunais, Emilie Deveaux, Marie Doucet, Mathilde Duquet, Marcelline Ethier, Elodie Gagnon, Christine Gigon, Virginie Girard, Philomène Girouard, Adéline Giroux, Héloïse Gravel, Mathilde Gravel, Philomène Héroux, Léocadie Hurtubise, Martine Jubinville, Ellen Keogh, Alixe Labelle, Rosalie Lacroix, Theresa Laffan, Angèle Langelier, Ursule Lajeunesse, Philomène Lalonde, Vitaline Lapointe, Lucie Lavoie, Zarilla Leduc, Adèle Ledoux, Malvina Lefebvre, Elisabeth Lemay, Julie Lemoine, Adéline Lestage, Emma Léveillé, Hélène Loiselle, Julie Macé, Rosalie Marcheseau, Marguerite Marsant, Marie Martel, Ann Malvin, Elisa Meunier, Seraphine Miller, Céline Moreau, Adélaïde Morin, Céline Morin, Josephine Paquette, Antoinette Pilon, Philomène Pratte, Elise Prégeant, Céline Prévost, Elisabeth Prud'homme, Angélique Quimineur, Caroline Rabbeau, Emma Renaud, Philomène Robert, Louise Rousseau, Céline St. Antoine, Domitilde Saurel, Aimée Simard, Valerie Sylvestre, Exilda Tessier, M. Trudeau, and Dorimène Verdon, have obtained diplomas authorizing them to teach in elementary schools.

F. X. VALADE,  
Secretary.

PROTESTANT BOARD OF EXAMINERS FOR THE DISTRICT OF MONTREAL.

Messrs. James Black, John Burns, Thomas Bridgewater, Samuel Cairns, John Cameron, John Campbell, William H. Douglas, Francis D. Gwilt, Andrew Washington Huntley, Summers George Hunter, Malcolm Leroy, William Leroy, William Millar, Samuel Milliken, James McGaw, John Morrison, William McGarry, William McCulloch, Adam C. Orr, Peter Stewart, George Thompson, James White, and Joshua Worsley; and Misses, Christina Black, Jane Burns, Belinda Robins, Isabella S. Brodie, Dorothy Barwash, Susan Campbell, Celestia Cheney, Eliza Curran, Helen Dalgleish, Christina Dewar, Emily Dewart, Elizabeth Ellerton, Anne Jane Faggart, Emily R. Frary, Annie L. Hayr, Mary Ann Hayter, Elizabeth Hill, Sarah Hunter, Anna Adelia Karr, Emma Kihn, Alice McMartin, Emily Milligan, Isabella McFaul, Elizabeth McFaul, Catherine McRae, Matilda McRae, Margaret McPhail, Catherine Maither, Sarah Pringle, Margaret Robson, Martha Ruston, Tryphena Straker, Henrietta Tarr, Mary Wills, Jane White and Margaret Winter, have obtained diplomas authorizing them to teach in elementary schools.

A. N. RENNIE,  
Secretary.

BOARD OF EXAMINERS OF PERCE.

Messrs. Frederick Decan, William Muir, and Louis P. Rasch have obtained diplomas authorizing them to teach in elementary schools.

PROTESTANT BOARD OF EXAMINERS FOR THE DISTRICT OF QUEBEC.

Messrs. John Fitzgerald, David Harrower, William Hutchison, Peter McKenzie, Robert McKenzie, Neil McKillop, and Robert Squire; and Misses Margaret Brodie, Margaret McDonald, Margaret Magill, Flora McKillop, Isabella McKillop, Margery McKillop, Christiana McKinnon, and Mary McKinnon have obtained diplomas authorizing them to teach in elementary schools.

D. WILKIE,  
Secretary.

BOARD OF EXAMINERS FOR THE DISTRICT OF OTTAWA.

Misses Sarah Barnard, Caroline Bolton, Philomène Gauthier, Frances Gorman, Ellen Mulligan, and Madame Ann Huckill; and Messrs. James A. Halliday, Daniel Hayden, Isidore Jolion, Michel McCarthy, Eugene O'Regan, Benjamin Sheriff, Thomas Stephens, John Stevens and Hugh Young have obtained diplomas authorizing them to teach in elementary schools.

JOHN R. WOODS,  
Secretary.

DONATIONS TO THE LIBRARY OF THE DEPARTMENT.

The Superintendent acknowledges with thanks the following donations:—  
From Mr. l'abbé Faillon, of Montreal: Vie de Mlle. Le Ber; 1 vol. in-12o.

From Côme S. Cherrier, Esq., Q. C. of Montreal: *De la Liberté de l'Italie et de l'Eglise*, by the R. P. H. D. Lacordaire, des Frères Prêcheurs, de Paris: 1 pamphlet in-80.

From Messrs. Harper and Brothers, booksellers, New-York: Harper's Series of School and Family Readers; 5 vols. in-120, with engravings.

#### SITUATIONS WANTED.

Mr. James O'Brien, who is provided with a diploma for elementary schools. Apply at the Education Office.

A young Lady provided with a diploma for elementary schools, from the Montreal Catholic Board of Examiners, and well qualified to impart a sound English Education. Apply at the Education Office—or to Mr. C. Healy, No. 95, St. Lawrence Main Street, Montreal.

