MINUTES

OF THE

EIGHTEENTH ANNUAL CONVENTION

OF

THE ONTARIO ASSOCIATION

FOR THE

ADVANCEMENT OF EDUCATION,

HELD IN

THE PUBLIC HALL, NORMAL SCHOOL, TORONTO,

On Tuesday, 13th August, 1878.

TORONTO:
T. HILL & SON, CAXTON PRESS.

1878.

TRINITY MEDICAL SCHOOL.

(Established in 1850.)

INCORPORATED BY ACT OF PARLIAMENT, 1877.

In affiliation with the University of Trinity College, the University of Toronto, and the University of Halifax; and recognized by the several Royal Colleges of Physicians and Surgeons in Great Britain.

The Session commences on the 1st of October of each year, and continues for Six Months. The Lectures are delivered in the new College building, close to the Toronto General Hospital.

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OFFICERS.

1878–1879.

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OF THE

EIGHTEENTH ANNUAL CONVENTION

OF

THE ONTARIO ASSOCIATION

FOR THE ADVANCEMENT OF EDUCATION,

HELD IN THE PUBLIC HALL, NORMAL SCHOOL, ON TUESDAY, AUGUST 13TH, 1878.

The Convention opened at ten o'clock.

The President, Dr. McLellan, in the Chair.

A portion of Scripture was read and Prayer offered by Mr. J. R. Miller.

Moved by Mr. H. Dickinson, seconded by Mr. J. R. Miller, That the Minutes of the last Meeting having been published, be considered as read, and be adopted as correct.—Carried.

The Secretary reported correspondence with Dr. Wilson, and Professors Young and Dawson.

The Treasurer's Report was then read, after which the President appointed Messrs. Dickinson and McIntosh as Auditors.

Mr S. P. Halls was appointed Minute Secretary.

The Meeting adjourned until two p.m.

AFTERNOON SESSION.

President in the Chair.

Mr. McIntosh was called upon to introduce the subject of "Professional Training of Teachers."

Mr. Dickinson, Stratford, thought that there should be a union of Counties for Model School purposes.

Mr. Miller, Walkerton, advocated the lengthening of the Model School term.

Mr. McCallum, Hamilton, thought that too great a burden was placed on the Model School Masters, and that the Model School Session should extend from September to the middle of December.

Mr. Smith, Wentworth, urged that the administrative ability of the teachers in training should be cultivated.

Mr. McFaul, Lindsay, would take about five from each class in the Public School, and request the teachers in training to organize these as a rural school.

Mr. Goggin, Port Hope, endorsed most of the views of the previous speakers, and thought that drill and music should be taught, and that the Model School Masters should devote half of each day to the supervision of Model School work.

Mr. Knight, Lindsay, supported most of the ideas advanced, and thought that the Model School pupils would not suffer from being experimented on by the teachers in training, as they (the teachers) would do their best in order to get as high a mark as possible.

Mr. Hodgson, York; Mr. Dearness, Middlesex; Mr. J. R. Miller, Goderich; Mr. McAllister, Toronto; Dr. Kelly, Bradford: and others, took part in the discussion. Mr. McIntosh replied.

This very profitable discussion was brought to a close by the following resolution:

Moved by Mr. McIntosh, seconded by Mr. Brown, That the whole subject of the Professional Training of Teachers be referred to the following Committee: Messrs. Smith, Goggin, Dearness, McFaul, McQueen, Miller (Huron), Alexander, Dickinson and McIntosh, and that they report to morrow afternoon—Carried.

Moved by Mr. A. McMurchy, seconded by Mr. S. P. Halls, That the hours of meeting for this Convention be from two to five o'clock, p.m., and from half-past seven p.m., to adjournment—the forenoon of each day being for meetings of the different Sections of the Association.—Carried

The Meeting adjourned.

Evening Session.

On re-assembling the President gave an address on "Recent Educational Reforms and the Principles they involve."

Moved by Mr. Smith, Wentworth, seconded by Mr. Lewis, Toronto, That a hearty vote of thanks be tendered to Dr. McLellan for his very able and eloquent lecture.

The motion was put to the meeting by the Vice-President and *carried unanimously.*

Reception of Delegates.

The following Delegates reported on behalf of their respective Associations:

Rev. T. Magee, South Simcoe,	Membership,	70
Dr. Lusk, Halton,	"	40
D. Fotheringham, Esq., N. York,	"	40
Mr. McKinnon, E. Grey,	"	70
Mr. H. Rezin, West Victoria and Bracebridge,	"	130
Messrs. Allin & Greer, South Grey,	"	70
Messrs. G. Dickson, B.A., and J. W. Smith, Wentworth,	"	150
Dr. Wadsworth, Norfolk,	"	90
Mr. J. Miller, Elgin,	"	100
Mr. McPherson, N. Wellington,	"	65
Mr. Boyle, S. Wellington and Guelph,	"	75
Mr. McCamon, S. Hastings and Belleville,	"	120
Mr. Harvey, N. Simcoe,	"	120
Mr. Knight, E. Victoria,	"	50
Mr. D. Johnston, Northumberland,	"	130

The Delegates stated that the Associations were doing good practical work, generally procuring the services of some prominent Educationist to lecture and illustrate methods of teaching the various subjects. Professional Libraries were being established. The finances, as a whole, were good, and the teachers were taking a greater interest in the meetings.

The Meeting adjourned.

Wednesday, August 14, 1878.

The Convention met at two o'clock.

The President in the Chair.

Meeting opened with reading of Scripture and Prayer, by Rev. T. Magee.

Minutes of previous Meeting read and confirmed.

The Auditors' Report was read and received.

Mr. G. Dickson, B.A., of Hamilton, then read a paper on "The Non-Professional Training of Teachers."

A discussion on the points referred to in Mr. Dickson's paper ensued, in which Messrs. Miller, St. Thomas; Scarlett, Harvey, McIntosh, Dawson, Connor, Tamblyn, McGann, Grant, Strang, Lewis, and Mr. Buchan, H. S. Inspector, took part.

It was then moved by Mr. Clark, seconded by Mr. D. Johnson, That a vote of thanks be tendered to Mr. Dickson, for his able and suggestive paper.—Carried.

Prof. Ramsey Wright, University College, then read a paper on "Biology in Elementary Education."

Moved by J. M. Buchan, M.A., H. S. I., seconded by Mr. Boyle, That a vote of thanks be given to Prof. Wright, for his able paper.—Carried.

It was resolved that the Report be considered clause by clause.

Moved and seconded That the Session be extended for half an hour.—Lost.

The meeting adjourned

Evening Session.

The President in the Chair.

J. M. Buchan, M.A., High School Inspector, gave an address on "Moral Training in Schools."

Moved by Mr. McGann, seconded by Mr. Scarlett, That a vote of thanks be tendered to Mr. Buchan for his able address.—Carried.

A discussion on "Moral Training in Schools" then followed, in which Messrs. Houghton, Miller, St. Thomas; Miller, Walkerton; McKinnon, Dickinson, McAllister, Brown, Spence, Knight, Alexander and Johnson, took part.

Reception of Delegates.

The following Delegates reported on behalf of their respective Associations:

Mr. Curtis, N. Hastings,	Membership,	60
Mr. Rothwell, Brant,	"	120
J. R. Miller, W. Huron,	"	100
" Parry Sound,	"	24
R. Alexander, Waterloo,	"	75
F. Spence, Toronto,	"	130
Messrs. Munro & Dawson, Eastern Ont.,	"	50
H. Dickenson, N. Perth,	"	70
J. Dearness, E. Middlesex,	"	180
G. Milden, Stormont,	"	70
Mr. Munroe, Ottawa Teachers' Society,	"	33
Mr. Duncan, N. Essex,	"	70
A. Miller, W. Bruce,	"	80

Reports were received from Delegates from twenty-nine Associations, having altogether a total membership of 2392.

Mr. D. Johnson gave notice that he would, on to-morrow, move That Art. V of the Constitution be struck out, and that the Public School Section be a Delegated one.

The Meeting adjourned.

Thursday, August 15, 1878.

The Convention met at two o'clock.

The President in the Chair.

The Minutes of previous meeting were read and confirmed.

Mr. McMurchy read the Report of the Executive Committee, recommending the following officers for the ensuing year:

President—Dr. McLellan.

Recording Secretary—Jas. Hughes.

Corresponding Secretary—Adam Purslow.

Treasurer—Robt. Alexander.

Moved by Mr McMurchy, seconded by Mr. Fotheringham, That the Report be received.—Carried.

Moved by Mr. Harvey, seconded by Mr. J. R. Miller, That the Report be considered clause by clause.—Carried.

Moved by Mr. Knight, seconded by Mr. Machell, That Dr. McLellan be President.—Carried.

Moved by Mr. Goggin, seconded by Mr. McFaul, That Mr. James Hughes be Recording Secretary.—Carried.

Moved by Mr. Brown, seconded by Mr. Miller (Walkerton), That Mr. A. Purslow be Corresponding Secretary.—Carried.

Mr. Alexander having declined to accept the position of Treasurer it was

Moved by Mr. McIntosh, seconded by Mr. Harvey, That Mr. F. S. Spence be Treasurer.—Carried.

Moved by Mr. Dawson, seconded by Mr. Alexander, That the thanks of this Association be given to Messrs. McMurchy and McAllister, for their untiring zeal as Secretary and Treasurer of this Association for several years past.—Carried.

Moved by Mr. Dickinson, seconded by Mr. Goggin, That Mr. Johnson, of South Hastings, be the Delegate to represent this Association at the next meeting of Eastern Association.—Carried.

The Report of the Committee on the Professional Training of Teachers was next discussed.

The following is the Report:

"1. That in the organization and management of County Model Schools special consideration be given to the requirements of rural schools, by occasionally selecting a number of pupils from the different classes and arranging them so as to illustrate the method of conducting an ungraded school.

2. That military drill and calisthenics be added to the curriculum.

3. That the continuation of thorough inspection of Model Schools is necessary to their efficiency.

4. That uniform professional examination papers are desirable.

5. That the present regulations respecting the qualification of Head Masters of County Model Schools be carried out in future.

6. That Head Masters of County Model Schools be *ex officio* members of the County Board of Examiners, provided that they hold certificates as examiners under the present regulation.

7. That the Government Grant be increased, and the payment of the Municipal Grant be made compulsory.

8. That it is advisable to lengthen the sessions of County Model Schools.

9. That the professional training in a Normal School for the length of time specified in Section 1, Chapter 3 of the revised regulations should be received by every candidate for a first-class certificate before obtaining such certificate.

10. Since the character of the work done in the County Model Schools, and the efficiency with which the inspection of Public Schools is performed, depend largely upon the thoroughness of the previous training received by Inspectors and Model School Masters, it is necessary in the interest of education that the work of professional training carried on in Normal Schools be performed with great thoroughness and efficiency."

The Report was adopted by the Convention with the following amendments: In clause 2 the word "military" was struck out and the following added at the close: "The teaching may be done in connection with the ordinary Public School work." The following was added to the 4th clause: "But that County Boards should be allowed to fix the per centage to be obtained by successful candidates." Clause 6 was struck out.

