

PROCEEDINGS
OF THE
THIRTY-THIRD ANNUAL CONVENTION
OF THE
Ontario Educational Association

HELD IN THE
EDUCATION DEPARTMENT BUILDINGS,
TORONTO,

March 27th, 28th and 29th, 1894.



TORONTO :
WILLIAM BRIGGS, 29-33 RICHMOND STREET WEST.
1894.

University of Toronto

MEDICAL FACULTY.

PROFESSORS, LECTURERS AND DEMONSTRATORS.

- J. H. RICHARDSON, M.D., TOR.,
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- A. PRIMROSE, M.B., C.M., EDIN.,
Associate Professor and Demonstrator of
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- H. WILBERFORCE AIKINS, B.A., M.B., TOR.,
Lecturer in Anatomy.
- F. N. G. STAER, M.B., TOR.,
Senior Assistant Demonstrator of Anatomy.
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- W. T. AIKINS, M.D., TOR., LL.D.,
Professor of Surgery.
- L. MCFARLANE, M.D., TOR.,
Professor of Clinical Surgery.
- I. H. CAMERON, M.B., TOR.,
Professor of Clinical Surgery.
- G. A. PETERS, M.B., TOR.,
Associate Professor of Surgery and Clinical
Surgery.
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Professor of Pathology.
- J. AMYOT, M.B., TOR.,
Demonstrator of Pathology.
- J. E. GRAHAM, M.D., TOR.,
Professor of Medicine and Clinical Medicine.
- A. MCPHEDRAN, M.B., TOR.,
Associate Professor of Medicine and Clinical
Medicine.
- W. P. CAVEN, M.B., TOR.,
Lecturer in Clinical Medicine.
- JAMES M. MACCALLUM, B.A., M.D., TOR.,
Professor of Pharmacology and Therapeutics.
- C. F. HEEBNER, PHM.B., TOR.,
Demonstrator of Materia Medica and
Elementary Therapeutics.
- UZZIEL OGDEN, M.D., TOR.,
Professor of Gynæcology.
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Professor of Ophthalmology and Otolaryngology.
- G. H. BURNHAM, M.D., TOR.,
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Lecturer in Laryngology and Rhinology.
- W. OLDRIGHT, M.A., M.D., TOR.,
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Lecturer in Toxicology.
- BERTRAM SPENCER, M.D., TOR.,
Medical Lecturer in Medical Jurisprudence.
- HON. DAVID MILLS, LL.B., Q.C.,
Legal Lecturer in Medical Jurisprudence.
- DANIEL CLARK, M.D., TOR.,
Extra-Mural Professor of Medical Psychology.
- R. RAMSAY WRIGHT, B.A., B.Sc., EDIN.,
Professor of Biology.
- A. B. MACALLUM, B.A., M.B., TOR., PH.D.,
JOHNS HOPKINS,
Professor of Physiology.
- R. R. BENSLEY, B.A., M.B., TOR.,
Assistant Demonstrator in Biology.
- WILLIAM H. PIKE, M.A., PH.D.,
Professor of Chemistry.
- W. H. ELLIS, M.A., M.B., TOR.,
Lecturer in Chemistry.
- W. L. MILLER, B.A., PH.D.,
Lecturer in Chemistry.
- F. B. ALLAN, B.A.,
Lecturer in Chemistry.
- JAMES LOUDON, M.A.,
Professor of Physics.
- C. A. CHANT, B.A.,
Lecturer in Physics.

The regular course of instruction will consist of Four Sessions of six months each, commencing October 1st.

There will be a distinct and separate course for each of the four years.

The Lectures and Demonstrations in the subjects of the First and Second years will be given in the Biological Laboratory and the Lecture-rooms of the University.

Lectures and Demonstrations in the subjects of the Third and Fourth years will be given in the building of the Medical Faculty, corner of Gerrard and Sackville Streets.

UZZIEL OGDEN, M.D.,
Dean.

A. PRIMROSE, M.B., C.M., Edin.,
Secretary.

PROCEEDINGS
OF THE
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Board of Directors, 1894=95.

President - - - - - S. F. LAZIER, LL.B., Hamilton.
Vice-Presidents - - - - - The Chairmen of the Departments.
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PROCEEDINGS

OF THE

THIRTY-THIRD ANNUAL CONVENTION

OF THE

ONTARIO EDUCATIONAL ASSOCIATION.

*Held in the Public Hall of the Education Department, Toronto,
on the 27th, 28th and 29th days of March, 1894.*

MINUTES OF THE GENERAL ASSOCIATION.

