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**The Teachers' Conference at Geneva.**

On the first morning of the Conference the teachers present, to the number of nearly fifteen hundred, formed themselves into a long procession, and marched through the principal thoroughfares of Geneva, preceded by a band and the federal flag. The first question proposed was the following "What are the duties of the teacher towards society, and what are the duties of society towards the teacher?" This gave rise to a debate, which resulted in the presentation of eleven reports from the various sections. These reports have been condensed and combined by Professor Verchère into one general report containing the following conclusions:—

1. The business of the primary teacher is to give to the young an education and instruction calculated to form them into moral and enlightened men.
2. He ought, therefore, to possess certain qualifications—physical, moral, and intellectual.
3. Amongst his physical qualifications, an essential one should be a good state of health, which should be maintained by a wise *hygiene*.
4. With reference to his moral qualities, the schoolmaster's character should in all respects be such as to obtain for him the confidence of families, the affection of

children, and the respect of the public. Elevated piety, exemplary morality, devotion to duty, a serious view of his mission, sincere attachment to children, a spirit of good will and conciliation in his social relations, ardent sympathy—marked by disinterestedness and modesty—with everything that may contribute to the welfare of the people: complete dignity of bearing, of manner, and of language,—these are the traits, which, taken together, should represent the moral character of the schoolmaster.

5. As to his intellectual qualifications, the public has a right to demand from him a substantial and varied fund of knowledge acquired by previous instruction, and maintained and extended during his whole career. An enemy to mere immoveable routine, he should welcome the progress realised by others, he should essay new methods of instruction, and search out for himself improved plans of procedure, remembering that a fundamental qualification of the teacher is to know how to reach the heart and intelligence of his pupils.

6. In school he should direct his attention, not only to instructing the young in various branches of knowledge, but also to inculcating sentiments of piety and virtue, love of work, and devotion to their mother country.

7. Out of school also there are different ways in which he should be actively employed. He should keep up friendly relations with the parents of his pupils, in order to secure their concurrence and support; he should aid with counsel and sympathy adolescent youth; he should enlighten the surrounding population to the best of his ability; and should lend his support to all useful undertakings that have for their aim the general good. He should also place himself in perfect accord with the authorities, political, scholastic, and religious.

In return for all this society is under numerous obligations to the teacher.

1. Children are bound to be respectful, obedient and affectionate towards him. The best mode of testifying their recognition of this duty is to carry out in practice the instructions that he may give them.

2. The co-operation of the family is indispensable to render fruitful the work of the school; and it is necessary that parents should themselves set an example of respect, confidence, and kindness, towards the educators of their children.

3. Society, and the authorities that represent society, should promote the work of instruction by taking all measures necessary for the good of the school; by aiding the master in questions of discipline; and by protecting him against all vexation, political or religious.

4. The teacher has a right to be guaranteed against arbitrary "deprivation."

5. The income of the schoolmaster should be sufficient to enable him and his family to live in comfort. The exigencies of the present day involve the necessity of raising his stipend above what it has been in the past.

6. A retiring pension should be assured to a teacher in his old age, or to his family in case of his premature decease.

7. Schoolmistresses are entitled to these advantages equally with schoolmasters.

8. Inasmuch as military service is but little compatible with schoolwork, it is desirable that teachers should be exempt from it.

9. The authorities to whom the work of inspection appertains should carry out their functions with serious and sustained interest, and in an enlightened, large-hearted and kindly way, free from everything like partiality.

10. The State ought to facilitate the work of recruiting the ranks of the teacher's profession, and to furnish resources for their intellectual and professional improvement, by the creation of such establishments or auxiliary institutions as Normal schools, courses of instruction in school-management, libraries, meetings, and conferences.

#### Model Schools and Model School Teachers in Ireland.

The Model Schools of Ireland have justly earned the reputation of being equal—if not superior in many respects—to the best institutions of the same character either on the Continent or in Great Britain. In point of discipline, tone, and the competitive ardour which pervades those establishments in conveying instruction—both RELIGIOUS and *secular*—they cannot be excelled. There are many reasons which combine to produce those results. In the first place the Schools are provided with all the modern appliances which are necessary to the mental and physical development of the youth of the nation. Secondly, they are conducted by a class of Teachers who have been specially trained for their work, and of whom it is not too much to say that perhaps in no country—not even in Germany—can an equal number of persons be found amongst an equal population possessing similar qualifications and such solid attainments. In saying this we are far from disparaging the excellent teachers who conduct the ordinary National Schools. On the contrary, we believe the Model School Teachers would be amongst the first to point out, acknowledge, and recognise the cleverness and professional ability of some of our ordinary School Teachers. Furthermore, we are aware that it is the anxious desire of the former to have the avenues to the Profession more strictly guarded, and not so easy of attainment as at present. In this wish we most earnestly share and we sincerely trust that the Resident Commissioner (P. J. Keenan, Esq., C. B.) will soon have both the leisure and the opportunity of making the profession of School-Teacher an object of honorable ambition to young men of energy and refinement, by causing every aspirant to pass a *strict* examination, and by guaranteeing each successful candidate a fair salary. Another circumstance which contributes to secure a high educational standard in the Model Schools,

is that they are located in our most populous centres, consequently the wealthier classes are induced to take advantage of them, and the parents being in a position to keep their children continuously at school, a very regular attendance is secured, and this fact in its turn becomes an element in conducting to the superior excellence of the Irish Model Schools. Henceforward, the vacancies on the staffs of these institutions are to be filled by competition, and we trust that this boon, placed at their disposal by Mr. Keenan (for these situations were in the gift of his predecessor), will be eagerly contested by the qualified teachers of ordinary National Schools. It affords us sincere pleasure to observe that the Model School Teachers are coming to the rescue of their humble brethren to have their grievances redressed. The pension grievance affects both classes in an equal degree, and we believe this is the common ground upon which they take their stand. The kindly feeling which is one of the most beautiful traits in the Irish character, could no longer be smothered, or held in abeyance by the force of official reserve. The Model School Teachers saw the bravery, the energy, and the devotedness of their brethren, and their sympathy, moral and practical, could no longer be withheld. Their very natures forbade it. It must, indeed, be galling to men of understanding and of worth to witness the trials against which the ordinary School Teachers have been helplessly struggling for years—often despised, shunned, and sneered at; but thank God! it has at length come to this, that the Model School Teachers *do* sincerely sympathise with the National School Teachers. The staff of the Central Model Schools has given practical proof of this sympathy, by nobly and generously subscribing to the funds of the Central Committee; so have the staff of the Ballymena, and Bailieboro' Model Schools. Will the others now remain silent?—there is not the smallest fear that they will. The same generous spirit will stimulate each to push the good work of *Pensions* ahead. The National Teachers are already preparing petitions, and negotiations with the Government, hence the pension question is the common ground for action, and it may be assumed that all will be treated upon the same basis. Indeed, we are not quite sure but there are precedents for pensioning Model School Teachers, and we would like to know where can the line be drawn. The results already achieved are, however, both cheering and gratifying, and must tend to fill, with renewed hope and courage, the Spartans who during four years have held aloft the banner upon which was inscribed *Victory or—*. The first blow is half the battle. It is not enough, however, that the beleaguered city should hoist a flag of truce and cry out "Mercy!"—even though the garrison should surrender, the besieging force will not rest satisfied. Let the treasury yield up a portion of its gold. Plenty fills the land, but gold is needed to buy it. The veterans amongst the victorious need rest, and must be made happy and contented, each beneath his own fig tree, ere his youthful brothers cry out *paccavimus*. Our banner still gracefully waves on the walls of the city, our conditions, which are neither immoderate nor impossible, are well known to the besieged. Those terms, simply are—suitable rewards for honest labour, in addition to our present wretched remuneration; pensions for the veterans whom we love, and who have fought side by side with us; and lastly, for each one, young and old, a home of his own wherein to rest when his daily labour is ended. Then, the "good time" that has been so long coming, will have arrived, and every National School in Ireland, we hope and expect, will become a Model School.—*Irish Teachers' Journal*.

### The English School Law.

A curious case in connection with the English School law has lately been decided by a London Magistrate, before whom it was brought. As our readers are aware, the English School Law has a compulsory clause, requiring, under pain of prosecution, every parent to have his children at some school. Under this clause a man was brought before a magistrate for not sending his boy to school. He pleaded in defence that he *did* send him. The boy was at a "dame's school" with some other 180 children. The "dame" could only teach the alphabet and monosyllables. She could neither write nor spell. Her husband, who got seven shillings a week from some parochial charity, assisted by teaching writing. Still, however humble this institution, the magistrate ruled that the act did not require any efficiency, (!) and that consequently the man's plea was a good one. This case gives a glimpse of what we fear is too common all over England.—*Quebec Gazette.*

### Old Colonial Currencies.

By S. E. DAWSON.

(From *The Canadian Monthly.*)

However true it may be that the history of European nations is merely the biography of a few great men, such an assertion cannot be made concerning the history of America. Hence the history of the New World, though it may lack the strong personal interest which attaches to the record of great kings, statesmen, or generals, has the surpassing interest of being the record of experiments, political, social and religious, of some of the most highly gifted races of Europe, made under conditions of singular freedom, both from the straitened forms of old world society, and from the dominating individuality of great men. Social experiments in America have succeeded or failed in consequence of their inherent virtues or defects, and have not been strained by outward pressure beyond their natural limits. Our present purpose is to chronicle some of the experiments which have been made in the New World in the important department of finance. We do not hope to establish any theory of money, or elicit any new principle. Experiments are still being made, and, doubtless, the true theory will in time appear.

In America, within a comparatively short period, every conceivable form of currency has been tried. The accounts of the New Netherlands (now New-York State) were, in 1662, kept in wampum and beaver skins. That currency does not appear to have been more stable than others; for, in that year, complaints were made of its increasing depreciation, and the Chamber of Commerce at Amsterdam credited all its colonial officials with twenty-five per cent. additional salary in beaver skins to cover their loss, a precedent too seldom followed in later and more progressive times.

During the earliest period of the history of the English colonies whatever exchanges were not made by barter were made in a specie currency, consisting mainly of French and Spanish coins. These, being much worn and depreciated by constant clipping, were often weighed out in primitive style, and settlements were made, and salaries fixed, in ounces of silver-plate. Curious complaints were made to the Home authorities, and recriminations were frequent between the colonies regarding the clipping and defacing of coins. The dollar or piece of eight reals, passed at a different rate in each colony and the colonial legislatures all fancied that the best way of attracting

money was to raise its nominal value. Competing traders, even in the same colony, vied with each other in giving the highest nominal value to the dollar. Pennsylvania endeavoured to draw money from New York by calling the legal value of a dollar 7s 6d. New York had previously made the same attempt on Massachusetts by fixing upon 6s. 9d. and New Jersey got the better of both in the current opinion of that day by allowing 7s. 8d. for the same coin. These rates varied by colonial enactment from time to time, and Governor Hunter, of New Jersey, writing to the Board of Trade at London, "doubts if it be in the power of men or angels to beat out of the heads of the people of this continent a silly notion that they gain by the augmentation of the value of pieces of plate," (*i. e.* dollars.) This notion is held to the present day in Prince Edward Island where it is still supposed that money stays upon the Island because the nominal value of the shilling sterling is 1s. 6d. currency. The Boston people of those days were not, however, so easily beaten, although they kept the value of the dollar below the rate in the other colonies. One of the Governors of New York makes earnest appeal to London against them, "because having the main foreign trade, they bring goods to New York which they will sell only for good heavy money, which they carry away and clip, and then send back this light money to New York for bread-stuffs, which they ship to the West Indies and undersell the New Yorkers there in their own productions." The indignant governor calls loudly for the interference of the Mother country to check those singular financial operations of the lively Bostonians. Throughout all the correspondence between the colonial governors and the Mother country the necessity of one general standard of value was continually urged, and the efforts of the Home Government and their officers to that end were as continually and pertinaciously thwarted by the colonists in their various assemblies.

Still at that time, the currency, such as it was, was of gold and silver. Schuyler and Dillon, who made an expedition into Canada in 1698, report with apparent surprise that the currency consisted of paper only, but the power of paper currency was shortly after discovered by the English colonists, and Massachusetts, as usual, took the lead. Although the need of it was not so much felt in the town of Boston, which had a large foreign trade, the people elsewhere were often in great straits for the want of some medium of exchange. The colonists could live in a rough sort of abundance—they had no need for food or shelter; but the pressing wants of existence being easily satisfied there soon arose a demand for Manufactured goods—the luxuries of the old world. Moreover, the settlers were continually extending their boundaries—and subduing new land, and their capital was thus being fixed as fast as acquired, consequently they were always heavily in debt to the Mother country, the exportable money was incessantly swept away to England by the adverse balance of trade, and large communities were frequently reduced to barter, for want of a common measure of value.