Mr. Ambroise Blais, provided with a diploma for elementary schools, and now a resident of this city.

Miss Caroline Borne, provided with a diploma, and well recommended; will undertake to teach French and English, the elements of Music, and Crochet work. Address: Miss Caroline Borne, to the care of Mr. A. Boucher, Lagouchetière street.

Mr. Joshua Blazard wishes to obtain employment in an elementary school. A protestant, and can be well recommended.

## JOURNAL OF EDUCATION.

MONTREAL, (LOWER CANADA) JUNE, 1860.

### Eleventh Conference of the Teachers' Association in connection with the Jacques Cartier Normal School, held Friday, the 25th May 1860.

The minutes of the last meeting having been approved, Mr. U. E. Archambault read an essay on the "Education and the Power of the human will." The Hon. Superintendent congratulated the Association on the progress it had made under the favorable influence of the Normal School, and urged on the teachers the good results which attendance on the course in that school would produce. The question, "Should the system of taking notes be preferred to that of books, for the teaching of arithmetic, geography, general history, general literature, elements of natural philosophy, etc." was discussed, and the Rev. Principal in his remarks on the leading points, said that he considered the system of note taking less monotonous, and as calling the faculties of the pupil more into play, because he must necessarily understand what he analyses. A resolution was then passed, rendering it obligatory on members to prepare papers. It was also resolved that a letter of thanks be addressed to the Executive Council and to the Hon. the Superintendent of Education, for the appointment of two members of the association to inspectorships.

The conference stands adjourned to the last Friday in August next, at 9 A. M.

### Tenth Conference of the Teachers' Association in connection with the Laval Normal School, held Saturday, the 26th May 1860.

The minutes of the last meeting having been read, resolutions were passed—limiting the length of time in the delivery of any paper before the Association to half an hour—exempting teachers entering the Association in May, from the payment of subscription for the current year—setting \$25 apart for the purchase of books for the library of the Association—that an humble address be presented to the Council of Public Instruction, praying that they would be pleased to petition the Legislature for an annual vote of \$4,000, instead of the present vote of \$2,000, towards the pension fund, now inadequate, owing to the large number of pensioners—and that the next conference shall be held during two days. Papers were read by the President, by Mr. Donnelly, and Mr. Thibault. A lively debate ensued on the question: "As to what measures should be adopted to fix the minimum of salary paid to teachers." The Rev. Principal summed up the arguments brought forward, and on his proposition, it was agreed that the discussion should be resumed at the next conference.

The Conference stands adjourned to Friday, the 24th August next.

### Report of the Chief Superintendent of Public Instruction for Lower Canada for 1858.

*Translated from the French by the translators to the Legislative Assembly.*

#### Extracts from the Reports of the Inspectors of Schools.

Extract from a Report of Mr. Inspector CRÉPAULT.

*St. Thomas.*—This municipality has an academy for boys, an academy for girls, and seven elementary schools. The boys' academy is conducted by the *Frères des Ecoles Chrésiennes*, who educate about 260 children. The following branches are taught in this institution:—English, French, arithmetic, book-keeping, geometry, trigonometry, surveying, linear drawing, vocal music, and the elements of agriculture. The girls' academy, under the ladies of the *Congrégation*, is a fine three-story building of cut stone. It has 250 pupils. In addition to the subjects prescribed for elementary schools, the following branches are taught in this institution:—Drawing, instrumental music, English, literature, embroidery, and various other kinds of needle-work. The seven elementary schools are all conducted by female teachers. Three of these schools are well kept, two are passable, and the remaining two inferior. The school Commissioners of this municipality are deserving of praise. For the last seven years, the corporation has always been composed of men of education and zeal, Rev. Mr. Curé Beaubien acting as president. The secretary-treasurer keeps his accounts in a most orderly manner.

*La Grosse Isle.*—In this municipality there is but one elementary school, kept by a female teacher, who does not hold a diploma; but it is, nevertheless, competent enough for this locality, which has just been erected into a school municipality. Only twenty children attend the school.

*L'Isle-aux-Grues.* This small parish has a model school for girls and two elementary schools. Mlle. Painchaud, who teaches in the model school, is an exceedingly competent and devoted teacher; she imparts an excellent education to 80 pupils, who are making marked progress under her care. The two elementary schools are conducted by female teachers, who are not holders of diplomas. This municipality has a good two-story school house, well furnished, and provided with geographical maps, globes, &c.

*Le Cap St. Ignace.*—This municipality has nine schools, one of them a model school. Four of them are well kept, the other four being only passable. Miss Mitchell, in charge of the school near the church, is a highly competent teacher; she imparts an excellent education in both languages, to more than 60 children. The school Commissioners own a fine school-house, the gift of the Rev. M. Cecile, deceased, formerly parish priest of the place. In 1852 there was not a single school in this parish, and it had no commissioners until 1854, when they were appointed by the executive. M. Nadeau is the secretary-treasurer; he renders important service. Six schools would suffice for the requirements of this municipality, and with this number the salaries of the teachers, which are now much too low, could be increased.