TUESDAY, March 27th, 1894.

The Convention assembled at 8.10 p.m., Mr. A. Steele, the President, in the chair.

Rev. Dr. Badgley, of Toronto, opened the proceedings by reading a portion of Scripture and leading in prayer.

Moved by Mr. W. F. Chapman, seconded by Mr. C. A. Barnes, That as the Minutes of the last meeting of the Association have been printed and distributed, they be considered as read and approved. Carried.

A communication from the Minister of Education, having reference to the next meeting of the Dominion Association, was read.

Moved by Mr. Knight, seconded by Mr. Alexander, That the communication from the Minister of Education be referred to the Board of Directors.

Moved by Mr. A. Barber, seconded by Mr. Wilson, in amendment, That this Association invite the Dominion Association to hold its next meeting in Toronto in July next.

The amendment was withdrawn and the original motion declared carried.

The President addressed the meeting on "The Relation of Higher Education to National Development."

The thanks of the Association were given to Mr. Steele.

Dr. Stanley Hall addressed the Convention on "Experimental Psychology."

The Association adjourned.

WEDNESDAY, March 29th.

The Convention met at 7.30 p.m., Mr. A. Steele in the chair.

Mr. J. L. Hughes opened the meeting with prayer.

Dr. Stanley Hall addressed the Convention on "Child Study."

On motion of Mr. Sinclair, seconded by Mr. Hume, The thanks of the Convention were tendered to Dr. Hall for his address.

Mr. W. Houston, M.A., addressed the Association on "Written Examinations."

On motion of Mr. Keith, seconded by Mr. Powell, a vote of thanks was tendered to Mr. Houston.

Mr. W. J. Hendry read the Financial Statement.

The Financial Statement was received and referred to an Audit Committee composed of Messrs. Barnes, Powell and Slater.

The election of officers resulted in the selection of the following members to fill the offices: President, S. F. Lazier, LL.B., Hamilton; Secretary, R. W. Doan, Toronto; Treasurer, W. J. Hendry, Toronto.

The notices of motion given by Mr. J. C. Brown, of Peterboro', were allowed to stand over until next year.

Mr. Ward gave notice that at to-morrow's meeting he would move, That in the opinion of this Association the present standard of the Entrance Examinations should not be raised, the standard now being sufficiently high.

Mr. A. A. Jordan gave notice that he would move:

1. That in the opinion of this Association the amount of History for Entrance Examination be limited to English History from the reign of Henry VII. to the present, and all the Canadian History.

2. That the rural school teachers be granted the week following Easter Sunday as holidays, and thus be on the same footing as teachers in cities, towns and incorporated villages.

Mr. McAllister gave notice that at Thursday's meeting he would move, That the Board of Directors be requested to consider the desirability of having an annual dinner or some other social entertainment in connection with the meetings of this Association, to be inaugurated at the next annual meeting.

Hon. Geo. W. Ross addressed the Association in reference to the next meeting of the Dominion Association, in response to a question in reference thereto.

The Convention adjourned.

THURSDAY, March 29th.

The Convention met at 8 p.m., the President in the chair.

Rev. Mr. Smith opened the meeting with reading a portion of Scripture and leading in prayer.

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The Minutes of the last two meetings were read and confirmed.

The Auditors' report was read, and on motion was adopted. The report is as follows :

Your Auditors beg to report that they have examined the books and vouchers of the Treasurer and find them to be a correct account of the receipts and expenditures of this Association, and in accord with the statement presented.

C. A. BARNES, }
J. T. SLATER, } *Auditors.*
F. C. POWELL, }

(For Financial Statement see page 46.)

Mr. G. A. Aylesworth addressed the Convention on "The Relation of Municipal Councils to Public and High Schools."

On motion of Mr. Manley, seconded by Mr. Barber, a vote of thanks was tendered to Mr. Aylesworth for his address.

Mr. G. Dickson read the report of the Special Committee on Industrial Education.

On motion of Mr. F. F. Manley, seconded by Mr. H. I. Strang, the report was received, and the Committee continued, in order to keep the subject of Manual Training before the Association.

Mr. Barber gave notice that he would move at the next meeting, That the constitution be so amended as to constitute the retiring President of the Association a member of the Board of Directors for the ensuing year.

Mr. Ward moved, seconded by Mr. Allen, That in the opinion of this Association the present standard of Entrance Examinations should not be raised, the standard now being sufficiently high.