The Navigation Laws, so far as they were observed, tended greatly to increase this inconvenience by compelling, or seeking to compel the colonies to trade with England alone, and thus aiming to centre in England all the profits of both sides of the American trade. The staples of America, such as tobacco, indigo, and (from the West Indies) sugar, could be exported to no other European port but England; they might be sent to other British colonies but only on payment of an export duty. The colonists could legally import manufactured goods from England alone thus paying the price demanded by the English merchant, while their own exports could not

bring in the often glutted English markets their fair value in the markets of the world. No wonder, then, that the available money always gravitated towards England, and, if it had been possible to have enforced these laws strictly, the Americans could never have had any money with which to eke out their remittances in produce.

These laws were, however, in practice almost wholly disregarded. There grew up between the commercial colonies and the foreign West Indies and Spanish Main a large and lucrative traffic. The Boston merchants pushed their ventures everywhere, and the surplus produce of the colonies—the lumber, fish, and grain, found a near and ready market in the Spanish colonies of the Gulf of Mexico. There they were exchanged for specie—the gold and the silver, which were staple exports of Mexico,—and hence the coins of Spain, the doubloon, and especially the dollar, became the standard coins used in American trade, although the nominal currency was calculated in pounds, shillings and pence. With the money so obtained remittances were made to England; for the Spaniards had little of which the colonists stood in need. The English trade was thus fed by a systematic infraction of English law, connived at by everybody, so long as the French power remained unbroken in Canada. When that fell the latent divergence of interest became apparent, and the attempt of Parliament to stop this illicit trade by enforcing the Navigation Act was the real cause of the American Revolution—the Stamp Act was the pretext.

The specie thus obtained and the heavy tobacco remittances from Virginia could not pay the debts of the colonists and leave sufficient money for domestic use. The colonists were always pushing their settlements, westward, and the drain of money to England was continual. Moreover, the incessant wars with the Canadians and with the Indians often demanded great exertions from the Colonial Governments. Then the wonderful power of paper money was called into requisition. The various Governments (Virginia excepted) issued Bills of Credit for five shillings and upwards; with these they tided over great emergencies, and, as they became accustomed to them, they paid with these current expenses of Government. It seemed to the colonists that they had discovered a new El Dorado. In some colonies loan offices were opened by Government, and these bills loaned to private parties on land security at interest. In Rhode Island the interest might be paid in hemp, flax, or other produce, so that in appearance the Government derived an ample revenue without imposing a tax. The bills were made a legal tender, and as fast as one set of bills matured, others in increased amount were issued. The Government and the people were mutually accommodated, the currency passed readily from hand to hand, satisfying all the domestic exchanges and causing for years a great apparent prosperity; but the inevitable result followed. There was no limit to the issue but the moderation of the people who were the issuers. In 1738 one specie dollar in Massachusetts would buy five, in North Carolina fourteen, and in South Carolina eight, paper dollars. Massachusetts, ever in advance, was the first to push these issues to the utmost, and the first to abandon them. The great efforts made by that colony in 1745 in fitting out the expedition which resulted in the capture of Louisbourg, brought the currency and credit of the Province to its lowest ebb; and the evils of unrestrained paper issues became so apparent that when England, exulting in the prowess of her daughter colony, refunded the cost of the expedition, the grant was used to place the currency upon a specie basis, which continued until the Revolution. The Government bought up all

its outstanding bills by paying one Spanish dollar (six shillings legal par value) for every 45s. of the older, or 11s. 3d. of the more recent issue. This somewhat sharp financial operation was justified by the consideration that, the bills being no longer in possession of the original holders, and being largely depreciated, to pay their nominal value would be to impose a tax upon the people, to which the "people" generally objected.

The other colonies (Virginia excepted) never afterwards obtained a specie currency. Pennsylvania in 1773 issued a small quantity of paper at five years date. In 1729 Benjamin Franklin was one of the most strenuous advocates for a further issue. His pamphlet "Considerations on the Necessity and Value of a Paper Currency" largely influenced public opinion, and the printing of the issue which was entrusted to him probably tended to strengthen his convictions. Writing in his later years he confesses, however, that his views had changed, and that paper money might be abused; but the current theory among the people then was, that as gold was a representative of value, so paper was a representative of gold, and of value, by a double substitution. So firmly wedded did the people become to paper money that even in Massachusetts, when the Assembly were making efforts to return to a specie basis, riots occurred among the country people, who fancied it was a plot of the rich Boston merchants to sweep up all the money for their English remittances.

Paper money being as before stated, a legal tender in most of the colonies, strange feats of finance were performed. Instead of remitting to England, payment was often made to a resident agent, who would be compelled to receive the amount in paper at its nominal value. Sometimes the debtor class would get control of the issues, then money would be abundant, and mortgages, contracted in more unpropitious times, would be paid off. Again other interests would get the upper hand, issues would be checked and money would become scarce, then mortgages would be foreclosed and property brought to Sheriff's sale, when all who had ready money might buy to advantage. Specie was at a premium, varying in each colony with the amount of paper issue, and differing at different times in the same colony. The injustice became so great that in the year of the Stamp Act, Parliament passed a law forbidding Colonial Legislatures to make paper a legal tender, a law which caused great bitterness in the Middle Colonies, and which is alluded to among others in the Declaration of Independence, where the king is arraigned for "having refused his assent to laws the most wholesome, just and good."

Putting aside, however, for the present all considerations of the fluctuations caused by paper money, it must be observed that there was all the while a legal par of exchange, differing in each colony, based on a value of the pound sterling. Thus in Massachusetts £1 stg. = £1 6s. 8d. currency. In New York £1 stg. = £1 15s. 6½d. currency. In South Carolina £1 stg. = £1 0s. 8½d. currency. The sterling pound had four different values in as many West India Islands, and a yet different one in Nova Scotia and in Newfoundland. The exchange book of Colonial days "Wright's American Negotiator," was a thick octavo, giving the rates of premium up to one thousand per cent. These old currencies even now linger in the speech of the country people. In Massachusetts 16½ cents is now often called a shilling, for it was the sixth part of a Spanish dollar, which used to pass for six shillings. In New York a shilling still means 12½ cents, because the Spanish dollar, was eight shillings at legal par in colonial days; and in Ontario the same usage, inherited from the U. E. loyalists, still prevails.

In all this chaos of currencies it is pleasant to find one

fixed value which endured during nearly all the period we have been concerned with, and which, although it has disappeared in outward form, is yet present latently in every exchange calculation made even at this present day—we mean the old Spanish dollar. We have already seen how it became the almost universal coin in America, and during nearly the whole Colonial period, namely, up to the year 1772, it contained the same quantity of pure silver.

There were in circulation four kinds of dollars, viz:—"Seville pieces of eight," "Mexican pieces of eight," "Pillar pieces of eight," "Peru pieces of eight." These pieces, of the value of eight reals spanish "old plate" were called "dollars," and were all of the same weight—17 dwts. 9 to 12 grains of silver, of a standard fineness of 11 parts pure silver to one of alloy. But the legal par at which they passed differed very much in the colonies. At the time of the Revolution it was 6s. in Massachusetts, 8s. in New York 7s. 6d. in Pennsylvania, and 4s. 8d. in South Carolina. Very early in Colonial history the inconvenience of a varying par was felt by many, and the governors especially urged the Home authorities to put a stop to it. Accordingly in 1707, the sixth year of Queen Anne, an Act was passed by the Imperial Parliament, declaring the value at which foreign coins should pass in the colonies. This enactment was based upon careful assays, and fixed the value of the Spanish coins as follows:—

Seville pieces of eight "old plate,"	- 4s. 6d. Stg.
Mexico " "	- 4s. 6d. "
Pillar " "	- 4s. 6½d. "
Peru " "	- 4s. 5d. "

It was also enacted that in future the dollar should not be accounted for in any of the colonies above the rate of 6s. currency. This Statute was utterly disregarded in America, and like most other Imperial Statutes, became a dead letter. Some attempt was made in New York by the governor to enforce it but the proclamation was withdrawn, because, as the governor alleged in excuse, "it was injurious to the trade of New York to cry down the value of the dollar while the neighbouring colony of Massachusetts treated the Statute with contempt." The letters of New York officials of those days are very plaintive concerning the misdeeds of the Boston people, who seem always to have done as they liked, and to have paid no attention to an Imperial Statute which might not meet their approval. This Statute had, however, the effect of placing an authoritative value in sterling money on the coin in use in America.

The value of the Spanish dollar was based not only upon its weight and fineness, but, of course, upon a comparison with the weight and fineness of the British silver coins then in use. The standard remained unchanged for silver in England from the time of Queen Elizabeth to the year 1816. One pound of silver of the fineness of 11 oz. 2 dwt. was coined during all that period into £3 2s. 0d. stg. There were therefore 5,328 grains of pure silver in 62s. stg., and the dollar contained 385 grains pure. The proportionate value of the dollar is then easily seen to have been 4s. 5½d. precisely, and as, at that time, the standard value of silver was in reality less than its commercial value, 4s. 6d. was fixed upon by the Statute. This was practically underrating the dollar, and as fast as they arrived in England they were sold as specie and exported.

It thus happened that the par of 4s. 6d. stg. to the dollar became a fixed standard, to which all American values could be referred. And such it has continued during 164 years down to the present day, for this is PAR, or \$4.444 to the £ sterling. It is sometimes called old par—it

is the par with which all our books of exchange tables commence—the par upon which all our calculations are based, from Montreal to New Orleans. The present legal par in Canada is a 9½ per cent premium on that par. The Spanish dollar has changed, the British silver coins have changed, and the currencies of America have fluctuated, but the par of 1707 remains yet as the one fixed point in the sea of confusion.

We come now to revolutionary times. The extraordinary expedients of the Revolutionary Congress are among the best known incidents of history. The war was fought on the American side with paper money up to the time when the French expedition under Rochambeau landed, and brought the specie which was as necessary to success as bayonets. It would be tedious to narrate the steps by which the Continental money depreciated from 1000 to 1—until it finally disappeared. The leading spirits of the Revolution saw the necessity of laying direct war tax, but they could not obtain the consent of Congress. "Do you think," said a member of Congress (quoted by Greene; Historical studies) "that I will consent to tax my constituents, when we can send to the printers and get as much money as we want?" The farmer who refused to take this money for his produce was treated as a traitor, and had his property taken from him for his disloyalty, but no enactment could keep it from depreciating. Meantime the presses of the different States teemed with issues of their own during the war, and up to the period of the full consolidation of the Union in 1790. Their paper added to the volume of the currency and to the utter confusion of values.

Immediately after peace was declared the efforts of all thinking men were turned towards consolidating the Union, and for several years the proposed Constitution was discussed in every town and hamlet. But even then the lurking attachment to paper money was evident. Some of the States were unwilling to resign the right of issue, and it was not until 1790 that Rhode Island joined the Union, and its citizens finally relinquished their cherished habit of paying their debts in paper. The State Governments were forbidden by the new Constitution to make anything but gold and silver a legal tender, or to issue Bills of Credit. Inconvertible paper money from that period disappeared in America, until the Federal Government, exercising a power not apparent in the Constitution, repeated, in our own times, the experiment with happier results.

So soon as the new Constitution began to work, it was, of course, necessary to provide a revenue, and to fix values. The first Congress in 1789 passed an Act imposing Customs duties. By this Act the pound sterling was valued at \$4.44, or 4s. 6d. stg. to the dollar. Thus the old par of Queen Anne was restored, and the rate was called *Federal currency* to distinguish it from the various State currencies. Still, there was no Federal coinage, and coins from all parts of the world were taken at the Custom Houses at a statutory value. In 1782 Congress organized the United States mint, permitting the circulation of the foreign coins for three years longer, until the new national coinage should be ready, and establishing the national standards—the Eagle to be counted at \$10, and to contain 270 grains of gold of the fineness of 22 carats, and the dollar to contain 416 grains of silver 892.4 thousandths fine.