The Meeting adjourned.

Evening Session.

The President in the Chair.

The Minutes of Afternoon Session were read and confirmed.

Jas. Hughes, Esq., Public School Inspector, Toronto, delivered an address on "The work of the Association, and how best to do it," after which Mr. Hughes moved, seconded by Mr. Miller, of St. Thomas, That a Committee, consisting of Messrs. McMurchy, Dawson, Johnston of Cobourg, McAllister, Dearness and the mover, be appointed to consider the advisability of altering the constitution of this Association to report at the next Annual Meeting.—Carried.

Moved and seconded, That the thanks of this Meeting be given to Mr. Hughes for his very able and suggestive address.—Carried.

Professor Goldwin Smith being present, was called on to address the Association.

In compliance with the request he gave an admirable address on the "Educational Tendencies of the Age."

Moved by D. C. McHenry, seconded by A. McMurchy, That a vote of thanks be given to Professor Smith for his able address.—Carried.

Moved and seconded, That the Report of the Committee on the distribution of Legislative and Municipal Grants lie over for another year.—Carried.

Moved by Mr. N. B. Grier, seconded by Mr. D. Allin, That we consider it only a matter of justice to the Teachers of the Province that the clause in reference to superannuated teachers which provides that they shall teach until sixty years of age, unless disabled by sickness, be amended by introducing a clause, giving them the privilege of retiring from the profession, after an actual service of twenty-five years, without forfeiture of their claims upon the Superannuation Fund.—Carried.

Reports of proceedings of High School Masters' Section, Inspectors' Section, and Public School Teachers' Section, were laid on the table.

It was resolved that the next Meeting of the Association be held Toronto.

Votes of thanks were passed to the Railroad Companies for reduced fares, to the City Newspapers for their full reports of the proceedings of the Association, and to the Hon. The Minister of Education, for the use of the Hall.—Carried.

Moved and seconded, that the thanks of the Association be given to the President for the very able manner in which he has presided over the deliberations of the Association, and for his zeal in Educational matters generally.—Carried.

The National Anthem was then sung and the Convention closed.

High School Masters' Room,

Education Department,

August 13, 1878.

The High School Masters' Section met at half-past nine a.m.

Members Present.—Messrs. McMurchy, Houghton, Lusk, Miller (St. Thomas), Leitch, Jeffers, Rothwell, Shaw, Earle, Miller (Walkerton), Michell and Orr.

The meeting having been called to order, Mr. McMurchy was appointed Chairman and A. Miller, Secretary.

The subject of High School Support was then taken up, Mr. Miller, St. Thomas, opening the discussion. The points chiefly dwelt upon were the inadequacy of the support given to High Schools; the necessity of the Government granting increased aid in view of the increased amount of work thrown upon the High Schools by the recent changes in the School Law and Regulations; the best means of obtaining more support from County Councils; the anomalous position of Towns separated from Counties; and Increasing the revenue by imposition of fees.

The following gentlemen took part in the discussion: Messrs. Shaw, Jeffers, Orr, McMurchy, Houghton, Michell, Rothwell, McMurchy and A. Miller.

The following resolution was then adopted:

Moved by Mr. Jeffers, seconded by Mr. Michell,

That Messrs. Orr, Lusk and J. Miller be a Committee to draft a resolution with reference to the pecuniary support of High Schools, to report to-morrow morning.—Carried.

Section then adjourned to meet to-morrow at nine a.m.

HIGH SCHOOL MASTERS' ROOM,
Education Department,
August 14, 1878.

Section met at 9.30 a.m. Mr. McMurchy in the chair.

Minutes were read and approved.

Mr. Miller presented the following Report of the Committee, and moved, seconded by Mr. Jeffers,

That the Report be received.—Carried.

REPORT OF COMMITTEE—HIGH SCHOOL MASTERS' SECTION—ON PECUNIARY SUPPORT TO HIGH SCHOOLS.

1. That the present sources of support to High Schools do not secure an amount sufficient to maintain their efficiency.

2. That the advantages of these institutions to the community entitle them to a more liberal support from public funds.

3. That the large amount of Educational Work thrown upon the High Schools by the non-professional training of Teachers has obviated the necessity of contemplated Normal School Expenditure, and given a first claim to the High Schools for increased support from the Legislature.

4. That the grant for Upper School Pupils should be a fixed sum per pupil.

5. That High Schools situated in Towns, separate from Counties, are placed at a serious disadvantage, and one for which the present law does not furnish a satisfactory remedy.

6. That the exaction of fees from High School Pupils is not desirable.

Moved by Mr. Lusk, seconded by Mr. Clark,

That the Report be considered paragraph by paragraph.—Carried.

The Chairman having read paragraph 1, Mr. Dawson suggested that the word "pecuniary" be inserted before the word "support"; the paragraph thus amended was adopted.

Paragraph 2 having been read,

It was moved by Mr. Clark, seconded by Mr. Hicks,

That Paragraph 2, as read, be adopted.—Carried.

Paragraph 3 having been read,

It was moved by Mr. Anderson, seconded by Mr. Williams,

That Paragraph 3 be adopted.—Carried.

Paragraph 4 was adopted without a formal resolution.

Paragraph 5 caused considerable discussion. The chief point touched upon was, that as Towns, separated from Counties, obtained this separation at the time for the purpose of securing certain pecuniary advantages, and it was a voluntary act on their part, that they should not now complain.

Messrs. Hodgson, Jeffers, J. Miller, A. Miller, Orr, Dawson, Michell, Strang, Tilley, Turnbull, Tamblyn, Shaw, and several others took part in the discussion.

Paragraph 6 being read, a vote was taken, and a majority of one decided in favour of free High Schools.

It was then moved by Mr. Oliver, seconded by Mr. Hicks,

That Paragraph 6 be re-considered.—Lost.

The discussion on the mode of distributing the Government Grant was introduced, when the time for adjournment arrived, and it was agreed to continue this discussion to-morrow.

Section then adjourned to meet to-morrow at nine a.m.

Present at this Session :—

Messrs. McMurchy, J. Miller, A. Miller, Strang, Houghton, Lusk, Jeffers, Rothwell, Shaw, Orr, Michell, Earle, Cook, Tilley,

Anderson, Hicks, Hughes, McHenry, Clark, Turnbull, Williams, Shortt, Dawson, De LaMater, Oliver, Hodgson, Dobson, Grant, Tamblyn, Crosier and Purslow.

HIGH SCHOOL MASTERS' ROOM,
Education Office,
Thursday, Aug. 15, 1878.

Section met at 9.30 a.m. Mr. McMurchy in the chair.

Minutes were read and approved.

Discussion on distributing the Government Grant was resumed. Mr. Seath opened the dicussion. In his remarks he pointed out some of the anomalies in the apportionment of that portion of the Grant which is distributed on the result of inspection. His impression was that few, if any, of the masters understood upon what basis the Inspectors proceeded in making the apportionment.

It was moved by Mr. Strang, seconded by Mr. Connor,

That the discussion on this matter be closed at eleven a.m.—Carried.

Mr. Purslow moved, seconded by Mr. Shaw,

That a Committee, consisting of Messrs. Seath, Dawson, Strang, Clark, Hodgson, and the mover, be appointed to consider the matter of distributing the Grant.—Carried.

While this Committee was engaged in considering this matter, the subject of University Consolidation was taken up.

Mr. McHenry introduced the subject, and strongly advocated its necessity.

He then moved, seconded by Mr. Houghton,

That in the interests of higher Education in Ontario, some practicable form of University Consolidation is highly desirable.—Carried.

The Committee now entered and presented their Report.

REPORT OF THE COMMITTEE ON THE DISTRIBUTION OF THE GOVERNMENT GRANT TO HIGH SCHOOLS AND COLLEGIATE INSTITUTES.

The Committee reported as follows :

1. That in the opinion of this Section the mode of distributing the Grant on the "results of Inspection" is unsatisfactory.

2. That the half-yearly apportionment of this sum should be based on the joint report of the three Inspectors at the end of each eighteen months : the Schools being then graded for the ensuing eighteen months.

3. That the Section would urgently press on the attention of the Minister of Education the desirability of carrying out the provisions of the Act to the effect that an allowance should be made for other examinations besides the Intermediate.

Mr. Dawson moved, seconded by Mr. Connor,

That the Report be received.—Carried.

Clause 1 having been read, was adopted.

Clause 2 having been read,

It was moved by Mr. Dawson, seconded by Mr. Fessenden,

That Clause 2 be adopted.—Carried.

Clause 3 was read and adopted.

The following gentlemen took part in this discussion :

Messrs. Houghton, Williams, Crozier, Fessenden, Seath, Connor, Bowerman, J. Miller, A. Miller, Turnbull, Purslow, Grant, Hodgson and Clark.

Discussion on University Consolidation was now resumed. The points chiefly touched upon were: the advantages to be derived; the impetus that would be given to higher culture ; the uniform value of degrees ; the relations between the High Schools and Universities ; the difficulties in the way ; and government support.

It was moved by Mr. McHenry, and seconded by Mr. Connor,

That a Committee be appointed to wait upon the Hon. the Minister of Education, urging him to request the authorities of the several degree conferring Universities to appoint, at an early

day, representatives to a joint committee which shall mature some scheme of University Consolidation, with a view to securing the necessary legislation on this subject; and that Messrs. McMurchy, Seath, J. Miller and the mover be the Committee.—Carried.

Mr. McMurchy being called away, Mr. Seath took the chair.

It was moved by Mr. Strang, seconded by Mr. Turnbull,

That Messrs. Seath, A. Miller, J. Miller, Purslow, and Inspector Smith, be the Executive Committee for the ensuing year.—Carried.

Moved by Mr. Miller, seconded by Mr. Connor,

That the Committee on University Consolidation urge upon the Minister of Education the desirability of endeavouring to secure a uniform Matriculation Examination for all Universities and other examining bodies in the Province.—Carried.

Section then adjourned.

Public School Inspectors' Section.

This Section was very largely attended, and the discussion of the several matters brought before the attention of those present was deeply interesting.

The following resolutions were adopted by the Section:

1. *Resolved*, That in the opinion of this Section of the Provincial Teachers' Association, the High School Entrance Examinations and the Examinations for 2nd and 3rd Class Teachers should be held at different times.

2. Whereas the office of Public School Inspector is largely executive in its character; whereas the Inspector is chiefly responsible to the Education Department for the efficient discharge of his duties, receives all his instructions from the Department and reports, legally, only to the Department; whereas it is undesirable that the Inspector's Office should be under the influence of Municipal and other Local Elections; and whereas the requirements of the law are necessarily in advance of popular education and popular feeling; therefore be it

Resolved, That in the opinion of this Section of the Ontario Teachers' Association the removal of Inspectors should be sanctioned by the Department before taking effect.

3. *Resolved*, That the Third Class Examination should be held at some time of the year other than the summer vacation.