In amendment, it was moved by Mr. Fraser, seconded by Mr. Aylesworth, That the matter in question be referred to a joint committee of the departments interested, viz., the Public School, College and High School, Inspectors' and Trustees' departments. Carried.

Mr. Manley gave notice that he would move at the next meeting, That the Board of Directors be requested to report at the next annual Convention on the desirability of petitioning the Minister of Education to provide a scheme of pension or retiring allowance for every qualified teacher and inspector of the Public and High Schools.

Mr. A. A. Jordan moved, seconded by Mr. E. Ward, That in the opinion of this Association the amount of History required at the Entrance Examination be limited to English History from the reign of Henry VII. to the present, and the whole of Canadian History.

In amendment, it was decided to postpone the consideration of Mr. Jordan's motion until next meeting of the Association.

Moved by Mr. A. A. Jordan, seconded by Mr. Barber, That in the opinion of this Association the rural school teachers should have as

holidays the week following Easter Sunday in each year, thus placing them on the same footing as teachers in cities, towns and incorporated villages.

The consideration of the above motion was deferred until the next meeting of the Association.

Moved by Mr. S. McAllister, seconded by Mr. A. MacMurchy, That the Board of Directors be and are hereby requested to consider the desirability of having an annual dinner in connection with meetings of this Association, to be inaugurated at the next annual meeting. Carried.

Moved by Mr. R. Alexander, seconded by Mr. S. McAllister, That the thanks of this Association are hereby tendered to the Hon. Geo. W. Ross, Minister of Education, for the use of the Education Department buildings during this meeting, and for the many other ways in which he has contributed to the success of this meeting of the Association. Carried.

The national anthem was sung, and the Association adjourned.

MINUTES OF THE COLLEGE AND HIGH SCHOOL DEPARTMENT.

WEDNESDAY, March 28th, 1894.

The Department met at 10 a.m., the chairman, I. J. Birchard, Ph.D., in the chair.

F. F. Manley, M.A., for the Committee appointed last year on Remuneration to Associate Examiners at the Departmental Examinations, reported that the Committee had considered the matter, and that in their opinion the basis on which payment is apportioned is defective and the remuneration inadequate. They further reported that they considered the payment of the fixed sum of six dollars a day as the most feasible scheme.

On motion the report was adopted.

L. E. Embree, M.A., for the Committee on Medical Matriculation, reported that the Committee had interviewed members of the Medical Council, but had found it impossible to effect any changes in the regulations at present.

On motion the Committee was re-appointed.

The Chairman of the Department then read his paper on the subject of "The Conflict of Studies in the High School Programme."

On motion a committee was appointed to consider the matter of University Matriculation, and to report to-morrow morning, said committee to consist of two persons to be nominated by the Chairman of the Department and two persons from each of the four Associations composing the Department.

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THURSDAY, March 29th.

Department re-assembled at 10 a.m. Chairman in the chair.

A. MacMurchy, M.A., for the Committee on Professional Etiquette appointed last year, reported that the committee made the following recommendations:

1. That no principal or person in authority is justified in recommending for a position any teacher whom he would not recommend under similar conditions for a position in his own school.

2. That a pupil changing his school during the academic year should be required to produce reference from the head master of the school which he last attended.

3. That in making public the records of a school, the head master thereof should simply publish the results of his own school without comparison with other similar institutions.

After discussion, the Department adopted clauses 1 and 3.

The officers of the Department were then elected, with the following result:

Chairman, J. A. McLellan, LL.D.; Secretary, J. Squair, B.A.

The following papers were read: L. E. Embree, M.A., "The Qualifications of Specialists;" J. Squair, B.A., "Post-graduate Courses in the University of Toronto."

The following resolutions were moved:

1. That we recommend that in addition to the eight special, or so-called Honor courses, now provided by the curriculum of the University of Toronto, a Proficiency course be arranged, to comprise selected portions of the other courses, and that students be permitted to rank in Honors in this course.

2. That it is not advisable to rank students in third-class Honors in the fourth year in the University of Toronto, such rank being really Pass standing in the special courses.

3. That it is desirable for all students of the University of Toronto to have the privilege of being examined in Honor English in all the years.

4. That the High School masters should have larger representation on the Senate of the University of Toronto.

After some discussion, Nos. 1 and 4 were declared carried, and Nos. 2 and 3 were referred to a committee for consideration, the committee to consist of L. E. Embree, M.A.; W. Dale, M.A.; J. Henderson, M.A.; A. T. DeLury, B.A.; W. J. Robertson, B.A.; A. H. Gibbard, B.A.; A. W. Burt, B.A.; W. S. Ellis, B.A.; F. W. Merchant, M.A.; C. Fessenden, M.A., and H. I. Strang, B.A.