Changes in the currencies of Spain, of England, and of America now concurred to disturb the par of \$4.44. In 1772 the fineness of the Spanish dollar had fallen from 11-12ths to 10½-12ths. In 1774 silver had ceased to be a legal tender in England (in sums over £25 excepting at the rate of 5s. 2d. an ounce. The exchange between

America and England was thenceforward regulated by the intrinsic value of their gold coins alone, a change which became more apparent in 1816, when England adopted the gold standard exclusively, and made her silver coins tokens only by coining the same weight of silver into 66s., which had previously (since the year 1666) been coined into 62s. The average value of the dollar of Spanish and American coinage in 1795, 1798 and 1803 was 4s. 4d. stg., calculated at the Mint rate of 5s. 2d. sterling per ounce. In other words the par of exchange on the basis of the dollar was  $3\frac{1}{2}$  premium on old par. The Federal dollar remained unchanged until 1837, when it was reduced. The weight was made 412 $\frac{1}{2}$  grains, and the fineness  $\frac{9}{10}$ ; since that time the dollars and smaller coins were still further reduced, but without affecting the exchanges, for, as before stated, all estimation of exchange after 1793 should be made on gold and not on silver standard.

In order then to ascertain the various changes of new par since the revolution, the gold currency of England must be considered. This had been fixed by advice of Sir Isaac Newton in 1717, and has ever since remained unchanged. One pound of gold, of 22 parts pure to 2 alloy was, and is yet, coined into £46 14s. 6d.; but the Eagle, the standard American gold coin, has undergone three changes as follows:—

VALUE OF THE EAGLE COMPARED WITH THE SOVEREIGN.

Date.	Weight.	Fineness.	Weight of Fine Gold.	Value stg.	Par.	Value of Sovereign in U. S.
1792	270 gr.	Same.	247 $\frac{1}{2}$ gr.	43s. 9d.	2 $\frac{1}{2}$	4.57 £ stg.
1834	258 gr.	$\frac{890}{1000}\frac{1}{4}$	232 gr.	41s. 3d.	9 $\frac{1}{2}$	4.87 £ stg.
1837	258 gr.	$\frac{900}{1000}$	232.2 gr.	41s. 9d.	9 $\frac{3}{8}$	4.87 £ stg.

It therefore clearly appears how the present par of exchange became fixed at so large a premium upon the old par of Queen Anne.

These changes in the value of the United States coinage affected in course of time the legal par of the loyal colonies. The currency of Canada was for a long period in great confusion, for having no Colonial coinage, the coins of all nations passed at values fixed by Statute with little apparent relation to intrinsic value. The first Statute is that of 1777. In 1795 the Customs Act declares that £5,000 stg. is equivalent to £5,555 11s. 1 $\frac{1}{2}$ d. currency. The old par of 1707 was evidently then the legal par. In 1808 a Currency Act was passed enumerating the most common coins—these were French coins, remaining from the period of French rule, Spanish and Portuguese coins, and United States coins. The guinea (21s. stg.) was valued at 23s. 4d. currency, the 1s. stg. at 1s. 1d., the the Eagle at 50s., and the Spanish and American dollar at 5s. Thus the attempt was made to keep the currency at old par when reckoned in English coins, and at 2 $\frac{1}{2}$  prem. (or American par) when reckoned in United States coins. For if the guinea (21s.) was worth only 23s. 4d. currency, the eagle, which at that time was of intrinsic value for 43s. 9d. stg., could be worth only 48s. 7d. currency, instead of 50s. as enacted. The shilling sterling was undervalued as regards the dollar in the same ratio. This seems to have had the very natural effect of driving all the British coins out of circulation, and in 1825 an Imperial Order in Council was issued, fixing the value of the dollar at 4s. 4d. stg. in British silver coin, and making

provision for the introduction into the colonies of British silver in large quantities, by means of the Commissariat, and ordering that such coin should pass at its nominal value as in England. These regulations do not appear to have had much effect, for in that same year the value of the shilling was raised in Upper Canada to 1s. 2d. currency. In 1836 the same Province again raised the value of the shilling stg. to 1s. 3d. currency, and also fixed the value of the pound sterling at 24s. 4d., assimilating the legal par to the change of 1834 in the United States par, but over-valuing the sterling shilling.

An effort was made in 1839 by both Provinces to remedy this anomaly, but the bills passed failed to receive the Royal assent, and it became one of the first duties of the Parliament of United Canada in 1841 to remedy the confusion. The par of 24s. 4d. to the £ stg. was retained, but the silver was reduced to its proper proportionate value, and could only be used as a legal tender to the amount of 50s. currency. The convenience of easy reckoning and the competition of traders still kept up the current value of the British shilling to 1s. 3d. in spite of the Act, and the currency gradually became overloaded with British silver.

The subsequent changes in our currency are too recent to require much notice. The dollar which in 1841 had been raised to 5s. 1d. was reduced in 1850 to 5s. And in 1851 the decimal system displaced the intricate and cumbersome denomination of pounds, shillings and pence. Every reader will recall the circumstances which led to the pouring of all the United States silver coinage into our already overloaded silver currency, and the various expedients vainly resorted to for relief until the effectual remedy of the then Minister Finance, Sir Francis Hincks, was applied. The Act of 1854 fixed our currency on its present basis, confirming the par of 1841 of \$4.86 $\frac{66}{100}$  or 24s. 4d. currency to the £ stg. or 9 $\frac{1}{2}$  per cent premium on the par of Queen Anne.

The Confederation of the British North American Colonies and the consequent extension of the Canadian par has left but two anomalous currencies among the English speaking people of this continent. In Newfoundland the par of 4.80 to the £, or 8 per cent premium prevails, and the little Island of Prince Edward still rejoices in the enormous premium of 35 $\frac{1}{2}$  per cent or 30s. to the pound stg. We may surely hope that the time will shortly arrive when, not only these anomalies will disappear, but when the mother country will adopt a decimal system which will facilitate computation, and thus increase trade with all her children throughout the world.

#### Change of Conventional Basis of the Par of Exchange.

Since the foregoing article on "Old Colonial Currencies" went into type, we have received "*The Christian Union*," New York, in which we find the following:

A recent Act of Congress overthrows that long-established law of exchange which makes 4 dollars 44 cents and 4 mills equal to one £ sterling. The value of the £ at the United States Mint will, after the 1st of January next, be 4 dollars 86 cents 6 $\frac{1}{2}$  mills in American gold coin. The conventional basis of \$4.444, though easy to remember, has always been inaccurate. After next New Year, then, the actual par of exchange will be 100 per cent., whereas its conventional value under the existing custom is 109 $\frac{1}{2}$  per cent. The quotations will, after that date, be at a discount or at a premium according to the ruling of the market, instead of as at present. Thus, what we now call 107 $\frac{1}{2}$  per cent. will be about 98 per cent., and what we

call 110 per cent. will be about 100½ per cent. Our readers may like to know that by the new United States' coinage law the unit of value is the one-dollar gold-piece, whose lawful weight is twenty-five and eight-tenths grains. The other legal coins are the quarter-eagle, the three-dollar piece, the half-eagle, the eagle, and the double-eagle. The section of the law thus regulating the values contains a clause which is making a deal of trouble for the Custom-houses and Sub-Treasuries, but especially for those in this city, where the transactions are so large. The special circular interpreting the law directs assistant-treasurers and others to receive coin when tendered, and to give a conditional receipt therefor, at its nominal and estimated value. The coin must then be sent to a mint for examination, after which its exact value in coin of full weight will be returned, or credited to the officer from whom it was received. When it is considered that from all sources some \$300,000 in coin is daily received at the New York Sub-Treasury it will be readily understood that an enormous amount of labor is needed, for every piece must be actually tested, and the weighing of one in ten thousand dollars in quarter eagles is regarded as the most that one man can do. Last week the Treasurer had to refuse to receive gold from the banks, and these in turn are inconvenienced by the lack of certificates. The object of the law is to remove light coins from circulation, and it will doubtless effect this in the end, but large holders of coin, including the Government itself, must lose heavily in the process. It has heretofore been the practice for this, and, we believe, of other governments, to receive at its nominal value all coins which have apparently been worn out merely in circulation, and the detection of coin which had been tampered with fell to the lot of experts.

**Convocation of McGill University.**

CONFERRING OF DEGREES IN LAW AND MEDICINE.

At the annual public meeting of Convocation for the conferring of Degrees in Law and Medicine, held in the William Molson Hall, at three o'clock in the afternoon of 28th ult., the Hon. C. D. Day, Chancellor of the University, presided. There were present:—

Governors—John H. R. Molson, the Hon. Justice Torrance.

Principal—J. W. Dawson, LL.D., F.R.S., F.G.S., Vice-Chancellor.

Fellows—George W. Campbell, M.A., M.D.; Alexander Johnson, LL.D.; Rev. George Cornish, LL.D.; Rev. Henry Wilkes, D.D., LL.D.; John Reddy, M.D.; Samuel B. Schmidt, M.D.; Rev. John Jenkins, D.D.; William Wright, M.D.; J. J. McLaren, B.C.L.

Secretary, Registrar and Bursar—W. C. Baynes, B.A.

Professors—William E. Scott, M.D.; Robt. P. Howard, M.D.; Charles F. A. Markgraf, M.A.; D. C. McCallum, M.D.; Robt. Craik, M.D.; G. E. Fenwick, M.D.; Joseph M. Drake, M.D.; J. S. C. Wurtele, B.C.L.; Wm. H. Kerr, Esq.; Gonzalve Doutre, B.C.L.; George F. Armstrong, M.A., C. E., F.G.S.; Gilbert P. Girdwood, M.D.; Rev. J. Clark Murray, George Ross, M.D.

Lecturer—Bernard L. Harrington, B.A., Ph. D.

Also the following members of Convocation:

The Most Reverend the Metropolitan and Bishop of Montreal, D.D.

Doctor of Laws and of Civil Law—Rev. Wm. Bond, M.A., Dean of Montreal.

Doctors of Medicine—John Bell, Wm. E. Bessey, George W. Major, B.A., William H. Mondelet, John S. Proudfoot, Thomas G. Roddick, Thomas A. Rodger, Linus O. Thayer.

Bachelor of Civil Law—Charles Cushing.

The proceedings having been opened by prayer by the Rev. Dr. Cornish, the minutes were read by the Registrar.

The award of prizes and honors to Students in Medicine followed. The following statement was read by Dr. Campbell:—

PAST SESSION.

The total number of Students in the past Session was 154, of whom there were from

Ontario.....	85
Quebec.....	53
United States.....	10
Nova Scotia.....	3
New Brunswick.....	2
Prince Edward Island.....	1
	154

The number of Students who passed their Primary Examination, which includes Anatomy, Chemistry, Materia Medica, Institutes of Medicine, and Botany or Zoology, was 35, alphabetically arranged as follows:

- Bigelow, Horatio C., Boston, Mass, U. S.
- Cameron, James C., Montreal, Q.
- Chevalier, Nap. E., St. Gregoire le Grand, Q.
- Cline, John D., B. A., Cornwall, O.
- Cutter, F. A., Hopkinton, New York, U. S.
- Harvey, Wellman A., Newbridge, O.
- Henderson, Edward G., Belleville, O.
- Hickey, Samuel A., B. A., Aultsville, O.
- Hockridge, Thomas G., Bradford, O.
- Hume, William L., Leeds, Q.
- Jones, Charles R., Hastings, O.
- Jones, Geo. Nelson, St. Andrews, Q.
- MacDonald, Roderick A., Cornwall, O.
- McBain, John, Williamstown, O.
- McCormick, Andrew G., Durham, Q.
- McDonell, Alex. R., Loch Garry, O.
- McMillan, Aeneas J., Edwardsburgh, O.
- Mines, William M., Montreal, Q.
- Molson, William A.
- Monk, George Henry.
- Moore, Charles S., London, O.
- Moore, Jehiel T., Holbrook, O.
- Norton, Thomas, Montreal, Q.
- Pattee, Richard P., Hawkesbury, O.
- Phelan, James, Stratford, O.
- Prosser, William O., Lunenburg, O.
- Rattray, James C., Portage du Fort, Q.
- Reddick, Robert, Prescott, O.
- Ritchie, John L., Halifax, Nova Scotia.
- Rogers, Amos, Bradford, O.
- Sinclair, Coll, St. Thomas, O.
- Speer, Andrew M., Richmond, Q.
- Wales, Benjamin N., St. Andrews, Q.
- Wallace, Isaac W., Milton, Q.
- Woolway, Christopher J., St. Mary's, O.

