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To the Trustees of \_\_\_\_\_

School Section, No. \_\_\_\_\_

in the Township of \_\_\_\_\_

# JOURNAL OF

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Ireland and England, in order that the Ministers, as well as the Municipal and School Representatives of the people, may be able to judge of the merits of our own School System as compared with the systems which have been adopted in Great Britain and Ireland, for the promotion of elementary education. In Ireland, every possible effort has been made to ascertain to what extent, and in what form, religious can be combined with secular instruction in mixed schools. The results of the varied and long tried experiments are given in the documents referred to, and seem fully to justify the course which has been adopted in Upper Canada on this subject.

Nevertheless, if anything more can be done for the improvement of our School System in this, or indeed in any other respect, I shall be happy to do what I can to accomplish it; and for this purpose I desire to avail myself of the results of your own reflection and observation, as well as of those associated with you in promoting the interests of religion through the agency of your Church.

I think it proper, at the same time, to state summarily the principles on which our Public School System is founded, and which I have employed my best endeavors to guard and carry into effect. The following principles lie at the foundation of our School System:—

1. The right of each Municipality to arrange its School Sections or divisions in its own discretion.

2. The right of the School-rate payers in each division to select, through their elected representatives, their own teacher, and to establish and support their School in such manner as they shall judge best, simply restricting the amount of rate-bills on pupils so as not to be oppressive to the poorer parents.

4. The equal protection of the rights of Protestants and Roman Catholics in the Schools, against compulsion on the part of the Government as also from any other quarter. In a letter addressed by me, in July, 1849, to the first Law Officer of the Crown in Upper Canada, this principle was stated in the following words: "I have not assumed it to be the duty, or even constitutional right, of the Government to *compel* anything in respect to religious books or religious instruction, but to *recommend* the Local Trustees to do so, and to provide powers and facilities to enable them to do so within the wise restriction imposed by law. I have also respected the rights and scruples of the Roman Catholic as well as those of the Protestant; and

### OFFICIAL CIRCULAR FROM THE CHIEF SUPERINTENDENT OF EDUCATION TO THE VARIOUS RELIGIOUS BODIES IN REGARD TO RELIGIOUS INSTRUCTION IN THE PUBLIC SCHOOLS OF UPPER CANADA.

I have the honor to transmit herewith a copy of the Regulations which the Council of Public Instruction have adopted according to law, in reference to Religious Instruction in the Common Schools of Upper Canada; and I respectfully request that you will have the kindness to lay these Regulations, as well as this letter, before the [Synod, Union or Conference, &c.,] for their consideration, and the expression of their views, as to whether the said Regulations are satisfactory, or whether, in their opinion, any further (and if so, what further) provisions can, in their judgment, be made for Religious Exercises and Instruction in Schools consisting of children of different religious persuasions.

I beg to be informed of the result of the deliberations desired, as also of your own views on the important question of Religious Exercises and Instruction in the Public Schools of this country, composed, as they are, of pupils of various religious persuasions,—a question which has engaged my anxious inquiries and consideration for many years.

I have recently caused to be forwarded to each of the various Clergy in Upper Canada, as far as I could ascertain their addresses, a copy of my last Annual Report, containing an account, from official documents, of the National School System in

while I would do nothing to infringe the rights and feelings of Roman Catholics, I cannot be a party to depriving Protestants of the text-book of their faith—the choicest patrimony bequeathed to them by their forefathers, and the noblest birthright of their children.”

5. The inviolable right of each parent in regard to the religious instruction of his children.

6. The right of each Clergyman or Minister to visit each School within his own charge or prescribed field of labour. The 33rd section of the School Act of 1850, specifies the rights and duties of School Visitors, and provides for the formation of associations among them for promoting education and knowledge.

7. The right of each Clergyman or Minister, or his representative, to the use of each School-house within his charge, during one hour each week, from four to five o'clock in the afternoon, for the special religious instruction of children of his own persuasion attending the School.

I have attached the greatest importance to securing the confidence and co-operation of the Ministers and Members of several religious persuasions of the country in support of the system of public instruction. In the letter above quoted, addressed by me to the first Law Officer of the Crown for Upper Canada (the late Hon. R. Baldwin), dated 14th July, 1849, it was remarked:—“Be assured that no system of popular education will flourish in a country which does violence to the religious sentiments and feelings of the Churches of that country. Be assured, that every such system will droop and wither which does not take root in the Christian and patriotic sympathies of the people,—which does not command the respect and confidence of the several religious persuasions, both Ministers and Laity,—for these in fact make up the aggregate of the Christianity of a country. I think there is too little Christianity in our Schools, instead of too much; and that the united efforts of all Christian men should be to introduce more, instead of excluding what little there is.”

But while our public schools should be invested with the highest Christian character possible, the accomplishment of this object depends much less upon general regulations than on the exercise of the powers with which the law expressly invests the County Boards of Public Instruction and the local managers of the schools, to whom alone appertains the licensing and selection of Teachers and the oversight of each school. I am also aware that the religious teaching by the teacher of a mixed school, even supposing him to be ever so well qualified, must be determined by what is held in common by the religious persuasions of the parents supporting the school,—chiefly the Ten Commandments and our Saviour's summary of them,—embracing indeed the whole duty of man; but that the teaching of the Catechism of any religious persuasion (if taught at all) must be a matter of private arrangement between the parents of each child and the teacher, and cannot be a part of the official teaching in a school supported by public grants and taxes for all classes of citizens in common, but not for any religious persuasion in particular.

In addition, therefore, to the general spirit and character of our school system, it assumes that the special religious training and nurture of children,—that which, under the Divine blessing, prepares them for the Church of God on earth and in Heaven,—appertains, not to the Government, or the day-school teacher partly supported by Government, and partly by public taxes, but to the parents and Pastors of the children in their domestic and Church relations. This accords with the inherent rights of parents and Pastors; with the teachings of the Holy Scriptures and of the canons or formularies of the several religious persuasions; with the appropriate functions of a mixed day school; with the best interests of youth and of religion throughout the country.

With these remarks I beg to refer you again to the appended Regulations; and should there be no meeting of the authorities of your Church between this and the 1st of next January, may I request that you will have the goodness to communicate to

me, as early as convenient, your own views on the important subject herein submitted, and what you believe to be the views of the members of your Church in Upper Canada.

I have the honor to be,

Your obedient servant,

E. RYERSON,

Chief Superintendent of Education for U. C.

EDUCATION OFFICE,

Toronto, 31st May, 1859.

## REGULATIONS IN REGARD TO RELIGIOUS INSTRUCTION IN THE SCHOOLS.

Adopted by the Council of Public Instruction, 3rd of October, 1850, as authorized by the Act 13th and 14th Victoria, chapter 48, section 38.

### I. GENERAL REGULATIONS IN REGARD TO RELIGIOUS AND MORAL INSTRUCTION.

“As Christianity is the basis of our whole system of elementary education, that principle should pervade it throughout. The fourteenth section of the Common School Act of 1850, securing individual rights, as well as recognizing Christianity, provides ‘That in any Model or Common School established under this Act, no child shall be required to read or study in or from any religious book, or to join in any exercise of devotion or religion which shall be objected to by his or her parents or guardians: Provided always, that within this limitation, pupils shall be allowed to receive such religious instruction as their parents or guardians shall desire, according to the general regulations which shall be provided according to law.’

“In the section of the Act thus quoted, the principle of religious instruction in the schools is recognized, the restrictions within which it is to be given is stated, and the exclusive right of each parent and guardian on the subject is secured.

“The Common School being a *day*, and not a *boarding* school, rules arising from domestic relations and duties are not required, and as the pupils are under the care of their parents and guardians on Sabbaths, no regulations are called for in respect to their attendance at public worship.”

### II. OPENING AND CLOSING EXERCISES OF EACH DAY.

The following regulations in regard to the opening and closing exercises of the day were adopted by the Council on the 13th February, 1855, and apply to all Common Schools in Upper Canada:

“With a view to secure the Divine blessing, and impress upon the pupils the importance of religious duties, and their entire dependence on their Maker, the Council of Public Instruction recommends that the daily exercises of each Common School be opened and closed by reading a portion of Scripture and by Prayer. The Lord's Prayer alone, or Forms of Prayer provided, may be used, or any other prayer preferred by the Trustees and Master of each school. But the Lord's Prayer should form a part of the opening exercises; and the Ten Commandments be taught to all the pupils, and be repeated at least once a week. But no pupil shall be compelled to be present at these exercises against the wish of his parent or guardian, expressed in writing to the Master of the School.”

### III. MINUTE ADOPTED BY THE COUNCIL OF PUBLIC INSTRUCTION FOR UPPER CANADA, AND PRINTED ON THE INSIDE COVER OF EACH SCHOOL REGISTER, ON THE 22ND APRIL, 1857, IN REGARD TO RELIGIOUS INSTRUCTION:

“That in order to correct misapprehensions, and define more clearly the rights and duties of Trustees and other parties in regard to religious instruction in connection with the Common Schools, it is decided by the Council of Public Instruction, that the Clergy of any persuasion, or their authorized representatives, shall have the right to give religious instruction to the pupils of their own Church, in each Common School house, at least once a week, after the hour of four o'clock in the afternoon; and if the Clergy of more than one persuasion apply to give religious instruction in the same school house, the trustees shall decide on what day of the week the school house shall be at the disposal of the clergyman of each persuasion, at the time above stated. But it shall be lawful for the Trustees and Clergymen of any denomination to agree upon any other hour of the day at which such Clergyman or his authorized representative may give religious instruction to the pupils of his own church, provided it be not during the regular hours of the school.”

### III. Papers on Practical Education.

#### 1. EMULATION AS AN ELEMENT IN EDUCATION.

Besides placing his pupil in a condition to perform the necessary process, the instructor ought to do what in him lies, to determine the pupil's will to the performance. But how is this to be effected? Only by rendering the effort more pleasurable than its omission. But every effort is at first difficult—consequently irksome. The ultimate benefit it promises is dim and remote, while the pupil is often of an age at which present pleasure is more persuasive than future good. The pain of the exertion must, therefore, be overcome by associating with it a still higher pleasure. This can only be effected by enlisting some passion in the cause of improvement. We must awaken emulation, and allow its gratification only through a course of vigorous exertion. Some rigorists, I am aware, would proscribe on moral and religious grounds the employment of the passions in education; but such a view is at once false and dangerous. The affections are the work of God; they are not radically evil; they are given us for useful purposes, and are, therefore, not superfluous. It is their abuse that is alone reprehensible. In truth, however, there is no alternative. In youth, passion is preponderant. There is then a redundant amount of energy which must be expended; and this, if it find not an outlet through one affection, is sure to find it through another. The aim of education is thus to employ for good those impulses which would otherwise be turned to evil. The passions are never neutral; they are either the best allies, or the worst opponents, of improvement. "Man's nature," says Bacon, "runs either to herbs or weeds; therefore let him seasonably water the one, and destroy the other." Without the stimulus of emulation, what can education accomplish? The love of abstract knowledge, and the habit of application are still unformed; and if emulation intervene not, the course by which these are acquired is, from a strenuous and cheerful energy, reduced to an inanimate and dreary effort; and this, too, at an age when pleasure is all-powerful, and impulse predominant over reason. The result is manifest.—*Sir William Hamilton's Lectures.*

#### 2. CHEMISTRY IN COMMON SCHOOLS.

It will be admitted, perhaps, that at least all elementary branches of knowledge should be included in the studies of the Public schools; and that all specialties, which pertain to the 'professions', and to particular arts and callings, should be confined to private schools and colleges, supported by the parties interested.

What studies, then, are elementary; and what are the foundations upon which all useful knowledge must depend? They appear to be nearly as follows:

- (1.) The mother tongue; because it is the chief means of communicating and receiving all knowledge from one to another.
- (2.) Reading and writing; which are hardly less important, and for the same reasons.
- (3.) Arithmetic; because numbers and their relations constitute the means by which the intellect solves a large proportion of all the problems presented to it, and because the business relations of life are nearly all determined and recorded by numbers.
- (4.) The training and enlightenment of the religious and moral sentiments; for all mankind alike require their just influence.
- (5.) The development and training of the physical system, and a knowledge of the physiological laws which pertain to hygiene and physical education; for bodily health is essential to all labor—moral, intellectual, and physical.
- (6.) Graphics, or the elements of drawing, sketching, plating, mapping, designing, illustrating, etc.; because this art is of almost universal usefulness.
- (7.) Elements of natural Philosophy;
- (8.) Elements of Chemistry;—which last two are of constant use in all departments of labor.
- (9.) Vocal Music; which is not only a most pleasing and healthful recreation, but also a prime agent in the social regimen of the school.

There still remain Geography, and several other branches which all should know, but which are only more strictly essential in the more literary departments of industry.

Most of the foregoing branches are now taught in the public schools; but in how many is Natural Philosophy taught? Surely not in one of a thousand; and Chemistry is not taught in one school in ten thousand! And yet these branches are no less elementary than reading, writing, and arithmetic. All men and women are constantly using some form of lever, screw, wedge, inclined plane, pulley, wheel-and-axle; and all are living in the midst of 'applied' chemistry. No labor, or art, or trade, or occupation, can get out of their in-

fluence; and, like every thing else, they become subservient to our use in proportion as we understand and apply their laws.

But Natural Philosophy is already beginning to find its way into the free schools—thanks to the School Apparatus—and promises soon to be better appreciated as an elementary branch. But we all live amid as many changes in the chemical composition and nature of bodies as of the mechanical relations of bodies themselves; and Chemistry is therefore equally as elementary as Physics. Why not, then make this most practical science a prime element in our common schools?

Of course, it is not necessary to make every pupil a thorough analytical chemist, or teach him all of the practical applications of the science to various arts, any more than it is to make navigators, surveyors, or engineers, of all students of Arithmetic or Physics. Elementary Chemistry, like all elements, is exceedingly simple; and, having been once mastered, it furnishes the key to a thousand arts and avocations. And even the technical and symbolic language of the science may be acquired in a few hours.

One of the objections which are often urged against the study of Chemistry in common schools is the expense of apparatus, and the tact which is necessary to make successful demonstrations and exhibitions; but though these are important, because that which we see is best remembered, they are far from being essential. Blackboard demonstrations answer equally as well as they do in other studies where a diagram or picture is exhibited instead of the things pictured; and no science—not even numbers—is more easily demonstrated on the blackboard than Chemistry. But let Chemistry find its way into any considerable number of our free schools, and some 'apparatus company' will soon supply all that is necessary for more complete demonstration.

But the teachers—where are the teachers to come from? The Normal School will ere long furnish some of these, and, as in other departments of labor, the supply will be commensurate with the demand.—*Illinois Teacher.*

#### 3. INTERCOURSE WITH CHILDREN.

The most essential point in our intercourse with children is to be perfectly true ourselves. Every other interest ought to be sacrificed to that of truth. When we in any way deceive a child, we not only show him a pernicious example—we also lose our own influence over him for ever.