*L'Islet.*—This fine and extensive municipality has made extraordinary progress since 1852. It has an academy for boys, kept by the Brothers of the Christian Schools, an academy for girls and twelve elementary schools; eight of them are well kept, the others are only passable. The academy is located in a large two-story stone building, and is attended by about one hundred children. English, drawing and music, are taught in addition to the subjects required for elementary schools. The academy for girls is conducted by Miss O'Reilly, who teaches English, the piano, drawing, knitting and needle-work. This institution is also very suitably located. Both establishments are furnished and provided with all requisites, together with geographical maps, globes, &c. The commissioners are men of education and zeal; their president is the Rev. Mr. Delage. To his zeal and sacrifices is in great part to be attributed the prosperous state of public instruction in this parish. The two academies have already sent forth several male and female teachers who are an honor to these institutions.

*St. Cyrille.*—This is a small municipality lately established. The rate-payers though poor, support three schools. They are pretty well kept, and are attended by nearly two hundred children. St. Cyrille was not erected into a school municipality until 1854.

*St. Jean Port-Joli.*—This extensive and wealthy municipality was also without schools until 1854. There are now so many that

suitable salaries cannot be paid to the teachers, and the consequence is, that some of these schools are very inferior. There are fourteen in all, which are attended by 600 pupils, and literally crowded. Six of these schools are well kept and give satisfactory results. Of the other eight, four are passable enough, and the remaining four inferior. The secretary-treasurer is a highly educated person, he keeps his registers and accounts in good order, and renders important service to the commissioners. The commissioners have but one school house, and even that is in a pitiable state of dilapidation. St. Jean Port-Joli has also a literary institute with a library of 600 volumes.

*St. Roch des Aulnets.*—In this parish, as in St. Jean Port Joli, there are too many schools. M. Gagnon, the new president of the Commissioners, made praiseworthy efforts this year to procure better female teachers; but it is difficult to give them a suitable remuneration, when we reflect that there are fourteen schools where nine would amply suffice. The Commissioners have six school-houses. Mr. Dupont, the secretary-treasurer, keeps his accounts in a most orderly manner, and renders important service to the municipality.

Extract from a Report of Mr. Inspector TANGUAY.

Nearly all our schools are in the hands of young female teachers, well enough instructed, for the most part, but lacking experience and pedagogical skill. Frequent absence on the part of the pupils, is, in my opinion, the chief obstacle to the progress of education in most of the parishes. It is really painful to see how insensible parents still are to the obligation of giving their children an education proportioned to their own means and position in life, and to the talents with which Providence has endowed them.

There are, I am aware, in newly settled districts, parents who cannot, at certain times in the year, dispense with the services of their children. There are others who live so far away from the school, that they find it impossible to send them there very regularly in bad weather, but there are many others who are prevented by lack of energy and good will, from overcoming these obstacles.

I shall now review the different school municipalities, giving to each its meed of praise or blame, without favour or partiality.

*Ste. Anne de la Pocatière.*—In this parish there are eleven schools, of which ten are under the control of the Commissioners. They are attended by a total of 453 pupils. All these schools are conducted in a satisfactory manner; three of them are excellent, four good, and the rest passable, although the teachers may not be possessed of all the requisite qualifications. The prevalence of epidemic fevers, prevented a great many children from attending the schools this year. A lack of books also retarded the pupils in several of the sections. Were it not for the delay which prevails in paying the teachers, I should say that education is in a flourishing condition in this municipality. Besides the 453 pupils attending the common schools, there are 60 children belonging to the parish who attend the college classes.

The accounts of the corporation are kept with regularity; but there is too much delay and indulgence in the manner of collecting the assessments.

*Ixworth.*—This year there have been two schools kept in this little municipality. The two female teachers are young, and not, perhaps, sufficiently well instructed; nevertheless, the schools, such as they are, are a benefit to this new and poor locality. They were attended by 53 children during the first half of the year. All of them are learning reading, 25 writing, 12 grammar, and 18 arithmetic. They have all received religious instruction. These two schools cost respectively £25 and £20. The supplementary aid granted last year has been a great assistance. The rates are regularly paid.

*St. Pacôme.*—In this municipality there were, at the time of my visit, six schools in operation, five being under the control of the Commissioners. The course of instruction in these schools is limited to reading, writing, the first rules of arithmetic, the elements of grammar, and the epistolary art, together with religious instruction. Twelve of the pupils have learned geography, and 20 sacred history and the history of Canada. The female teachers, with one exception, are possessed of the requisite requirements. The books of accounts and of the proceedings are kept in a satisfactory manner. The law is carried out without opposition, and were it not for the delay which occurs in paying the assessment, and which may be attributed to the poverty of some of the rate-payers, all would be well in this municipality.

*Rivière Ouelle.*—This municipality is the only one within the district under my inspection, in which the schools are now supported by voluntary subscription, in preference to a legal assessment. The inconveniences resulting from this mode of raising money, are not felt here with any great intensity, owing to the good will and liberality of certain of the rate-payers, who make up the deficiency in the subscriptions of the majority. There are four elementary schools, and one primary superior school, conducted by M. C. Ouillet. Geography, history and epistolary composition are taught in these schools in addition to the subjects prescribed for elementary schools; 42 pupils learn English, and 18, book-keeping. The academy for girls, conducted by the Ladies of the Congregation, has 60 pupils; the number attending the other schools is 190. The Ladies of the Congregation make the most laudable efforts to sustain the competition created by the convents at Kamouraska, Cacouna and Rimouski, parishes which formerly furnished pupils to Rivière Ouelle. The mistress of one of the schools, and the only one to which exception can be taken, is not possessed of the requisite skill, and there is a lack of zeal among the parents of the pupils. The books of accounts and those containing the proceedings are kept in a highly satisfactory manner.