The number of students who passed their Final Examination for the Degree of M.D., C.M., was 35, alphabetically arranged as follows:—

- Alguire, Duncan O., Lunenburg, Ont.—Auscultation.
- Bell, Robert W., Carleton Place, Ont.—Postpartum Hemorrhage.
- Brown, Harry, London, Ont.—Sleep and its Derangements.
- Carmichael, Duncan A., Beechburg, Ont.—Chronic Bright's Disease.
- Chevalier, Nap. E., St. Gregoire le Grand, Q.—Intermittent Fever.
- Cutter, Fred. A., Hopkinton, N. Y., U. S.—Cerebro-Spinal Fever.

Edwards, Oliver C., Clarence, Ont.—Syph. Affec. of Nervous System.

Ellison, Saram R., St. Thomas, Ont.—Lobar Pneumonia.

Ewing, W., Hawkesbury, Ont.—Urinary Calculus.

Farley, John J., Belleville, Ont.—Physical Diagnosis.

Fortune, Lewis M., Huntingdon, Quebec—Erysipelas.

Gaviller, Edwin A., Bond-Head, Ont.—Erysipelas.

Guest, Thomas F., St. Mary's, Ont.—Tubercular Meningitis.

Hills, Joseph, St. Gregoire, Que.—Diabetes Mellitus.

Hurlburt, Richard F., Mitchell, Ont.—Syphilis.

Jackson, William F., Brockville, Ont.—Diphtheria.

Jones, H. J. Montgomery, Montreal, Que.—Aphasia.

Kelly, Thomas, Durham, Ont.—Epilepsy.

Kittson, Edmund G., Hamilton, Ont.—Alcohol.

McGuire, Bernard D., Joliette, Que.—Asthma.

McConnell, John B., Chatham, Que.—Bronchitis.

McDiarmid, James, Prospect, Que.—Variola.

McDonald, Jos. D. A., St. François du Lac, Que.—Phlegmasia Dolens.

McLeod, James, Uigg, P. Ed. I.—Pathology of Inflammation.

O'Brian, Robert S. B., L'Original, Ont.—Hygiene of Childhood.

O'Brien, David, Almonte, Ont.—Acute Rheumatism.

Perry, Hezekiah R., Coteau Landing, Que.—Rickets.

Richmond, Peter E., N. Y. State, U. S.—Acute Rheumatism.

Shepherd, Francis J., Montreal, Que.—Hospital Reports.

Stephenson, John A., Cayuga, Ont.—Puerperal Fever.

Tracy, Andrew W., Island Pond, U. S.—Vaccination.

Walton, Geo. O., Montreal, Que.—Progressive Loco'r Ataxia.

Ward, William T., Boundary Line, Que.—Ovariectomy.

Young, Robert C., Barton, Ont.—Erysipelas.

Whiteford, James W., Belleville, Ont.—Cholera Infantum.

Three of the above-named gentlemen, Messrs. Alguire, Ewing and Jackson, have not yet completed their twenty-first year, and cannot, on that account, receive their Diplomas at this Convocation. They have, however, passed all the examinations, and fulfilled all the other requirements, and only await their majority to receive the Degrees.

#### EXAMINATION IN BOTANY AND ZOOLOGY.

##### Botany.

Class I.—J. B. Benson, (Prize) W. Smith, J. S. Gray, W. Crothers, P. R. Young, J. R. Nason, J. Livingstone, R. N. Powell, G. McRae.

Class II.—C. M. Lancy, A. McCormick, S. R. Falls, H. J. Metcalfe, L. Secord, J. M. Nelles, J. Dowling, A. J. Lindsay, F. S. Snider.

Class III.—F. Brossard, C. N. Stevenson, C. Stroud, G. Colquhoun, H. L. Gilbert, W. D. Ross, G. E. Pomberry, R. Levi, G. J. Robinson, M. Hanover, J. H. Alcorn, A. D. MacMillan.

##### Zoology.

Class I.—E. Quinones, (Prize.)

Class II.—N. S. Brown, H. Siever.

#### PRIZES.

The Medical Faculty Prizes are three in number:

1st. The Holmes Gold Medal, (founded by the Faculty in honour of their late Dean) awarded to the graduate who receives the highest aggregate number of marks for all the examinations, including Primary, Final and Thesis.

2nd. A Prize in Books, for the best examination—writ-

ten and oral—in the Final branches. The Gold Medalist is not permitted to compete for this prize.

3rd. A Prize in Books, for the best examination—written and oral—in the Primary branches.

The Holmes Medal was awarded to Thomas Kelly, Durham, Ontario.

The Prize for the Final Examination was awarded to Duncan O. Alguire, Lunenburg, Ontario.

The Prize for the Primary Examination was awarded to John D. Cline, B.A., Cornwall, Ontario.

The following gentlemen, arranged in the order of merit, deserve honorable mention:

In the Final Examination; Messrs. Shepherd, Carmichael, Jones and Bell.

In the Primary Examination: Messrs. Woolway, Mines, Sinclair, Ritchie, Cameron, Phelan, Molson, Henderson and Hume.

#### PROFESSORS' PRIZES.

*Practical Chemistry*—W. T. Ward.

*Botany*—T. B. Benson.

*Zoology*—E. Quinones.

*Practical Anatomy*—Senior Class—H. C. Fuller. Junior Class—J. Livingston.

The affirmation was administered by Dr. Craik, and the degree of M.D., C.M., was conferred by the Vice-Chancellor.

A valedictory was delivered on behalf of the Graduates in Medicine by Dr. Stevenson, and the graduates were then addressed by Prof. Girdwood, M.D.

#### FACULTY OF LAW.

The next proceeding was the award of prizes and honors to students in Law. Prof. Lafrenaye read the following statement:

##### Graduates.

Bowie, Duncan Ewen; Chauret, Amedée; Coutlee, Lewis William Poitras; Desrosiers, Joseph; Hutchinson, Mathew; Lebœuf, Louis Calixte; Lonergan, James; McDonald, Frank Herrall; Prefontaine, Raymond; Rainville, Henri Benjamin; Santoire, Camille.—11 Graduates.

Graduate, D. C. L., *in course*.—Professor Gonzalve Doure, B. C. L., Professor of Civil Procedure and Medical Jurisprudence.

Elizabeth Torrance, medallist; Mathew Hutchinson, first in special examinations, covering the whole course of study.

Best Thesis: Joseph Desrosiers.

The total number of students in the past session was 37.

#### RANKING OF STUDENTS AS TO GENERAL PROFICIENCY.

THIRD YEAR.—1st. Mathew Hutchinson, first in five classes and second in one class. 2nd. Joseph Desrosiers, first in two classes and second in one: Duncan Ewen Bowie, second in three classes; Raymond Prefontaine, first in one class and second in one class. Amédée Chauret, first in one class; Lewis William Poitras Coutlee, first in two classes; James Lonergan, second in one class; Henri Benjamin Rainville, second in one class.

SECOND YEAR.—1. David Major, first in two classes and second in one class. 2. George Ernest Jenkins and Adolphe Labadie, first in two classes. According to the aggregate number of marks, Major and Hodge were about equal, Major being first in two classes and second in one, and Hodge second in four; David R. Wells Hodge, second in four classes; Henri Archambault, first in one class; Edouard Antille Panet, first in one class; Odilon Labadie, second in one class; François Xavier Choquette, second in one class.

**FIRST YEAR.**—1st, Augustine Hurd, first in three classes and second in one. 2nd, Edouard Couillard, first in one class and second in one. Rodolphe Desrivieres, first in one class; Russ Wood Huntington, first in one class; John Smith Hall, second in two classes; William Galbraith, second in one class; Charles Henry Stephens, second in one class.

**COMMERCIAL LAW.**

The Dean of the Faculty, the Hon. J. J. C. Abbott, D. C. L., and Professor Wurtelle, B. C. L.

3rd Year—1. Mathew Hutchinson; 2. Joseph Desrosiers.

2nd Year—1. Henri Archambault and Adolphe Labadie equal; 3. David Wells R. Hodge.

1st Year—1. Augustine Hurd and Edouard Couillard, equal; 2. John Smith Hall.

**LEGAL HISTORY.**

Professor Lafrenaye, B. C. L.

3rd Year—1. Joseph Desrosiers and Mathew Hutchinson, equal; 2. James Lonergan and Henri Benjamin Rainville, equal.

2nd Year—1. Adolphe Labadie and Edouard Antille Panet, equal; 2. Odilon Labadie.

1st Year—1. Russ Wood Huntington; 2. Augustine Hurd.

**LAW OF REAL ESTATE.**

Professor Laflamme, B. C. L.

3rd Year—1. Amédée Chauret; 2. Duncan Ewen Bowie.  
2nd Year—1. David Major; 2. François Xavier Choquette.

1st Year—1. Adolphe Desrivieres; 2. Edouard Couillard and Charles Henry Stephens, equal.

**CRIMINAL LAW.**

Professor Carter, B. C. L., and John Sprott Archibald, B. A., B. C. L., Lecturer.

2nd Year—Mathew Hutchinson and Lewis William Poitras Coutlee, equal; 2. Duncan Ewen Bowie.

**INTERNATIONAL LAW.**

Professor Kerr, Q. C.

3rd Year—1. Lewis Willam Poitras Coutlee and Mathew Hutchinson, equal; 2. Duncan Ewen Bowie.

2nd Year—1. George Ernest Jenkins; 2. David R. Wells Hodge.

**ROMAN LAW.**

Professor Trenholme, M. A., B. C. L., and C. A. Geofrion, B. C. L., Lecturer.

3rd Year—1. Raymond Préfontaine; 2. Mathew Hutchinson.

2nd Year—1. George Ernest Jenkins; 2. David Major and David R. Wells Hodge, equal.

1st Year—1. Augustine Hurd; 2. John Smith Hall.

**CIVIL PROCEDURE AND MEDICAL JURISPRUDENCE.**

Professor Gonzalve Doutre, B. C. L.

3rd Year—1. Mathew Hutchinson and Joseph Desrosiers, equal; 2. Raymond Préfontaine.

2nd Year—1. Daniel Major; 2. David Wells R. Hodge.

1st Year—1. Augustine Hurd; 2. William Galbraith.

Mr. Dagnes, having required the affirmation from the graduates, the degree of B. C. L., was conferred by the Vice-Chancellor.

A valedictory address on behalf of the graduates-in-law was then delivered by Mr. Desrosiers, B. C. L., after which Prof. Kerr delivered an address to the graduates.

Professor Gonzalve Doutre, B. C. L., after serving the declaration, was presented by the Registrar for the degree of Doctor of Civil Law, which was conferred upon him by the Vice-Chancellor.

After some remarks from the Chancellor, the proceedings were brought to a close by the Benediction pronounced by the Most Rev. the Metropolitan and Bishop of Montreal.—*Gazette.*

**THE JOURNAL OF EDUCATION.**

QUEBEC, APRIL, 1873.

**Retirement of the Hon. P. J. O. Chauveau.**

On the 22nd February last, The Hon. Mr. Chauveau was appointed Senator for Stadacona and President of the Senate of the Dominion of Canada.

On the 25th, he placed his resignation, as Premier, Provincial Secretary, Registrar, and Minister of Public Instruction for the Province of Quebec, in the hands of the Lieutenant-Governor, who there upon entrusted the formation of a new Cabinet to the Hon. Gédéon Ouimet, Attorney-General, and on the 27th the following Gentlemen were sworn in as members, namely,—Hon. Gédéon Ouimet, Q. C., Premier, Provincial Secretary, Registrar, and Minister of Public Instruction; Hon. George Irvine, Q. C., Attorney-General; Hon. Louis Archambault, Commissioner of Public Works; Hon. J. G. Robertson, Treasurer; Hon. Pierre Fortin, Commissioner of Crown Lands; Hon. J. J. Ross, Speaker of the Legislative Council; Hon. J. A. Chapleau, Q. C., Solicitor-General.

On the 27th, the Officers of the Department of Public Instruction presented the following address to the Hon. Mr. Chauveau, in the sentiments of which they were joined by the Officers of the Executive Council, of the Provincial Secretary's Office, and of the Registrar's Office.

Herewith follows a translation of the address:—

TO THE HON. P. J. O. CHAUVEAU:—

SIR,

The undersigned feel that they cannot allow you to retire from the head of the Department of Public Instruction in this Province without bidding you farewell as their Chief, and at the same time expressing their regret at your departure.