### IV. Papers on Physical Geography and Commerce.

#### 1. STATISTICS OF THE UNITED KINGDOM.

The following statistical abstract, compiled from a paper just presented to Parliament refers to the year 1857. The net revenue was £66,056,055, and the expenditure £66,019,958. The total interest and cost of managing the debt, funded and not funded, was £28,683,384; the civil list and civil charges of all kinds amounted to £2,839,325, and the army and navy cost £25,497,249. Taxes to the amount of £10,753,585 were remitted, of which £9,125,000 was due to the reduction of the income tax, and £1,054,637 to the reduction of the tea duties. The gross amount of the capital of the national debt was £805,282,699, of which £770,655,399 is funded, and £25,627,300 unfunded. In 1843 the debt was only £790,576,392, and in 1853 it was as low as £771,335,801. The total value of the imports was £187,646,335. 3,437,357 quarters of wheat, and 5,107,225 quarters of other grain, were imported, against 4,072,833 quarters of wheat in 1856, 2,667,702 in 1855, 3,431,227 in 1854, 4,915,430 in 1853, 3,060,268 in 1851, 3,812,008 in 1852, 3,738,995 in 1850, 3,345,378 in 1840, 2,580,959 in 1848, 2,656,455 in 1847, and 1,432,591 quarters in 1846, the last being the year when Sir Robert Peel finally repealed the Corn Laws. Prussia is the largest exporter of wheat to England, and next Russia and the United States. 969,318,806 lb. of raw cotton were imported (654,758,048 lb. from America), and 129,749,898 lb. of sheep, lamb and alpaca wool. The value of the exports of British and Irish produce and manufactures was £122,155,237, and that of the principal and other articles of foreign and colonial goods exported, £23,353,765. £15,061,500 of gold and bullion and specie were exported (£10,863,818 to France alone), and £18,505,468 of silver bullion and specie. 13,694,107 tons of British and 9,484,685 tons of foreign shipping entered and cleared at ports in the United Kingdom, making together 23,178,792 tons; and 19,071,379 tons of shipping entered and cleared with cargoes only. 1,050 sailing ships of 197,554 tons, and 228 steamers of 52,918 tons were built and registered in the United Kingdom. 18,421 sailing vessels of 3,830,119 tons, and employing 151,434 men, were employed in the home and foreign trades of the kingdom, besides 899 steamers of 331,363 tons, employing 24,953 men, making a grand total of 19,328 vessels, of 4,211,482 tons, employing 176,387 men.

There were retained for home consumption, and charged with excise duty accordingly, 46,267,457 lb. of hops, 40,298,513 bushels of malt, 175,690,557 lb. of paper, and 24,150,436 gallons of spirits. The average price of wheat in the year was 55s. 4d. per quarter; barley, 41s. 1d.; and oats, 25s. In 1856 wheat ruled at 69s. 2d., in 1855 at 74s. 8d., and in 1854 at 72s. 5d. In 1851 it was as low as 38s. 6d., and in 1852 at 40s. 9d. There were sold in the market towns of England and Wales 5,243,940 quarters of wheat, 2,262,733 quarters of barley, and 537,364 quarters of oats. £5,230,810 were coined at the Mint. The receipts of the Trustees of Savings Banks were £7,581,415, and the payments £8,375,095; the capital was £35,108,396. In England (population 19,304,000), there were 662,884 births, 420,019 deaths, and 160,500 marriages. In Scotland (population 3,064,550), there were 103,632 births, 61,927 deaths, and 21,313 marriages. At the end of the year there were 908,136 paupers in receipt of parish relief in England and Wales, a larger number than has occurred since 1850 and 1849. The Scotch paupers mustered 69,217 in number, and the Irish 50,582. Pauperism in Ireland has diminished most extraordinarily, as there were 620,747 at the commencement of 1849, since when the number has gradually declined. 212,875 persons emigrated—21,001 to the North American colonies, 126,905 to the United States, and 61,248 to Australia and New Zealand.

## 2. ANOTHER EXPEDITION TO THE ARCTIC REGIONS.

Mr. Roquette of Paris writes to Mr. E. R. Straznicky, Secretary of the Council of the American Geographical and Statistical Society, New York, in regard to the proposed Expedition of Dr. Hayes to the Arctic Regions. He says:—

"The papers you sent me apprise me of the new organization of the American Geographical and Statistical society, and at the same time of the fact, that upon the proposition of Dr. Hayes, one of the companions of the heroic and unfortunate Dr. Kane, your society has adopted in concert with other scientific institutions of the United States, the project of sending out a new expedition into the Arctic regions, for the purpose of ascertaining the correctness of the information furnished by the latter, particularly as to the existence of an open Polar sea, that is to say free from ice, which would either approach the Pole, or extend to that extremity of our globe, which, up to the present day, navigators have made vain efforts to reach.

From the resolution, adopted by the American Geographical and Statistical Society, I perceive that the expedition will probably leave in the spring of 1860, under the command of Dr. Hayes its promoter, and that its expenses will be covered by means of a subscription. The attachment which I have always felt for Dr. Kane and which he kindly shared, and the honor which your learned society has done me by electing me as their Honorary Member, leaves me ground to hope that they will allow me to place my name among the number of subscribers with a sum of five hundred franks, which I hold for their disposition.

I have already announced to the Geographical Society of Paris the truly national project conceived by the United States. I will profit by the new information contained in the numbers of the papers which I owe to your kindness, and will draw up a detailed account, which will probably appear in the *Nouvelles Annales des Voyages*. I shall always receive with gratitude the communications which you will be kind enough to make to me.

## 3. PROBABLE EXISTENCE OF AN OPEN POLAR SEA.

Dr. Hayes in a recent address before the American Geographical Society, read a letter from Prof. Agassiz, in relation to the open Polar Sea, in which that gentleman argued the existence of such a sea, in the following language:

I beg to add a word with regard to Dr. Hayes' expedition. I consider it as highly important, not only in a scientific point of view, but particularly so for the interest of the whale fishery. The organization of these huge inhabitants of the ocean seems to me to furnish the most direct proof that there is an open sea in the Arctic. The whales being warm-blooded, air-breathing animals, must come to the surface to breathe. They cannot live without it. Now it is well known that during the Winter they are not found outside—that is, to the South of the ice-beat of the Arctic seas. They retreat Northward during the cold season, and if the whole extent of that Arctic sea was covered with ice, they would necessarily perish during the long Winter. I do not know a more direct evidence of the presence of extensive open water in the northernmost regions of the globe, than the mode of life of the whales, and the discovery of a passage into that open water which would render whale fishing possible during the Winter, would be one of the most important results for the improvement of whale fishing. The argument may not strike forcibly one who is not acquainted with the structure of the whales, but to a physiologist it must be irresistible.

## 4. COAL FIELDS OF THE UNITED STATES AND BRITISH AMERICA.

The London Athenæum, in a review of Prof. Rogers' "Geology of Pennsylvania," uses the following language:—

Questions of high economic value arise out of the possible development of the great coal fields of the United States, which, in the aggregate, comprise no less than 196,850 square miles,—added to which the British provinces contain 7,530 square miles. These coal areas are amazing, and may be productive of immense commercial results in the far future.—When we reflect upon what has been achieved by the produce of the coal fields of Britain, mere specks as compared with those of the United States, and in figures amounting to 5,400 square miles,—when we further consider the total coal fields of Europe, and find them to be only 8,964 square miles,—and then endeavor to anticipate the mining of the enormous fields of the United States upon an extensive scale, we are led to forecast a future of almost boundless enterprise for that wonderful country.

We may, indeed, form an estimate of the probable produce of the American coal-fields from some data afforded in this work. Averaging the total thickness of the workable coal in Great Britain at thirty-five feet, we have a total of workable coal equal to 190,000,000,000 tons. In the same way, estimating the total area of productive coal-fields of North America as 200,000 square miles (that is, inclusive of the British provinces, and averaging the thickness of good workable coal at 20 feet, we gain a result of 4,000,000,000,000 tons. Or, to make these results more appreciable: If we take the amount of workable coal in Belgium as 1, then that in the British Islands is rather more than 5, that in all Europe 8½, and that in all the coal-fields of North America is 111. This method of ratio is more intelligible than that of relative superficial magnitudes,—and we at once perceive that the United States possess more than twenty-two times our amount of coal.

## V. Papers on Colonial Subjects, etc.

### 1. ANTIQUITIES IN THE LAKE SUPERIOR MINES.

We were shown by the Rev. Dr. Duffield, a few days since, a specimen of a miner's skid, taken from an ancient working near the Quincy Mine at Portage Lake, Lake Superior. The peculiar interest attaching to this relic is not in its appearance, but in its great antiquity. It was found at the bottom of an excavation about six feet in depth, which, in the lapse of time, had become filled with vegetable mould. The excavation in this manner having acquired a level with the surface of the surrounding soil, a pine tree had sprung up and grown to a great size, which, upon being cut, showed, by its consecutive circles, the great age of four hundred years. If it were possible to number the years that it would require to fill an excavation of six feet with nothing but decaying vegetable matter, we might approximate to the age of this wonderful piece of wood. An idea can be formed, however, by imagining how long it would take a certain surface to become covered with a spontaneous growth of grass or shrubs; then allow this growth to die from the severity of the climate, sterility of the soil, or any other cause, and go to decay, to impart, by its own decomposition, an enriching influence to the soil, upon which shall spring up another similar growth to follow the former to decay, and so on till these successive growths and decayings shall have formed a soil of six feet in depth; then add to this the age of the tree that was found growing upon the surface—four hundred years—and you have the same perception of the length of time that this insignificant stick has lain hidden from men's eye. When found it was surrounded by other similar skids, together with the rude chisels and the whet-stones of the ancient miners. The other skids fell to pieces upon being handled, but this one was preserved from decay by having been charred. It is between three and four feet in length, and about four inches square. It is made of pine wood, and is so dried that its weight will not exceed a couple of pounds. It is supposed that these skids were used by the ancient miners in raising the blocks of copper to the surface of the ground.—*Det. Free Press.*

### 2. ANCIENT MINES IN NEBRASKA.

An interesting discovery of ancient mines has been made in Nebraska, about seven miles from Wyoming. They are the most extensive operations of ancient miners ever discovered on the continent. For miles in extent the whole country is literally torn up and thrown into the most fantastic and promiscuous ridges, hillocks, gutters, trenches, shafts, &c. There are remains of furnaces, chimneys, stone walls, and earth houses; fragments of jugs, glass bottles, and many other things too numerous to mention. Rocks have been drilled and blasted, evidently with some explosive mate-

rial; stone dressed with the hammer, and every evidence of the operations having been carried on by civilized men. Old California miners, who have visited these mines, say that it would perhaps cost millions of dollars to do the work that has been done there; and the appearance of the surface is similar to the placiers of California, where the miners have been at work. What the mineral was has not yet been fully ascertained, but this is soon to be tested by parties skilled in metallurgy. It is generally thought the metal was gold or silver. The mines are so ancient, that there are large oak trees growing upon them. When was this done, and by whom?

### 3. THE LAKE SUPERIOR IRON MOUNTAINS.

Recently a party took the Iron Mountain Railroad at Marquette, and ran up to the wonderful piles of mineral known as the Iron Mountains. The Jackson is fourteen miles inland, the Cleveland sixteen, and the Lake Superior eighteen. The editor of *The Lake Superior Journal* records some interesting facts about them:—

Quite a new feature has been discovered in the formation of these mountains within a year or two. Previously they were supposed to be solid masses of iron throughout, whereas, in fact, the metal is found to run in veins, the principal one in each being not far from a hundred feet in width. This detracts nothing from their value. If we suppose these veins to be only a mile in length each, and that there were only a single vein in each mountain, it would make them just as valuable as though they were solid iron, for enough is enough.

The depth of these veins will probably never be measured. No metallic vein that we ever read or heard of, has been traced to its terminus in the bowels of the earth. It will be a long long time before they will be levelled with the surface, and when they are reduced below it, in the evolutions of time, the business of quarrying can be carried to nearly the same advantage as at present. In the first place, there will be no rock to be removed to get at the ore, and then, it is a conceded point, that the deeper they go the better the ore.

At the Jackson Mountain the sound of the drill hammer made sad discord with the music of human voices which floated on the air. Fifty or sixty men were busily engaged in drilling, blasting, and removing the ore to the cars. They are making a formidable charge upon the mountain, carrying its outposts, and fast making their way to the citadel of its strength.

The Cleveland Mountain presents a bold front. The rock has been mined away so as to leave a perpendicular wall some forty or fifty feet high, as we should judge. In the centre they have reached the large vein, and when the remaining rock has been cloven off plump up to the vein, hundreds of tons may be thrown down at a blast.

The Lake Superior Mountain is run right into by the railroad at its terminating point. Operations upon this mountain have been but a few months commenced, but they make a grand show for the time.

The cut into the mountain for the railroad track verges so nearly to a parallel with the course of the principal vein, that it will be very easy to trundle the ore from the latter down to it, and empty the wheelbarrows right into the cars, which will certainly be a great advantage in loading.

Thus, at all these mountains, the way is fast preparing for greatly extending operations, and another season will doubtless witness greater changes than have ever yet been wrought upon them.

### 4. THE NEW CANADIAN SILVER AND COPPER DECIMAL COIN.

A careful analysis shows the new Canadian silver decimal coin to be worth about 4 per cent. less than the American coin of the same nominal value. The Canada silver is finer than the American, but the coin is lighter. It is, however, of so nearly the same intrinsic value, that it will undoubtedly pass uniformly with ours. The frontier counties will be saved a great deal of trouble by the introduction of this new coinage. Canadian cent pieces, which have been lately thrown off the British mint, possess a remarkable peculiarity. They are not only tokens of value, but also standards of weight and measure; 100 cents weigh exactly 1 lb., and one cent measures 1 inch. Thus in the common transactions of life the buyer will have a ready check upon the dishonest dealer.

### 5. SKETCHES OF NOVA SCOTIA.

A correspondent of the Hartford Daily Times, who is on a tour through the Provinces of Nova Scotia and New Brunswick, narrates some pleasant incidents of travel; and speaking of its resources, lakes, tides, &c., says:—

The scenery about Yarmouth, N. S., the first landing place of most travellers from the States, must not be taken as a sample of the best, or even the greater part of Nova Scotia scenery. Here the soil is damp and cold. The forests are mainly of hemlock, fir, spruce and hackmatac, all evergreens, which do not, like the white pine of Maine, or the pitch pine of the Eastern states generally, delight in light, porous, sandy soil. These trees grow only in wet and half swampy situations. Enter a wood here, and your feet are entangled in the yielding mosses which hide the earth, and your head in the trailing mosses which festoon the trees. The hard subsoil of clay retains the abundant water which the ever-dripping clouds, or the humid fogs incessantly are depositing. But the cleared land where the soil is not all hidden by rocks, is covered with grass of an intense verdure, rarely growing long except on the marshes reclaimed from the sea, but juicy, sweet and nourishing. For this reason, the beef, but especially the mutton, is of extraordinary fatness and tenderness.

But one of the greatest charms of the scenery of the Province, is the large amount of fresh water in streams and beautiful lakes. About one-third of the surface of the country is covered with lakes. The woods on the borders of these sheets of water are mainly of deciduous trees, mostly birch and beech, though a kind of oak, inferior in beauty and usefulness to our white oak, is to be occasionally met with. The surface of the whole country is very uneven, a nearly level road of more than a mile in length being impassable. But Nova Scotia cannot be called mountainous; there are no elevations worthy any more dignified name than hills. Rocks, as boulders, cliffs and precipitous elevations, abound. The land of the farmer is infested, as it were, with stone; not always round as it is found in what we call stony lands, but flat slabs well calculated in size and shape for the building of walls.