4. *Resolved*, That in the opinion of this Section some change is demanded in the method of apportioning the legislative Public School Grant among municipalities, this change being specially necessary in the interests of the newer and more recently settled portions of the Province, to which grave injustice is done by the apportionment of the Grant on the basis of the census taken only every decade.

5. *Resolved*, That the possession of a university degree in Arts, from any British or Canadian University, and of a Public School Teachers' First-Class Certificate, of any grade, should qualify the possessor for a Public School Inspector's Certificate; and, that in future no man be considered eligible for such certificate unless he hold the qualifications above stated, or a First-Class Certificate of the highest grade.

6. *Resolved*, That the standard for non-professional Second B, should be the same as now for Second A, except as to age limitation, which should be the same as now for a Third; also, that the standard for Second A be sixty and forty per cent., instead of fifty, and thirty per cent. as at present.

The following were elected as the Executive for the following year:

Chairman—James C. Brown.

Secretary—John Dearness.

Committee—Messrs. Wadsworth, Scarlett, Carson, Johnston and Alexander.

J. R. MILLER, *Secretary, pro tem.*

THEATRE, NORMAL SCHOOL, TORONTO,

August 13th, 1878.

The first meeting of the Public School Section was held in the Theatre of the Normal School, Toronto, this morning. The Chairman of the Section, Samuel McAllister, took the chair at 10.30, and called upon R. McQueen, of Kirkwall, to read a portion of Scripture and engage in prayer.

The Chairman then delivered a short inaugural address, reviewing the work of the Section for the present session.

Mr. J. Suddaby, of Berlin, the introducer of the first subject on the programme was not present.

Moved by H. Dickenson, seconded by James Duncan, that the discussion on the subject be proceeded with.—Carried.

The subject, "Should Public School Teachers be represented on the Central Committee," was then opened for discussion.

After remarks had been made upon the question by Messrs. D. Johnston of Cobourg, H. Dickenson of Stratford, Grier of South Grey, D. Boyle of Elora, Neilly of Bradford, McPherson of Harriston, Miller of Goderich, F. S. Spence of Toronto, and Grey of Vankleek Hill,

It was moved by Mr. Johnston, seconded by Mr. Grier,

That a Committee be appointed to wait upon the Hon. Minister of Education and request him to grant representation to Public School Teachers on the Central Committee.—Carried.

Meeting adjourned at 12.30 p.m., till 9 a.m. on Wednesday.

H. DICKENSON, *Secretary.*

August 14th, 1878.

The Public School Section met at nine a.m. S. McAllister in the chair.

Opening exercises led by Mr. McQueen.

Minutes of last session read and adopted.

Mr. Suddaby explained why he had not been present on the preceding day. He understood the question he had been asked to introduce would not be taken up until to-day.

He moved, seconded by Mr. Grier,

That the Committee to wait upon the Hon. Minister of Education and urge upon him the carrying out of the views of the Public School Section regarding representation on the Central Committee consist of Messrs. Dickenson, F. S. Spence, D. Johnston, Goggin, and the mover.—Motion carried.

Mr. D. J. Goggin of Port Hope was then called on to open the discussion on "Model Schools."

An animated discussion took place; participated in by Messrs. McPherson (Harriston), Dickenson (Stratford), Lewis (Toronto), Farewell (Thornbury), McQueen (Kirkwall), McKinnon (Meaford), Allan (South Grey), McKee (South Simcoe), Chapman (Berlin), Miller (Goderich), Suddaby (Berlin), Duncan (Windsor), Alexander (Galt), McLean (Milton), and Johnston (Cobourg).

A number of suggestions were referred to a Committee of the General Association appointed to consider this question.

A vote of thanks was unanimously passed to Mr. Goggin for his paper

Meeting adjourned till nine a.m. on Thursday.

H. DICKENSON, *Secretary.*

August 15th, 1878.

Section met. Mr. D. Johnston in the chair.

Rev. Mr. Grant read a portion of Scripture and engaged in prayer.

Minutes read and confirmed.

Moved by Mr. Grier, seconded by Mr. Allen,

That in the opinion of this Section that clause in the superanuation scheme which provides that teachers cannot retire from the profession until sixty years of age, unless disabled by sickness, be

amended by introducing a clause giving them the privilege of retiring after an actual service of twenty-five years, without forfeiture of their claims on the Superanuation Fund.—Carried.

Mr. W. Rannie of Newmarket introduced the subject "Sub-Division of Examination Work of Public School Teachers."

After remarks on the subject by Messrs, Alexander, Barber (Durham), Dickenson, Moore (Vaughan), and McQueen, the following resolution was carried.

That in the opinion of this Section the subjects prescribed for First-Class Certificates be divided into three groups, and that when a candidate has passed a successful examination in a group, he should not be asked to write again on that group.

Moved by Mr. Rannie, seconded by Mr. Alexander,

That success in teaching should be regarded as of more importance in granting the higher classes of certificates.—Carried.

Moved by Mr. Morrison (Toronto), seconded by Mr. Chapman,

That the Public School Teachers repudiate the idea expressed in a paper read yesterday before the General Association, that Latin, French or German should become a substitute for the "Physical Sciences" in securing First-Class Certificates.—Carried.

Moved by Mr. Curtis, seconded by Mr. McQueen.

That the number of extracts in English Literature to be prepared by candidates for Third-Class Certificates, and for entrance into High Schools should be reduced.—Carried.

The opinion of the Section was also given against permanent Third-Class Certificates being granted by the Department, except under very exceptional circumstances.

The Officers elected for the ensuing year are

Chairman:—D. Johnston of Cobourg.

Secretary:—Wm. Rannie of Newmarket.

Executive Committee:
- R. Alexander of Galt.
- J. Munro of Ottawa.
- J. Suddaby of Berlin.
- J. Hughes of Toronto.

A vote of thanks was passed to the retiring officers for the care taken in getting up a programme for the present meeting, and for their services generally.

H. DICKENSON, *Secretary.*

PAPERS READ
BEFORE THE ONTARIO ASSOCIATION
FOR THE ADVANCEMENT OF EDUCATION.

PRESIDENT'S ADDRESS.

Recent Educational Changes and the Principles they involve.

Important educational reforms have been introduced during the last seven years, and I have thought that some observations on these and the principles they involve would not be out of place on the present occasion. I shall consider, first, the changes directly affecting the Public Schools, and secondly, those more immediately affecting the High Schools.

I.

It is not necessary to enter upon an elaborate statement and vindication of the principles which underlie our entire educational system. I may remark, however, that it aims at being thoroughly national in character. It assumes that the intellectual life of a nation does not depend on the education and culture of a single class, but upon the enlightenment of the masses, and that no individual, and no associations of individuals, should be entrusted with the sacred work of popular education.

The eminent man whose life and energies have been devoted to the foundation and development of the system, has ever been guided by the broad principle—now accepted by the liberal thinkers and far-seeing statesmen of every land—that *Schools and Colleges are Institutions of the State.* This principle, which declares it to be the duty of the State to educate its citizens, is the outgrowth of a clear perception of the relationship between the individual and the State.

This relationship, as exemplified in every truly national system of education, is not one of police, but one of guardianship. The state provides for the education of the citizen, not as a matter of charity, but as a matter of justice; and the citizen not only has a right to demand but is under obligation to receive the education which it is the duty of the state to provide. Only when this principle of reciprocal rights and obligations is practically acknowledged can there be a thoroughly national system of education, and only under such a system can the highest results be reached in the material and intellectual advancement of the nation. Such a system

is ours. It presents a properly organized scheme of national education from the most elementary to the highest stages. It has made the highest accessible to all, and it aims at making the lowest imperative on all. Such an organization can be effected, and worked with the highest attainable success, only under a proper system of municipal government. It is not possible for the central authority to do all that effective administration requires; it would not be wise even if it were possible. There are some matters that must be left entirely under the control of the central authority; there are others that should be left to the local authority. In our system the central authority has wisely invested the local authorities with the highest powers consistent with the necessary unity of aim and method, and has used every available means to encourage liberality in local legislation. Now, I suppose it is peculiarly the function of the central authority (1) to provide the requisite supply of properly qualified teachers, (2) to prescribe the courses of study to be pursued in the national institutions, and (3) to provide for the proper supervision of these institutions. In these three particulars have occurred the most important of the recent reforms to which I propose to direct your attention.

(1.)—As to the First Point. *(a) There has been instituted an effective plan of examinations to test the literary attainments of all candidates for the teachers' profession.*

Since the teacher makes the school, one of the highest aims, if not the very highest, in every system of national education, is to secure good teachers—teachers who have the requisite scholarship, as well as culture and professional skill. And, beyond question, the proper test of the necessary scholarship is to be found in an examination conducted by the central authority, on subjects prescribed by the same authority. In other words, there should be a uniform system of examinations. Local authorities, such as township or County Boards, or Boards of School Trustees, ought not to be entrusted with the important work of determining the qualifications of teachers. In some of the States of the American Union the want of a uniform State system of examination proves a serious injury to the cause of education. Examinations, we are informed, may be conducted by the State Superintendents, by city superintendents, by Boards of trustees, or by county commissioners of schools. Under such an absence of system the standards of attainment and the methods of examining "are almost as varied as the individuals conducting the examinations." And when, as not unfrequently happens, the examiners are not only deficient in scholarship, but profoundly ignorant of all that relates to the principles and practice of education, the results afford no evidence of the candidate's scholarship or professional ability. "Perhaps some peculiar vagary or conceit of the examiner, who may be a physician, or merchant, or farmer, or mechanic, or lawyer, is made to serve as a procrustean standard by which the merits and defects of all that present themselves are judged."

Some such method as this prevailed in Ontario when the examinations were in the hands of the County Boards. The subjects for examination were, indeed, prescribed by the Department of Education; but the mode of conducting the examination, and the standard of qualification as fixed by

the examination papers, were determined by the separate Boards. There were forty of these examining boards; and there were, it is no exaggeration to say, just forty different standards. The possession of a County Board Certificate was therefore no sure evidence of scholastic proficiency, or of professional skill. The results were pre-eminently injurious to the interests of education. There was not sufficient discrimination between the worthy and the unworthy—between the devoted teacher and the hireling. The able and conscientious man who devoted himself to thorough preparation for his life-work, was rudely jostled by the illiterate self-seeker, whose exigencies had driven him to teaching as a temporary make-shift. Hundreds who had neither the proper qualifications nor any intention of acquiring them, rushed into the teaching profession. The open door was an irresistable temptation to those who wished merely to make teaching a stepping-stone to "something higher," or rather to something that paid better.

It was high time, then, that a change should be made, and accordingly the amended law of 1871 inaugurated the much-needed reform. Through the operation of that Act, the standard of literary qualification has been greatly raised, and the examination itself made a real test of proficiency in the subjects prescribed. This is one of the most important steps that have yet been taken in the interests of the public schools. Speaking generally, it may be said that the third-class certificate of to-day is a more certain evidence of scholarship than the First-class County Certificate of former days. Many persons have been obliged to abandon a profession for which they were quite unqualified; while many more, equally unqualified, have been excluded from its ranks. Thus the schools of the country are now in better hands than formerly; our teachers are better scholars, better managers, better instructors—better educators—possessed of clearer and nobler views of the nature of education, and inspired with a loftier enthusiasm for the great work in which they are engaged.