*Saint Denis.*—In this parish there are seven schools, with a total of 344 pupils. The model or primary superior school has 61 pupils, and is intrusted to Miss E. Bégin, a skilful and devoted teacher; of the other schools four are well kept and receive all the encouragement they merit; the remaining two are inferior owing to want of capacity on the part of the mistresses and of zeal on the part of the parents. In order to reduce a rather heavy debt, contracted through the negligence of the late secretary-treasurer, it has been found necessary to reduce the teachers' salaries and increase the rate of assessment. Such reduction of salaries are always most injurious to a municipality, by driving away the better class of teachers, who naturally seek engagements elsewhere at a higher rate. The rate has been increased seventy-five per cent. The books of accounts and records of proceedings are kept with much greater care than heretofore. The course of instruction obtaining in this parish, includes all the branches prescribed for elementary schools together with composition, geography, sacred history and the history of Canada.

*Mont-Carmel.*—This municipality has only two schools, attended by 65 children. The following are the only subjects taught: the diocesan catechism, reading, writing and orthography. Section No. 2 displays but little anxiety to profit by its school; a large number of the children do not attend it, and this owing to a paltry dispute about a site. These poor people are deprived of every other means of instruction, and yet they reject the light because it does not come from the quarter they would wish.

*St. Alexandre.*—This municipality has seven schools, attended by 227 pupils. Only one of them can be considered as carrying out fully the spirit of the law; but taking into account the topographical features of the locality, the others, though inferior, are useful and even necessary. In one of these, however, which has hitherto been provided with very good teachers, a very inferior mistress has lately been engaged. I insisted on a return to the previous state of affairs, with the determination of suppressing the school, if my recommendation should be of no avail. In six of the schools (besides reading, writing and the elements of grammar), parsing, arithmetic, sacred history and the history of Canada are taught, with more or less success. The difficulty of finding any person willing to accept the office of secretary-treasurer, has been a cause of delay in collecting the assessment, and in the general carrying out of the law.

*St. Louis de Kamouraska.*—In this municipality there is an academy for boys and seven schools under control. Three of these schools are good and useful, the other shew but meagre results. The academy for girls works well, and is in a flourishing condition. The academy for boys is this year conducted by a skilful teacher.

I regret being obliged to state that this parish, which is so wealthy and intelligent, should allow itself to be surpassed by others that are poorer, and lack all the elements of prosperity which Kamouraska possesses in abundance. Several of the school-mistresses, notwithstanding that they hold diplomas, are but little competent. The schools are badly provided with benches, tables, books, maps, &c. One of them was closed for more than two months for want of firewood. The school-houses need repairs, but they are deferred from year to year. If I do not find a change, I shall be forced to recommend an energetic remedy. The school

corporation also deplores with me the existence of this state of things. The municipality is heavily in debt.

**St. André.**—This parish still continues to carry out the law in a highly satisfactory manner. My visits to its schools are to me a source of gratification, which only the friends of education can appreciate; they number seven, of which five are exceedingly well kept. Two amongst them are specially distinguished: those conducted by Miss Beaumont and Miss Sirois. The children in this parish manifest greater assiduity than those of the neighbouring parishes. There were 289 names entered in the school registers. The *materiel* of the schools, though not altogether such as would be desirable, is yet satisfactory enough. The arrears of assessment are small. The excellent results attained are in great part the work of the worthy president of the school Commissioners. Miss Beaumont, who trained several of the teachers of this parish, also deserves praise for the success which she has purchased at the price of long years of labor and devotedness.

**Notre-Dame du Portage.**—This little municipality, which consists of a section of the parish of St. André and a portion of the old parish of *Rivière-du-Loup*, contains but four sections, three of which have schools in operation. These three schools have produced pretty good results. Their course consists of the subjects required for elementary schools. The secretary-treasurer seemed anxious to discharge the duties of his office. The book containing proceedings is well kept and proves that the Commissioners are animated with a proper spirit.

**St. Edouard.**—The two schools in this municipality have been combined in one, under the care of Miss Vallée, a teacher of high ability. She has two assistants. The school is attended by 157 children: 80 boys and 77 girls. The teacher possesses the rare faculty of rendering their studies a pleasure to the children. The English and French languages are taught with equal success. The children are making great progress in reading, writing, grammar, geography, history, letter-writing, and arithmetic. This school is appreciated by the parents. It would be impossible to estimate all the good it effects in this locality. The salary of the teacher is £60. The new secretary-treasurer performs his duties with zeal and intelligence. I count on his good will for the collection of arrears which are too long passed due.

**St. Modiste de Whitworth.**—This municipality has two schools in operation. They are attended by 80 pupils, who have made satisfactory progress. The corporation have purchased a school-house in a central place. The branches taught are those required for elementary schools. The secretary-treasurer is a person highly competent for the duties of his office.