The Province is well provided with secure and capacious harbors. On the Atlantic shore, within a coast line of about a hundred miles, there are no less than twenty-six good harbors, capable of floating the largest merchantmen, and which are open and free from ice the whole year. The shore of the Bay of Fundy has also numerous harbors, though not generally so well secured, nor so deep, yet sufficient for the purposes of a general navigation.

But this shore is colder than the other, and consequently there are times in the winter when the harbors are closed with ice. The Basin of Minas, or Minas Bay, at the head of the Bay of Fundy, is perhaps the most singular of all the indentations on the coast of Nova Scotia. The tides here rise to a tremendous height, sometimes to 60 or 70 feet, and never less than 35 feet. The sea comes in in three tidal waves, which travel with such velocity, that where the shore is nearly level, sheep, swine, and even horses feeding on the shore are sometimes overtaken and drowned. It is interesting to a stranger to witness the signs of sagacity evinced by those animals that are used to these fluctuations of the sea. You may be looking on a number of pigs feeding on the offal along the shore. On a sudden, you see one of them raise his head, look towards the sea, give a knowing grunt, and without apparent cause, turn and make for the high land as fast as his legs can carry him. The others follow suit, running as though a good dinner waited for their never satisfied stomachs. Arriving at the most elevated land, they stop suddenly and begin rooting and feeding as though they had never had a thought of uneasiness. Some time elapses after the pigs have showed alarm, before the stranger can divine the cause for the stampede. Then a dull, roaring sound seaward, enlists his attention, and presently a black unbroken ridge many miles in extent, capped with white foam, catches his eye. With inconceivable swiftness it moves toward the land. Its front, 20 feet high, shining and smooth, looks like some wall of porphyry or ebony crowned with snow. Not a fleak of foam on its face, not a streak of green or blue to relieve its intense blackness, on it comes as though to submerge the doomed land. It reaches the land, and acres are instantly covered, making what was solid land but a wild sea of boiling, bubbling waters. This first wave is followed by two others, neither of them so high nor swift. It is a singular fact that the brutes can hear the roar of the incoming sea, sooner than any man, though he may have lived on the shore from infancy.

The shores of the Bay of Fundy along its whole length, are also subject to what may be termed intermediate tides. At half tide, for instance, while the regular tide is receding, the water will come in with such rapidity that men at work on a vessel's bottom have not had time to pick up their tools, but have saved themselves with difficulty by running or climbing the vessel's side. These tides, however, disappear as quickly as they come. Large vessels have been lifted suddenly by the water, and when deposited again, been careened on a different side from that they lay on before.

At the extremity of the Basin of Minas is Cobequid Bay, an extension of the former which makes deeply into the land. Into it empties Shubenacadie river, which with the Shubenacadie canal connects Halifax the capital, on the Atlantic shore, with Truro and other places on the Bay of Fundy, thus cutting the peninsula in two

parts. A description of the climate, scenery and other parts of the province, is not applicable to those portions bordering on these bays. The vicinity of Minas Basin and the valley of Annapolis is a paradise for farmers. Here are raised all the products of the more favored districts of Maine, New Hampshire and Massachusetts. Fruits, with the exception of peaches, are raised in great plenty, and the grains, and especially the vegetable are very superior and abundant. Large tracts, rich with the deposits of the tides, are reclaimed from the sea by means of dykes, and teem with the products of the husbandman.

This is the site of the French settlements, which are described in Longfellow's *Evangeline*, and the dykes raised by the first French Acadians are still used. Many also of the orchards now yielding good returns were first planted by them.

Land here is valuable. Having water communication with Halifax and with the States, and land communication with Digby and Yarmouth, the farmers never want for a market. Thousands upon thousands of bushels of potatoes are sent to Boston every Fall and Winter. One variety of potato, the "blue nose," has given the name to the people, and they are not ashamed of it. No amount of careful culture by the farmers of the States, has ever availed to produce such potatoes and turnips as those of Nova Scotia. The best vegetables are raised on what is called "burnt land." This is land on which the forest has been newly felled, and then the brush and turf burned over. Where the land is cheap as in most parts of the country, but little attention is paid to manuring; but the field which has borne three or four successive crops is abandoned for the time and a new piece selected and cleared. One kind of potato successfully cultivated called the "pogy," similar in appearance to our kidney potatoes, has the quality of remaining perfectly good till the next year's growth is gathered. The turnips called "Lapland turnips," are in form like our French turnips, but of a deep yellow color. They are a standing dish in Nova Scotia, and are far superior to any I ever ate here. The quality of these vegetables is dependent more probably upon the nature of the soil than upon difference of seed or careful cultivation.

I mentioned in a former article that farming was carried on in a slovenly, shiftless manner. That man who expends his income on his farm is looked upon as a curiosity, if not as partially demented. The ambition of every Nova Scotia farmer as well as of most others, is to own in a vessel, and money and other exchange for the products of the farm, is almost always invested in a ship. The Province contributes largely to the carrying trade of the world, and if any one wants to know of the prosperity of the country, he has only to ask whether freights are good. It is wonderful that the returns of the agriculturist are so abundant and certain,—where he can be assured of selling at a fair price all his surplus produce, he will still pursue the suicidal policy of investing in the dangerous and uncertain business of shipping. Many have been financially ruined, not only by the loss of vessels, but by the depreciation of freights. But so long as fortunes can be occasionally made by one or two lucky voyages, so long will the people hazard their property in this kind of marine lottery.

## 6. GEOLOGICAL SURVEY OF TASMANIA.

Tasmania having voted £5,000 to cover the expenses of a geological survey of the island, has applied to the Crown for a competent scientific surveyor. The Colonial Office very properly consulting the School of Mines, Sir Roderick Murchison at once recommended Mr. Charles Gould, son of the ornithologist. Mr. Charles Gould was a student at the Government School of Mines, and a successful competitor for the Duke of Cornwall's Exhibition, the Board of Trade Exhibition, and for the Forbes Medal. He has already sailed for the scene of his new labours.

## 7. QUEENSLAND—THE NEW PROVINCE IN AUSTRALIA.

It has been decided to erect into a new colony the district of Moreton Bay, now a portion of the government of New South Wales. The formation of this district into a separate colony has been for the last six years urgently and repeatedly pressed by the inhabitants on the home government. A delay in acceding to their petitions was occasioned by the necessity of an arrangement for apportioning the public debt as between Sydney and Moreton Bay—a point now satisfactorily adjusted. The separation now effected will no doubt lead to a great and rapid development of the colony thus created, which will take the name of Queensland. The governor selected to preside over the new colony is Sir George Ferguson Bowen, K. C. M. S., at present chief secretary to the Lord High Commissioner of the Ionian Islands—a post he has held for some time to the approbation of his superiors. Sir George Bowen was formerly a fellow of Brazenose College, and a first-class man, and has

obtained considerable distinction in literary as well as in official circles. His appointment is likely to be popular in Australia. Sir Benjamin Pine, now Governor of the Gold Country, has been appointed Lieutenant Governor of St. Christopher's. It will be seen from the foregoing, that Sir Edward Lytton has adhered to the principle of promotion in the service as the best means of securing to our colonial empire the most efficient servants that can be obtained.—*London Standard*.

## 8. SOVEREIGNTY OF THE FEEJEE OR FIJI ISLANDS.

A new sovereignty has been offered to her Majesty the Queen of England, namely, that of the Feejee Islands, in the Pacific. The bearer of the offer is her Majesty's consul in Feejee, Mr. Pritchard. One cause of the offer being made is, that the King of the Feejee Islands is unable to pay a fine of £9,000, inflicted by an American captain. The Feejee Islands are a group numbering 211, of which 80 are inhabited. The largest is about 360 miles in circumference, and the next about 300. They spread over about 40,000 square miles of the Pacific Ocean, directly on the track between Australia and Panama and British Columbia. Almost every island has a harbour; many of these are capacious enough for a whole navy. Feejee is 1,500 miles from Sydney, and about 1,000 from New Zealand. The group is the key and centre of Polynesia. The area of the two large islands is computed at about equal to that of Belgium, and of the whole group about equal to that of Holland. The climate is described as not unlike that of Ceylon. The productions are diversified and rich. Yesterday, a deputation from the Manchester Cotton Supply Association waited upon Lord Malmesbury, to urge the acceptance of the proffered sovereignty, on the ground of the value of the islands commercially. Samples of cotton grown in these islands were transmitted by Lord Malmesbury to the committee of the Manchester Cotton Supply Association, who value them at from 7d. to 12d. per pound. On the 11th September last, a formal deed of cession of the Feejean Archipelago to Her Britannic Majesty was executed by Thakombau, the Vunivalu of Bau, claiming supremacy, as Tui-Viti, (King of Feejee) over the entire Archipelago and its inhabitants. The deed of cession finally executed contains stipulations, we believe, to the following effect:

1. That the American claims against Feejee shall be paid or settled by her Britannic Majesty's Government.
2. That Thakombau shall be allowed (as Tui-Viti) to retain his position as chief of the aboriginal tribes, but to govern under instructions from the local representatives of Her Majesty.
3. That in consideration of the \$45,000 paid to satisfy American claims, 200,000 acres of land shall be made over to Her Majesty's Government; such 200,000 acres to be selected by a British appointee.
4. That in addition to this grant of 200,000 acres, there shall be grants of such other lands as may be needed for local governmental purposes; such requirements to be agreed upon by a Commission, to consist of two Feejean chiefs and two British gentlemen, presided over by the local representative of her Majesty, the latter official to act as umpire in all disputed questions.—*Sydney Herald*.

## 9. STATES AND COLONIES—A COMPARISON.

In the year 1700, the population of the United States consisted of 3,223,629 free people and 697,697 slaves. In the year 1858 the population of the provinces of British North America, numbers 3,441,354 free men, without the luxury of a slave. In the year of the union the imports of the United States were valued at £4,955,765. In the year 1858 the imports into the British Provinces amounted in value to £15,138,834. In 1858 the exports of those provinces amount to £11,701,184, so that at this day these British provinces, this future "North American Federation," rank third in the list of the trade and commerce of the world, taking precedence of France and Russia. These are some of the circumstances on which the advocates of union between the British provinces rely as an evidence that the colonies are now of such maturity as would justify the creation of a national existence, by a North American Federation and a free commonwealth, in which it is believed that a federal union must merge.—*London Post*.

## VI. Papers on Natural History.

### 1. IRRITABLE PLANTS.

The name of irritability is given by botanists to the movements made by certain plants when touched. These movements are influenced chiefly by light and heat; but like many phenomena occurring in organised beings, they cannot at present be explained by merely

chemical or mechanical laws ; although such plants may be excited by stimulants of a chemical or mechanical nature.

The most remarkable example of the irritability of vegetables occurs in a foreign species of santfoin, called the moving plant (*Hedysarum gyrans*.) It grows on the banks of the Ganges. It is an annual plant, rising up three or four feet ; the leaves are of a bright green color, and the butterfly flowers are generally in clusters of pale red. The leaves, which consist of a large terminal leaflet, and two smaller lateral ones, possess the singular property of moving without being touched. Sometimes one of them will move suddenly while the rest remain still ; at another time they all move together up and down, and circularly ; this last movement being performed by the twisting of the footstalks. And even when the leaves are detached from the plant, they sometimes retain their power of motion for four and twenty hours. If any obstacle happens to retard the motion, upon its removal, the leaves move with greater velocity. These movements are more evident when the sun's rays are striking upon the plant ; thus making it appear that the action of the sun's rays is the cause of the perpetual motion of the leaflets. In India, where the plant is in full vigor, and has every advantage which its native soil and air can give it, all the leaves are in motion at the same time.

Venus' fly-trap, (*Dionæa muscipula*) another of the greatest wonders of the vegetable kingdom, is an American plant, which was brought to Europe, from Carolina, about the year 1788. It is a pretty plant, bearing several elegant white flowers at the end of a simple stalk. All its leaves grow immediately from the bottom of the stem ; each terminating by two lobes, surrounded at the edges with prickles. These lobes, when undisturbed, lie open, like the leaves of a book, and their surfaces are covered with a number of minute glands, secreting a sweet liquor, which attracts the unwary fly. Between the two lobes, just where they join, there are three sharp bristles ; and, when a fly or any other insect, crawling over the surface of the lobes, happens to touch either of the bristles, the irritability of the plant is excited, and the lobes, suddenly closing, imprison the insect, like a rat in a common gin. Soon after the death of the insect, the lobes unfold and wait for another victim. It is supposed that this plant requires animal food for the performance of some of its functions. In support of this theory, it has been stated that Mr. Knight, after having secured some plants from the possibility of providing themselves with flies, furnished some of them with scraped beef, and left the rest without any such provision. The result of the experiment was, that the fed specimens were in a far more flourishing condition than the unfed ones.

A wood sorrel (*Oxalis sensitive*) a native of Amboyna, is reported by Rumphius to be so delicately sensitive that it will not bear the blowing of the wind upon it without contracting its leaves.

Light exercises a great influence over all these phenomena. When a sensitive plant is exposed to artificial light during the night its leaves expand, and if put into a dark room during the day the leaves close. If however, the plant is kept for a long time in darkness, it will ultimately expand its leaves, and the processes of folding and opening will go on, although at very irregular intervals. Any sudden degrees of heat or cold, the vapor of boiling water, the fumes arising from sulphur, the odor of volatile liquors, or, in short, anything that affects the nerves of animals, will also affect the sensitive plant. Any violent application, such as exposing the extremity of a leaf to the rays of the sun, or burning it with a lens or with a lighted taper, or squeezing it between a pair of hot pincers, caused the leaflet of the acacia to close instantly ; and, at the same time, not only the leaflet which is opposite to it does the same, but all that are upon the same stalk, the drooping taking place more or less, according to the strength of the impression. When the injury is very great, the plant will be violently agitated for some distance round the spot.

The sleep of plants, which was discovered by Linnæus, is something akin to the phenomenon of irritability caused by the different influence of light and darkness, cold, heat and moisture. The common chickweed, of which birds are so fond, furnishes a beautiful instance of the sleep of plants. Every night the leaves approach each other in pairs, so as to include within their upper surfaces the tender rudiments of the young shoots ; and the uppermost pair but one at the end of the stalk, are furnished with longer leaf-stalks than the others, so that they can close upon the terminating pair, and protect the end of the shoot.

The flowers of the Marvel of Peru (*Mirabilis jalapa*), which are very beautiful, do not open in hot weather until the evening ; but if the weather be cool, or the sun is obscured, they open in the daytime. Another variety of the same plant is called Four o'clock flower, from opening at that hour of the day. The scarlet pimpernel (*anagallis arvensis*), which is a plentiful weed in corn fields, is called poor man's weather glass, and shepherd's barometer, from the flowers always closing before rain ; and should the weather be ever so bright, they always shut up at noon.—*Dickens' Household Words*.