The many years that you have spent in directing and fostering education in this part of the Dominion will mark an epoch in the history of the general system pursued in the Province of Quebec. Your worthy and zealous predecessor (Dr. Meilleur) laid the foundation, but it remained for you to rear the superstructure. Your task was a difficult, but to you a genial, one; you undertook it with a zeal and a will, and we only reecho public sentiment when we say that you succeeded in accomplishing the task you set yourself.

The establishment of Normal Schools at the commencement of your administration of the school law, was one of those measures upon which you chiefly relied for the elevation of the standard of education in the public schools of the Province. The results of the work done by these institutions, (recently given to the public)—the constant demand for trained teachers, the gratifying reports of the Inspectors on the schools conducted by the ex-pupil teachers of these schools, prove the wisdom of the measure.

This, however, is neither the time nor the place to enumerate, much less to fully appreciate, the services you have rendered and the good you have accomplished, while charged with the direction of education in this Province. Public opinion and posterity will judge impartially of the work done by you.

In conclusion, the undersigned would once more beg to express their sincere regret at your retirement from their midst, and

to cordially thank you for the hearty sympathy and courteous demeanour that invariably characterized your intercourse with them.

Please accept their best wishes for the health, happiness, and prosperity of yourself, Madam Chauveau, and the other members of your family.

After the reading of the address Mr. Chauveau was so visibly affected that he could only respond very briefly, but on his arrival in Ottawa he forwarded a written answer of which the following is a translation :

GENTLEMEN,

Please accept my most sincere thanks for the kind sentiments contained in your address.

I can assure you that the regret I feel, at separating myself from you and abandoning a field of labour genial to my tastes, is in some degree lessened by the reflection that, during the time I have been at the head of your several Departments, I should have earned your esteem and sympathies. I shall ever retain the most kindly remembrances of my relations with you all, and I can assure you that I consider myself very fortunate in having had your valuable assistance, and, still further, I feel that I owe you much for your efforts to lighten my labours.

To that portion of your address, in which you allude to the labours of my venerable predecessor in the direction of Education, I have not listened unmoved. I am happy to see him here among you, and still happier to think that one of my first acts as Premier was to acknowledge his worth and ability.

I see here representatives of no less than four different Departments of the Government over which I had the honor of presiding,—an index to the amount of labour that must have devolved upon me during nearly six years, and sufficient, I think, to warrant me in the step I have taken.

My long and intimate relations with the officers (some of whom preceded me in the office and others entered it with me seventeen years ago) of the Department of Public Instruction has been of such a nature that I cannot bid adieu to those representatives of it without sentiments of regret at our separation after so many years of close intimacy.

I assure you, gentlemen, that in whatever position of life it may please Providence to place me, I shall ever preserve kindly recollections of our relationship, and my humble services shall be at your command to promote your interests and welfare.

In conclusion please accept the thanks of my family for the kind expressions of regard manifested towards them, and my best wishes for the happiness of yourselves and families.

P. J. O. CHAUVEAU.

### Canadian Meteorology.

We have much pleasure in giving circulation to the following article taken from the *Canada Medical and Surgical Journal* for March, 1873. In introducing it we would remark that Dr. Smallwood, Professor of Meteorology in McGill University, is well known to our readers as a contributor of Meteorological returns for the use of the *Journal* during the past 16 years. Meteorology, in order to secure results useful to the public, requires not only the precept and the example of some presiding and directing genius, but also the willing co-operation of a host of observers extensively distributed at stations throughout a region.

In these points of view Dr. Smallwood has effected more than all others together, who, in this country, have devoted attention to this pursuit, and, having spent forty years in making known the features of Canadian climatology, has deservedly earned the respect of the cultivators of practical science both at home and abroad. It is well that his confreres of the medical profession, and the authorities of McGill University should have stepped forward to endorse the public estimate of his talents and his services; and though we are not surprised, that, in regard to

practical results from such a pursuit as his, people should sometimes be more clamorous than reasonable, we congratulate our veteran meteorologist on the issue of the recent and interested endeavour to disparage his merit. We congratulate him also on the fact, that, chiefly through his unaided and personal exertions, and through the influence of his enthusiasm, industry, and inventive genius, meteorological pursuits are steadily becoming more respected in Canada, and their utility, in spite of their complicated nature and the difficulties that beset them, more generally acknowledged. The article referred to is as follows :

"*Meteorology and its Professors.*" Statement of Facts with reference to the Charges against the Professor of Meteorology in McGill University. By THE AUTHORITIES OF THE UNIVERSITY.

I. *Instruction in Meteorology.*—Dr. Smallwood, the Professor of Meteorology, who receives no salary from the University, gives instruction gratuitously, in the use of Meteorological instruments, to such senior students as desire this. Of course the class is voluntary, and only a limited number avail themselves of it. In the present session six students have been receiving such instruction.

II. *Observations of Temperature &c.*—Dr. Smallwood's observations are made with instruments tested by standard thermometers, and both in the observatory and in a separate thermometer-house. They are made with all the precautions dictated by the Professor's long experience in this climate, and if they differ from those of amateurs, the probability is that the latter are wrong. The difference referred to as occurring when the sun shines, is probably to be accounted for by the less favorable position of the instruments of the objector.

III. *Position of the Observatory.*—The building was placed, after much consideration, on the best site afforded by the College grounds, and is in as good a position as it is possible to secure on the flank of the mountain. No doubt an anemometer on the top of the mountain, or on the other side of the mountain, might give other local variations of winds, but the University cannot afford a series of stations of this kind. In any case, the observation of a person who has been in a gust of wind in the rear of the mountain, and who, after driving round, finds it calm in Sherbrooke street, is of no value whatever as a test for the position of the observatory.

IV. *Instruments for Observing the Force, Direction, &c., of the Wind.*—The imputation that these are defective is especially unjust, as Dr. Smallwood has the credit of devising and constructing one of the most efficient instruments for this purpose—an instrument which Professor Henry of Washington described and figured in the Reports of the Smithsonian Institution, and even had a copy of it made and sent on for use in his observatory.

V. *Time-ball at the Harbour.*—This was attended to by Dr. Smallwood punctually, until last summer, when it was intimated to him by the Harbour Commissioners that they had engaged another person for the purpose. In the past summer therefore, if the time-ball has been incorrect, Dr. Smallwood is not responsible, as he was quite willing to have continued his services in the matter. Dr. Smallwood still gives the time to Ottawa. The gossip of shipmasters as to the time-ball, even if it relates to the period during which it was in Dr. Smallwood's charge, is of no value, as the chronometers of ships are often incorrect, a fact well known to Dr. Smallwood, who has been in the habit of correcting them gratuitously for such ship-masters as applied to him.

The above statements relate to the charges specially selected for reiteration in the review of the pamphlet attacking the Meteorological Professorship of the University, and they are sufficient to show the groundlessness of the whole. It is, however, due to Dr. Smallwood to state that his observations relate to other Meteorological Phenomena than those referred to in the pamphlet; that he has for about forty years, with little public encouragement, kept up a continuous series of Meteorological observations of inestimable scientific value and that he has at all times displayed the utmost readiness to give the benefit of his labours to the public; through the press, to sanitary reformers, to scientific travellers and visitors, and to scientific associations abroad. In this way he has earned a lasting title to the gratitude of this country which both the English universities of this Province have acknowledged by conferring on him their highest degrees; while the McGill University, in

appointing him Professor of Meteorology and placing him in charge of its observatory, was not only acknowledging great public services, but securing the highest experience and ability which the country affords in this department for the benefit of its students.

It is only to be regretted that the limited means of the University permit no more to be done; and it is to be hoped that the public, or some of the more wealthy friends of science and education, will take advantage of the undeserved attack made upon our veteran Meteorologist, by contributing the means to place at the disposal of the University, for his benefit, more ample apparatus, and endowment to secure the services of an assistant to aid him in his declining years, and to continue and extend the work he has so well begun. The Department of Applied Science in the University is now training young men well fitted for entering on this work, could the means be obtained to secure their services; and with such aid, and a large telescope, the utility of the observatory might, no doubt, be greatly increased.

**An Act (36 Victoria, Cap. 33.) Respecting School-Taxes in the City of Montreal.**

(Assented to December 24th, 1872.)

Her Majesty, by and with the advice and consent of the Legislature of Quebec, enacts as follows:

1. The first Section of the Act of this Province, thirty-fourth Victoria, Chapter twelve, is hereby amended, by striking out the words "one-tenth of a cent" in the eleventh line of the said Section and substituting therefor the following words "one-fifth of a cent."

2. The Catholic and Protestant School Commissioners of the City of Montreal, notwithstanding any provision to the contrary contained in the thirty-fifth Section of the Act thirty-second Victoria, Chapter sixteen, and in addition to the amount which they are authorized to set aside by Section three of the Act thirty-fourth Victoria, Chapter twelve, may respectively set aside a portion of their revenues not exceeding the further sum of eight thousand dollars per annum for the purpose of acquiring real estate and constructing school houses in the said city; and all debentures which the said Commissioners may hereafter issue to borrow money in virtue of this Act for the purchase of real estate and the construction of school houses in the said city, may be made redeemable in the twenty years next after the date of their issue and not afterwards; and the said thirty-fifth Section of the Act thirty-fourth Victoria, Chapter twelve, are hereby consequently amended.

3. The said Catholic and Protestant School Commissioners, in addition to the semi-annual return they are bound to make to the Minister of Public Instruction, shall make a yearly report of all their receipts and expenses, which said educational, statistical and financial report shall be addressed to the Minister of Public Instruction for such fiscal year (ending on the first of July), on or before the first of November then next, and published in the next forthcoming number of *The Journal of Education* and of the *Journal de l'Instruction Publique*, and also, at the cost of the said respective Boards, in at least one English and one French newspaper published in the said city of Montreal.

**Annual Report of the Normal, Model, High, and Public Schools in Ontario, for the Year 1872,—with Appendices, by the Chief Superintendent of Education.**

This volume has been on our table for some time, but owing to the length of the reports (to be found in our

last three numbers) of the visits of their Excellencies, Lord and Lady Dufferin, to the different Educational and Benevolent Institutions of Montreal and vicinity, we were unable to afford space for extracts that would give any adequate idea of the importance of the work. To do the report anything like justice it must be seen, read and studied. For the benefit of our Readers, however, who will not have the advantage of perusing it, we shall endeavour to give such a synopsis of it, as we deem of most importance to them.

Before entering into details it may be stated that the "School Fund" is made up of the Legislative Grant and the County Assessment, and does not include the Trustees' assessments or receipts from other sources. The term "School Moneys" includes the "School Fund" and other moneys.

The increase of the School Fund by local effort, in 1870 over that of '69 was \$116,938, yet the increase of that Fund for 1871, by the same local efforts, over that of 1870 amounts to \$179,594. The "School Fund" for 1871, was \$671,456, and for 1870, \$564,536, the County Assessment, for 1870, being \$385,284, and for 1871, \$492,481. The amount apportioned from the Legislative Grant was \$178,975. The sum apportioned for the purchase of Maps, apparatus, prize and library books was \$15,195 increase \$789. The amount from County Municipal Assessment was \$492,481, an increase of \$107,196, being eight times greater than that of 1869 over 1870. The amount available from Trustees' School Assessment was \$1,027,184,—increase \$76,085. The amount from Clergy Reserves Moneys and from other sources applied to School purposes in 1871, was \$410,633—increase \$3,688. The total receipts for all Public School purposes for the year 1871 amounted to \$2,124,471, being an increase of \$180,106 over the total receipts of the preceding year. The expenditure by Trustees for Teachers' salaries in 1871 was \$1,191,476. This does not represent the total salaries of Teachers, but simply the amount which had been paid up to the date of the Trustees' report. The balances due the teachers were included in the unusually large balance reported in the Trustees' hands—being \$88,872, as against \$29,774 of the previous year. For maps, globes, prize books and libraries \$33,083,—the Legislative grant to Trustees for these objects being \$15,195. For sites and building of school-houses, \$261,833—increase \$54,333. Even this very large increase in the Trustees' expenditure for sites building, &c., does not represent the total expenditure under this head for 1871, owing to the unusual balance in the hands of Trustees at the end of the year. The increased expenditure under this head may be fairly set down at \$75,000 more than 1870. This expenditure of upwards of a quarter of a million dollars for sites and school houses in 1871, is a permanent increase in the value of public school property, and indicates much additional material prosperity in the several neighbourhoods which were benefited by this expenditure. For rents and repairs of school houses, \$63,152. For school books, stationery, fuel and other expenses, \$253,748—increase \$67,620. Total expenditure for all Public School purposes \$1,803,294—increase \$91,233. The total increase in expenditure for Public School purposes in 1871, was nearly \$100,000 over that of 1870, not including the large balance, \$88,872, reported in the Trustees' hands at the date of their reports. Balances of School Moneys not paid at the end of the year when the returns were made, \$321,176—increase \$88,872 a large proportion of which is due for sites and school-houses and to Teachers.