**Saint Pascal.**—This municipality has ten schools in operation. Two of them are exceedingly well kept, and leave nothing to be desired. Three may be considered as tolerably well conducted; four give but very meagre results, and the tenth is absolutely useless. These schools are attended by a total of 378 pupils. They are badly provided with benches, tables, maps, &c. In the two best are taught:—English, geography, history, and letter-writing. The school rates are pretty regularly paid; but the parents keep their children at home on the slightest pretexts. This is the chief cause of the little progress made in this parish. The books of accounts and record of proceedings are well kept.

**St. Helene.**—In this small municipality there are four schools, attended by 104 pupils. Reading, writing, a smattering of grammar and arithmetic, and the catechism, constitute the whole programme of instruction. Two additional schools at the least would be required to meet the requirements of the people, as they are scattered over a large extent of country. These schools are all inferior; but three of them are good enough to meet the requirements of their sections, if they were but better attended. The accounts are regularly kept, and the municipality had a balance in hands at the end of the year, with which it is wisely proposed to purchase materials required for the schools.

**St. Arsène.**—In this municipality there are five schools, attended by 228 pupils. Two of these schools are well kept; the other three are not such as one would expect to find in the midst of a wealthy people, friendly to education. Only one of them is provided with the usual requisites. All the branches prescribed for elementary schools are taught in four of them. In the fifth there is nothing taught but writing, reading, the first rules of arithmetic, and orthography. The secretary-treasurer performs the duties of his office with zeal and intelligence.

**Kakouna.**—There were six schools in operation during the first half of the year. They were attended by 109 pupils. The academy, conducted by the Sisters of Charity, commences under the most favorable auspices. The parish of Kakouna alone furnishes 24 boarders and nearly 30 half-boarders and day-scholars. The total number of pupils is 60. Besides the branches required for model schools, vocal and instrumental music and various branches of fancy-work and practical needlework are taught. Two of the other schools are pretty well kept; but the remaining three are not conducted in a satisfactory manner. I regret to find that there is less zeal and punctuality than formerly in profiting by the schools, paying the school-rates, and generally in everything relating to education. The accounts of the corporation are kept in tolerably good order.

**Isle-Verte.**—Only four schools have been in operation during the first half of the year. They were attended by 289 pupils. The academy, conducted by Mlle. Casault, a highly competent teacher, has been attended by 170 pupils, with the most satisfactory results. This institution is one of the best in the whole district. All the branches required for superior schools for girls have been taught with much success in this academy. Mlle. Gagné, a pupil of Mlle. Casault's, is now her assistant. She is entitled, in view of the zeal and devotedness she has exhibited, to a share of the praise due to this establishment. Miss H. Johnson also conducts her school in a satisfactory manner. The Commissioners deemed it advisable to reduce the number of schools from nine to four, in order to be able to support the academy. This change caused some murmurs; but the people are now convinced that it is better to have fewer schools and have them good. The finances are in a satisfactory state; but the assessments are paid in slowly.

**Saint Eloi.**—This municipality had only three schools in operation this year, the corporation having diminished the number. These schools were attended by 128 children. One of them kept by Miss Perreault, may be classed as very good; the other two are inferior to the first, the only branches taught being reading, writing, the elements of grammar, arithmetic and the catechism. The account books and record of proceedings are kept in a satisfactory manner.

**Trois-Pistoles.**—In this parish there are ten schools, attended by 437 children. Those conducted by Misses Bouchard, Lavoie and Gagné are very good; four of the others are tolerably good and meet the requirements of the people for the present; the other three are middling and give but very meagre results. It is only by increasing the rate that this parish can secure proper teachers; for the people are not willing to diminish the number of schools, and here as in other parishes every one wants to have them at his own door. The assessments are punctually paid, and the books of accounts and records of proceedings are kept in an unexceptionable manner.

(To be continued.)

## MONTHLY SUMMARY.

### EDUCATIONAL INTELLIGENCE.

— An order of the Minister of Public Instruction, in France, directs all the *lycées* to keep regular and descriptive catalogues of their collections of natural history, libraries, scientific and philosophical apparatus.

— The *School and the Teacher*, a London periodical, publishes under the title "*A hint from Canada*," the appointments which have recently appeared in our journal, of several teachers to the office of Inspector of Schools.

— The Corporation of Bishop's College, Lennoxville, is raising funds for the erection of buildings and for the partial endowment of the school, including the establishment of a Professorship of French. The sum of \$20,000 is wanted for building purposes, and \$30,000 for Endowment. Something over \$6,000 had already been promised for the former object; and for the latter, eleven shares of \$500 each had been taken, entitling the holder of each share to present a pupil free of charge for tuition, in perpetuity. The building could not be completed till next midsummer twelve months; subscriptions payable at six, or nine, or even twelve months, would be no less acceptable than ready money. The School is to be placed on the same ground with the College, and instruction to be given in it, to a certain extent, by the Professors of the College.—*Montreal Gazette*.

— The Senate of the University of Glasgow have unanimously agreed to confer the degree of D.D. on the Rev. William Leitch, minister of Monimail, and Principal Elect of Queen's College, Kingston, U. C.

— The installation of the Right Hon. W. E. Gladstone, as Rector of Edinburgh University, took place on the 19th ult., in the Music-hall there. The installation of Lord Brougham, as Chancellor, is deferred till the Whitsuntide holidays, the noble lord, who is at present at Cannes, being unable to visit Edinburgh at this season. His lordship has just accepted the office of President of the Philosophical Institution, Edinburgh, rendered vacant by the death of Lord Macaulay.—*ib.*

— A great exposition of educational books, maps, apparatus, and school implements is to be held at Amsterdam, in July next. All countries of Europe have been invited to join in the undertaking.