## 2. A NEW FOOD FOR BEES.

Two agriculturists of the Department of the Var observed one day in the month of May last, that all their bees had left their hives, although the latter were well filled and exceedingly heavy. Towards even the fugitives returned heavily laden, but on the following morning set out again in a direction which was this time carefully noted by the farmers, who had been watching their doings. They immediately followed them, and soon arrived at a farm where cakes of tilseed, which had been previously subjected to the oil press, were being beaten up into a paste with water, to be used as manure for potatoes. There, to their surprise, they saw their bees clustering round the tubs containing the paste, evidently enjoying a luxury hitherto unknown to them. The lesson was not lost upon the agriculturists, who immediately procured their bees abundance of this food, and have now been rewarded with nearly ten times the usual quantity of produce, besides an immense increase in the reproduction of the insect.

## VII. Biographical Sketches.

### No. 13. BARON ALEXANDER VON HUMBOLDT.

Frederick Henry Alexander Von Humboldt was born at Berlin, September 14th, 1769. He died on Friday, May 6th, 1859, full of years and honours. A highly endowed naturalist, possessing great powers of eloquence by tongue and pen, of untiring industry, and great judgment, Alexander von Humboldt has passed through a busy life of four-score years and ten, adding knowledge to knowledge, giving and bequeathing it to mankind.

The city of Berlin expressed by public signs of grief the national loss of a good citizen, an honest courtier, an honourable and venerable man. The scientific and literary circles especially deplore the loss of an earnest and generous friend.

Amongst men of science, Von Humboldt stands pre-eminent as one of the few who have combined much special work in the several departments of research, with great and useful generalisations of the results of the scientific study of nature. The empirical observations of the uneducated, and the hypothetical systems of philosophers, filled for many ages the place of science ; and there were few, like Aristotle and Bacon, that, patiently sifting truth for error, made strict search themselves in Nature's secrets, and sought to theorise alone on facts. In early times the medical man, brought by his course of study into direct communication with nature, stood almost alone among the learned as the naturalist (hence his name Physician) ; the philosophers and clergy being rarely led, by peculiar circumstances or turn of mind, out of vague imaginings into strict research. The study of natural phenomena, unbiased by popular fancies, the prejudice of party, and the authority of the ancients, in time led naturalists to special studies of the several groups of things and conditions of things observed in earth, sea, and sky. Hence, instead of the "*Curiosi et Scrutatores Natura*" of the fifteenth century, we have the specialised astronomers, geologists, mineralogists, chemists, biologists, and physicists of the eighteenth and nineteenth centuries.

Each scientific labourer now finds work enough in his own field to task his skill and strength ; and that, too, whether he applies himself to the study of some group of physical phenomena, or to the study of some branch of science in its relation to man. Still the several fields of labour are closely approximate, and the work in one cannot be carried on without the aid and counsel of fellow-labourers, and without some of the products of their toil. One man, indeed, may often advantageously devote himself to two, or even more kindred subjects of research ; the chemist may and should be versed in collateral studies in physics and mathematics ; but who can till each field himself, and reap and gather in the crops ?

One man at least has done so in this our day, when Science has so wide a domain that her servants scarce know of each other's doings, and much less occupy themselves with all her works.

Commencing his scientific life early, educated with the direct object of being a mining-director, and favoured by the circumstances of his family, Alexander von Humboldt took his place among German naturalists, well prepared with a knowledge of chemistry, geology, mineralogy, and botany, with a general acquaintance of the allied branches of science, and with a food store of classical learning, to see Nature in her many aspects, and to read her features aright ; and he possessed, too, that love of Nature's works, and enthusiasm for the advancement of truth, that lead men through the difficulties and hardships of travel, and, still more, support them through the weariful labour of patient research, and the chilly disappointments of fruitless labour.

After having studied successfully at Gottingen, Frankfort-on-the-Oder, Hamburg, and Freiburg, he entered upon his duties at the



mining-board, and in the works at Baireuth; but he disengaged himself in 1795, when twenty-five years of age, devoting his time and energies to independent research. The rival theories of geologists, respecting the relative value of the agency of fire and water in the construction of the globe, were then attracting notice; and fresh, as it were, from the Wernerian teachings of the mining-school of Freiberg, he betook himself to Italy (in two journeys), to study the volcanic rocks and phenomena; and few objects in nature and few branches of research were of so much interest to Von Humboldt, from this early part of his career to the last year of his life, as the volcanoes, their products, and the part they have played in ancient and modern times in the history of the earth. Indeed he had already (in 1794) published an account of the basalts of the Rhine, those cold, dumb witnesses of the once raging fires of the Siebengebirge; and his latest energies were partly devoted to the study and re-examination of the characters of volcanic rocks from many parts of the globe,—from the old Silurian hills of Wales as well as from the modern peaks of the Andes.

The young officer of the Mining Corps had already visited France, Holland, and England, and he lost no opportunity of making himself acquainted with the mineral districts of Central Europe and the Alps. His love of botany, and his keen eye for the many peculiarities of animal forms, were everywhere sources of knowledge. His searching glances at nature's operations in living creatures led him to think much of chemical physiology in animals and plants (on which he published a work in 1799), and opened to him the true importance of Galvani's experiments, which he witnessed in Italy; the results of which, simplified by the labours of a generation of hardworking and clear-thinking men, were ever under his contemplation; and in 1849, he was gratified by seeing palpable evidence, afforded by experiment, of the susceptibility of the magnetic needle to the electricity evolved by voluntary muscular contraction in the human body. To study the structure of the earth's crust and its inhabitants was not enough for Von Humboldt's mind; he must know the exact relations of all its parts, from its centre to its highest peaks, and its relations to the planetary and astral worlds around it. For he learned to use astronomical instruments, and the apparatus for working out physical research, qualifying himself for geography in all its requirements.

And now, full of strength and knowledge, the ardent physicist could not be bound by European seas; but war and political disturbances detained him for a while; his energy seeking occupation, and finding experience, in travels in Italy, Styria, France, and Spain. In Paris he had made the acquaintance of Bonpland; and, first intending to go by way of Marseilles to Africa, they had to change their route for Spain. But, instead of leaving Cadiz for Africa, circumstances led them from Corunna to Teneriffe, and thence to South America, under the patronage of the Spanish Court. This was in 1799; and for five years Von Humboldt gratified the longings for foreign adventure and the scenery of the tropics, which he says had haunted him from boyhood, wandered among the forests and wildernesses of the Spanish possessions, exploring the great valleys of the Orinoco and Magdalena, and the mountain-peaks of the northern Cordilleras. The volcanic mountains of Quito received especial attention; and in June, 1802, the travellers ascended Chimborazo, to the height of 19,300 feet—the greatest elevation that had then been attained. Mexico, Cuba, and the United States were also visited; and in 1804, Von Humboldt returned to Europe with an extensive collection, chiefly of plants and minerals, and a vast accumulation of materials for the illustration of the botany, geology, zoology, geography, ethnography, and statistics of a considerable portion of the New World.

The results of these researches he forthwith began to publish in a gigantic series of works, spending twelve years of incessant labour in Paris, without fully accomplishing his Herculean task. He revisited Italy in 1818, with Gay-Lussac; and, after a tour in England, he resided at Berlin, enjoying the favour and regard of his sovereign. In 1828, he was invited by the Czar to undertake a scientific journey through Russia and Siberia; and, with his illustrious companions, Gustav Rose and Ehrenberg, after a long and studious preparation, he explored the Caspian region and Central Asia, reaching the confines of China. This journey occupied but nine months; yet the energetic and well-prepared travellers amassed great stores of knowledge. They distributed information, practical and scientific, especially in the mining districts of Siberia, and instituted observatories. The "*Fragmens Asiaticques*," the "*Asie Centrale*," and Rose's "*Reise nach dem Oural*," record the results of this expedition.

Before this, Von Humboldt had delivered lectures at Paris and Berlin on the physical phenomena of the universe and the correlations; giving to the world in extemporaneous discourses the results of his thought, travel, reading, and experimental research, and reducing these materials, as far as possible, into form, according to his conception of the theory of the whole. He had also published,

soon after his return from Mexico, a work entitled "*Ansichten der Natur*" (which the English well know in its translated form), treating of separate branches of physical geography with a picturesque animation of style. Settled at last at Pottsdam, courted by the great, respected and beloved by all, busied with political affairs, occupied with a heavy correspondence with the chief savans of all countries, fostering the rising generation of naturalists by epistle, word, and deed, Baron von Humboldt took up his pen to realise his long-cherished hope of carrying out the actual object of all his studies, his travels, and his work. For almost half a century before had he felt the impulse "to comprehend the phenomena of physical objects in their general connection, and to represent nature as one great whole, moved and animated by internal forces;" for this end had he worked perseveringly to obtain a knowledge of special branches of science (though each department is a field for the labours of a lifetime), that he might some day draw a connected picture of nature, and describe the phenomena of the visible universe, and that mutual dependence and orderly connection between them which, though darkly and dreamily seen, led the ancient philosophers to call the divine work "*Kosmos*." This is the well-known title of Von Humboldt's great work; great in conception—great in execution; though not without the weak points and shortcomings which the finite mind, shackled too with the ties of human feelings, idiosyncrasies, and political interest, must exhibit in its contemplation of the infinite.

Great as were the benefits arising from Von Humboldt's special researches in geography, geology, terrestrial magnetism, meteorology, and other sciences, both to the progress of knowledge and to the improvement of the arts and territories, yet his generalisations of the results of the labours of himself and others in these many fields of nature, have already produced a vastly beneficial influence in science, lessening difficulties and removing doubts and darkness; and for ages yet they will prove a helpful stepping-stone to the student, and a high place from whence the educated man may look forth on nature, and see how great, and good, and wise is the Creator.—*London Literary Gazette*.

# JOURNAL OF EDUCATION,

Upper Canada.

TORONTO: JUNE, 1859.

\* \* Parties in correspondence with the Educational Department will please quote the number and date of any previous letters to which they may have occasion to refer, as it is extremely difficult for the Department to keep trace of isolated cases, where so many letters are received (nearly 800 per month) on various subjects.

## APPORTIONMENT OF THE LEGISLATIVE SCHOOL GRANT OF UPPER CANADA, FOR THE YEAR 1859.

*Circular to the Clerk of each County, City, Town, and Village Municipality in Upper Canada.*

SIR,—I have the honor to transmit herewith, a certified copy of the apportionment, for the current year, of the Legislative School Grant to each City, Town, Village, and Township in Upper Canada. This apportionment will be payable at this Office, to the Agent of the Treasurer of your Municipality, on the 1st of July, provided that the School Accounts have been duly audited, and, together with the Auditors and Local Superintendents' Reports, have been transmitted to the Department.

I am happy to inform the Council of your Municipality, that I have been enabled to add a considerable sum to the apportionment of this year. The statistics of school population for 1858, upon which the present year's apportionment is based, have been carefully revised and corrected in this Department. Many inequalities in the apportionment have thus been removed, and all parts of the Province share in the grant upon equal terms, and in accordance with the demands

made upon each locality for school accommodation and instruction. By this means a much larger sum than usual has been added to the apportionment of those new and thinly-settled Counties where poor schools have heretofore existed, and where the ordinary Legislative and Municipal grants have not been sufficient to enable Trustees to sustain the schools during the school year.

A sum equal to what was paid last year to the Separate Schools in each City, Town, Incorporated Village, and Township, has been deducted from the general apportionment available for 1859, and the balance has been apportioned among all the Municipalities, according to the basis of school population for 1858. Where Separate Schools have existed, the sum thus apportioned to the Municipality has been divided among the Common and Separate Schools therein, according to the average attendance of pupils at these Schools during 1858, as reported by the Trustees. It had been found that to apportion to each Municipality, according to school population, and then afterwards to apportion an additional sum to

the Separate Schools in such Municipality, out of the General School Grant, was unduly deducting from Municipalities in which there are no Separate Schools, and unduly adding to the apportionment of those Municipalities in which Separate Schools do exist—such as Cities, Towns, and Villages. If the apportionments be increased to any Municipalities beyond the proportion of school population, it ought to be so increased to the poorer Counties and Townships, rather than to the wealthier Cities, Towns, and Villages; for it is in these latter that Separate Schools are chiefly established.

I trust that the liberality of your Council will be increased in proportion to the growing necessity and importance of providing for the sound and thorough education of all the youth of the land.

I have the honor to be, Sir,

Your obedient Servant,

E. RYERSON.

Education Office,

Toronto, 1st June, 1859.

*Apportionment to Townships for 1859.*

1. COUNTY OF GLENGABRY.

TOWNSHIPS.	APPORTIONMENT.
Charlottenburgh .....	\$583.00
Do. for Separate Schools .....	\$74.00
Kenyon .....	545.00
Lancaster .....	457.00
Do. for Separate Schools .....	52.00
Lochiel .....	597.00
Do. for Separate Schools .....	69.00
	195.00 2182.00
<b>Total for County</b> .....	<b>\$2377.00.</b>

2. COUNTY OF STORMONT.

Cornwall .....	\$618.00
Finch .....	233.00
Osabruck .....	606.00
Roxborough .....	328.00
	1785.00

3. COUNTY OF DUNDAS.

Matilda .....	\$645.00
Mountain .....	433.00
Williamsburgh .....	639.00
Winchester .....	474.00
	2191.00

4. COUNTY OF PRESCOTT.

Alfred .....	\$169.00
Caledonia .....	166.00
Hawkesbury, East .....	434.00
Do. for Separate Schools .....	\$62.00
Hawkesbury, West .....	\$327.00
Longueuil .....	183.00
Plantagenet, North .....	323.00
Plantagenet, South .....	167.00
	62.00 1774.00
<b>Total for County</b> .....	<b>\$1836.00.</b>

5. COUNTY OF RUSSELL.

Cambridge .....	\$105.00
Clarence .....	170.00
Cumberland .....	319.00
Russell .....	191.00
	785.00

6. COUNTY OF CARLETON.

Fitzroy .....	\$327.00
Do. for Separate Schools .....	\$25.00
Gloucester .....	497.00
Goulbourn .....	370.00
Gower, North .....	258.00
Huntley .....	326.00

COUNTY OF CARLETON.—(Continued.)