There can be no doubt, too, that the reform under consideration will go a long way towards elevating the teacher's calling to the dignity of a real profession. The dunce and the laggard will hardly attempt our strict examinations. The man possessed of a mere smattering of learning, sufficient perhaps for entrance into some of the "learned" professions, but utterly beneath the requirements of a good public School, will be forced to resort to other fields and "pastures new" for the means to win the object of his ambition: he will not be allowed to try his prentice hand upon our children, inflicting, perchance, a remediless wrong on the immortal natures committed to his care.

It was thought by some that the somewhat sudden increase in the difficulty of the examination might work injustice to meritorious teachers, and that the standard fixed, especially for Third-class Certificates, was much higher than was actually required in view of the work to be done. But the regulations, while observing the spirit of the law, have not been harshly, or indiscriminately enforced. Special cases have received full consideration, and the deserving teacher who really desired to remain in the profession and to qualify himself for its work, has met with every encouragement. In short the late Chief Superintendent and the present Minister

of Education, have carried out this great reform with so much foresight and kind consideration of existing difficulties, that not a single case can be cited in which any injustice has been done.

I cannot admit that the standard of qualification for Third-class Certificates is unnecessarily high. Surely it will not be argued that a teacher's knowledge may be limited to what he has to teach—that the minimum of knowledge prescribed for the pupil may be wisely fixed as the maximum for the teacher. This would imply a very narrow view of even primary education. Is the instruction given in the public schools to have any educative value or is it to be merely mechanical? Mark the position taken:—The child is to be taught the elements of reading, writing and arithmetic; the teacher can read, write and cipher, therefore he is qualified as an *educator*. A narrower view than this of a great subject, it would be impossible to take.

These elements are, of course to be taught; and taught by the accomplished teacher, they may, even in themselves, have some educative value; though with such a teacher, they are chiefly means to an end. But the illiterate teacher does *not* regard these elements as means to an end; in his view they constitute themselves the end—the "be all and the end all" of his irksome task. They are taught mechanically, their acquisition is mechanical; and as for true education, there is absolutely none. The teacher is himself without interest in the subject which he feebly comprehends; his own powers having not been awakened to vigorous action, he possesses but little of the life-awakening force, and none of that lofty enthusiasm which comes from a broad view of education, and a deep sense of the responsibility that rests upon the educator. If there is to be, in our public schools, any education at all worthy of the name, the teacher must be a man of "considerable education and culture, possessed of a clear insight into human nature, and well acquainted with the best methods of training." It is, therefore, no argument to say that because, in the primary schools, the quantity of knowledge to be imparted is small, the most meagre attainments on the part of the teacher will suffice. On the contrary, just because the quantity of knowledge is small, the quality of the instruction should be of the highest order. It is not the amount of information, but the method in which it is given that is of value here; not the imparted facts, but the quickened intelligence, "not the truths and principles mechanically conveyed, but the living abiding impressions produced on the soul. The child is to be trained towards the perfection of manhood; his nature brought into the fullest activity on all sides, and his powers developed in an equable and harmonious completeness so far as time and circumstances permit." This view of education is not an ideal one which we may fondly imagine, but never hope to realize. It is easily within the reach of the earnest, cultivated teacher; it is far beyond the vision of the crude empiric whose fitness for the teacher's high vocation is measured by an imperfect knowledge of the mechanical *trivium*—reading, writing, ciphering. The child, then, is to be EDUCATED, and only the educated man or woman can do the noble work. The country has awakened to this true view of the aim and object of education, and has proposed a comparatively high standard for the intending educator. The standard may be thought high as compared with that of

former times; but not too high to ensure efficiency on the part of those whose inefficiency might work an irremediable wrong; not too high, when the country has placed its easy attainment within the reach of average industry and ability. If any one has not average industry and ability, he has no business in the ranks of the highest of all professions; giving place to better men, let him dig, if "to beg he is ashamed," or study law, or plough, or swing the woodman's axe, or try his hand at any honest calling, in which if he prove not an expert, at least his blunderings will not be disastrous to the highest interests of the State. They seem to me entirely wrong, then, who take the ground that, while first and second-class teachers ought to possess comparatively high scholarship, from third-class teachers ought to be exacted only the bare elements of knowledge. For, though a better state of things will doubtless soon arive, as yet a majority of the teachers are of this class, and therefore the work of education is still too largely in unskilled hands. No one can desire that this serious deficiency in our educating power should become permanent. It is plainly the ultimate object of the law to have the schools in charge of only well-qualified instructors. Those holding the lowest grade of certificate must rise to a higher plane; the worthy among them, whom I believe to be the vast majority, will strive to reach that higher plane,—the unworthy must give place to more earnest or more able men.

And is there any injustice in requiring the teacher to more thoroughly qualify himself for his work—to manifest in himself a little of that intellectual life which he is to communicate to others? With the extraordinary facilities for receiving both literary and professional training which a liberal country has supplied—with all the incentives to progress which surround him on every hand—what plea can be offered for the laggard who refuses to bestir himself? "Labour is life, who works not lives not," is a changeless law from which neither mind nor body can escape.

The teacher who makes no progress, who is animated by no earnest search for truth, can have no vigorous intellectual life. Having nothing in himself of that quickening force, whence can he have his vivifying power? Having no self-activity in his own spirit, how can he create it in the spirit of another? The teacher exerts a mightier influence by what he is and by what he does than by the words he utters or the information he imparts.

"It is the unconscious *life* in a man that most influences us." It is the unconscious *life* of the teacher that produces the most lasting impressions. "He communicates to his pupils a large amount of himself—of his own spirit, of his own character, of his own life." Dead himself, he communicates death. He drags his pupils through a dull and dreary routine, "drugging their minds with unprofitable facts—making them read and commit to memory without once introducing them into living contact with the thoughts,"—without once touching the moral nature, or arousing the intellect to activity. I am sure, no true teacher will take the low ground that "anything will do for the ordinary public school," and that, especially the attainments represented by a third-class certificate are sufficient for his work. And I venture to express the opinion that no true friend of educa-

tion will be found advocating principles or supporting a policy whose permanent triumph would smite the country with a lasting curse.

(b) Scholarship alone is not sufficient to make a true teacher. A man may know much of mathematics, science, literature—this is indispensable; but to be a successful teacher, there is a co-ordinate qualification—he must know how to organize, how to govern, how to teach, in short, how to *educate*, and therefore *a second great reform is that which makes farther provision for the professional training of teachers.* When we speak of professional training we imply that there is a Science of education. That there is such a science has been maintained by some, denied by others. Mr. Lowe, for instance, ridiculed the proposal to establish a "Chair of Education" in the University of Edinburgh, because, as he asserted, there is no science of education. But it appears to me that the proposition requires little more than to be fairly stated in order to command assent. Are the conscious efforts of the teacher to develop the mental activities of his pupils mere crude experiments, knowing no law, or order, or definite aim? Education is, or ought to be, no more a series of hap-hazard experiments than, for instance, medicine. Instruction I suppose, is an art; but as an art it is the application of systematic principles derived from investigations of the laws of mental action. Education and medicine are both practised as arts; but they are equally the practical application of general principles—the one being, we may say, applied physiology, the other an applied psychology. Without, however, entering upon a full discussion of the question, it is enough to say that there are certain laws regulating the activities of the human mind—that some of the most important of these laws have been discovered and applied in education—and that a knowledge of them reveals right methods of instruction, and guides the teacher in the work of true education. It follows that all teachers should be thoroughly familiar with the principles of education, and as far as possible skilled in their application. For, as we have quacks in medicine, so we have empirics in education; and if the community is to be protected against the former, how much more against the latter? If we have a salutary dread of those who may kill, or maim, or enfeeble the body, with what feelings should we regard those who have a similar treatment for the soul?

The absolute importance of professional training for teachers has been all but universally acknowledged. The ablest statesmen in every civilized country which has undertaken the education of the masses at the public expense, have used all efforts to establish institutions to supply such training. In 1875 there were in Great Britain thirty-eight normal schools, in France, eighty-six, and in Germany, 174. Our first Normal School was established in 1847, and unquestionably has exercised a powerful influence on the education of the country. But during the earlier years of its existence its chief work was—not to give its students that professional training which it is the principal function of a Normal School to impart—but to prepare them for passing the prescribed literary examination. This was unavoidable, inasmuch as there were but few schools in the Province that were at once easily accessible, and able to give the requisite literary training. But the High Schools have, in recent years, so greatly improved that they now can give the highest literary training that the teacher may

require. Accordingly a change became practicable, and was promptly made. Second-class teachers, whose training had occupied nearly all the teaching power of the Normal Schools, must now acquire the requisite scholarship and pass the prescribed scholastic examination before entering these institutions, which are thus placed in a position to discharge with efficiency their principal function, in imparting a sound knowledge of the principles of education and a large measure of practical skill in their application.

But something further was required. It was found that about nine-tenths of the teachers of the country had received no systematic training in the art of teaching. The great value of professional training had been clearly shown in the generally superior teaching and management of those who had graduated at the Normal Schools, and from all parts of the country came a demand for trained teachers. The existing Normal Schools could not meet the demand; the requisite number of additional Normal Schools could not be established without an enormus expenditure, which our people, with all their liberality in matters of education, would have been, perhaps unwilling to sanction. It became necessary, therefore, to devise a more simple and less expensive scheme to enable teachers to acquire a certain amount of professional knowledge and intelligent experience. The system of County Model Schools was accordingly established, and it at once met with a large measure of popular favor. These schools are, in effect, inexpensive County Normal Schools—certainly not capable of doing all that we have a right to expect of a fully equipped training college—yet able to do, and, I hesitate not to say, actually doing a work which will tell with powerful influence on the public schools. I do not say that they are yet all that they ought to be; I do not say that the Normal Schools are doing all *they* ought to do; there is without doubt, room for improvement in both these classes of schools But I say that both are doing a great and noble work, and that the moral and intellectual influence of the trained teachers they send forth will tell with incalculable effect on the rising generation.

The time at my disposal prevents more than a brief reference to the subject of Teachers' Institutes. They are when properly conducted, a most valuable auxiliary to normal and model school training. They are, on the whole, well conducted in Ontario, as I have had ample opportunity of witnessing. Their success depends largely on the Public School Inspectors. And I have pleasure in publicly stating my belief that the ability, energy and earnestness—not to say enthusiasm—which characterize the great majority of our inspectors, are nowhere more clearly seen than in the successful working of these valuable agencies in our educational work.