— Two towns of France are claiming the honor of the birth place of a modest teacher, l'abbé Lhomond, whose elementary works have been for years, and, notwithstanding the many changes public instruction has undergone, still are in general use wherever the French language is spoken. The two places are Chaulnes and Amiens. The government have decided in favor of Chaulnes, and the authorities of that town have been allowed to erect a statue to the pious and learned teacher in its principal public square. Amiens has been allowed, as a compensation, the right of erecting a statue in the central yard of its college. Its inauguration took place on the 26th of May last, and the inaugural speech was delivered by Mr. Guillemin, the rector of the Academy of Douay, in presence of the Préfet, of the Archbishop, the attorney general, the mayor and of an immense gathering of people from the surrounding districts.

— We regret that we have to record the melancholy fate of Mr. Alexander McKenzie, for many years Principal of the Huntingdon Academy, and recently appointed to the Lachute College. Mr. McKenzie committed suicide on Saturday afternoon, about four o'clock, by throwing himself into one of the basins opposite the Bonsecours Hall, in this city. He had unfortunately been for several days under the influence of liquor. His fate is a dreadful warning to all who indulge in intemperate habits, and especially to those among teachers who are thus inclined. As a teacher, Mr. McKenzie had been very successful, save when he occasionally gave way to his fatal propensity; and he seems to be much regretted by his former pupils and by the whole community of Huntingdon. He was about 53 years of age and of great mental and bodily vigor. A more striking and deplorable example of the fearful effects of intemperance could hardly be given. The *Huntingdon Herald* contains appropriate remarks on the subject.

## LITERARY INTELLIGENCE.

— Lady Byron, widow of Lord Byron, the great English poet, died recently. She was the daughter of Sir Ralph Milbanke Noel, Baronet; was born in 1794, and married in 1815. Her only daughter, Ada, married William King, Earl of Lovelace, and died in 1852. This daughter has left Byron Noel, Viscount Ockham, Ralph Gordon Noel, and Ann Isabella Noel, who are the only posterity of the great poet.

— Melbourne, the capital of the colony of Victoria, has a library of 25,000 volumes, of which 100 are a munificent donation from H. M. the Emperor of the French. That library was founded in 1856, by H. E. Major General McArthur, and was started with about 4000 volumes.

— There will soon be no countries on earth where science and literature will not have their votaries. A newspaper from Copenhagen states that a printing office has been established at Gothaat, in Greenland; also a lithographic press. The first volume published, is a collection of old poems and songs in the native language, illustrated with ten woodcuts. The music of the songs is also published. Another volume of the same collection is in preparation.

— Under the title of *Chansons populaires des Provinces de la France*, Mr. Champfleury has published a beautiful volume of old songs, with music for piano. The author, assisted by several friends, has been at great pains to obtain the songs and the airs from the peasants of the several parts of France. A great many of what are called here *voyageurs* songs are found almost *verbatim* in that collection, so that all idea of their being Canadian must be given up. The airs however do not all correspond. The Canadian airs were perhaps adapted to the occupations of the voyageurs, *paddling* being foremost.

## SCIENTIFIC INTELLIGENCE.

— Among our scientific exchanges we notice with pleasure every new number of the *Scientific American*, a weekly publication, devoted to popular science, new inventions and the whole range of mechanic and manufacturing arts. It has been published for fifteen years and has attained, we understand, nearly 30,000 subscribers. It is issued once a week (every Saturday) each number contains 16 pages of text and from 10 to 12 original engravings of new inventions, consisting of the most improved tools, engines, mills, agricultural machines and household utensils; at the very low price of \$2 per annum. The Editors are the well known Patent Solicitors Messrs. Munn & Co., 97, Park Row, New

York. The official lists of claims as issued weekly from the patent office in Washington are published regularly in its columns. Hon. Judge Mason, formerly commissioner of patents, is a contributor to the paper on American patent law and practice.

— The University of Edinburgh has lately suffered severely by the death of several of its most distinguished members. Professor Jamieson and Professor Forbe's deaths have been speedily followed by that of Professor George Wilson, brother of Dr. D. Wilson, of the University of Toronto. George Wilson was born in Edinburgh, on the 21st of February 1818, and was consequently still a young man, notwithstanding the great reputation he had obtained. His parents were highly respectable, though not in such an elevated station as to diminish the credit due to his own exertions in attaining the position which he ultimately reached; but it deserves to be noticed, that he may be included in the number of distinguished men who have been in a great degree indebted for the development of their talents to the maternal character and influence.