On motion, it was also resolved to refer the whole question of Pass and Honor courses in the University of Toronto to the above committee.

W. J. Robertson, B.A., for the Committee on University Matriculation, presented the following majority report:

Recommended—

1. That the age for Junior Matriculation be raised from fifteen years to sixteen years.

2. That the Matriculation Examination be divided into two parts.

3. That the following subjects may be taken at the Primary Examination: Arithmetic, Grammar, English and Canadian History, Physics.

4. That the remaining subjects may be taken at a subsequent examination.

5. That the standard required in Arithmetic and Grammar shall be equivalent to the present Matriculation Examination.

6. That it be understood that these suggestions are based on the assumption that the present standard for the Primary shall be raised, so as to require for a candidate an additional year's work.

7. That the Commercial course should cease at an early stage in the High School course.

W. Dale, M.A., on behalf of the minority, reported that the minority recommended that it is inadvisable to divide the subjects of matriculation into two parts.

Clauses 1 and 7 were carried without dissent, and clauses 2, 3, 4, 5 and 6 were carried on division.

The Department then adjourned.

MINUTES OF THE MODERN LANGUAGE ASSOCIATION.

EIGHTH MEETING.

TUESDAY, March 27th, 1894.

The President, Mr. W. J. Alexander, took the chair at 10 a.m.

After routine business, Mr. W. J. Alexander read a paper on "Blank Verse."

Messrs. G. A. Chase and D. R. Keys were appointed auditors.

Mr. C. Guillet then read a paper on "The Modern Language Master's Aim."

TUESDAY, March 27th, 2 p.m.

The following papers were read: "Has Canada a Literature?" by Mr. T. G. Marquis; "The Gouin Method," by Miss J. H. Robson; "The High School Course in French and German—Its Scope and Aim," by Mr. A. W. Wright.

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It was resolved that Keys, That, English spelling candidates in the Primary Examination Joint Board

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On motion of Mr. J. Squair, seconded by Mr. C. Guillet, the Association recorded its opinion that the words in the regulations respecting help to be given by the examiner in sight translation should be omitted.

The following motions were put and declared lost :

1. That French and German should each be considered as one subject, and one-third of the marks given on the two papers combined should be required.

2. That questions in theoretical grammar should no longer be asked at the Primary Examination.

WEDNESDAY, March 28th, 2 p.m.

On motion Messrs. A. W. Burt and A. H. Gibbard were delegated to represent the Association on the Joint Committee of the various associations of the College and High School Department, appointed to consider the question of University Matriculation.

Papers were then read by Mr. W. H. Fraser on "Reform in Modern Language Methods in Germany," and by Mr. L. E. Horning on "Götz von Berlichingen."

THURSDAY, March 29th, 2 p.m.

The following officers were elected: President, J. Squair; Vice-President, D. R. Keys; Secretary and Treasurer, W. H. Fraser; Councillors: W. J. Alexander, M. S. Clark, A. W. Burt, W. J. Sykes, E. A. Hardy, Geo. E. Shaw, Miss E. Balmer, J. Petch.

The following papers were then read: "Notes on Current German Literature," by Mr. W. H. VanderSmussen; "The Use of *pas* with Certain Verbs," by Mr. J. Squair; "Practical Aids to Spoken French," Mr. J. H. Cameron.

On motion Messrs. Fraser, Squair, VanderSmussen, Alexander and Cameron were appointed as a committee to prepare, print and distribute a list of books useful to Modern Language teachers.

On motion Mr. W. H. Fraser was delegated to represent the Association on the Board of Directors of the Ontario Educational Association, and on that of the College and High School Department.

It was moved by Mr. W. C. Ferguson, seconded by Mr. D. R. Keys, That, in the opinion of this Association, marks for errors in English spelling should not be deducted from the totals of the candidates in the various papers other than English, as is now done at the Primary, Junior Leaving, Senior Leaving and Matriculation Examinations, and that a copy of this resolution be forwarded to the Joint Board. Carried.

On motion of Mr. A. H. Gibbard, seconded by Mr. W. W. Tamblin, it was decided that the motion, of which notice was given by Mr. A. W. Wright at a previous meeting, be referred to the Executive Committee. Mr. Wright's motion was the following: "That, in the opinion of this Association, the High School course in French and German should be more clearly defined by syllabus or otherwise, and confined within reasonable limits."

The report of the auditors was presented and adopted.