(2) IN THE SECOND PLACE, in order that the objects of national education may be as fully as possible attained, *a judicious course of study is of paramount importance.* What the extent of such a course should be, and what subjects it should embrace, are questions that have been widely discussed and variously answered according to the views held of the aim and scope of popular education. If its object is to put the pupil in mechanical possession of the barest elements that may assist him in making a livelihood, the course will be a narrow one, consisting of but three subjects, reading, writing, and the elements of arithmetic—since, on the utilitarian theory, these are the

"knowledges" that are of most worth, and the only ones that the common citizen requires. But, as has been already said, the aim of Primary education is not confined to this; the child is to be *educated;* he is to be treated as an intelligent being, whose wonderful activities, so far as certain limitations of time and circumstances allow, are to be aroused and strengthened. No doubt, *useful* knowledge is to be imparted, but in such a way as to influence life and character. From a low view of the aim of education, the child's whole nature may be grievously wronged by the meagre programme and the blundering teacher. On the other hand, subject to truly educating influences in the impartation of even elementary knowledge, his plastic mind may receive impressions which shall outlive the rough battle of his humble life, reacting on the family and all the social forces.

Assuming, then, that the higher view of popular education is the correct one, two things are to be kept in view in the arrangement of a judicious course of study—the value of the subjects in *discipline* and their value as *knowledge*, or, in other words, practical utility. Doubtless there are subjects which are *practically* of little worth, though they may have a high value as instruments of discipline. But, for the purposes of Primary education, those should be selected which at once are valuable in discipline and practically useful. This has been done in arranging the course for the Ontario schools. Language, Elementary Mathematics, History and Geography, Elementary Science, Writing, Drawing and Music. All these are of high value, whether regarded as means of culture or sources of useful information. It will be admitted, also, that in the order of arrangement; in the number of subjects prescribed for simultaneous instruction, in their sub-divisions into grades—in a degree of flexibility which leaves a reasonable latitude to both teacher and pupil—in all these essentials the new programme, while not above criticism, is a great improvement on the old. But can these subjects, or the most of them, be taught in the efficient public school? Do they fairly indicate what such a school may be expected to accomplish? I answer in the affirmative. The child enters school at six years of age, we will say, and remains till he is fourteen—what teacher will maintain that all the intervening years are to be spent in learning to "read, write, and cipher." This indeed has been, and is still, too often done—because the teaching has been too often done in dense ignorance of the plainest laws of mind. The most precious years of the child's life are wasted—or worse than wasted—in a drudgery of barbarous routine—a torturing tread-mill with the ceaseless alterations—reading, writing, ciphering; reading, ciphering, writing; ciphering, writing, reading, and so on through all the dreary years.

But more excellent methods are beginning to be found, and will soon generally prevail. No intelligent teacher will argue that *one-third* of the child's school life must be given to learning the elements of Arithmetic, and as much more to the mastery of the few English words he is concerned to know. Let rational methods of teaching be followed, and our children will become better Arithmeticians, and better readers in half the time that these branches have usually consumed; and the other half thus wisely and economically—not to say *humanely*—saved, may be devoted to other and equally important subjects of the course.

But admitting that the course of study is quite within our reach, is it necessary—is it expedient—to give the children of the masses so liberal an education? To this question, if the views of popular education already set forth are sound, there can be but one answer. Once more, it is the great aim of the Public School to place within the reach of all a course of education sufficiently extensive and thorough for all the ordinary pursuits of life, and to create a national intelligence which shall be effective in national progress. That national intelligence is an essential element in national advancement, is a proposition that will hardly be questioned even by those who are constantly magnifying a purely practical or industrial education at the expense of intellectual education. The attitude of man in nature is one of perpetual struggle with the forces of nature, and human progress is mainly the triumph of intelligence over matter and material phenomena. Man interrogates nature; he passes in review her grand domain; he demands the surrender of her secrets and her treasurers; and nature, recognizing the voice of her appointed Master, and answering, obedient to the imperial summons, enlarges his understanding by a revelation of her mysteries and pours her richest treasures at his feet.

All that has been discovered in the region of science, all that has been invented in the industrial arts, has been discovered and invented by the exercise of mind Can it then be fairly maintained that intellectual education is of little worth in material progress? Shall the inventive mind lose its ingenuity, and the skilled hand its cunning when guided by intelligence? Nay, the increase of popular intelligence ensures material progress and national power—the wider diffusion of liberal education, means more splendid achievements in all the industrial arts and in all the realms of thought. The very spirit of national education is that it places within the reach of every man the means for the harmonious development of the powers with which he has been endowed. All talent, all genius, is useful to the community at large; and the liberal course of study adopted for the schools will bring to light hands that may sway "the rod of empire, or wake to ecstasy the living lyre."

3. In the Third Place. *A completely effective system for the supervision of the Public Schools has been established.*

In every complete organization of public instruction, a system of thorough supervision is essential. Good teachers are indispensable; good inspectors are equally so. They must be men of education and of large experience. It is not their chief duty to regard teachers as suspicious characters, who need the attention of a severe police; but to see that the regulations for the management of the schools are properly carried out, and that rational methods of instruction are followed. The qualified inspector is in thorough sympathy with the earnest teacher—gently pointing out his errors, assisting him in difficulties, praising with pleasure, and censuring with regret.

One of the greatest defects, if not the greatest—in our educational system was the want of proper school supervision, and, therefore, the institution of the present system constitutes one of the most important of our

educational improvements. Instead of a perfunctory discharge of duties, for which, under the old plan, the superintendent had but little fitness, and but little sympathy, the proper fulfilment of the duties of an inspector now requires high literary attainments, a long professional experience and an entire consecration of time and energy to the work. By the new system the schools in each inspectorate are placed under the supervision and, to some extent, control of an officer whose duty and ambition it is to see that all parts of the system, of which he is the head, are harmoniously and effectively worked. The standard of education is thus raised; for in every school are introduced method and discipline; the weak points are noticed and gently corrected; irregularities checked, vicious modes of teaching banished from the school room; order and control introduced. The teacher feels that his work comes before one on whose judgment he can rely. Knowing that the results of indifference, laziness, or slovenly teaching, cannot escape the searching eye of his inspecting officer, even the careless teacher is quickened into some semblance of life. On the other hand, the really able and earnest teacher, feeling that energy, industry and earnestness are sure to be acknowledged, is encouraged to qualify himself yet more fully for his vocation.

Trustees are more confident in the discharge of their duties, when they know that within easy reach they can secure the advice of a competent officer, and when they can ascertain on the occasion of his visits the quality of the work done in their schools—its faults and his excellencies. The people have a guarantee that under the control of an officer of experience and wisdom, their school system for which they pay so much, and on which so much depends, will attain to a high degree of excellence, and that too without the sacrifice on their part of any necessary rights or powers. And lastly, the Government can expend its vast sums for the education of the rising generation, with confidence and security and at the same time with justice, only when it possesses such data and information as systematic inspection can supply. These benefits were, to some extent, secured by the old system of township inspection, and perhaps no other mode was practicable at the time of its inception. But we have at last been able to establish a more thorough system, and I believe that with some slight amendments, it will secure all the advantages which flow from a complete supervision of the schools.

II.

The establishment of Primary Schools would be comparatively unavailing without proper provision for secondary education. In every national system worthy of the name, the state has provided a well organized system of High Schools. In fact, where education is regarded as a national duty, all treatment of the question must have reference not to one class of the community but to all—not to the elementary schools merely, but to the High Schools and the Universities also—the entire series of institutions being adapted to all classes of the people, and forming a united and harmonious whole. No objection can be urged against provision for higher education by the *state* that will not tell with equal force against provision for primary education. "I will thank any person," says a great American statesmen, "to show why it is expedient and beneficial in a community to make a

public provision for teaching the elements of learning, and not expedient or beneficial to make similar provision to aid the learner's progress towards the mastering of the most difficult branches of science and the choicest refinements of literature." "No system of public education," says Huxley, "is worthy of the name of national unless it creates a great educational ladder with one end in the gutter and the other in the University." These are the principles that have enabled the great statesmen of Germany to found and develop a system which is the admiration of the civilized world. When Prussia had been reduced to the verge of ruin by the ravages of Napoleon, her great men, summoned to their country's aid in the darkest hour of her history, saw in education the means of her salvation. It was declared—it became an article of the nation's faith—that most was to be expected from national education—that under methods of instruction based upon true conceptions of the moral and intellectual nature of man, a race physicially and morally strong would grow up and a better future dawn upon the nation. And her marvellous success in every field of human activity vindicates the foresight of her statesmen and the soundness of her people's faith. On such principles as these has national education in Ontario been organized. "A national system," says Dr. Ryerson, "must include within itself a systematic and complete gradation of schools from the lowest Elementary School up to the University itself, without a missing link or break in the chain." The benefits derived from a national organization of secondary education are very great. It is essential to the existence of an efficient system of public schools, it places a liberal education within the reach of all who have the capacity to receive it, and brings to light genius and talent which otherwise would lie "mute and inglorious."

There can be no doubt that the efficiency of our High Schools has greatly increased since 1871, and I shall refer to a few of the changes to which this is to be chiefly ascribed. In the first place, through the pressure wisely exerted by the Department, a greater number of masters is now employed, though the number of schools has slightly diminished. In the year mentioned very few of the 107 schools employed more than one master; now there is an average of three masters to each of the 103 schools. Some schools that formerly had but one master now have four, and there is not a single instance in which *one* master is found attempting the stupendous task of teaching all the subjects of the curriculum. Thus we have better classification, better discipline, better teaching, greater industry on the part of the pupils, and, on the whole, a state of efficiency incomparably in advance of that of former days.

In the second place: I have no doubt that the action of the Department regarding Union Schools, and the qualifications of masters, has been attended with good results. Thirdly, the Entrance Examination and the Intermediate have produced so marked an influence that they deserve more than a passing notice.

All experience had shown the necessity of a change, both in the standard prescribed for entrance and the mode of conducting the examinations. Boys and girls possessing a mere smattering of the elements of a public school education had been allowed to swarm into the High Schools to swell the average attendance, and increase the grant from the public treasury.

The consequence was that the character of the public schools was greatly impaired, while many of the high schools, far from doing the work for which they were designed, might be said to have a local habitation and a name, but nothing more. It became necessary therefore to institute a more rigid examination and to make it uniform for all the schools. This was done; and the excellent results of the change are universally admitted. Justice has been done to the better class of schools at whose expense many of the inferior schools drew large sums from the public funds—not a few of the low-grade schools have been raised to a higher plane—the really good schools have become still better, and new life has been infused into the public schools.

The Intermediate examination, though it has not been so long in operation as that for entrance, has told with great effect on our High Schools. It was instituted, as is well-known, at a point about midway between the beginning and the end of the High School course. It is not a competitive, but a qualifying examination: it has been established to render the work of inspection more definite and thorough, and to enable the Department to apply the principle of payment by the results. It is really an *inspectional* examination. The questions being, for the most part, prepared by the Inspectors who are familiar with the amount and character of the work done in the various schools, the examination is in all essential particulars, such as an able teacher would prescribe to test the proficiency of his pupils.