TOWNSHIPS.	APPORTIONMENT.
March .....	168.00
Marlborough .....	297.00
Nepean .....	490.00
Do. for Separate Schools .....	18.00
Osgoode .....	583.00
Torbolton .....	65.00
	43.00 3371.00
<b>Total for County</b> .....	<b>\$3414.00.</b>

7. COUNTY OF GREENVILLE.

Augusta .....	\$739.00
Edwardsburgh .....	530.00
Do. for Separate Schools .....	\$19.00
Gower, South .....	125.00
Oxford (on Rideau) .....	523.00
Wolford .....	395.00
Do. for Separate Schools .....	16.00
	35.00 2312.00
<b>Total for County</b> .....	<b>\$2347.00.</b>

8. COUNTY OF LEEDS.

Bastard and Burgess, South .....	\$323.00
Do. for Separate Schools (Bastard) .....	\$26.00
Crosby, North .....	263.00
Crosby, South .....	331.00
Elizabethtown .....	701.00
Eimsley, South .....	204.00
Kitley .....	509.00
Leeds and Lansdowne, front .....	501.00
Do. for Separate Schools .....	32.00
Leeds and Lansdowne, rear .....	270.00
Yonge and Escott, front .....	364.00
Yonge and Escott, rear .....	231.00
	58.00 3797.00
<b>Total for County</b> .....	<b>\$3835.00.</b>

9. COUNTY OF LANARK.

Bathurst .....	\$371.00
Beckwith .....	328.00
Burgess, North .....	\$126.00
Dalhousie and Lavant .....	186.00
Darling .....	126.00
Drummond .....	233.00
Eimsley, North .....	190.00
Lanark .....	\$47.00
Montague .....	476.00
Packenhams .....	319.00
Ramsay .....	484.00
Sherbrooke, North .....	30.00
Sherbrooke, South .....	84.00
	3290.00

10. COUNTY OF RENFREW.

TOWNSHIPS.	APPORTIONMENT.
Admaston .....	\$217.00
Alice .....	37.00
Bagot and Blithfield .....	103.00
Bromley .....	175.00
Brougham .....	69.00
Brudenell and Algona .....	25.00
Grattan .....	183.00
Horton .....	176.00
McNab .....	259.00
Pembroke .....	118.00
Ross .....	139.00
Sebastopol .....	42.00
Stafford .....	14.00
Westmeath .....	263.00
Wilberforce .....	180.00
	2000.00

11. COUNTY OF FRONTENAC.

Bedford .....	\$146.00
Hinchinbrooke .....	49.00
Kingston .....	542.00
Do. for Separate Schools .....	\$31.00
Loughborough .....	251.00
Pittsburgh and Howe Island .....	502.00
Do. Separate Schools (Pittsburgh) .....	30.00
Portland .....	262.00
Storrington .....	350.00
Wolfe Island .....	356.00
Do. for Separate Schools .....	53.00
	114.00 2452.00
<b>Total for County</b> .....	<b>\$2566.00.</b>

12. COUNTY OF ADDINGTON.

Amherst Island .....	\$151.00
Anglesea and Kaladar .....	31.00
Camden East .....	953.00
Do. for Separate Schools .....	\$7.00
Ernestown .....	623.00
Sheffield .....	343.00
	7.00 2111.00
<b>Total for County</b> .....	<b>\$2118.00.</b>

13. COUNTY OF LENNOX.

Adolphustown .....	\$70.00
Fredericksburgh .....	366.00
Richmond .....	418.00
	854.00

14. COUNTY OF PRINCE EDWARD.

Ameliasburgh .....	\$377.00
Atbol .....	997.00

COUNTY OF PRINCE EDWARD.—(Continued.)		
TOWNSHIPS.	APPORTIONMENT.	
Hallowell .....	\$419.00	
Do. for Separate Schools .....	\$36.00	
Hillier .....	392.00	
Marysburgh .....	431.00	
Sophiasburgh .....	325.00	
	36.00	2201.00
Total for County \$2237.00.		
15. COUNTY OF HASTINGS.		
Hungerford .....	\$492.00	
Huntingdon .....	263.00	
Elzevir .....	82.00	
Do. short apportionment in 1858, .....	20.00	
Madoc and Tudor .....	432.00	
Marmora .....	167.00	
Rawdon .....	455.00	
Sidney .....	641.00	
Thurlow .....	512.00	
Do. for Separate Schools .....	\$40.00	
Tyendinaga .....	958.00	
	40.00	4052.00
Total for County \$4092.00.		
16. COUNTY OF NORTHUMBERLAND.		
Alwick .....	\$82.00	
Brighton .....	587.00	
Cramahe .....	492.00	
Haldimand .....	719.00	
Hamilton .....	584.00	
Monaghan, South .....	178.00	
Percy .....	445.00	
Do. for Separate Schools .....	\$26.00	
Murray .....	449.00	
Seymour .....	446.00	
	26.00	3982.00
Total for County \$4008.00.		
17. COUNTY OF DURHAM.		
Cartwright .....	\$282.00	
Cavan .....	568.00	
Clarke .....	773.00	
Darlington .....	855.00	
Hope .....	677.00	
Manvers .....	417.00	
	—	3572.00
18. COUNTY OF PETERBOROUGH.		
Asphodel .....	\$393.00	
Belmont and Methuen .....	86.00	
Douro .....	307.00	
Dummer and Burleigh .....	247.00	
Etuismore .....	81.00	
Monaghan, North .....	110.00	
Otonabee .....	534.00	
Smith and Harvey .....	311.00	
	—	2074.00
19. COUNTY OF VICTORIA.		
Eldon .....	\$193.00	
Emily .....	438.00	
Fenelon .....	173.00	
Mariposa .....	681.00	
Ops .....	319.00	
Verulam .....	119.00	
	—	1923.00
20. COUNTY OF ONTARIO.		
Brock .....	\$620.00	
Mara and Rama .....	235.00	
Pickering .....	1024.00	
Beach .....	714.00	
Scott .....	226.00	
Scugog Island .....	65.00	
Thorah .....	170.00	
Uxbridge .....	424.00	
Whitby .....	825.00	
	—	4206.00
21. COUNTY OF YORK.		
Etobicoke .....	\$359.00	
Do. for Separate Schools .....	\$23.00	
Georgina .....	137.00	
Gwillimbury, North .....	168.00	
Gwillimbury, East .....	546.00	
King .....	891.00	
Markham .....	1013.00	

COUNTY OF YORK.—(Continued.)		
TOWNSHIPS.	APPORTIONMENT.	
Markham and Vaughan Separate Schools .....	\$38.00	
Scarborough .....	\$534.00	
Vaughan .....	951.00	
Do. for Separate Schools .....	18.00	
Whitchurch .....	715.00	
York .....	948.00	
Do. for Separate Schools .....	55.00	
	137.00	6260.00
Total for County \$6397.00.		
22. COUNTY OF PEEL.		
Albion .....	\$597.00	
Caledon .....	523.00	
Chinguacousy .....	885.00	
Gore of Toronto .....	136.00	
Toronto .....	734.00	
	—	2875.00
23. COUNTY OF SIMCOE.		
Adjala .....	\$278.00	
Essa .....	295.00	
Flos .....	116.00	
Gwillimbury, West .....	440.00	
Innisfil .....	357.00	
Medonte .....	216.00	
Mono .....	387.00	
Mulmur .....	169.00	
Nottawasaga .....	330.00	
Do. for Separate Schools .....	\$51.00	
Orillia and Matchedash .....	119.00	
Do. for Separate Schools (Orillia) .....	49.00	
Oro .....	384.00	
Sunnidale and Vespra .....	187.00	
Do. for Separate Schools (Vespra) .....	17.00	
Tay and Tiny .....	182.00	
Tecumseth .....	538.00	
Tossoronto .....	104.00	
	117.00	4102.00
Total for County \$4219.00.		
24. COUNTY OF HALTON.		
Esquesing .....	\$850.00	
Nassagaweya .....	254.00	
Nelson .....	543.00	
Trafalgar .....	545.00	
	—	2192.00
25. COUNTY OF WENTWORTH.		
Ancaster .....	\$567.00	
Barton .....	217.00	
Beverly .....	752.00	
Binbrooke .....	245.00	
Flamborough, East .....	436.00	
Flamborough, West .....	474.00	
Glanford .....	247.00	
Saltfleet .....	328.00	
	—	3266.00
26. COUNTY OF BRANT.		
Brantford .....	\$722.00	
Burlford .....	750.00	
Dumfries, South .....	438.00	
Oakland .....	74.00	
Onondaga .....	315.00	
	—	2299.00
27. COUNTY OF LINCOLN.		
Caistor .....	\$235.00	
Clinton .....	324.00	
Gainsborough .....	351.00	
Grantham .....	341.00	
Do. for Separate Schools .....	\$41.00	
Grimby .....	343.00	
Louth .....	202.00	
Niagara .....	215.00	
	41.00	2011.00
Total for County \$2052.00.		
28. COUNTY OF WELLAND.		
Bertie .....	\$308.00	
Crowland .....	249.00	
Humberstone .....	321.00	
Pelham .....	338.00	
Stamford .....	314.00	

COUNTY OF WELLAND.—(Continued.)		
TOWNSHIPS.	APPORTIONMENT.	
Thorold .....	\$359.00	
Wainfleet .....	235.00	
Willoughby .....	189.00	
	—	2311.00
29. COUNTY OF HALDIMAND.		
Canborough .....	\$157.00	
Cayuga, North .....	393.00	
Cayuga, South .....	103.00	
Dunn .....	126.00	
Moulton and Sherbrooke .....	395.00	
Oneida .....	309.00	
Do. for Separate Schools .....	\$55.00	
Rainham .....	302.00	
Seneca .....	407.00	
Walpole .....	633.00	
	—	2825.00
Total for County \$2880.00.		
30. COUNTY OF NORFOLK.		
Charlotteville .....	\$413.00	
Houghton .....	245.00	
Middleton .....	287.00	
Townsend .....	808.00	
Walsingham .....	487.00	
Windham .....	350.00	
Do. for Separate Schools .....	\$8.00	
Woodhouse .....	414.00	
	—	3004.00
Total for County \$3012.00.		
31. COUNTY OF OXFORD.		
Blandford .....	\$199.00	
Blenheim .....	723.00	
Dereham .....	513.00	
Nissouri, East .....	383.00	
Norwich, North .....	516.00	
Norwich, South .....	353.00	
Oxford, North .....	178.00	
Oxford, East .....	304.00	
Oxford, West .....	300.00	
Zorra, East .....	478.00	
Zorra, West .....	497.00	
	—	4449.00
32. COUNTY OF WATERLOO.		
Dumfries, North .....	\$511.00	
Waterloo .....	1087.00	
Wellesley .....	679.00	
Do. for Separate Schools .....	\$80.00	
Wilmot .....	754.00	
Do. for Separate Schools .....	61.00	
Woolwich .....	518.00	
	—	5849.00
Total for County \$3700.00.		
33. COUNTY OF WELLINGTON.		
Amaranth .....	\$120.00	
Arthur .....	238.00	
Do. for Separate Schools .....	\$113.00	
Eramosa .....	409.00	
Erin .....	594.00	
Garafraxa .....	441.00	
Guelph .....	509.00	
Maryborough .....	227.00	
Minto .....	97.00	
Nichol .....	301.00	
Do. for Separate Schools .....	17.00	
Peel .....	581.00	
Pikington .....	277.00	
Puslinch .....	583.00	
	—	4177.00
Total for County \$4307.00.		
34. COUNTY OF GREY.		
Artemesia .....	\$407.00	
Bentinck .....	305.00	
Collingwood .....	138.00	
Derby .....	118.00	
Egremont .....	170.00	
Euphrasia .....	144.00	
Gleng .....	215.00	
Holland .....	279.00	
Melancthon .....	162.00	
Normanby .....	96.60	
Osprey .....	267.00	
Proton .....	126.00	

COUNTY OF GREY.—(Continued.)

TOWNSHIPS.	APPORTIONMENT.
St. Vincent.....	\$309.00
Sullivan.....	140.00
Sydenham.....	396.00
—	3271.00

35. COUNTY OF PERTH.

Blanchard.....	407.00
Downie.....	445.00
Easthope, North.....	385.00
Easthope, South.....	201.00
Ellice.....	224.00
Do. for Separate Schools.....	\$43.00
Elms.....	149.00
Fullarton.....	345.00
Hibbert.....	325.60
Logan.....	126.00
Mornington.....	276.00
Wallace.....	124.00
—	43.00
Total for County \$3050.	3007.00

36. COUNTY OF HURON.

Ashfield.....	\$283.00
Biddulph.....	421.00
Colborne.....	221.00
Goderich.....	468.00
Grey.....	252.00
Hay.....	272.00
Howick.....	166.00
Hullett.....	197.00
McGillivray.....	378.00
McKillop.....	311.00
Morris.....	168.00
Stanley.....	358.00
Stephen.....	234.00
Tuckersmith.....	398.00
Turnberry.....	58.00
Usborne.....	371.00
Wawanosh.....	299.00
—	4845.00

37. COUNTY OF BRUCE.

Arran.....	\$227.00
Brant.....	254.00
Bruce.....	256.00
Carrick.....	149.00
Do. for Separate Schools.....	\$19.00
Culross.....	100.00
Elderslie.....	151.00
Greenock.....	167.00
Do. for Separate Schools.....	21.00
Huron.....	172.00
Kincardine.....	239.00
Kinloss.....	102.00
Saugeen.....	186.00
—	40.00
Total for County \$2043.00.	2003.00

38. COUNTY OF MIDDLESEX.

Adelaide.....	\$325.00
Carradoc.....	467.00
Delaware.....	173.00
Dorchester, North.....	494.00
Ekfrid.....	346.00
Lobo.....	445.00
London.....	958.00
Metcalfe.....	197.00
Moss.....	339.00
Nissouri, West.....	342.00
Westminster.....	645.00
Do. for Separate Schools.....	\$18.00
Williams.....	394.00
Do. for Separate Schools.....	5.00
—	21.00
Total for County \$5146.00.	5125.00

39. COUNTY OF ELGIN.

Aldborough.....	\$283.00
Bayham.....	508.00
Dorchester, South.....	217.00
Dunwich.....	389.00
Malahide.....	592.00
Southwold.....	765.00
Yarmouth.....	668.00
—	3422.00

40. COUNTY OF KENT. APPORTIONMENT.

Camden.....	\$261.00
Chatham.....	270.00
Dover, East and West.....	237.00
Harwich.....	401.00
Howard.....	449.00
Orford.....	210.00
Raleigh.....	403.00
Do. for Separate Schools.....	\$22.00
Romney.....	73.00
Tilbury, East.....	141.00
Zone.....	107.00
—	22.00
Total for County \$2574.00.	2552.00

41. COUNTY OF LAMBTON.

Bosanquet.....	\$301.00
Brooke.....	176.00
Dawn.....	93.00
Enniskillen.....	79.00
Euphemia.....	223.00
Moore.....	296.00
Plympton.....	387.00
Sarnia.....	113.00
Sombra.....	243.00
Warwick.....	363.00
—	2274.00

42. COUNTY OF ESSEX.

Anderdon.....	\$252.00
Colchester.....	210.00
Gosfield.....	278.00
Maidstone.....	168.00
Do. for Separate Schools.....	\$31.00
Malden.....	171.00
Mersea.....	231.00
Rochester.....	161.00
Sandwich.....	544.00
Do. for Separate Schools.....	15.00
Tilbury, West.....	115.00
—	46.00
Total for County \$2176.00.	2130.00

Apportionment to Cities, Towns and Villages, for 1859.