The whole number of pupils in the schools is now 446,326—an increase of 3,808 over last year. The school population reported by Trustees (including only children between the ages of five and sixteen) was 489,615—increase 5,649. The number of children between the ages of five and sixteen attending schools was 423,033—increase 2,545. Number of pupils of other ages attending the schools 23,293.

The number of boys attending the schools, 235,066; girls, 211,260. There are 2,291 under five years of age, (this is the first year the ages of pupils have been reported) 197,293 between five and ten; 198,168, between ten and sixteen; 22,491 between sixteen and twenty-one; 26,083 not reported. Reported not attending any school, 38,535.

In the 4,598 schools reported, 5,306 Teachers have been employed, of whom 2,641 are males—decrease, 112; 2,665, females—increase, 253. Of the Teachers reported 911 belong to the Church of England; 623 to the Catholic Church; 1,583 to the Presby-

terian; 1,662 to the Methodists; 298 to the Baptists; 34 to Christians and Disciples; 44 reported as Protestants; 14 Unitarians; 66 Congregationalists; 15 Lutherans; 19 Quakers; 37 other persuasions. Of the 623 Teachers belonging to the Catholic Church, 374 are employed in the Public Schools and 249 in Catholic Separate Schools.

In 900 of the schools, the Teacher was changed during the year. On this head the Chief Superintendent speaks the opinion of those conversant with the true advancement of primary education and the evil results arising from frequent change of teachers. He says,—“I cannot but regret this growing tendency on the part of trustees to change their teachers. Such a change, cannot as a general rule be beneficial to the pupils. It has the effect of rendering the instruction desultory, and without any continuity, and weakens the tie which should exist between pupil and teacher.”

The highest salary paid to a male teacher in a *County*, \$825—the lowest, \$100 (!); the highest in a *City*, \$1000—the lowest, \$400; highest in a *Town*, \$1000—the lowest, \$260; in an *Incorporated Village*, the highest, \$600—the lowest, \$240. The average salary of male teachers in *Counties* was \$254; of female teachers, \$182; in *Cities* the average of male teachers, \$629—of female teachers, \$236; in *Towns*, of male teachers, \$483—of female teachers, \$225; in *Incorporated Village*, of male teachers, \$419, of female teachers, \$186. On the salaries of teachers, the Chief Superintendent says:—“While the increase in the number of Schools reported is 14, and the increase in the number of teachers employed is 141, the increase in the number of pupils is 2,545, there is no increase in the largest salaries paid teachers, except in cities, towns or villages. Amongst the worst enemies to the efficiency and progress of Public School education, are those trustees and parents whose aim is to get what they mis-call a “*Cheap teacher*,” and who seek to haggle down the teacher's remuneration to as near starvation point as possible, though in reality, they are intellectually starving their own children and wasting their time by employing an inferior teacher. Business men find it to their interest to employ good clerks, as one good clerk is worth two poor ones; and in order to obtain and retain good clerks they pay them good salaries. Experience has long shown the soundness of this business rule and practice in the employment of teachers; yet how many trustees and parents, in school matters, abandon a rule on which not only the merchant, but the sensible farmer acts in employing labourers, preferring to give higher wages for good labourers, than to give lower wages to poor labourers. Good teachers cannot be got for inferior salaries.”

The number of Catholic Separate Schools is 160. The amount apportioned and paid by the Chief Superintendent from the Legislative Grant was \$9,081. The amount apportioned and paid for the purchase of maps, prize books and libraries, an equal sum being provided from local sources, was \$574. The amount of School rates from the supporters of separate Schools, was \$34,865.

The amount subscribed by supporters of Separate Schools, and from other sources, was \$25,347,—total amount received from all sources was \$69,818. The number of pupils reported as attending the separate schools, was 21,203,—average attendance, 10,371.

The amount received by the High School Boards from Legislative Grant for the salaries of teachers, was \$65,536—increase \$10,841. The amount of Legislative Grant apportioned for Maps, Prize Books, &c., was \$1,268. The amount of *Municipal Grants* in support of High Schools, was \$50,674—increase, \$7,076. Amount received as pupils' fees \$18,895. Balances of preceding year and other sources, \$19,074, total receipts \$163,579—increase \$17,972.

Total expenditure for the year 1871, \$152,880—increase, \$15,314. Number of pupils, 7,490;—number of Schools, 102.

### Report of the Minister of Public Instruction for the Province of Quebec, for the year 1870 and in part for 1871.

We have the pleasure of acknowledging the receipt of the above volume, forwarded to us by the Hon. P. J. O. Chauveau, Minister of Public Instruction for the Province of Quebec. It is a Blue-Book of good magnitude, containing a variety of information, statistical and otherwise, relative to the educational progress of the province to which it refers. It bears

ample evidence of the skill and care exercised by the Gentleman under whose supervision it is issued, with regard to the important duties committed to his charge.

It is gratifying to be able to note that, in spite of many obstacles, education in Quebec is making steady progress. The number of schools of all classes in operation during the year 1870, was 4,028, of pupils attending them 217,504, while the local contributions for all educational purposes for the same year amounted to 976,788 dollars. All these figures mark an increase over the preceding year, and this increase has been progressively sustained since 1853. In the important tables giving the number of pupils learning the various school branches, a corresponding improvement is exhibited. We cannot but gather from the Report before us, however, one fact which sadly mars the gratification which every lover of educational advancement must derive from the preceding account, and this fault is, that whatever improvement has been effected is due mainly to the Canadian Educational Department itself. We are led to this conclusion not from any statement to this effect in the volume under consideration, but from many facts and data given incidentally. The defects which still exist are due principally to the want of sufficient co-operation on the part of the local bodies, the municipalities to which the Canadian law leaves a large share of the work of education. What may be termed the School-Boards of the province too often exhibit those qualities which detract from their usefulness. The great cause of education, that which more than any other circumstance prevents progress, namely, the insufficient salaries of the teachers, prevails in Canada to a large extent. The municipalities too frequently sacrifice efficiency to parsimony, and we see instances in the Report where they part with a good teacher because another offers to do the work at a cheaper rate. Hence most of the schools are conducted by females, and teachers trained in Normal schools are not employed because they insist on something approaching to respectable salaries. It appears, too, that in some instances where additional schools are required, the municipalities contrive to get them without additional expense, and that by a simple process, namely, by reducing the salaries of the old teachers. It seems to us, judging from the attendances, that there are too many schools, though we dare say the sparseness of the population is the cause of the low average in many instances. But we must add that many municipalities unite heartily with the Inspectors and the Central Department in the work of Education. The local examining boards, to whom the power of granting diplomas is confided, are too lax in most instances; and the consequence is that incompetent teachers predominate, and enter into a competition with those better qualified; and the result is what might be expected.

We read with much interest the detailed reports of the Inspectors. Some give more flourishing accounts than others, and the names of the teachers (which are generally given), are sufficient evidence of the various nationalities which compose the present population of Lower Canada. From the one page we select the following:—Miss Arsilie Lafontaine; Miss Alice Kelly, Miss Rose Gravel, Miss Elizabeth McCallum, Miss Catherine Caxaden, Miss Susanna McClellan, Miss Christiana Busby, and Miss Virginie A. Féran Bonne. Of the sterner sex we note Mr. H. Hume, Mr. Patrick Clancy, Mr. Z. O. H. Lamarche, and Mr. Celestin Gareau, all in tolerably close proximity. Names which denote French origin predominate, as is natural; but we do not know to which nationality we should refer Miss Philomène O'Donoghue, and Mr. Napoleon Nolain likewise puzzles us.—*The Irish Teachers' Journal*.

### Education in Lower Canada.

The Minister of Public Instruction for the Province of Quebec has issued his Report for the year 1870 and, in part, for the year 1871. The work must be seen to give a correct idea of the task of preparing it, the care, and wonderful accuracy and completeness with which it has been accomplished, and of the skill which has brought its vast masses of information, on so many topics, within easy reach of any one requiring to consult its pages. The whole Province of Quebec had to be embraced in this report, and its “Districts of Inspection” are twenty-eight in number. The magnitude of the one item alone, of reporting the condition of all the schools in all these districts, may be

inferred from the fact that one district, at which we open the volume at random, contains 170 schools, and yet is not one of the most populous districts. This one item, however, is small in comparison to the labour entailed by preparing statistical tables covering nearly six hundred quarto pages, and embracing the following heads:

Table of Amount levied for Public Instruction in the Province of Quebec for the year 1869-70; Statistics of the Establishments for Superior Education; Grand Statistical Table, prepared from the reports of School Inspectors, Commissioners and Trustees, and from those of Superior Educational Institutions, with a Summary of the same, and to which is added full statistical reports of the schools of all kinds, Classical Colleges; Industrial Colleges; Academies for Boys; Academies for Girls; Model Schools; Normal Schools; Lists of Books sent to the Inspectors to be distributed as prizes; List of the names of the School Inspectors with the limits of their Districts; Table of the number of pupils attending the Christian Brothers' Schools; Table of the number of pupils attending the Schools of the Sisters of the Congregation of Notre-Dame in Montreal; Table of Statistics of Quebec and Montreal, and an Appendix.—*New York Tablet*, (March 22.)

### Trafalgar Institute for Young Ladies, Montreal.

The following is the statement which was made by Dr. Jenkins President of the Trafalgar Institute, at the conference held on the 25th ult., between the Trustees of the Institute and the leading members of the Protestant denominations of Montreal. It was at this conference that the resolutions which appeared in our issue of the 28th, signed by Bishop Oxenden, were communicated.

The Trafalgar Institute originated in the desire of a wealthy and benevolent citizen, a member of the Church of Scotland, to create and perpetuate within the city of Montreal, a Protestant Institution, in which the middle and higher ranks of females might obtain board and education, the latter of the highest class, at a cost so moderate as to be within reach of families of even limited means. The design embraced also, at least in the end, the reception into the Institution of a certain number of free pupils, special exemptions having been instituted in favor of the daughters of Protestant clergymen.

The original purpose of the donor was that the Institute should come into operation after his death. To this end, he named in his will certain trustees, who were to be governed in the execution of their trust, by the terms of a specific and elaborate plan or scheme drawn up by him in conjunction with experienced educationists. Legal difficulties which arose in conjunction with another literary bequest to the city, induced the founder of the Trafalgar Institute to make arrangements for setting the scheme afoot during his lifetime, as the surest way of securing the fulfilment of his benevolent intentions. So, an Act of the Legislature was obtained incorporating the Institute, the donor transferring, in the same Act, to the Corporation, for the purposes of the institution, that beautiful property known as "the Trafalgar property," and containing from seven to eight acres on the southern slope of the mountain, and near the present Cote des Neiges toll-gate. As was, perhaps, natural, the donor selected, as trustees, with two exceptions, prominent clergymen and laymen of the Church of Scotland; the exceptions being the Venerable Archdeacon Leach and Principal Dawson and their successors respectively. After the passing of the Act, subscriptions were secured from members of the Church of Scotland, to the extent of from four to five thousand dollars, with a view to the speedy commencement of the work. While this effort to secure subscriptions was being made, it was suggested to the Board, at one of its meetings, that it might be well to enlarge the basis of the Institution as to secure the suffrages of the leading Protestant denominations, and so to make it less distinctively a Church of Scotland institution. To this end the Board sought and obtained, from the Legislature, an Act amending their former Act; and now, under its provisions, members of other religious bodies can be associated with the original Board as Trustees of the Institute. This Act provides that subscribers to the extent of twenty thousand dollars shall have the right to nominate one Trustee, and so on for every additional twenty thousand.

I may state the purpose of the Board to be, as soon as we can secure money enough, to begin the work by building one of the wings merely of the College, and in it to educate and board from 80 to 100 pupils. With the wing built and furnished free of debt, we doubt not the Institute would be almost, if not altogether, self-sustaining. As to the class of education, the object of the Board will be to make it equal to any of the highest female educational institutions of Canada, or even of the United States. Nothing indeed will be wanting to make it, whether in a literary or in a religious sense,

a first-class educational institution. In taking this step if indeed the public enable us to take it, we feel that we are laying the foundation of what will at length become one of the largest and most influential institutions within the Dominion of Canada. I am trenching upon no man's private concerns and intentions when I state, as I am authorized to do, that the Trafalgar Institute will be munificently endowed if even its resources be limited to the gifts of its founder. This gentleman has given me permission to read to the meeting the following statement, published a year ago. It appeared in March of last year, in one of the most widely circulated Canadian periodicals, so that the information which it supplies is common property.