I believe that properly conducted written examinations form a most valuable element in every well organized system of public instruction. They not only afford a necessary test of the amount and thoroughness of the work done in a given time; they also possess a high educative value. Every teacher, of course, examines orally; teaching and oral questioning go hand in hand; teaching is what the school-boy needs; mere lecturing may do for the University student—though even in his case, less talk and more socratic teaching, would be greatly to the purpose. But oral examination is not enough; there must be frequent written examinations if the best results are to be secured. The teacher, for example, goes over with his class the work prescribed for a given time. Does he rest satisfied with oral questioning merely? Does he not know that the hasty questions given in class examination cannot test the pupil's knowledge like the carefully prepared questions of the written paper? Does he infer that, because the general answering of the class during recitations has been satisfactory, they are thoroughly masters of the work gone over? On the contrary, he resorts to his written tests, at once fair and uniform, and on the results of these he determines the actual proficiency. He can judge from these whether he has attempted too much or too little in a given time; or whether, as sometimes is the case, his teaching has been at fault. For if the examination proves a comparative failure, he concludes that he has attempted too much, or that his teaching has been defective, or that his students have been less able and industrious than he had given them credit for. It not seldom happens that the ambitious teacher, animated by a laudable desire to have his school distinguish itself at an examination, attempts too much work within a given time—as when a master, in a few months, hurries a class over all the work prescribed for the "Intermediate." Or the failure may be due to defective

teaching. Clever and industrious students, we will suppose, have decidedly failed. Then the conscientious teacher will enquire whether the fault is in himself. Knowing a subject well himself, he often overlooks the fact that what long familiarty has made mere axioms to him, presents real difficulties to the learner. Or there may have been some fault in his *method*, and a careful examination of his pupils' answers, and comparison with his actual treatment of the subject, will enable him to detect his error, and for the future adopt a better method.

But further, the educative value of written examinations is very great. "I assert," says Prof. Jevons, "that *examination* is a main element in training." It represents the active use of the faculties as contrasted with that passive use which too often resolves itself into letting things come in at one ear and go out at the other; examinations excite emulation in the active and able; they touch the pride even of those who do not love knowledge much, but still do not like to write themselves down absolute blockheads; and they are themselves an exercise in English composition, in the control of thoughts and the useful employment of knowledge. Examination is education. It is not merely that which goes into the eyes and ears of a student which educates him; it is that which comes out of him. It is said that to know a subject one must write a book on it. No one certainly knows himself master of a subject till he has re-produced it. So no student is certain that he is really master of a subject, or a portion of a subject, till he has passed an examination on it. Every teacher remembers how often he was deceived in his own student days; how often after listening to an exposition of his lecturer, or reading a demonstration in a text book, he thought he had made it thoroughly his own, till his self-deception was revealed in a humiliating attempt to *reproduce it as his own*. In short, written examinations give a thorough mastery of the subject, prevent the student from sinking into an attitude of mere passive receptivity—educate to logical habits of thought, and clearness and precision of expression. They are, as Prof. Jevons says, "the most powerful means of training the intellect."

The Prussians, even more than ourselves, are a great people for examinations, which really constitute an important feature of the system of education. Entrance into the learned professions, the civil service, and nearly all public offices, depends upon them. They, like ours again, are *school* examinations, and are always tests of the school or university training. The State has a guarantee that the candidate has had a sound intellectual training. In the various classes of the German High Schools, an examination always takes place before a scholar is allowed to pass from a lower class to a higher, and certificates are given on passing. These certificates are guarantees of competency which not only the State and public corporations, but business firms and others, require from applicants for admission into their service. The certificate from *Secunda* or *Tertra* is required by many merchants and by the Government for the Civil Service; such a certificate is now almost indispensable for any young man about to enter a mercantile life.

Every effort should be made to make our Intermediate and other educational certificates highly valued by the Government in determining appointments for the Civil Service—by the learned societies, by the universities,

and by the public at large. Already something has been done in this direction. The Intermediate Certificate has been made equivalent to a second-class non-professional certificate; Victoria University was the first to accept it, *pro tanto*, in her mactriculation examination, and Queen's has quickly followed her example. These Universities deserve, and I am sure will receive, the hearty commendations of all friends of education, for lending their powerful influence to promote the great work of secondary education. The High Schools thus receive very great encouragement from these denominational Universities; are they treated with equal consideration by the "National" University?

I may remark, while upon the subject of examinations, that perhaps one more may be tolerated—namely, a High School *Leaving* examination similar to the *Leaving* one of the German Gymnasia, the most famous of them all. We have an Entrance Examination and an Intermediate; why not have, in time, a final examination at the completion of the High School course? I should be strongly in favor of such an examination if the example of Germany could be followed, which makes the *leaving* certificate *necessary* and *sufficient* for matriculation in any of the Universities.

And now a few words in conclusion.

We may well be proud of our noble system of national education. Theoretically almost perfect in its organization, it is rapidly, I believe approaching a degree of efficiency which will leave it without a rival among the nations. It is already multiplying the elements which are effective in material progress, and creating that national intelligence which shall lay broad and deep the foundations of national liberty. But great things are yet to be done, and their accomplishment rests in the teachers' hands. The system may be as perfect in theory as human genius can make it; but it must fall far below its high ideal without its army of able and devoted teachers. You are workers in the grandest field of effort that ever engaged the heart and intellect of man. Daily, hourly—through earnest, conscious effort, and still more through the silent, ceaseless influence of the unconscious life—you are leaving impressions which are ineffaceable, you are touching chords that shall vibrate for ever. Imbued by somewhat of that enthusiasm for humanity which characterized the Divine Man, it is yours not only to awaken intellectual life, but to touch the moral and religious nature—to inspire a reverence for that divine *spirit* of the Gospel, which, rising in imperishable grandeur from the warfare of dogmas, "is silently and gradually operating with ever widening, humanizing and enlightening influence on the destinies of mankind."

On the self-sacrificing efforts of the teachers throughout this great Dominion largely depends the destiny of our country. Shall it have a glorious future or stand, after a brief semblance of life, a "skeleton among the nations?"

We believe a grand future is before us. We have been called to a great inheritance and entrusted with an exalted mission among the peoples of the world. Never was nation more splendidly endowed with the elements of a vigorous life, never was national birthday ushered in under brighter auguries for future greatness. We have a climate, under whose invigorating

influence is attained the highest degree of physical and intellectual life. We have a geographical position affording unsurpassed facilities for achieving maritime and commercial greatness; we have a rich exuberance of material resources for the rapid development of all the industrial arts; we have in our fertile plains and valleys, "ample room and verge enough" for the support of a mighty population. We have more than this. We have all the high instincts and all the manly qualities that distinguish the British race, whose valor and whose genius and whose love of liberty, consecrated ever by the spirit of religion, have made them the leaders in the grand march of humanity. We have more than this: The rich heritage of Britain's history is ours; we share in the renown of her immortal deeds; her glory is reflected from our national escutcheon; the spirit of her illustrious dead inspires us to high purpose and heroic endeavour. We reflect on her gallant conflicts with despotism, her splendid achievements in science and literature, and all the priceless triumphs in civil and religious liberty she has won for the human race, and we are lifted to the requirements of a grander destiny, and impelled to strive for a future worthy of so magnificent a past. We have more than this: The English language is ours, by no means the least valuable element in our peerless heritage; it is of all living tongues the noblest vehicle of human thought; it is the language which no nation can speak and remain enslaved—the language of liberty, of science, of religion—the language "which stronger far than hosts that march with battle-flags unfurled goes forth with FREEDOM, THOUGHT, and TRUTH to rouse and rule the world." We have more than this: The accumulated wisdom and experience of all past ages of the world are ours. To Egypt descended only the civilization of the East; Greece inherited that of Egypt and transmitted it purified and enlarged to Rome, which in turn bequeathed modern civilization to the world. *We* enter, therefore, upon our national career with the light of all the past beaming on our pathway "the heirs of all the ages in the foremost files of Time." We have more than this—immeasurably more—effective in national development, more fruitful of national happiness, more conservative of national greatness, we have institutions enshrining the very genius of liberty—founded on the great principle of human brotherhood and equal rights to all. And we have that pure religious FAITH, which exercises upon all other elements of national life a purifying and a vitalizing power, and without which, no nation can win enduring greatness.

If, then, we are true to ourselves, a grand future lies before us. No power can quench that spirit of enterprise, that love of liberty, that universal intelligence, that religious zeal which characterize our race and which guide and impel us onward in an ever-brightening pathway. Sublime destiny! I seem to hear the tread of the uncounted millions coming up to the possession of this great Canadian zone. They are millions of the truly noble whom virtue and intelligence have ennobled; millions of the truly free whom the truth of God has made free. Their lineaments are the lineaments of the British race, their speech is the speech of freemen—the noble tongue of England—In a mighty chorus of voices, like the sound of many waters, I hear the melodies of a divine religion blending with the songs of liberty. I look, and visions of a beauteous land break upon my view. The fairer forms that cultivation glories in have been won from the savage wilderness; the genius

of intelligence has breathed over the solitary places, a thousand forms of beauty have started into being, and the song of civilization has broken on the immemorial solitudes. Throughout the boundless extent of our rich domain the workshops of industry have risen in thousands, where the genius and skill of myriads of artisans are daily added to the national wealth. I see Schools and Colleges so increased in number and efficiency, that the blessings of a liberal education have become universally diffused, and ignorance finds no lurking place in all the happy land. I see political institutions become as nearly perfect as anything of human origin can be, and all the great purposes of government accomplished with the simplest machinery. I see politics lifted from the mire and invested with unwonted dignity. I see pure laws and high intelligence and refined manners, and truth, and justice, and honour, and patriotism and divine benevolence everywhere prevail. I see the universal people, amid all their material prosperity and marvellous intellectual progress, governed ever by the immutable principles of pure religion,—repressing vice, exalting virtue—true to themselves, true to humanity, true to the high purposes of heaven, exalted by that righteousness which exalteth a nation—brave, and free, and happy, and powerful, working out their glorious destiny under the benignant guidance of the Ruler of nations.

MORAL TRAINING IN PUBLIC SCHOOLS.