CITIES.	Common Schools.	Separate Schools.	Total.
Toronto.....	\$3123.00	\$1497.00	\$4620.00
Hamilton.....	2045.00	615.00	2660.00
Kingston.....	1153.00	443.00	1596.00
London.....	1383.00	146.00	1529.00
Ottawa.....	1211.00	1197.00	2408.00
—	8915.00	3898.00	12813.00

Towns.	Common Schools.	Separate Schools.	Total.
Barrie.....	\$119.00	\$70.00	189.00
Belleville.....	411.00	192.00	603.00
Bowmanville.....	231.00	...	231.00
Brantford.....	566.00	69.00	635.00
Brockville.....	353.00	151.00	504.00
Chatham.....	352.00	62.00	414.00
Clifton.....	63.00	39.00	102.00
Cobourg.....	472.00	85.00	557.00
Collingwood.....	147.00	...	147.00
Cornwall.....	210.00	...	210.00
Dundas.....	272.00	116.00	388.00
Galt.....	346.00	...	346.00
Goderich.....	357.00	...	357.00
Guelph.....	272.00	153.00	425.00
Lindsay.....	103.00	76.00	179.00
L'Original.....	in Town ship.	...	...
Milton.....	99.00	...	99.00
Niagara.....	179.00	115.00	294.00
Oakville.....	165.00	...	165.00
Owen Sound.....	212.00	...	212.00
Paris.....	231.00	63.00	294.00
Perth.....	210.00	...	210.00
Peterborough.....	206.00	130.00	336.00
Picton.....	142.00	30.00	172.00
Port Hope.....	571.00	...	571.00
Prescott.....	126.00	126.00	252.00
Queenston.....	in Town ship.	...	...
Sandwich.....	84.00	...	84.00
Sarnia.....	193.00	...	193.00
St. Catharines.....	404.00	245.00	649.00
Simcoe.....	252.00	...	252.00
Whitby.....	276.00	...	276.00
Windsor.....	244.00	...	244.00
Woodstock.....	336.00	...	336.00
—	8294.00	1722.00	9926.00

TOWN MUNICIPALITY.	Common Schools.	Separate Schools.	Total.
Amherstburgh.....	*	*	\$168.00

\* Returns not received, and amount not determined.

INCORPORATED VILLAGES.

Ashburnham.....	in Town ship.	...	...
Berlin.....	\$201.00	...	\$201.00
Bradford.....	94.00	...	94.00
Brampton.....	168.00	...	168.00
Brighton.....	in Town ship.	...	...
Caledonia.....	196.00	...	196.00
Chippewa.....	168.00	...	168.00
Clinton.....	117.00	...	117.00
Colborne.....	in Town ship.	...	...
Elora.....	168.00	...	168.00
Embro'.....	in Town ship.	...	...
Fergus.....	126.00	...	126.00
Fort Erie.....	42.00	...	42.00
Hawkesbury.....	in Town ship.	...	...
Hespeler.....	in Town ship.	...	...
Ingersoll.....	252.00	...	252.00
Iroquois.....	53.00	...	53.00
Kemptville.....	159.00	...	159.00
Kincardine.....	94.00	...	94.00
Mitchell.....	145.00	...	145.00
Napanee.....	167.00	12.00	179.00
Newburgh.....	in Town ship.	...	...
Newcastle.....	134.00	...	134.00
New Hamburg.....	115.00	...	115.00
Newmarket.....	126.00	...	126.00
Oshawa.....	140.00	20.00	160.00
Pembroke.....	in Town ship.	...	...
Portsmouth.....	in Town ship.	...	...
Preston.....	159.00	24.00	183.00
Renfrew.....	in Town ship.	...	...
Richmond.....	in Town ship.	...	...
Smith's Falls.....	108.00	...	108.00
Southampton.....	in Town ship.	...	...
St. Mary's, Blanch'd.....	180.00	...	180.00
St. Thomas.....	176.00	...	176.00
Stratford.....	294.00	...	294.00
Streetsville.....	142.00	...	142.00
Thorold.....	154.00	60.00	214.00
Trenton.....	151.00	...	151.00
Vienna.....	126.00	...	126.00
Walkerton.....	in Town ship.	...	...
Waterloo.....	134.00	...	134.00
Welland.....	in Town ship.	...	...
Yorkville.....	142.00	...	142.00
—	4431.00	116.00	4547.00

Apportionment to Counties for 1859.

COUNTIES.	Common Schools.	Separate Schools.	Total.
1. Glengarry.....	\$2182.00	\$195.00	\$2377.00
2. Stormont.....	1785.00	...	1785.00
3. Dundas.....	2191.00	...	2191.00
4. Prescott.....	1774.00	62.00	1836.00
5. Russell.....	785.00	...	785.00
6. Carleton.....	3371.00	43.00	3414.00
7. Grenville.....	2312.00	35.00	2347.00
8. Leeds.....	3797.00	58.00	3855.00
9. Lanark.....	3290.00	...	3290.00
10. Renfrew.....	2000.00	...	2000.00
11. Frontenac.....	2452.00	114.00	2566.00
12. Addington.....	2111.00	7.00	2118.00
13. Lennox.....	854.00	...	854.00
14. Prince Edward.....	2201.00	36.00	2237.00
15. Hastings.....	4052.00	40.00	4092.00
16. Northumberland.....	3982.00	26.00	4008.00
17. Durham.....	3572.00	...	3572.00
18. Peterborough.....	2674.00	...	2674.00
19. Victoria.....	1923.00	...	1923.00
20. Ontario.....	4206.00	...	4206.00
21. York.....	6260.00	137.00	6397.00
22. Peel.....	2875.00	...	2875.00
23. Simcoe.....	4102.00	117.00	4219.00
24. Halton.....	2132.00	...	2132.00
25. Wentworth.....	3266.00	...	3266.00
26. Brant.....	2299.00	...	2299.00
27. Lincoln.....	2011.00	41.00	2052.00
28. Welland.....	2311.00	...	2311.00
29. Haldimand.....	2825.00	55.00	2880.00
30. Norfolk.....	3004.00	8.00	3012.00
31. Oxford.....	4449.00	...	4449.00
32. Waterloo.....	3549.00	151.00	3700.00
33. Wellington.....	4177.00	130.00	4307.00
34. Grey.....	3271.00	...	3271.00
35. Perth.....	3007.00	43.00	3050.00
36. Huron.....	4845.00	...	4845.00
37. Bruce.....	2003.00	40.00	2043.00
38. Middlesex.....	5125.00	21.00	5146.00
39. Elgin.....	3422.00	...	3422.00
40. Kent.....	2552.00	22.00	2574.00
41. Lambton.....	2274.00	...	2274.00
42. Essex.....	2130.00	46.00	2176.00
—	122863.00	1427.00	124290.00

Total Counties.....	\$122863.00	\$1427.00	\$124290.00
" Cities.....	8915.00	3898.00	12813.00
" Towns.....	8204.00	1722.00	9926.00
" Town Municip.....	*	*	168.00
" Villages.....	4431.00	116.00	4547.00
—	...	7163.00†	151744.00

† Additional sum reserved for any Roman Catholic Separate Schools which may be established in 1859

Grand Total ..... \$152500.00

\* Returns from Amherstburgh not received, and amount not determined.

## IX. SPEECHES AT THE RECENT CONVOCATION OF THE UNIVERSITY OF TORONTO.

The Rev. Dr. McCaul, after presenting to the Chancellor Messrs. Kerr and Tassie, the gold and silver medalists in Greek and Latin, and bearing strong testimony to their merits, proceeded to say:—Agreeable as the duty would be on any occasion, of acknowledging the merit of our students, I feel peculiar pleasure at present from the consideration that on this day we are commencing a new epoch in our existence; and that epoch marked by our taking possession of our permanent home. (Applause.) And I think I may add to those who have seen this building, and in the presence of the audience which throngs this noble hall, that that home is not unworthy of the national institutions which are here to have their local habitation,—(applause);—not unworthy of the fair city within whose limits this structure has been reared; nor yet unworthy of the great and growing Province for whose benefit these institutions have been established. (Applause.) Gentlemen, in after years, when you look upon the proud memorials of academic distinctions which you are now to receive, doubtless your thoughts will be called back to the scene which you now witness. You will call to mind that you were among the first to receive medals within this hall of Convocation, the first which the University could call its own. (Applause.) I trust that when you call to your recollection these circumstances, you will also bear in mind the practical lesson which the history of this building is calculated so forcibly to inculcate. I trust you will bear in mind that important lesson through life, that steadiness of purpose and perseverance, however often frustrated, must ultimately, with the blessing of God, be crowned with success. (Hear, hear, and applause.) A generation has passed away since these buildings were first contemplated. During that long period there have been seasons of difficulty and doubt enough to dismay the stoutest heart. But yet there were those who still hoped on. (Applause.) It was in vain that plans were formed; designs approved; committees appointed; nay, one auspicious commencement of the work made: the result was disappointment. But instead of giving way to black despair, there were those amongst us for whom Hope undismayed kindled her torch at the funeral pile of consumed resolutions, of destroyed projects, and lit up before them a bright and glorious future. (Applause.) These hopes have been this day realized. (Renewed applause.) And now, after a period of thirty-two years, the University has been furnished with accommodation suitable for the efficient and dignified discharge of the high duties committed to it. (Applause.) So, gentlemen, I trust it may be with you, if it should be your lot to have such seasons of difficulty and doubt. It may be that in your course through life dark clouds may occasionally overspread your path, and seem for the time to shut out any prospect of the accomplishment of your aims; it may be that years may pass away before that fond prayer, inscribed on your medals,\* with which your *alma mater* dismisses you to the duties of active life, may be realised; but never, never give up hope! Hope now, hope on, hope ever. (Applause.) Even amidst the deepest gloom, remember that the darkest hour is that which precedes the dawn of day. (Applause.) When the greatest difficulties are presented before you, meet them with steadiness of purpose, with firm resolution, and that confidence which cannot fail to be derived from the well-earned honors which you have won in academic competition, and, with the blessing of God on your determination and your perseverance, you will overcome them all. (Applause.) I cannot better conclude than in words familiar to you all—

"Tu ne cede malis sed contra audentior ito."

The rev. gentleman concluded amidst loud applause.

The Hon. ROBERT E. BURNS, Chancellor of the University, after the business of the Convocation was over, delivered the following address: He said—On behalf of the Convocation now assembled, whose proceedings have just closed the Academic year, I beg to thank you for being present and witnessing the distribution of honors and prizes, because we take it as an evidence on your part, that you not only manifest, but in truth, that you feel, an interest in the progress of this Provincial seat of learning. The charter of the University was granted in 1827, but the first Convocation assembled under its auspices was not held until the 8th of June, 1843—a period of 16 years—and now upon the same day of the month in 1859, we are assembled to complete the sixteenth year of its existence. Sixteen years is but a trifling period of time in the life of such a body, in comparison with that of kindred institutions, but we trust and hope that it is only the foundation, and that having been fairly begun, the structure upon it will continue for ages. In that space of time, short as it is, probably as much good has been done in the way of disseminating knowledge, in arts, literature, and science, to

\* The medals bear on the obverse a winged figure of Victory, with the words, in Greek,—"*May she never cease crowning you.*"

the youth of this country, as it was possible to do under so many adventitious difficulties which presented themselves to be contended with. During the latter portion of that period, in the course of very many visits through the country, I have from time to time observed men in various parts of it, now holding both honorable and respectable situations in the business of life—men who have devoted themselves to various professions, the exercise of which, with talents and abilities, are so well calculated to bestow and confer benefits and advantages upon our species—who now look back with honest pride and satisfaction to the days when they took part in these Convocations, and who, in fact, consider themselves, as they are, the pioneers of the wilderness, and this may be truly said to be so in more senses than one. What then, may I ask, may not be looked for when another sixteen years shall have succeeded, and when those who may now be considered as but in their boyhood in the life of this Convocation, shall have exerted their influence upon their own relatives, and upon their friends and acquaintances. It is the influence of talent, and more than that, the influence of example, which creates an interest in almost any subject we set our minds upon, and, therefore, when I said we thanked you for evincing an interest in these proceedings, it was because I might well be supposed to believe that many either had taken an interest in the education of those who had already passed through the University, or in those who are at present in the course; but above all I would fain believe it to be an interest in the efficient education of those who contemplate coming here to finish their studies, and complete that education which is to fit them for the different relations of life. It is a well-founded and wide-spread feeling of this kind we desire to see apparent, not merely upon the surface, but deep in the hearts of all; and if that can be produced, then we may safely conclude that the institution has taken root, and the hope will be that its roots may spread till the whole land be covered. As time proceeds onward, and such becomes the case, and I am hopeful enough to predict that it will, then when another sixteen years have rolled on, those here present to-day will rejoice that they have contributed their mite, and as time still passes onwards let us hope that these walls will not contain the tithe of those who will then take such an interest as we now desire to see awakened among our countrymen. When we look forward to the future we may contemplate and hope that posterity will say this seminary of learning has produced students who have devoted themselves to the dissemination of the Gospel, whose critical spirit has assisted in illumining dark passages, and given new vigor to the sublime truths of religion—students who have become professors of the medical art, whose genius has curiously studied the maladies of our race, and whose skill has administered succor to thousands who perhaps were ready to perish—students who have become jurists, and who, either in the judgment-seat or at the bar, have applied their profound knowledge to the support of the civil institutions of society, the protection of innocence, and the triumph of justice—students who have become statesmen, whose large and comprehensive minds have maintained and supported the principles of our constitution, and perpetuated the blessings of liberty—and last, though not least, students—the elegant and quiet scholars who have given their days and nights to illustrate the annals of the past, or have imparted a warm and sunny glow to the literature of the present. This country is already making rapid strides in the progress of gigantic works, equal to any the world has ever seen, and I have no reason to doubt that with fostering care to this institution on the one hand, and with a willingness and readiness of her people on the other hand, to devote the minds of a proportion of her youth to university studies, we can in the course of not a very long time, equal at least a portion of the spirit which accomplishes such magnificent works. The necessary means on the one side are not wanting; they are here, thanks to a generous and not unmindful Government; but what is wanting is the soil upon which to sow the good seed. Another quarter of a century might with due and proper exertion accomplish much of what I have feebly pointed at. We are now, I might say, for the first time assembled in the proper house of the Convocation of the University. If we date back to the time of granting the Royal Charter, the birth of the University, as the commencement of our peregrinations, we shall be found to have wandered about not unlike the Jews of old, not much short of forty years, though I trust not like them during all this period, in a wilderness. I fear, however, that comparatively speaking, taking the commencement to be in 1827, the wilderness of literature was tolerably prevalent in this country; but when the Convocation dawned into existence, then it may be said we began to approach the promised land, and as we came nearer home the wilderness of literature was in the course of being gradually dispelled. The way was by no means smooth, and dangers beset at every turn. The trials which had to be encountered during these 16 years were very great, and threatening destruction was often impending, causing fears to be entertained that we should never live to see this day. We have now reached rather more than the threshold of the promised land, and I may say,