"Better than either of these is the announcement we have now to make; A member of our Church, well known in this city as a Christian philanthropist, a man of ample means and of a large heart, has announced his intention of devoting the whole of his fortune to establish an Institution for the higher education of Protestant females. It is therefore, with no ordinary gratification that we look forward to the speedy inauguration of an Educational Institution which we have every reason to believe will be established on a basis broad enough to commend itself to the whole Protestant community, and in a state of efficiency commensurate with the requirements of the age. In the meantime, an Act has been obtained from the Quebec Legislature to incorporate "The Trafalgar Institute for the Education and Training of the Middle and Higher Ranks of Females." A valuable emplacement of ground, consisting of ten acres, situate on the south-eastern slope of the mountain and commanding a magnificent view of the city, the River St. Lawrence, and the country adjacent, is in terms of the said Act, vested in a board of Trustees therein named, with power and authority to frame and make statutes and regulations for the management of the affairs of the Institution, for its good government, the performance of Divine Service therein, the studies, lectures and exercises, and all other matters which may be requisite or useful for the said Institute. The distinct aim and object of its benevolent founder is to furnish a first-class education for females at a cost that will come easily within the reach of families of moderate means, and, further, under certain restrictions and conditions, to supply this gratuitously to the children of persons in reduced circumstances. It is expected that the bequest for the foundation and support of the Institute will in course of time, reach the amount of \$400,000, of which it is contemplated to expend \$40,000 in the erection of the necessary buildings and equipments, and that the residue, along with the fees for instruction and the benefactions which may reasonably be expected to flow in from other sources, will prove ample for the maintenance of a complete staff of professors and teachers in all the various departments of Art, Literature and Science, that may be necessary for thorough efficiency in the mental and moral training of a large number of pupils.

It only now remains to be seen whether by the generous co-operation of the public, this much needed Institute shall at once go into operation, or, whether it shall become a reality only when effect shall have been given to the last will and testament of its founder. Every consideration seems to point to the desirability of immediate and earnest action. Precious time is fleeting fast away, and the evil it is thus proposed to remedy gains yearly an increased momentum. We do hope that this noble project will be supported by the wealthy citizens of Montreal, and not of Montreal only, but of other cities and districts in the Dominion, with an enthusiasm worthy of themselves and the country. It is proper, before leaving this topic, to mention that the foregoing statement has been made of our own motion and from little more data than is to be found in the printed Act of Parliament. When we become possessed of fuller details, we shall gladly return to the subject."

The Trustees of the Trafalgar Institute have sought this conference with the clergy of the different denominations, and with the friends of higher female education generally, for the purpose of ascertaining whether the Protestant churches of Montreal are ready to join in erecting and equipping this institution without further delay, at least so far as I have now indicated; and so to share the honour of its establishment as well as the privileges which it will afford. I regret to have to communicate to this Conference the following resolutions from the Bishop of Montreal as the answer of his Lordship, his clergy, and "several of the laity," to the circular which the trustees addressed to them inviting their attendance at this Conference:

"That having been invited to attend a public meeting in connection with the Trafalgar Institute, we greatly regret our inability to take part in its formation;

First, because we conceive that no Ladies' Boarding School can be efficiently carried on under the management of a mixed religious board, inasmuch as questions of Church organization, and of distinctive religious instruction, must be perpetually presenting themselves; and must either cause serious difficulties and dissension, or lead to the eventual exclusion of religious teaching altogether.

Secondly, because the trust deed of the proposed Institute provides for an enormous preponderance in favour of one religious body—there

being at present, as we learn, nine Trustees, eight of whom are members of the Presbyterian Church, and one only of the Church of England; and further, because the enlargement of this basis is dependent on the willingness of any person or persons to purchase a single qualification for the office of Trustee at the cost of 20,000 dollars.

Such being the constitution of the projected Educational Institute, we are precluded, for the above reasons, from uniting ourselves with it; although we cannot but appreciate the noble spirit and intention of its founder; and although we fully recognize the great need at this time of providing education for the female members of the Protestant body.

And this meeting is further impelled to take this course from a strong feeling which exists in favour of the early establishment of a girls' school in connection with the Church of England.

Signed in behalf of the meeting,  
A. MONTREAL,  
Chairman.

How deep soever may be the regret which some of us feel at this determination, it cannot be other than satisfactory to the friends of education that the early establishment of a "girls' school in connection with the Church of England" is favorably regarded by the clergy and laity of that communion.

It is for this meeting to decide whether we can unite as a Protestant community in establishing and carrying out such an Institution as is herein proposed, or whether in the judgment of its members, it is better that each Church give itself to the work of establishing an institution of a distinctively Church character. Much may be said in favor of both the one scheme and the other. Let us at least hope that the result of this meeting will be to direct the attention and to call out the sympathies of the Protestants of Montreal towards a work which has been too long neglected, to the intellectual, moral and social detriment of our city and land.

The following are the trustees of the Institute: Rev. John Jenkins, D.D., President; Principal Dawson, LL.D., &c., Vice-President; The Ven. Archdeacon Leach, LL.D., &c., The Very Rev. William Snodgrass, D.D., The Rev. Gavin Lang, the Rev. Donald Ross, B.D., &c., Donald Ross, Esq., (Viewmount), Alex. Macpherson, Esq., and Alex. Mitchell, Esq. James Riddell, Esq., is the Sec.-Treasurer.

At the Conference the following resolutions were passed:

Moved by T. M. Taylor, Esq., seconded by Professor Murray,

"That this meeting desires to express its sense of the importance of the founding of an Institution for the higher education of women in Montreal, especially with reference to the interests of the Protestant population, and regards with much satisfaction the announcement that one of our citizens has already taken steps towards this end."

Moved by Rev. Dr. Wilkes, seconded by Rev. R. M. Thornton,

"That the Revs. Dr. Wilkes, Messrs. Thornton, Ellegood and Black, Major Mills, the Hon. Judges Day and Torrance, the Hon. James Ferrier, and Messrs. T. M. Taylor, Charles Alexander and E. Atwater, be a committee with power to add to their number, to confer, with the Trustees of the Trafalgar Institute, and to devise such measures as may seem likely to result in the foundation of a College for women on a general Protestant basis."—*Gazette*.

### Biographical Sketches.

#### MISS SUSAN D. DURANT.

The death of this lady, (says the *New York Tablet*) one of our most accomplished female sculptors is stated to have taken place in Paris, in the month of January. She studied her art in France, we believe, under the late Baron de Triqueti, but without, as we understand, any intention of adopting it as a profession; this, however, she ultimately did, and for more than a quarter of a century Miss Durant rarely was absent from the exhibitions of the Royal Academy; her first appearance there being in 1847, when she contributed two busts, one of Miss Allwood, the other Senor Don Adolfo Bayo. An introduction to the Queen, a few years ago, procured for her many commissions, and she had a royal pupil in the Princess Louise, who has herself shown great proficiency in the Art.

Miss Durant's principal works may be thus classified:—*Medallions*. The Queen, Prince Leopold, Princess Louise, the Crown Princess of Prussia, Prince Alfred, Princess Beatrice, Princess Helena, all exhibited at the Academy in 1866; the Princess of Wales, and the Princess Alice Maude of Hesse, medallions for the decoration of Wolsey's Chapel, now called the Albert Chapel, Windsor, exhibited in 1868; Prince

Sigismund, infant son, since deceased, of the Crown Prince and Princess of Prussia, in 1867; the Prince of Wales, in 1869; the late Mr. Geo. Grote, and others. *Busts*. Mrs. Beecher Stowe, Daniel Whittle Harvey, Miss Ritchie, Dr. John Percy, Dr. Matthew Combe, Baron H. de Triqueti, Mr. Mechi, Lady Killeen, Cavaliere Sebastione Fenzi, Woronzow Greig. In the last year's exhibition was a bust of her Majesty, executed for the Benchers of the Middle Temple.

Among the *Statues* by the hand of this lady may be enumerated, "The Chief Mourner"—a young girl (1850); "Robin Hood" (1856); "The Negligent Watchboy of the Vineyard catching Locusts," a subject from the *Idylls of Theocritus* (1858); "The Faithful Shepherdess," an ideal work from the writing of Beaumont and Fletcher, executed for the Corporation of London, and now in the Mansion House (1863); "Ruth," (1869.)

In St. George's Chapel, Windsor, is a monument erected to the memory of the late King of the Belgians, for which Miss Durant received a commission, in 1865-6, from the Queen.

#### ROBERT GRAVES, A. R. A.

Mr. Graves, the last member of the Associate Engravers of the Old Class of the Royal Academy, died, on the Feb. 28, 1873, in his seventy-fifth year, leaving the line engraving of "Lady Bowater," by Gainsborough (in the exhibition at the Academy, which closed on March 8), unfinished. His last complete plate was the portrait of Charles Dickens, after Mr. Frith, R. A., for the second volume of Mr. Forster's Life. He was elected a member of the Royal Academy in 1836, when he had just completed his line engraving of Lord Byron, after Thomas Phillips, R. A. Among his principal plates were several after Sir George Harvey, P. R. S. A., "The Highland Whiskey Still," after Sir Edwin Landseer; "Cromwell Resolving to refuse the Crown," after C. Lucy; "The Slide," after T. Webster, R. A., the "Origin of the Harp," after MacIse; "The Good Shepherd, and Madonna," after Murillo; and "Via Dolorosa," after Raphael. In 1866 was exhibited the first of the series of engravings after Gainsborough and Sir Joshua Reynolds, which included "Mrs. Graham," "The Blue Boy," "Mrs. Lloyd," "Mrs. Siddons," "The Duchess of Devonshire," and Mrs. Beaufoy". His grandfather was Robert Graves, a well-known print-seller, one hundred years ago, of Catherine Street, Strand. His father Robert Graves, was considered the best judge of engravings of his time. He was the elder brother of Mr. Henry Graves, the well-known print-publisher, Pall-Mall, London.

#### PROFESSOR TORREY.

John Torrey, a most eminent botanist, died March 10, 1873, at Columbia College, of which institution he had long held the botanical professorship. His first contribution to science was a catalogue of the plants growing within 30 miles of New York city; this was published in 1817, and was followed by the "Flora of the Northern United States," in 1824.

His learning was extensive and varied. In 1824 he was Professor of Chemistry at West Point, and he afterwards held a similar appointment at the College of Physicians and Surgeons, New York city. He was also chief of the Assay Office in the United States Sub-Treasury. He was stricken down by pneumonia at the age of 80. Columbia College is largely his debtor for his eminent services as a teacher, and for his fostering care of her interests.

#### BARON LIEBIG.

Baron Justus von Liebig, an eminent chemist, was born at Darmstadt, May 12, 1803, and died at Munich on the 18th April, 1873. His early predilection for physical science induced his father to remove him from the gymnasium at Darmstadt to Bonn and Erlangen, where he studied from 1819 till 1822. By aid of a travelling stipend allowed him by the Grand Duke, he removed to Paris, where he continued his studies from 1822 till 1824, and read at the Institute his first paper on Fulminic Acid, which attracted much attention. Humboldt was so struck with the views of the young chemist, that he procured his appointment, in 1824, as Professor Extraordinary, and in 1826, as Ordinary Professor of Chemistry at Giessen, where, supported by the Government, he founded the first model laboratory, and raised the small University to eminence, more especially for the study of chemistry. In 1845, the Grand

Duke of Hesse bestowed upon him an hereditary Baronetcy, and in 1852 he accepted a professorship at the University of Munich, as President of the Chemical Laboratory at that place, where a new and important sphere of operation was opened to him. He has composed numerous works, which have been translated into most European languages. His researches are recorded in his own journal (*Annalen*); in the "*Annales de Chimie et de Physique*;" and in the *Handbook of Chemistry*, commenced in 1836, by Poggendorf. He revised Geiger's "*Handbook of Pharmacy*," of which a corrected edition appeared at Heidelberg in 1839, and of which his section may be considered as forming a *Handbook of Organic Chemistry*.