In 1828, he entered the High-School under Mr. Benjamin McKay; where he and his brother formed among their companions a juvenile society for the advancement of knowledge. They met once a week in his father's house, where papers were read on natural history, mechanics, astronomy, &c. Minutes of their proceedings were kept by his brother Daniel. His mother presided over the youthful assembly and usually wound up the evening by giving a verse from the Proverbs. He remained at the High-School until he was fifteen, and selected medicine as the object of his study. He took his degree of Doctor of Medicine at the University of Edinburgh, in 1839. After taking his degree, chemistry became his favourite pursuit. His first lectures on that subject were given to private audiences in the drawing room of his father's house. In a MS journal, kept by him, we find the following entries: September 20th, 1838 "I meet with scarcely one lady in ten or fifty who has sufficiently cultivated her natural intellectual powers. This winter shall see me do my utmost to suggest an improvement among my own small circle." May, 1839 "Following out the proposal to amend the subjects of ladies' conversation and study, I assembled some of them in my father's house, and delivered a course of prelections on chemistry and especially the chemistry of nature. I was greatly praised, and encouraged and kindly listened to. This course was first interrupted by the illness of my sister. . . ." He began to lecture publicly on chemistry in Edinburgh, in 1840. In 1843, an attack of rheumatism to which he was subject was followed by disease of the ankle joint, which required amputation. This was performed in January 1843, by Dr. Symes, his friend and afterwards his colleague. The feelings which the patient experienced previous to the operation and during its performance are graphically portrayed by him in a letter, "the Anæsthetics of Surgery." He contrasts the condition of patients in his day before the use of chloroform with their state at the present time. The commencement of Dr. Wilson's career, as a lecturer, was thus also that of ill health. His weak body seemed often to be sinking into the dust, while his noble spirit ignored its fetters, and seemed to rise above the feebleness of the flesh. For fifteen years, he continued to teach as a private lecturer, and he acquired eminence and celebrity. In 1844, he was appointed by the Directors of the School of Arts their lecturer on chemistry, and in the same year, he became lecturer in the Veterinary College of Edinburgh. Between 1844 and 1852, he continued to deliver regularly nine lectures on chemistry every week during the six winter months, and at a later period of his history, he even delivered thirteen. Dr. Wilson had a peculiar power of making science popular, and describing intricate subjects in such a way as to make them plain to a common audience. His inventive powers in illustrating his lectures were remarkable. The attention which he devoted to economical science and to the applications of chemistry pointed him out as the man best qualified to occupy the situation of Director of the Industrial Museum of Scotland. In the autumn of the same year, he was chosen by the Crown to fill the newly instituted chair of technology, in the University of Edinburgh. His health already feeble and almost exhausted was fatally affected by exposure to cold and wet in a manufactory, whither he had gone to acquaint himself with the details of a question of practical science involved in a law-suit in which his opinion was to be given in evidence. In his last illness, in spite of his exhaustion, he still continued his lectures until he had to give them up as a matter of necessity. He died on the 22nd of November 1859. "The effort of his life, Dr. Cairns remarks, was to render science at once more human and more divine. His heart was strong throughout in sympathy with the touching prayer of the *Novum Organon*, that all science may become a healing art; and his last public office was regarded by him with special affection as ministering to industrial progress and happiness. No scientific writer of our day has so habitually and lovingly quoted the Bible, from his essay on Dalton whom he represents as proving that God literally "weighs the mountains in scales and the hills in a balance," down to his last paper, which closes with marking the identity of Professor Thompson's astronomic proof of the evanescence of the heavens with the words of the 102nd Psalm. He hoped to live to write a "Religio Chemici," corresponding to Sir Thomas Brown's "Religio Medici," and embracing amongst other topics of discussion the doctrine of resurrection."

"To have moved amidst the altitudes and solitudes of science with a humble and loving heart, to have spoken out words on the sacredness of medicine, as a profession, and scientific life in general, more lofty than have almost been heard from the pulpit and to have illustrated them in practice; to have conquered by faith in a life-long struggle with pain

and suffering; and to have wrought out the work of the day placidly and devoutly till the night came;—these in any, and especially in the leaders of science, are processes and results greater than can be described in the transactions of any society, or preserved in any museum." (Abridged from the *Canadian Naturalist*.)

## MISCELLANEOUS INTELLIGENCE.

—In tearing down the remains of the old Gaol, Court House and Armory, the workmen came upon the corner-stone and its contents. The land on which the building stood, as well as the Champ-de-Mars, Government Garden, &c., as our readers are probably aware, formed part of the Jesuits' Estates, that body having, we infer, first begun to build upon it. But in 1742 the Seminary of St. Salpice continued the work. The first plate found bears the following inscription:

†  
ANNO IHS 1742.  
PAPA BENEDICTO XIII<sup>o</sup>,  
REGE LUDOVICO XV<sup>o</sup>,  
EP<sup>o</sup>. HENR<sup>o</sup>. M. POMBRIANT,  
PRO REGE CAR<sup>o</sup>. DE BEAUHARNOIS,  
PRAETORE EGIDIO HOCQUART,  
RESIDENTIAE SOC<sup>s</sup>. IESU  
INCHOATAE, AN<sup>o</sup>. 1622,  
NUNC CONTINUATAE POSUIT FUNDAMENTUM  
CLAR<sup>s</sup>. DS. DS. LUDS. NORMAND,  
SUP<sup>r</sup>. SEMINI. SULPI,  
VICARIUS GENERALIS  
SUB IV<sup>r</sup>. EPISCOPIS.\*

The other plate bore the following inscription, showing that the old building was torn down and the gaol erected upon the spot in 1808:—

Anno Domini 1808<sup>o</sup>,  
Georgii Tertii Regis 48<sup>o</sup>,  
Pro Rege in America Britannica,  
Jaco. Heno. Craig O. B. Equite,  
Primum hujusce carceris lapidem posuere,  
Pet. Lud. Panet, Isaac Ogden,  
Pro Montis Regalis jurisdictione curiae B. R. Honorabiles Judices  
Nec Non et Josephus Frobisher, Armiger,  
Ad hoc Aedificium Aedificandum praepositi.—  
Hic, olim, fuit residentia P.P. Societatis Jesu,  
Ut testatur inscriptio una cum hac deposita Prius Aedificium  
Diruendo, reperta.—

On either of the upper corners are stamped the seals of the city, or town of Montreal, and of the sheriff's office of the district. And at the left hand lower corner Mr. B. Gosselin, probably the engraver of the plate, has put his name.