I think we are entering under able and skilful commanders, but still, much remains to be accomplished, and that cannot be done without ready and willing soldiers. We need not expect the walls of ignorance or prejudice to crumble at our feet, merely because we may think it proper to sound our own praise. Each artizan, as he has been taught his work, must persuade others to apprentice themselves, and he should induce as many as he can to go and do likewise. The number of students who are leaving this year is 18, and the number of matriculants is 75; so that we have proof of the increase of our strength. In this utilitarian age, I have myself heard many say and declare that there was no use in putting our youth to study the dead languages and polite literature—that it was wasting their time needlessly, and that it would be much better that young men should be taught some of the useful (in their sense of the word) employments or pursuits of the day, and then they would be ready to be sent forth to the world as useful members of society. To such persons, I would say they entirely forget and overlook the fact that it is the thorough education, teaching us the knowledge of the past ages of the world, in literature, in science, in art—in fact, in everything, from the rocks upon the mountains to the bowels of the earth and the depths of sea, which enables us to appreciate and improve upon what we see around us at present, and from such knowledge, to hit upon inventions which may prove useful to a future generation. The literature of Greece and Rome is the common ground upon which all the polite nations of the world can unite, however varied their climate, their language, their distance from each other, and their interests as conflicting with each other as may be; and it is from this source each nation adopts the authors of poetry, history, and eloquence, as models from which to study and improve the literature of its own. The works of Aristotle and Cicero have probably furnished more materials for instruction upon the topics upon which they treat than any other authors either before or since their times. Those great men wrote not for their own times or for their own country, but for the world—for all posterity. Sallust shows us what he thought of his production when he composed the account of Catiline's conspiracy and insurrection. He says—"Mihi rectius esse videtur, ingenii, quam virium opibus, gloriæ quærere, et quoniam vita ipsa, qua fruimur, brevis est, memoriam nostrî, quam maxime longam efficere, Nam divitiarum et formæ gloria fluxa atque fragilis; virtus clara æsternaque habitur." The study of ancient literature lays the foundation upon which to proceed with the structure, and the structure is completed by the information to be derived from modern literature. The historian of the "Decline and Fall of the Roman Empire," says—"It was among the ruins of the capitol that I first conceived the idea of a work which has amused and exercised nearly twenty years of my life, and which, however inadequate to my own wishes, I finally deliver to the curiosity and candor of the public." Who supposes, coming to the moderns, any more than among the ancients, that the great authors of Italy, France, Germany, or England, wrote solely for their own times or their own country? "My name and memory," (was the affecting and melancholy language of Lord Bacon in his last will,) "My name and memory I leave to foreign nations, and to mine own countrymen, after some time be passed over." The same rule prevails in scientific and all other pursuits, as in literature—there is no royal road to learning. The foundation must be laid upon which to erect the building. Time does not permit me to do more than cursorily hint at these things—and, after all, that is all, in truth, which is necessary. If I can succeed so far as to cause the mind to be turned upon the subject, I am convinced that reflection will produce conviction of the truth of the observation. The utility and advantages of University education may be summed up in these words of Lord Bacon:—"Studies serve for delight, for ornament, and for ability. Their chief use for delight is in privateness and retiring; for ornament, is in discourse; and for ability, is in the judgment and disposition of business." *Felix qui potuit rerum cognoscere causas.* Before we part let me say a few words more particularly to those who have just left us and those who are now pursuing their studies here, and those who may contemplate doing so. I ask them to look upon these annual meetings as so many spurs to urge them on, to vie with each other in the course of study which enables them to earn the honors and distinctions we are able to bestow. They will find not only a present gratification and amusement to themselves, but will derive such permanent knowledge as will enable them to confer advantages upon others, and indeed fit them for all the relations of life afterwards. I have spent all my life since I left school in the study and practice of the legal profession, and if I am more familiar with that than any other, I trust I shall be forgiven in drawing upon it to illustrate my meaning in the way of advice. I would apply to all—not merely those engaged in legal studies, but studies of every kind—what Lord Bacon says in his preface to "Maxims of the Law." "I hold," he says, "every man a debtor to his profession, from the which, as men of course do seek and receive countenance and profit, so ought they of duty to

endeavor themselves by way of amends, to be a help and ornament thereunto. This is performed in some degree by the honest and liberal practice of a profession, when men shall carry a respect not to descend into any course that is corrupt and unworthy thereof, and preserve themselves free from the abuses wherewith the same profession is noted to be infected; but much more is this performed if a man be able to visit and strengthen the roots and foundation of the science itself, thereby not only gracing it in reputation and dignity, but also amplifying it in profusion and abundance." To those young men who remain here pursuing their studies I would particularly recommend the example of Plowden, who tells us in the preface to his "Commentaries" as follows: "When I first entered," he says, "upon the study of the law, which was in the twentieth year of my age, and in the thirtieth year of the reign of the late King Henry the Eighth, of famous memory, I resolved upon two things, which I then purposed earnestly to perform. The first was to be present at, and to give diligent attention to, the debates of the questions of law, and particularly to the arguments of those who were men of the greatest note and reputation for learning. The second was to commit to writing what I heard, and the judgment thereupon, which seemed to me much better than to rely upon treacherous memory, which often deceives its master. These two resolutions I pursued effectually by a constant attendance at moots and lectures, and at all places in Court and Chancery, to which I might have access, where matters of law were argued and debated." Youth may ask, as I have heard, "What are all these studies for?" Is it not, I would answer in return, the search after wisdom? Surely it must be so, or it certainly ought to be so. The wisdom which informs each of us individually, and which when possessed enables us to instruct the rest of our race. Does any one fancy for a moment that it will ever be acquired to the extent wisdom can go by the study of all the past ages of the world, or all that the present can afford? The subject is exhaustless, and those who are entering upon the study will find quite as much room for them as there ever was, and quite as many things to be discovered as have already been made known. The son of Sirach, more than two thousand years ago, said: "The first man knew her not perfectly; no more shall the last find her out. For her thoughts are more than the sea, and her counsels profounder than the great deep." When time shall have rolled on its courses let us hope that some at least of the sons of this institution may exclaim, as the son of Sirach has done—"I will yet make doctrine to shine as the morning, and will send forth her light afar off. I will yet pour doctrine as prophecy, and leave it to all ages forever. Behold that I have not labored for myself only, but for all them that seek wisdom."

The GOVERNOR GENERAL (Visitor of the University) then rose amidst loud cheering and said: That after what had passed to-day, after what has been said by the President of the University College, and by the Chancellor of the University, he had but a very few remarks to make. He merely wished, before taking leave of them, to say, it had been the source of the greatest gratification to him to assist at this inauguration, if he might so say, of this noble building. (Cheers.) They had been shown that days of trouble and anxiety in connection with it had existed in the past; but he would utter the hope that these days might not return,—(applause); but that as the number of their matriculants increased, the institution would, long after he had left Toronto, go on increasing in its efficiency and in its means of imparting instruction. (Cheers.) He would say again, that this meeting was the source of the greatest gratification to him. He had seen the beginning of the building, and he had now the pleasure of being present at its inauguration. (Cheers.) [In replying to a toast at the annual University Dinner, in the evening, His Excellency further remarked, that he had taken great interest in the progress of the university building, and he rejoiced that he had been present to-day at the first convocation in its halls. (Applause.) He had now to thank them for the warm way in which they had drunk his health, although he must say that his exertions on behalf of the university had been much over-rated. His services in connection with the growth of the present building, and generally of the university, had been greatly exaggerated. In doing what he had done for the university he had done no more than his duty, in watching as well as he could over the progress of an institution which he thought would be of advantage to the whole Province. (Applause.) But there was one point on which there could be no exaggeration, and that was his estimate of the importance of the institution to this country. He did not measure its importance by its present condition, prosperous as that condition was compared with what it formerly had been. The fact was the importance of the institution to Canada was far greater than at this moment would be conceived. (Cheers.) He looked upon this country as containing the germ seed of a great people (cheers,) and he thought there was no man in Canada who did not look forward to the progress of Canada until such time as it assumed a national character of its own, and a place among the peoples

of the world. (Cheers.) He thought this was a result to be looked to in the future, and he would ask any gentleman present or any gentleman in Canada, whether he would wish an inhabitant of the country to which he belonged to hold a second place when compared with the statesmen, the orators, the barristers or the literary men of any other country? (Applause.) If he would not, what must be done? You must educate your people on the principles which will enable them to hold their places when they come in contact with men of the same position engaged in the same pursuits of life as themselves. (Applause.) How is this to be done? There is a prejudice especially in new countries against education, as if it were of little practical value. But this prejudice must be subdued if you wish to stand on an equal footing with other people in life. (Applause.) This prejudice can only be got rid of by showing the advantages of the best means of education. The formation of mind is not simply a question of what is taught but how that is taught. In this point of view classic literature always held its place in a liberal education. (Applause.) Amongst all the instruments for training the mind, perhaps none was more effectual than the study of these languages, which were the great model of modern composition. There was another instrument of the same kind, and that was the study of mathematics. (Applause.) As applied to science, it would, without mathematics, be a mere aggregate of facts. Mathematics cleared up doubts, brightened up ideas, and gave us a glance into illimitable space. (Applause.) And again in classical literature one could not understand a number of the *Spectator* without knowing classics. No man could be a pure English scholar—no man could appreciate the allusions of an English book, unless he had something beyond a mere English education. (Applause.) But, he was quite ready to admit that English education had been in the old country, too much neglected, and considered subordinate to those studies which were supposed to be the foundation of a complete system. On this point he was glad to see the University of Toronto had taken a proper position. (Applause.) There were other studies connected with university education, which he was far from saying should not form part of its curriculum. He was confident instruction had been given with advantage in both the branches of law and medicine. (Applause.) But in legal instruction as connected with a University education, great care should be had not to make the University portion of the education similar to that which should be acquired in an office. Make the University education the foundation of the study. Teach there the general principles of law which go to determine the boundaries of jurisprudence and the general character of law as a science. Details should be learned elsewhere. (Applause.) As regarded the University institution itself he had no doubt that its standard of education would go on growing from day to day, and as the standard rose, so would the interest of the country in it rise, prejudices would be uprooted, and matriculants would increase. (Applause.) The people would look with more and more pride to the University of Toronto and the results of its education, and would not grudge all the support that might be given it. (Applause.) It would be an institution calculated to increase the interests of the—he would not say the Upper Province because he would not separate them—but of the whole Province at large. (Great cheering, amidst which His Excellency resumed his seat.)

The toast, "Our Commemoration day," was responded to by the Rev. Dr. McCaul, who on rising was received with hearty cheers. The following historical passages occur in his speech:—In 1793, the U. E. Loyalists memorialised George III. for a grant of lands for educational purposes. The result of this application was the appropriation of a tract of 500,000 acres, a portion of which forms the endowment of the present University and College. In 1819, the late lamented Mr. Justice Jones introduced a clause into a Bill for increasing the representation, to the effect,—That so soon as a University should be established, the land on which the University should be erected should be proclaimed a township, and should be entitled to send a member to Parliament. (Applause.) And the qualification of those who should have the liberty to vote for such member, should be the privilege of having a seat in Convocation. That Bill became law, but its provisions have not yet been carried out. He (Dr. McCaul) expressed the hope, however, without trespassing on politics, that they would ere long see the day when such would be the case in Canada. (Applause.) In 1827 George IV. granted the Royal Charter, for which they were mainly indebted to the foresight and perseverance of the present Lord Bishop of Toronto. Passing on through the several succeeding years, the eloquent doctor proceeded to compliment the Governor General for the great interest which he had taken in the University, as also the Chief Justice of Common Pleas, Mr. Chancellor Blake, and the present Chancellor Burns. He might say of the present Governor General in reference to the University as had been said of Augustus Cæsar by Suetonius in reference to Rome, that he found it of brick and left it of marble. (Applause.) He concluded with the expression of his confidence, that the University would be a

blessing and an honor to the country, and take its place in the same rank with the time honoured institutions of their fatherland. (Applause.)

The CHAIRMAN (Hon. James Patton, LL.D.) then, in suitable terms proposed "The Chancellor and Vice-Chancellor of the University."

The CHANCELLOR in responding said he never made a speech in his life; he attempted once, but failed and broke down. (Laughter.) He would always be found ready and willing to do everything in his power to advance the interests of the institution. With these remarks he would leave the speechifying to the Vice-Chancellor. (Applause.)

The VICE-CHANCELLOR (J. Langton, Esq.) was warmly greeted on rising. Rank, he said, had its duties as well as its privileges, and it was not therefore right of the Chancellor to lay upon him the *onus* of a speech. (Laughter.) The learned Vice-Chancellor then referred briefly to the "dark days" of the University, and said that now as he was about to leave them to go to another part of the Province, he was happy to say that the Institution, was in, at least, no worse a position than when he joined it. (Applause.) He thanked them for the honor which had been done him in drinking his health.

The VICE-CHAIRMAN, (Mr. Draper) then gave "The Universities of Great Britain and Ireland." To these institutions we were indebted for the Professors of our own institutions, who came out here to transmit their knowledge and the results of their researches to future generations.

The VICE-CHANCELLOR responded on behalf of the English Universities,

Dr. McCaul responded on behalf of the Irish institutions, saying he looked back with pride and affection to his *Alma Mater*, Trinity College, Dublin. With pride, as the parent of such men as Burke, Sheridan, Goldsmith, and Moore; with affection, as the mother from whose bosom he had derived the nutriment which qualified him for his present position. (Applause.)

Prof. WILSON was warmly applauded on rising. He made some very eloquent remarks. As regarded the Scottish universities he must say they were very poor Institutions indeed. Trinity College, Dublin, the wealthiest college in Britain, had just been described by one of its most distinguished *alumni*. Compared with it, Edinburgh University was a very poor establishment. The endowments of one of the pettiest colleges of Cambridge and Oxford exceeded all the endowments of Edinburgh University. But without endowment, without prizes, without inducements to learning, beyond the attractions which learning itself presented, Edinburgh University had brought out, in three centuries, a hive of noble men that would bear comparison with the *alumni* of any other collegiate institution in the world. (Applause.)

The VICE-CHAIRMAN (Mr. Draper) then rose and gave "The Public Schools of Canada."

W. WEDD, M. A. and G. R. R. Cockburn, M. A., responded. The latter gentleman said that whatever University they might endow, if they had not good grammar schools, they wanted the means of laying a good foundation of education. And he would say, from what he had seen of the grammar schools of Canada that they were more efficient than one who had recently come from the old country would be inclined to expect. (Applause.)—*Abridged from the Leader Report.*

[For proceedings at the Convocation, see below.]

## X. Educational Intelligence.

### CANADA.

—UNIVERSITY OF TORONTO.—ANNUAL CONVOCATION.—The annual convocation of this Institution for the conferring of degrees and presentation of prizes to the successful students in the several departments, was held June 8th in the new Convocation Hall. There appeared to be a great interest taken in the proceedings. Not less than 1,000 persons could have been present. The Chancellor of the University, the Hon. Robt. E. Burns, presided. His Excellency the Governor General occupied a chair on a *dais* at the western end of the platform. Near him sat Lady Head and other ladies. At half-past two o'clock the proceedings commenced by the admission of the following gentlemen to degrees:—

M.D.—N. O. Walker, M.B.; L. S. Oille, M.A., M.B.; T. Miller, M.B.; J. Thorburn, M.D., and H. Turner, M.D., *ad eundem*.

M.A.—N. M. Trew, B.A.; R. Hume, B.A.; T. Hodgins, B.A., LL.B.; J. Turpin, B.A.; N. O. Walker, B.A., M.B.; T. Moss, B.A.; C. D. Paul, B.A.; F. B. Tisdell, B.A.; Rev. G. Hill, B.A.; J. L. Litton, M.A., *ad eundem*.

L.L. B.—M. M. Crombie, M.A.; W. P. Laird, Jonathan Sisson, W. I. Stanton.

M. B.—C. E. Barnhart, W. S. Francis, M.A. J. King. T. G. Phillips, J. Cronyn.

B. A.—W. H. C. Kerr, J. L. McDougall, J. Mitchell, R. Sullivan, H. Tassie, B. F. Fitch, J. W. Holcomb, D. Waters, R. S. Applebee, N. Monteserrat.