His "*Organic Chemistry in its application to Agriculture*," published at Brunswick in 1840, has gone through several editions, and has been translated into English by Dr. Lyon Playfair, who studied under Liebig at Giessen. In a series of "*Familiar Letters*," he developed his views on Chemistry and its relations to commerce, physiology and vegetation, with such success, that the appearance of the work had the effect of inducing the foundation of several new chemical professorships in Germany. Professor Liebig, who frequently visited England, where his presence was always gladly hailed at the leading agricultural meetings, took much interest in the discussion of the great question of sewage in England, and his views have led to a better knowledge of this important subject. Of late years wide publicity has been given to his name in connection with his "*Extractum Carnis*," or "*Essence of Meat*." He was named Foreign Associate of the Academy of Sciences, Paris, in 1861.

**Eclipses for 1873.**

In the year 1873 there will be two Eclipses of the Sun, and two of the Moon.

I.—Total eclipse of the Moon, May 11, partly visible in Canada.

The following Table shews the local astronomical time at which such phases as are visible occur at different stations; the blank spaces indicating that the Moon at the corresponding stations will set before the occurrence of the phase.

PHASE.	Halifax.	Fredericet	Quebec.	Montreal	Toronto.
	h. m.	h. m.	h. m.	h. m.	h. m.
First contact with Penumbra.....	16 13	16 3	15 43	15 33	15 9
First contact with shadow.....	...	...	...	...	10 12
Beginning of total Phase.....	...	...	...	...	...
Middle of Eclipse	...	...	...	...	...
End of total Phase	...	...	...	...	...

Magnitude of the eclipse (Moon's diameter=1) 1.428.

The first contact with the shadow occurs at 124° from the north point of the Moon's limb towards the east; and the last contact 82° towards the west; in each case for direct image.

II.—A partial eclipse of the Sun, May 25, 1873, visible in the eastern parts of Canada in the morning of May 26th (civil time). The eclipse begins on the earth generally, May 25, at 19h. 3m. Greenwich mean time, in longitude 26° 56' west and latitude 25° 4' north.

The greatest eclipse is at 21h. 8.8m., in longitude 99° 46' west, and latitude 63° 54' north: Magnitude 0.898, the Sun's diameter being unity.

The eclipse ends generally May 25, 23h. 14.5m., in longitude 131° 13' east of Greenwich, and latitude 52° 57' north.

The line on which the eclipse ends at sunrise crosses the St. Lawrence a little above Montreal.

AT HALIFAX the Sun rises partially eclipsed.

Magnitude at sunrise 0.59

Position 34° from northern point of Sun's disc towards the east.

AT FREDERICTON the Sun rises partially eclipsed.

Magnitude at sunrise 0.56

Position 40° from northern point of Sun's disc towards the east.

AT QUEBEC the Sun rises partially eclipsed.

Magnitude at sunrise 0.56

Position 54° from northern point of Sun's disc towards the east.

AT MONTREAL a very small portion of the Sun is eclipsed at rising.

Magnitude at sunrise 0.06

Position 58° from northern point of Sun's disc towards the east.

AT TORONTO the eclipse is not visible.

III.—A total eclipse of the Moon, Nov. 4, which occurs after the Moon has set at most parts of the Dominion. At Victoria, the first contacts with the Penumbra and with the shadow take place just before the Moon sets on the morning of Nov. 4.

IV.—A partial eclipse of the Sun, Nov. 19, 1873, invisible in Canada.—*Canadian Almanac*.

**Periodicals Received.**

THE AMERICAN FARMERS' ADVOCATE comes to hand for March, a little behind time, but the delay is accounted for by its improved appearance. The publishers, who have from the commencement shown unusual enterprise in giving a greater amount of reading matter, and of a quality unexcelled, have made one improvement after another. With this No. they commence printing upon fine paper, from clear, new type, furnishing as heretofore sixteen large pages of reading matter, stitched and cut. Every farmer and every business man should take it, and the publishers have adopted a plan which enables everybody to obtain it without cost. By sending them a subscription for any \$2 or higher priced paper or magazine they furnish the ADVOCATE as a premium, without extra charge. The subscription price is singly \$1, or in clubs at 50 cents each. Address as above,—Jackson, Tenn.

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**Meteorology.**

—OBSERVATIONS taken at the Montreal Observatory, Lat. 45° 31 North; Long. 4h. 54m. 11 sec. West of Greenwich; Height above the level of the sea, 182 feet; for the month of March, 1873, By CHARLES SMALLWOOD, M. D., LL. D., D. C. L.

Days.	Barometer at 32°			Temperature of the Air.			Direction of Wind.			Miles in 24 hours.
	7 a. m.	2 p. m.	9 p. m.	7 a. m.	2 p. m.	9 p. m.	7 a m	2 p m	9 p m	
1	30.060	30.018	30.025	29.5	40.2	27.0	W	W	W	161.81
2	.000	29.919	29.876	22.9	38.6	30.6	N	NW	NW	102.90
3	29.824	.718	.732	20.0	32.2	23.0	NE	NE	W	152.94
4	.964	30.082	30.204	12.1	29.2	19.0	N	W	W	81.09
5	30.481	.464	.475	8.0	29.9	18.1	W	W	W	196.88
6	.500	.351	.288	11.8	36.8	24.5	W	SW	SW	162.42
7	.201	.051	29.932	23.9	40.2	36.1	W	SW	S	142.54
8	29.654	29.460	.352	36.5	37.5	34.5	S	S	W	198.08
9	.451	.601	.790	24.4	31.0	26.0	W	W	W	83.67
10	.868	.880	.951	21.6	43.5	29.6	NE	NNE	NNE	180.23
11	.700	.512	.524	26.0	30.5	33.2	SE	S	W	158.15
12	.700	.749	.876	26.6	42.6	32.0	W	W	W	129.23
13	.981	30.021	.912	25.0	43.5	35.5	W	W	W	68.34
14	30.040	.162	30.251	29.7	43.2	34.4	W	NW	W	67.34
15	.173	29.921	29.566	30.0	33.7	35.0	W	SW	SW	34.98
16	29.161	.298	.576	35.1	27.6	26.9	W	W	W	324.02
17	.862	30.010	30.120	22.5	38.1	32.2	wbn	NW	NW	173.05
18	30.000	29.914	29.724	22.0	32.1	30.0	NW	S	E	80.34
19	29.621	.797	.886	26.9	37.0	33.0	NE	W	W	60.03
20	.832	.780	.700	26.5	40.0	33.0	NE	NE	NE	73.13
21	.274	.163	.270	24.1	34.0	26.0	NE	NE	NE	137.85
22	.400	.487	.671	25.0	36.7	29.0	N	W	W	95.98
23	.648	.411	.383	26.5	36.5	32.9	W	W	W	156.42
24	30.000	30.092	30.100	5.0	27.2	14.6	W	W	W	132.16
25	.184	.081	.014	8.1	20.0	18.0	NE	NE	NE	111.53
26	29.674	29.404	29.311	18.2	20.8	17.0	NE	NE	NE	221.12
27	.712	.916	30.061	15.0	28.2	15.0	W	W	W	161.42
28	30.150	30.000	29.890	14.9	36.4	32.0	W	S	S	66.84
29	29.624	29.316	.001	35.0	36.0	36.0	S	S	S	157.36
30	28.850	.162	.398	35.0	40.9	30.5	N	N	W	179.83
31	29.468	.491	.611	31.9	36.0	33.0	W	NE	W	107.47

REMARKS.—The highest reading of the Barometer occurred at 2 a. m. of the 7th day, and indicated 30.527 inches; the lowest reading

was at 5 a.m. of the 30th day, and was 28.800 inches, giving a monthly range of 1.727 inches. The mean reading of the month was 29.792 inches

The highest Temperature was on the 14th day, 45° 2, and the lowest on the 28th day, was 4° 3 giving a range or climatic difference of 40° 9. The mean temperature of the month was 28° 64.

Rain fell on 5 days amounting to 1.786 inches. Snow fell on 15 days, amounting to 33.49 inches.

—OBSERVATIONS taken at Halifax, N. S., during the month of March, 1873; Lat. 44° 39' North; Long. 63° 36' West; height above the Sea, 125 feet, By Sergt. John Thurling, A. H. Corps.

Barometer, highest reading on the 6th.....	30.290 inches.
" lowest " " 4th.....	28.893
" range of pressure.....	1.397
" mean for month (reduced to 32°).....	29.619
Thermometer, highest in shade on the 31st.....	51.3 degrees.
" lowest " " 6th.....	4.8
" range in month.....	46.5
" mean of all highest.....	39.2
" mean of all lowest.....	20.9
" mean daily range.....	18.3
" mean for month.....	30.0
" highest reading in sun's rays.....	109.6
" lowest on the grass.....	Covered with snow.
Hygrometer, mean of dry bulb.....	32.8 degrees.
" mean of wet bulb.....	30.6
" mean deduced dew point.....	26.2
" elastic force of vapour.....	.142
" weight of vapour in a cubic foot of air.....	1.7 grains.
" weight required to saturate do.....	0.5
" the figure of humidity (Sat. 100).....	76
" average weight of a cubic foot of air.....	557.4 grains.
Wind, mean direction of, North.....	11.25 days.
" " East.....	3.25
" " South.....	5.75
" " West.....	10.25
" " Calm.....	0.50
" daily force.....	2.5
" daily horizontal movement.....	249.6 miles.
Cloud, mean amount of (0-10).....	6.3
Ozone, mean amount of (0-10).....	3.3
Rain, number of days it fell.....	6
Snow, number of days it fell.....	14
Amount collected on ground.....	3.96 inches.
Fog, number of days.....	2

**SYNOPSIS of Temperature, Cloud and Precipitation for the Month of February, 1873, compiled at the Toronto Observatory, from observations in the several Provinces of the Dominion of Canada :—**

PROVINCE.	ONTARIO.			QUEBEC.		N. SCOTIA.	NEW BRUNSWICK.		MANITOBA.	B. COLUMBIA
	TORONTO. 6 & 8 A. M. 2, 4, 10 & Mid-Night.	OTTAWA. 7 A. M. 2 & 9 P. M.	LITTLE CURRENT 7 A. M. 2 & 9 P. M.	MONTREAL. 7 A. M. 2 & 9 P. M.	QUEBEC. Highest & Lowest.	HALIFAX. Tri-Hourly	ST. JOHN. 6 A. M. 2 & 10 P. M.	FREDERIC- TON. 7 A. M. 2 & 9 P. M.	WINNIPEG. Tri-Hourly	SPENCE'S BRIDGE. 7 A. M. 2 & 9 P. M.
Mean temperature.....	21° 51	14° 63	11° 30	18° 49	11° 02	20° 58	19° 04	15° 40	2° 45	27° 50
Warmest day.....	4	28	7	19	28	8	4	27	26	20
Temperature.....	34.58	31.00	31.60	36.22	25.00	35.47	32.30	30.83	23.14	43.80
Coldest day.....	1	1	1	1	14	2	2	2	21	1
Temperature.....	3.28	-7.60	-9.80	0.12	-4.50	-1.11	-1.00	-6.35	-23.93	-4.10
Mean of Daily Maxima.....	27.09	25.11	21.93	26.41	22.00	30.52	26.43	23.50	13.16	"
Mean of Daily Minima.....	10.02	3.75	0.07	9.19	0.04	10.50	10.39	3.04	-8.41	"
Highest Temperature.....	43.0	42.8	45.5	44.1	34.00	43.3	38.0	36.0	36.5	48.0
Date.....	4	19	8	6	27	8	9	27	16	6
Lowest Temperature.....	-10.5	-18.7	-22.5	-10.3	-20.00	-12.0	-10.0	-22.0	-38.5	-10.0
Date.....	2	2	23	2	2	3	2	2	21	1
Percentage of Cloud.....	59	63	49	14	50	57	59	55	64	34
Depth of Rain in inches... No. of days on which rain fell.....	0.000 0	0.000 0	0.000 0	0.092 2	0.000 0	0.490 3	0.610 1	0.000 0	0.000 0	0.000 0
Depth of snow in inches... No. of days on which snow fell.....	10.4 11	45.5 7	16.5 4	16.61 10	27.5 12	10.7 14	14.25 11	33.5 11	21.2 12	inapp. 2
Total depth of Rain and melted snow.....	1.040	4.550	1.650	1.753	2.750	1.560	2.235	2.600	2.120	inapp.
Days without rain or Snow	17	21	24	17	16	14	17	17	16	26