In the bottle within the cavity were found four gold pieces of the reign of George III, one of the year 1762, one of 1794, one of 1802 and one of 1807; a shilling and six pence in silver of the same date, both of the year 1787, the six pence a good deal corroded, the four coins of the last century all bearing, of course, the fleurs-de-lys of France quartered on the arms, which disappeared on those of the present century. There were also two pennies of 1797 and half-pennies of 1799, a good deal affected with verdigris. The documents contained in the bottle were almost reduced to pulp by moisture, some were entirely illegible. There were found, however, in a very good state of preservation, copies of "The Quebec Almanac, and British American Royal Kalendar for the Leap year 1808, published and sold by J. Nelson, No. 3, Mountain Street," one page being English and one French, through the book, which contains some curious statistics of the old time.—Mr. Forsyth, C. E., of this city, who is taking down this old building, found these interesting relics.—*Montreal Herald*.

—The following is an official letter from Wyman B. S. Moore, Consul-General of the British North American Provinces, dated Montreal, January, 1860:—

The completion of the Victoria Bridge, which must be considered, mechanically at least, the great work of the age, renders it proper that I should communicate to the Department such information as I am possessed of relative to the railroad system of Canada and its bearing upon similar interests in the United States.

The Victoria Bridge, with its approaches of massive masonry, is near two miles in length. The iron tubes are in length over seven thousand feet, resting on twenty-four piers and two abutments. It has been built at a cost of about seven millions of dollars. It constitutes the connecting link of a line of railroads from our Western cities, over Canadian territory, to the sea at Quebec and the River du Loup, one hundred miles below Quebec on the gulf, and over Canadian and American territory to the sea at Portland.

The Grand Trunk Railroad, of which this bridge constitutes a part, extends from the River du Loup to Port Sarnia on the St. Clair, and from Sarnia or Port Huron, on the opposite shore, it has caused to be constructed, under its control, a railroad to Detroit, and by a lease of the line from Island Pond to Portland, Maine, it has a united line of the same gauge under one management, commencing at Detroit, with two outlets to the sea, one at Portland, Maine, the other at Quebec or the

River du Loup. The whole extent of this line is about eleven hundred miles.

To its construction the Province of Canada has contributed sixteen millions of dollars, the balance of the capital has been advanced by shareholders in England, and the line is now in working order at a total expense of sixty millions of dollars. Efforts are now being made to extend this line to the eastern British provinces by the way of Lake Temiscouata and the river St. John's, keeping its track entirely within the provincial boundaries. Its main resources must be American business. Its local business cannot support it. It is now doing a large business between our Western cities and its terminus at Portland. I have seen, within the few past weeks, large quantities of cotton, raised in Tennessee, passing by this route to the factories of New England. That there must, in a short period, be a great diversion of the traffic which supports the American railroads and canals to this and the other Canadian routes, must be obvious to any one who will consult the map of the country, and consider the magnitude of the internal improvements of Canada. The canals constituting the connections between this port and Lake Erie are capable of passing laden vessels of the burden of six hundred tons.

These facilities of internal navigation will draw largely upon our Western trade, and had it not been formerly the policy of the British Government to exclude American influence from Canada, and to keep the country shut out from external commerce, this great natural outlet of the West—the St. Lawrence, with its immense locks and canals—would have borne our commerce to the Atlantic, as it draws the waters of our lakes. That policy has changed. The government of this province and the capitalists of Great Britain are united in their efforts to make their canals and railroads the thoroughfares of Western commerce to the Atlantic. They have built across the peninsula of the Western Canada three other routes to accomplish this result. The Great Western Railroad from Windsor, opposite Detroit, to Hamilton, Canada West; the Northern Railroad, from Collingwood, on the Georgian Bay, to Toronto; the Buffalo and Lake Huron Road, from Fort Erie to Goderich, on Lake Huron; all of these, except perhaps the latter, connect on Lake Ontario, in the summer season, with lines of propellers running to Montreal and Quebec, and connecting on Lake Huron with steamers running to Chicago, Milwaukee, and our Western cities. Under the influence of these competing lines, our navigation, on both sail and steam vessels, has almost entirely disappeared from Lake Ontario.

That the result of these efforts will be to cheapen the transportation of Western produce there can be no doubt. It is equally certain that there will be a large diversion from our canals and railroads of their legitimate business, from which they must suffer severely, unless the developments of the great West shall prove for the future what it has shown in the past, that its growth is more rapid than the increase of facilities of internal transportation, and that its surplus crops will demand every outlet which nature has made, or man can make, to a market, and afford to all a remunerating business. Such a result is to be desired.—*Hunt's Merchants' Magazine*.

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