Mr. J. M. Buchan, M.A., High School Inspector, delivered an address on this topic. He said that his reason for selecting this subject was that he had noticed lately that there had been something like an educational scare with regard to the subject of moral training in schools. It had always been common to meet with people who insisted that our Public School system must eventually demoralize the people; that the absence of religious instruction from the schools was certain to lead to the absence of moral training. More recently he had noticed that this feeling had been shared in by teachers themselves. You would find here and there throughout the country teachers proposing that moral text books should be introduced into the schools: and that there should be distinct training given in morality, just as in history and geography. There was a great temptation to lead teachers to take this course. Paterfamilias, when he received a report from a school showing that his son and heir had done well, not only in the ordinary subjects of education, but that he had done well in christian morals also, was inclined to think that the school which his son attended was an excellent one. Whereas if paterfamilias paid a visit to the school he would probably become of a different opinion when he saw his son reciting so many verses of scripture or repeating the ten commandments to the teacher, while he was cutting up all sorts of capers when the teacher's back was turned. He would come back in all probability with different views in regard to the moral training of pupils in schools. Much of the misapprehension that existed as regarded the teaching of morals in schools arose from the want of clear ideas as to the nature of morals, and particularly as to the dis-

tinction between morals and religion. These have different foundations in human nature. Our moral notions were all based on the feeling of duty that was present in every man. This feeling was developed at an exceedingly early age through the perception of relations between one human being and others. Children, very young, gave indications of possessing this feeling. Now all systems of religion were based on something totally different. They were based on a conception of some relation between human beings and supernatural beings. In some nations religion and morals did not cover the same ground. The ancient Greeks were a case in point. They had gods for everything, even a god of thieves. Their religion was not morality and it did not cover the moral sphere completely. Our religion on the contrary was remarkable as covering the moral sphere. It was obvious of course to those who believed in any religion at all, that the religious duties were moral duties because they were those we had to observe; but it was common to make a distinction between morals and religion, to confine morality to the duties we owe society. In the same way religion was sometimes limited to strictly religious duties. He would proceed to notice some of the peculiarities of our moral nature which it was necessary to notice in order to have clear ideas on the remainder of the subject. He had already adverted to one of those peculiarities—that there was an innate capacity in mankind for classifying conduct as right and wrong. In the next place it was to be noticed that we had within us a monitor that praised or condemned our actions in a very curious way. You could not influence it or change it by any argument whatever. It was inflexible. It gave a certain decision, and that remained its decision. But it was also necessary to observe that this Rhadamanthus of the inner nature varied in different countries. That was considered right in Asia which was held to be wrong in America, though this quality of variation was limited. This directed his attention to another important peculiarity, and this was that, though we knew what was right, and though our conscience told us we should do what was right, we did not always do it. Everyone of us could say with Horace, *Scio proboque meliora deteriora sequor*—"I know and approve of the better; I follow the worse." Moral training was necessary to get over to some extent this peculiar defect in our nature. They all admitted that a man's morality was to be estimated not by what he thought was right, but what he did. It was conduct which was the test, and in order that our conduct might be right in as great a number of cases as possible it was necessary that we should form habits of right action. These acquired habits relieved us of the necessity or formally deciding in a great many instances. Of course there would always cases arise in which it would be very difficult to come to a conclusion as to what was right or wrong; but by acquiring these habits an important economy was effected. Habits were formed by a natural process, and determined the character of the future man to an exceedingly large extent. The capacity of forming habits depended upon the imitative faculty. They were formed by repetition of actions. The capacity for imitating was particularly strong in the young, and it was in youth that most habits were formed. It would at once be seen that the associations and surroundings of a child from the very earliest period were instrumental in determining its character, its moral nature. It would, therefore, be evident that home influences and other influences outside the school, must have far more to do

with the determination of this character than the school. The school did not receive the young person till it was five years of age. The school, moreover, took charge of the pupil only for so many hours a day for five days in the week, and for forty weeks in the year. It was obvious that the school did not play the first part in the moral education of the young. He appealed to the teachers here to say whether the bad boys of a school were not bad when they came to it. Having thus cleared up what the teacher could not do, they would next consider what the teacher could do. He must say, first of all, that the teacher's work in this respect depended more upon the silent influence of his actions than on anything which he could mention. He would mention certain points in which the schools were really moral teachers, and in which they could be made better moral teachers. In the first place, the discipline of school was of itself a valuable moral agent. The habits of obedience formed or strengthened there, were an incalcuable benefit to persons who were to live in a civilized state. Again the habit of punctuality was inculculated and this was of great importance in all business operations. Then self-control in many of its various aspects was forced upon the pupils by the nature and discipline of the school. Again, the special acts of discipline in the school could be made to have very great moral use. Everything depended upon the method that was adopted in performing acts of discipline. If this method was one that commended itself to the growing moral nature of young persons it would have a good moral effect. It would be absurd, however, to appeal to a moral nature which did not as yet exist in the child. The work performed in the school was of immense moral value. Dr. Watts had expressed that in the words "Satan finds some mischief still for idle hands to do." If work accomplished nothing else it prevented the formation of evil habits. But it also led to the formation of good habits, industry, diligence and others. Not least among the good habits encouraged by the school was that of accuracy, a quality which was of great importance in the education of a child, on account of its bearing on truthfulness. Again, the going to school and mingling with a number of children had of itself a great number of moral advantages. The pupil became a member of a moral society, and had to conform to the rules of that society. A word or two might be said about the influence teachers might exert by attending to the manners of their pupils. The essence of good manners required that we should seem to be everything that was good, and the very effort of seeming to be good had a tendency to make us good. What, then, was the conclusion of the whole matter? First, with regard to the charge that was often made, that in consequence of the want of the formal teaching of religion in our schools, the moral tone of the community was declining—to that charge he must utter an indignant "nay." It was impossible to find any evidence of it. If you appealed to the evidence of facts and figures you would find no confirmation for any such charge. Compare the statistics of the past twenty-five years with those of the preceding quarter of a century and you would find that there had been no increase in the number of crimes or in the moral degradation of the people. It could not be maintained that Germany, France and Scotland, where religious instruction had been given in the schools were morally in advance of the communities on this side of the Atlantic, in which a different system had prevailed. He believed that in a

country where teachers were selected, as they were here, by local boards constituted in the immediate neighbourhood of the schools, the teachers would be at least equal in average morality to the rest of the community. The very nature of their occupation was likely to make them morally superior. Supposing, however, that they were only equal in morality to the rest of the community it seemed that their influence would be about the same as that of the rest of the community. One word more. If the teacher wished to be successful as a moral trainer he must pay attention to his own character and to those "silent influences," which the speaker had referred to. The moral character of a human being grew like a plant. You could not fix the moment that it took a step onward. The individual himself could not really tell you how he obtained his fundamental ideas, or even those of later growth. It appeared to the speaker that to attempt to develop the moral nature by means of a text book would be the same as if a person were to take a plant and put it on the soilless floor of his library and water it with treatises on agricultural chemistry, and give it books on botany instead of the glad sunlight.

BIOLOGY IN ELEMENTARY EDUCATION.

PROFESSOR RAMSAY WRIGHT, UNIVERSITY COLLEGE, TORONTO.

MR. PRESIDENT AND GENTLEMEN,—

I had almost forgotten when I promised a paper on Biology in Elementary Education, to your Secretary, that there already existed in the hands of all those interested in the subject one of Prof. Huxley's admirable essays, which covers most of the ground I had intended to take. That to which I refer, is entitled "The Educational value of the Natural History Sciences," and like everything which is the work of its author, it is characterized throughout by sustained vigour, and contains in every sentence, forcibly expressed truth. If I have occasion to touch upon any of the points there treated, I shall not be afraid of an accusation of plagiary, because I am confident that the good things contained in the volume referred to, cannot be too often repeated in public. To avoid the appearance, however, of serving up to you merely a recapitulation, I shall endeavour to dwell for the most part on certain aspects of the subject which have not been, so far as I am aware, discussed before you. I must, in the first place, before doing so, specially acknowledge my indebtedness to Prof. Huxley's writings for the interest which I take in the diffusion of natural knowledge, and for the stimulus which they have afforded me in prosecuting my professional work.

The teaching of Natural Science now forms an integrate part of the Ontario Educational System, and consequently it would be a mere waste of time for me to insist upon the desirableness of its introduction into the schools. We must not be satisfied, however, with its forming a part of the programme, but ought to strive to increase its efficiency without trespassing

upon the time necessary for the satisfactory prosecution of the more essential scholastic studies. It is matter for congratulation, nevertheless, that the first plunge has been taken, and in this respect we can afford to regret that the British House of Commons, in spite of the exertions of Playfair, Lubbock and others, has excluded Elementary Science from the list of subjects for which grants are given under the Educational Code, putting a premium in fact upon ignorance of the children as to their natural surroundings. English public opinion is not likely to submit to such exclusion, and if the *Times*, (July 12th, Weekly Ed.) be taken as a fair index of it, the placing of Natural Science at a par with other studies is not far distant.

I propose to treat my subject from three points of view (1) the advantages of introducing Biology into Elementary Education, (2) the nature of the studies by which that introduction must necessarily be preceded, and (3) the methods to be employed in its systematic teaching.

With regard to the first point, the advantages of a widely diffused knowledge of Biology, there is no thesis which should be insisted on so frequently as this, "That it is our duty to acquaint the youth of the country with the fundamental laws of their *organism* which guide the working of the human organism, in order to make them capable of grasping the true doctrines of health. That such information is unfortunately too necessary, we may gather from the immense death-rate from infectious diseases, from the immense consumption of quack medicines by the ignorant, and from the large number of irregular practitioners who find plenty of employment. The recent action taken by the Legislative Assembly in appointing a Sanitary Committee, leads us to hope that something will be done in the way of Compulsory Education by the enforcement of rigid sanitary laws; but these unquestionably will never have their due force till the Public has been educated up to them by a diffusion of a knowledge of the laws of health in relation to human physiology. I consider that such an acquaintance with physiology can only follow a study of the laws of living matter in general, which such a course as I am about to advocate will give.

Far more important, however, than health, is the question of man's position in the universe. This, long left to the Speculative Philosopher, is claimed to come under the domain of the Biologist by those who accept the truth of the doctrine of evolution; and although I would by no means insist like Prof. Hæckel, the High Priest of the new monistic Philosophy, that that doctrine should as an accepted hypothesis be used as the guiding principle in all our instruction of the young, still, I conceive it to be our duty that such a fundamental knowledge of Biology should be spread abroad, that the people should not have to trust to such miserable supports as a set of lectures on so called Biology which has recently appeared.

In connection with this question, the investigation of the phenomena of mind must ever have much interest. It is only recently that Psychology has been cultivated as a branch of Physiology; and from the material advances made by men like Lewes, Wundt and others, we may anticipate that much light will be thrown on the function of the brain as the organ of mind. These advances have been of such a character that the education in Mental Philosophy which does not comprise a comparative study of the forms lower than man, especially as regards the psychic phenomena evinced, must of a necessity be one-sided.

There are many other studies, such as the history of the earth, which would be absolutely closed to him who is ignorant of living forms, and still others, such as Anthropology, Ethnology, and even Linguistic Science, in which the methods acquired by pursuit of Biology would be of inestimable advantage.

Apart from all these, however, the study of living forms must be regarded as of great value in training the observative faculties, which can be neglected with impunity by no one who has to enter the battle of life.

Without detaining you longer on this point, I must direct your attention to the inexhaustible fund of pleasure prepared for those in whose early training a love of examining nature has been encouraged. There is hardly any boy in whom what has been called the *cacœthes colligendi*, is not evinced at some time or other, and it is a pity that this is not often diverted into channels capable of giving more lasting pleasure and profit than the hunting after postage stamps, crests and the like.

The second point which I have set for myself to consider is: What are the studies which must precede that of Biology? I do not intend to do more than refer to the circumstance that in some schools abroad, more prominence has been given to the study of Natural Science than seems to me desirable. This is no doubt a reactionary influence which will adjust itself in good time, but I think it necessary to explain that I consider no infringement upon the ordinary literary studies is at all justifiable. The pupil who proceeds to study nature without some knowledge of the Latin and Greek languages, is destitute of a most important tool, even if, as some scientific men advise, the vernacular were to be employed for the terminology of our sciences, these languages would always remain the common ground on which scientific men of various countries could meet.