RECITATIONS.—Mr. W. H. C. Kerr, B. A., then recited his prize composition in Latin verse, taking for his motto the words,  
"Cities perish as well as men."

Mr. J. A. Boyd followed in reciting his prize composition in English verse, "The Atlantic Telegraph."

Both gentlemen were loudly applauded.

Medals were presented as follows:

FACULTY OF MEDICINE.—C. E. Barnhart, M. B., gold medal; J. King, M.B., silver medal; W. S. Francis, M.A., M.B., silver medal.

FACULTY OF ARTS.—Greek and Latin, W. H. C. Kerr, Gold medal; do., H. Tassie, silver medal. Mathematics, J. L. McDougall, gold medal. Natural Sciences, J. Mitchell, gold medal. Met., Ethics, and Civ. Polity, R. Sullivan, gold medal; do., J. W. Holcomb, silver medal. Modern Languages, R. Sullivan, silver medal; do., B. F. Fitch, silver medal; do., J. L. McDougall, silver medal.

M. D. Waters received a prize for proficiency in Oriental languages; and Mr. J. E. Farewell, in Agriculture.

The following gentlemen received scholarships in their various departments:

FACULTY OF LAW.—Matriculation, D. McLennan, H. Wethey, F. A. Reid, W. R. Meredith; second year, T. H. Spencer.

FACULTY OF MEDICINE.—First year, J. Bolster; second year, A. Hudson; third year, W. W. Oden, E. Playter.

FACULTY OF ARTS.—GREEK AND LATIN.—First year, J. Loudon (double), S. Woods (double); 2nd year, W. Reeve, J. B. Ross; 3rd year, J. T. Fraser (double), W. H. C. Kerr, B. A.

MATHEMATICS.—1st year, J. Loudon (double), T. Kirkland, J. Fisher; 2nd year, J. Thom, D. Ormiston (double); 3rd year, A. McMurchy, J. L. McDougall, B. A.

MODERN LANGUAGES.—1st year, S. Woods (double), J. M. Gibson; 2nd year, D. Ormiston (double); 3rd year, J. A. Boyd, J. T. Fraser (double), R. Sullivan, B. A., (double.)

NATURAL SCIENCES.—1st year, W. Roger (double), D. B. McCool; 2nd year, A. Grant; 3rd year, S. J. Wadsworth, B. A., J. Mitchell.

ETHICS, MET. & CIVIL POL.—2nd year—G. Grant, (double), T. B. Livingstone, I. O. Oden, R. Sullivan, B. A. (double), J. W. Holcomb, B. A.

GENERAL PROFICIENCY.—1st year—N. McNish; 3rd year—D. A. Sampson.

ORIENTAL LANGUAGES.—1st year—W. Rogers; 2nd year—G. Grant; 3rd year—J. White.

THESIS FOR M. D.—L. S. Oile, M. A., M. B., and T. Miller, were the successful prizemen.—Thesis for M. A.—T. Moss, B. A., was the successful prizeman.

After addresses from the President and Professors, the Vice-Chancellor and his Excellency the Visitor of the University, the proceedings closed.

Three cheers were then given for the Queen; three, and "one more," for the Governor General; three for the Chancellor, and three for Lady Head and the ladies. The assembly then dispersed. (See page 92.)

In the evening the 16th anniversary dinner of the institution was given in the Rossin House. At seven o'clock about 100 persons, graduates and under-graduates of the University sat down to dinner. During dinner, the Rifle Band, which occupied a corridor adjoining the dinner-room, "discoursed sweet music." The good things in the shape of edibles and drinkables having occupied a due share of attention, the cloths were removed and "the flow of soul" gave place to "the feast of reason." Hon. James Patton, LL.D., M.L.C., presided. To his right sat His Excellency the Governor General, and to his left John Langton, Esq., M. A., Vice-Chancellor. At the head of the table were also seated Chancellor Burns, the President Dr. McCaul, Professors Wilson, Croft, and Cherriman, Dr. Barrett, Col. Irvine, G. R. R. Cockburn, M.A., and Adam Crooks, M.A., Edward Blake, M. A.; and George Draper, M. A., filled the vice-chairs.—*Leader.*

—UNIVERSITY OF VICTORIA COLLEGE.—ANNUAL CONVOCATION.—On the 25th May the Annual Convocation of the University of Victoria College

was held in the Wesleyan Methodist Church at 2 p. m., the Rev. S. S. NELLES, A. M., President of the College, occupying the chair.

After the usual devotional exercises the following essays were delivered by the three young gentlemen who had completed the usual collegiate course and were then about to receive their degrees: "The Future," by Ashton Fletcher Woodstock; "The Poetry of Life," by D. G. Sutherland, Hamilton; and "Valedictory," by Nathaniel Burwash, Baltimore.

The following degrees were then conferred by the President in due form:

A. B.—Fletcher, Aston; Sutherland, Donald G; Burwash, Nathaniel.

M. D.—Yeomans, Aug. A.; Caw, David; Johnson, Jas.; Burtch, John; Marlatt, J. W.; Mullin, John A.; Metherell, George W.; Wilson, George D.; Gates, Edward H.; Rosebrugh, Abner M.; Tegart, Edwin H.; Fitzsimons, George; Davidson, Peter; Walden, John W.; M'Crea, Jas. N.

M. D. (*ad eundem*)—Dr. Geikie, Dr. Canniff.

M. A. (*hon.*)—Rev. Hugh J. Borthwick, Rev. John Gilchrist Wilson, London, England.

M. A. (*ad eundem*)—Prof. W. Kingston.

LL. D. (*hon.*)—Hon. John Rolph, M. D., Dean of Medical Faculty.

An able address was then delivered to the young medical graduates by Professor Berryman, M. D., of Toronto. The Hon. Dr. Rolph at the request of the President, addressed the assembly. His remarks were well received.

The Convocation closed with the benediction, pronounced by the Rev. Dr. Green.

The exercises of the day were pleasantly concluded with the usual farewell supper at the College—at which the graduates and ex-students, who enjoyed themselves greatly, many of them speaking most happily of the past, Messrs. W. W. Dean, and Byron Britton, of Belleville, the Rev. W. R. Parker, and our esteemed townsman, Mr. Wm. Kerr, being of the number, the distinguished President himself leading the way, his words sparkling every now and then with characteristic humor. Prof. Berryman, M. D., and Dr. Canniff also spoke in harmony with the occasion.

We were glad to observe upon the platform, Dr. Harris, who has lately arrived from Europe.—He will take his place in the College next August, as Professor of Modern Languages. He has just graduated as "Doctor in Philosophy" in the University of Gottingen.—*Cobourg Star.*

—COBOURG TEACHERS' ADDRESS TO THE REV. JOHN BREDIN.—On the occasion of his leaving Cobourg, the Teachers in the vicinity presented Mr. Bredin, who had acted as the President of their Association, with a complimentary address. The History class of Victoria College also presented him on leaving with a valuable selection of English Classics.

—PRESENTATION TO M. C. HOWE, Esq., B. A.—The pupils of the Toronto Grammar School yesterday presented the Head Master of that Institution, M. C. Howe, Esq., A. B., Trinity College, Dublin, with a complimentary address, preparatory to his departure for Dublin. The recipient of this mark of the esteem of those under his charge responded in suitable terms to the very flattering address thus offered, and was evidently much affected at the tribute made him.

—UNIVERSITY OF QUEEN'S COLLEGE, KINGSTON.—The seventeenth session of this Institution closed on 26th May. The morning, from 9 to 12 o'clock, was devoted to public examinations of the students in the various classes, in the lecture room or hall of the new building recently erected. At noon the Principal, Rev. Dr. Cook, conferred the degree of Bachelor of Arts upon the following gentlemen:—John Agnew, Kingston; William B. Curran, Kingston; Alexander Dawson, Niagara; Herbert S. Macdonald, Gananoque; Duacan McDonald, Nova Scotia; John K. McMorine, Ramsay; Walter Ross, Nova Scotia; James Somerville, Kingston; James McCaul, Kingston; and Finlay F. M. McNab, Elmsley.

The following gentlemen were then invested with the degree of Doctor of Medicine:—Francis W. Bird, Belleville; Arthur R. Boyle, St. Catherines; George Campbell, Niagara; William R. Cluness, Williams; H. W. Day, Kingston; Charles F. Ferguson, Kitley; Robert J. Foster, Kingston; William Henderson, Williams; Robert Lambert, St. Catherines; John B. Morden, Kingston; Caird R. McLean, Kingston; and George S. Sparham, Waterloo.

The Principal then read a brief address in which he congratulated the Institution on the successful progress which it had made and on its growing importance, and complimented the several professors upon their ability and devotion to the interests of the Institution. The Session was closed with the benediction.—*Chronicle and News.*



—CONVOCACTION OF THE UNIVERSITY OF MCGILL COLLEGE, MONTREAL.—  
This Assembly took place on the 4th May. The Convocation Hall was crowded with a large and fashionable audience, and the friends of the University and of the graduates.

The Hon. C. D. Day, President of the Board of Governors, occupied the chair. W. B. Lambe, Esq., B.C.L., was elected Fellow to represent the Graduates in Law; T. W. Jones, Esq., M.D., Fellow to represent the Graduates in Medicine; and B. Chamberlain, Esq., M.A., B.C.L., to represent the Graduates in Arts.

The following is a list of those who took the degree of B.A., and the prize men and honor men in the Faculty of Arts:—Messrs. James Kirby, James L. Mason, Corydon J. Mattice, William Morris, and Edson Kemp received the degree of B.A.

The following gentlemen received the degree of Graduate in Civil Engineering:—McLennan, Barnston, B.A., (Chapman Medallist of 1857,) and Crawford. Mr. James Kirby won the Chapman Medal, the highest honor to be won by a Graduate in Arts.

The following gentlemen received the degree of B.C.L.:—Zepherin Gauthier, F. J. Damase Ricard, Charles Ambroise Pariseault, Edson Kemp, B.A., Robert A. Leach, B.A., John L. Morris, Telesphore LaRose and John Robert McLaren. The degree of Doctor of Medicine was conferred on the following gentlemen:—Andrew W. Hamilton, Irvine Bogart, William Rumsey, Robert W. Carrol, Linus O. Thayer, Edward W. Smith, Philippe Giroux, Stephen Wright, William M. H. King, James McIntosh, George W. Hurlbert, E. G. Provost, E. J. Roberts, James Stephenson, J. J. O'Dea, W. A. Duckett, Samuel Street Macklem, Thomas Keeler, Samuel Arthur Carter, John Rambaut, Walker H. Marr and Patrick O'Leary.—*Gazette.*

## XI. Departmental Notices.

### NOTICE TO GRAMMAR SCHOOL MASTERS.

The vacations in the Model Grammar School have been lately altered so as to allow an opportunity to Grammar School Masters of visiting the school during their own vacations. The sessions, will in future, extend from the Monday after Easter until the fourth Friday in July, and from the Monday following the end of a seven weeks' vacation from that day until the 22nd of December. On the 7th of January the School again resumes.

### NORMAL SCHOOL.

The present session of the Normal School closed on the 22nd June. The next session of the school will commence on the 8th August. Application for admission should be made in person not later than the first week of the session.

### POSTAGE REDUCED ON TRUSTEES' RETURNS.

The Hon. the Postmaster General has recently issued the following circular notice to Postmasters in Upper Canada: "The Half-Yearly School Returns made by School Trustees to the Local Superintendents of Schools, may, though the printed form be partly filled up with the names of the pupils and the days of attendance, in writing, be transmitted by Post, in Canada, as printed papers, at one half-penny each, to be prepaid by Stamps."

### DELIVERY OF THE JOURNAL OF EDUCATION.

#### SUGGESTIONS TO LOCAL SUPERINTENDENTS.

Numerous complaints having reached this Department of the non-receipt at various Post Offices of the *Journal of Education*, application has been made to the Post Master General's Department to have the evil remedied. The Post Office authorities express their willingness to co-operate in the matter, and a circular notice has been issued on the subject. As several Post Masters are at a loss how best to facilitate the delivery of the *Journal* to the School Corporations to which they are addressed, we would suggest to the various Local Superintendents that it might be well for them to confer with the several Post Masters in their neighbourhood, and afford them every information in their power as to the proper localities and parties to whom the *Journal* should be delivered. It will still go free of postage.

### SCHOOL MANUALS AND HALF-YEARLY RETURNS.

During last month, a Supply of School Manuals and Half-Yearly Returns were sent to the County Clerks, for gratuitous distribution by the Local Superintendents to the various rural Trustee Corporations. The Manuals for Cities and Towns, and for Grammar Schools are not yet ready for distribution.

### SCHOOL REGISTERS.

School Registers are supplied gratuitously, from the Department, to Grammar and Common School Trustees in Cities, Towns, Villages, and Townships by the County Clerk—through the local Superintendents. Application should therefore be made direct to the local Superintendents for them, and not to the Department. Those for Grammar Schools will be sent direct to the head Masters.

### PUBLIC SCHOOL LIBRARIES.

"Township and County Libraries are becoming the crown and glory of the Institutions of the Province."—*Lord Elgin at the Upper Canada Provincial Exhibition, September, 1854.*

The Chief Superintendent of Education is prepared to apportion one hundred per cent. upon all sums which shall be raised from local sources by Municipal Councils and School Corporations, for the establishment or increase of Public Libraries in Upper Canada, under the regulations provided according to law. Prison Libraries, and Teachers' County Association Libraries, may, under these regulations, be established by County Councils, as branch libraries.

### SCHOOLS MAPS AND APPARATUS.

The Chief Superintendent will add one hundred per cent. to any sum or sums, not less than five dollars, transmitted to the Department by Municipal and School Corporations on behalf of Grammar and Common Schools; and forward Maps, Apparatus, Charts, and Diagrams to the value of the amount thus augmented, upon receiving a list of the articles required. In all cases it will be necessary for any person, acting on behalf of the Municipality or Trustees, to enclose or present a written authority to do so, verified by the corporate seal of the Corporation. A selection of articles to be sent can always be made by the Department, when so desired.

### PRIZES IN SCHOOLS.

The Chief Superintendent will grant one hundred per cent. upon all sums not less than five dollars transmitted to him by Municipalities or Boards of School Trustees for the purchase of books or reward cards for prizes in Grammar and Common Schools. Catalogues and Forms forwarded upon application.

### EXAMINATION OF COMMON SCHOOL TEACHERS, COUNTY OF YORK.

NOTICE IS HEREBY GIVEN, That an Examination of Common School Teachers and others will take place on TUESDAY, the 2nd day of August, 1859, at the County Court House, City of Toronto; at Richmond Hill, and at the Village of Newmarket, at 9, A.M. Candidates will be required to produce Certificates of moral Character, from their respective Ministers; and, if Teachers before, also from their respective Trustees.

JOHN JENNINGS, D.D.,  
Chairman.

County Council Office,  
Toronto, 1st July, 1859.

SCHOOL SECTION SEALS, as required by the Education Office, Engraved and transmitted by Post (free) on receipt of \$2. Address  
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All communications to be addressed to Mr. J. GEORGE HODGINS,  
Education Office, Toronto.

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