Of the order in which the sciences should be taught I must speak more at length. In the essay, Huxley, to which I have referred, it is stated that "systematic teaching in Psychology cannot be attempted with success until the student has attained to a certain knowledge of Physics and Chemistry, for though the phenomena of life are dependent neither on physical nor on chemical, but on vital forces, yet they result in all sorts of physical and chemical changes which can only be judged by their own laws." Since this last clause was written, Biologists recognize it as more imperative than ever that chemistry and physics should precede their own study; for our own body, as a german physiologist expresses it, like that of every other animal, is an organism in which by the chemical change of its constituent parts, potential is converted into kinetic energy. Such a statement of the case is only an indication of the fact that the further physiological investigations are carried, the more it becomes apparent that the laws which regulate change in the animal and vegetable body, are those which are operative in the inorganic world.

How hazardous is it then to advance to the study of living matter, without having first conquered the principles which guide it in its simpler combinations.

Apart from the elementary facts and principles of those sciences which are necessary to the Biologist, nothing is more important than that he

should have acquired the accuracy of method which characterizes them. Kant says, That the scientific value of any branch of knowledge may be measured by the applicability of mathematical method to it. A similar statement of Comte's has been energetically combated by Huxley (Scientific Aspects of Positivism—Lay Sermons, &c., p. 168); but there is this much truth in it, that the value of any science in mental training and in preparing the mind for future scientific research, can be so measured.

It is not so much the facts we want to impress on the student as the encouragement of a certain habit of thought. Haeckel says, "After all it is always the recognition of the effecting causes, not the mere knowledge of facts which satisfies the constant want of causalities of our mind. The recognition of common simple causes for the most various and complicated phenomena leads to the simplification as well as to the deepening of our education and culture; only by causal conception dead knowledge becomes living science. Not the quantity of empirical knowledge, but the quality of its causal conception is the true measure of the education of the mind." (Munich Address, 1877.)

That this is the sort of mental education which we wish to give, is only too evident from the deficiency in it which all of us experience more or less. The value of the more exact physical sciences in cultivating judgment is well advocated in a lecture of Faraday's, which in these days of hunting after the mysterious, everyone may still read with advantage. (Mental Education, a Lecture at the Royal Institution, 1854. Researches in Chemistry and Physics. p. 463.)

A careful study of Mathematics must of course precede any attempt to teach the Physical Sciences from this point of view, and side by side with that, drawing ought to have a most important place, which, if the old method of copying be now discarded is so valuable in training the eye and hand, and which I have found of great service while teaching with the microscope in helping my students to form clear and precise ideas of what they see.

The question may be asked how is the curiosity of the youth to be satisfied during this period of probation. You must have experienced that it is often too easily satisfied, but where it is not, there I should counsel that instead of hastening to the systematic study of Biology, the observation of plants and animals in their homes should be encouraged as much as possible, by putting attractive reading (such as the books of the Rev. Mr. Wood) in the way of the pupil.

It is a first essential, however, that the foundation should be such as will not afterwards require to be pulled down; and this brings me to the third point on which I propose to speak: The methods of the primary systematic teaching of Biology.

The introduction of this subject into the schools has flooded the market with text books and primers innumerable, and of very unequal merit. These are roughly divisable into two classes. Most of them, in pleasant and sometimes accurate language, attempt to convey a simplified general view of the facts and principles of the science in question. They, as it were, at-

tempt to walk the student round the boundaries of their particular domain, expounding meanwhile the pleasures to be experienced inside; or else they take him up in a ballon, and give him an admirably arranged, though hazy birds-eye view of the whole prospect. Some books on the other hand aim at an exhaustive study of certain commanding points; they take the student inside the circle of their science, toil with him up the Pisgah heights, and point out the pleasant lands lying beyond.

If the master thinks a text book is necessary for the instruction of his pupils, and if only one of these sorts is to be selected, I should unhesitatingly recommend one of the latter kind. It implies, I admit, accurate, if not extensive knowledge on the part of the teacher, but I think it unlikely that any teacher who had himself pursued, and who was himself teaching such a course, would not be continually widening his knowledge around these centres.

I should not be consistent with what I have already said, did I not insist that in any systematic course of Biology the teaching must be from the less to the more complex. This unfortunately is not always attended to, and complicated processes are invested with a fictitious simplicity which does not belong to them, while the simplest life processes are regarded as mysterious. I could cite endless instances of this fault.

It follows, that if we accept this order of things, that an Elementary Biological course must be, in the main, observational, for it is in the study of the most complex part of Biology and Physiology of the higher animals that the accurate experimental methods of physical research have been employed.

It is impossible to recommend any one Book which would satisfy all the requirements of such a course, but the Elementary Biology of Prof. Huxley and Martin is as near perfection as any I know, and is valuable not only for the lessons there detailed, but as a model to an intelligent teacher for similar lessons.

It may be said that the qualities necessary for a teacher to give such a course are exceptional; that it is rare to find the accurate knowledge of several sciences which is taken for granted above. I do not see, however, why we should not expect as much of a teacher as we do of the pupil. I adhere to my opinion that any one with aptitude for imparting knowledge, who has had the advantage of such a training, will be able to teach again adequately what he has learned; and more than that, he will constantly in his teaching add an item of knowledge to the various nuceli he has first gained, till his knowlege, increasing in ever-widening circles, will render him all the more suitable for his position.

For the teacher must be a man of catholic sympathies, not stopping to specialise even in his leisure hours, for his time will be taken up with devising new methods of illustration and experiment, in keeping himself *au courant* with the great advances of the science he teaches, and in seeking in his neighbourhood, new material for illustration, and thus being able to encourage a liking for out-door work in his pupils.

TREASURER'S REPORT

FOR THE YEAR 1877—8.

RECEIPTS.

Balance from last year—in Bank, $75.34; Cash on hand, $15.88	$91 22
Interest on Deposit	5 45
Members' Fees	74 50
Proceeds of sale of Annual Report	45 85
Tickets for Excursion to Falls	21 25
Advertisements in Annual Report	25 00
	$263 27

EXPENDITURE.

Printing Annual Report for 1877	$60 00
Printing Annual Circular for 1877	16 50
" " " 1878	7 75
Printing Passes	6 25
Secretary's Account for Postage, &c., 1877	4 00
Minute Secretary for 1877	4 00
Advertising	11 00
Gas Accounts for 1876 and 1877	5 80
Caretaker of Normal School Buildings	4 00
Treasurer's Postage, &c.	0 55
Total expenditure,	$119 85
Balance in Bank, $140.79; Cash on hand, $2.63	143 42
	$263 27

SAMUEL McALLISTER,
Treasurer.

Audited and found correct,

H. DICKINSON,
W. MACINTOSH, } *Auditors.*

THE TORONTO SCHOOL OF MEDICINE,

IN AFFILIATION WITH

The University of Toronto, and the University of Victoria College,

And recognised by the several Colleges of Physicians and Surgeons of Great Britain.

THIRTY SIXTH SESSION, 1878-9.

HENRY H. CROFT, D.C.L., F.L.S.; Professor of Chemistry and Experimental Philosophy, University College; Emeritus Lecturer on Chemistry.

WM. T. AIKINS, M.D., Surgeon to the Toronto General Hospital and to the Central Prison, Consulting Surgeon to the Children's Hospital; Lecturer on Principles and Practice of Surgery and Clinical Surgery.—78 Queen Street West.

H. H. WRIGHT, M.D., L.C.P., and S.U.C.; Physician to Toronto General Hospital; Consulting Physician to the Children's Hospital; Lecturer on Principles and Practice of Medicine, and Clinical Medicine.—197 Queen Street East.

J. H. RICHARDSON, M. D., M.R.C.S., Eng.; Consulting Surgeon to Toronto General Hospital, and Surgeon to Toronto Gaol; Lecturer on Descriptive Anatomy.—46 St. Joseph Street.

UZZIEL OGDEN, M.D. Physician to Burnside Lying-in Hospital, Consulting Surgeon to the Children's Hospital, Physician to the House of Industry and Protestant Orphan's Home; Lecturer on Midwifery and Diseases of Women and Children.—57 Adelaide Street West.

JAMES THORBURN, M.D., Edinburgh and Toronto Universities; Consulting Physician to the Toronto General Hospital and Boy's Home; Consulting Surgeon to the Children's Hospital; Lecturer on Materia Medica and Therapeutics.—Wellington and York Streets.

M. BARRET. M.A., M.D.; Medical Officer to Upper Canada College, and Lecturer on Physiology Ontario College of Veterinary Medicine; Lecturer on Physiology.—Upper Canada College.

W. W. OGDEN, M.B., Physician to the Toronto Dispensary; Lecturer on Medical Jurisprudence and Toxicology.—242 Queen Street West.

M. H. AIKINS, B.A. M.B., M.R.C.S., Eng., Lecturer on Primary Anatomy.—Burnhamthorpe.

W. OLDRIGHT, M.A., M.D., Physician to the Newsboy's Home; Curator of Museum and Lecturer on Sanitary Science.—50 Duke Street.

L. McFARLANE, M.B., Physician to the Toronto Dispensary; Demonstrator of Anatomy.—7 Wilton Avenue.

GEORGE WRIGHT, M.A., M.B., Physician to the Toronto Dispensary, Physician to the Children's Hospital; Demonstrator of Anatomy.—243 Simcoe Street.

ALEX. GREENLEES, M.B.; Practical Chemistry.—123 Church Street.

R. ZIMMERMAN, M.D., L.R.C.P., Lond.; Physician to the Toronto Dispensary, Physician to the Children's Hospital; Demonstrator of Microscopical Anatomy.—171 Church Street.

F. H. WRIGHT, M.B., L.R.C.P., Lond.; Physician to the Toronto Dispensary, Physician to the Children's Hospital; Demonstrator of Microscopical Anatomy.—197 Queen Street East.

J. E. GRAHAM, M.D., L.R.C.P., Lond.; Surgeon to the Toronto General Hospital; Lecturer on Chemistry.—66 Gerrard Street East.

R. A. REEVE, B.A., M.D., Ophtalmic Surgeon to the Toronto General Hospital; Lecturer on Diseases of the Eye and Ear.—22 Shuter Street.

J. H, SMYTH, M.A., Botany and Zoology.

Clinical Lectures will be given at the General Hospital by Dr. H. H. Wright, Dr. Aikins, Dr. Richardson, Dr. Thorburn, Dr. Graham, and Dr. Reeve.

Clinical Instructions will be given at the Toronto Dispensary by Dr. McFarlane, Dr. George Wright, Dr. F. H. Wright, and Dr. Zimmerman.

Janitor of School, James Pickering. Residence on the premises.

In order to afford accommodation to the yearly increase in the number of students, the Faculty have made a large addition to their Building, which includes a new Lecture Room, admirably lighted, and capable of seating about two hundred and fifty; a Physiological Laboratory, and Pathological Museum.