On motion of Mr. W. H. VanderSmisen, seconded by Mr. J. Squair, the Executive was instructed to consider the advisability of purchasing books and periodicals for the use of the Association.

The Association then adjourned.

MINUTES OF THE NATURAL SCIENCE ASSOCIATION.

TUESDAY, March 27th, 1894, 10 a.m.

An address by the chairman on the alterations contemplated in the Matriculation Curriculum was delivered.

TUESDAY, March 27th, 2 p.m.

The discussion of the Science papers for last year, and the grading of the High School course in Physics took place in the afternoon, followed by the election of officers.

The officers elected for the current year are: Honorary President, Dr. A. B. McCallum; Chairman, C. Fessenden, M.A.; Vice-Chairman, J. B. Turner, M.A.; Secretary-Treasurer, T. H. Smyth, M.A., B.Sc.; Councillors, Messrs. N. MacMurchy, W. H. Jenkins, J. J. Hare, J. R. Hamilton, Miss J. Panton; Representative to College and High School Department, H. B. Spotton, M.A.

WEDNESDAY, March 28th, 2 p.m.

Biology as a High School subject was discussed, and believed to be a valuable and necessary part of High School work.

A discussion followed on the "Professional Training of Science Teachers," and a committee consisting of Messrs. Fessenden, Stevens, Morden and Turner, were appointed to consider and report on this subject at a subsequent meeting.

The Section adjourned, to meet in the Physical Lecture room at University College, when a series of new, interesting and instructive experiments were performed and explained by Prof. Loudon, President of University College.

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THURSDAY, March 29th, 2 p.m.

The subject of electromotors was introduced by Mr. C. A. Chant, B.A., Lecturer in Physics, University College, after which others discussed in a general way various forms of motors and other apparatus useful to a High School course in Physics.

Meeting adjourned at 4 p.m.

MINUTES OF THE CLASSICAL ASSOCIATION.

Owing to the removal of Mr. Fairclough to Leland Stanford University, Mr. Milner was made Secretary *pro tem*. In opening the session, the President, Prof. Dale, called attention to the great importance attaching to the current discussion on our secondary educational programme. The first paper by Mr. Shipley was discussed at some length, Dr. McLellan earnestly deploring the entire absence of any attempt in our secondary system to correlate subjects according to their educational value.

On the second day Mr. Logan read a paper on "Some Words that will not Parse," and Mr. Colling's paper on "The Teaching of the Gerund and Gerundive," in his absence was read by the President. A discussion was then opened by Mr. J. J. Bell upon the condition of Classics in the schools, and some valuable statistics were adduced to show the discrimination against Greek, and Classics in general, in time-tables, options and regulations for Public School "Leaving" Examinations.

On the third day the election of officers resulted as follows: President, Mr. Strang; Vice-President, Mr. Hodgson; Sec.-Treas., Mr. Milner. Councillors: Dr. Bell, Prof. Dale, Prof. Fletcher, Mr. Levan, Mr. W. M. Logan, Mr. McGregor, Mr. Robertson and Mr. L. C. Smith.

The report of last year's committee on a syllabus of work for the Primary Examination in Latin was then read and approved, and the President, Prof. Hutton, and the Secretary were delegated to lay it before the Minister.

The President then read an excellent paper on "Classical Scholarship." He set forth the reasons why Classics must always be the basis of all true higher culture, and he expressed the conviction that we must presently recognize a division into scientific and literary education. He dwelt at some length upon the present absurd equivalence of subjects, and traced the mediocrity of American literature to-day to the displacement of Classics by more popular, though easier subjects.

The principle of Mr. Hagarty's paper on the application of the seminary idea to the sessions of this Section, was adopted for the coming year.

On the last day Mr. Sliter read a paper on "Homer in the High Schools," and Mr. Coombe another upon "Virgil as an Artist." The Secretary read Mr. Colbeck's paper in his absence. Mr. Colbeck took much the same position as Mr. Sliter, advocating the removal of poetry from the "pass" Matriculation. The general feeling of the Section was strongly against this. Prof. Hutton, Prof. Dale, Mr. Embree and the Secretary were delegated to lay before the Minister the motion carried last year on the addition of "pass" Classics to the requirements for the English specialists' certificate. The session then adjourned.

MINUTES OF THE MATHEMATICAL AND PHYSICAL
ASSOCIATION.

TUESDAY, March 27th, 1894.

The Mathematical and Physical Section met this day at 2 p.m. in the Model School.

The chair was taken by the President, Prof. A. C. McKay, and there were about thirty members present.

The President read his inaugural address.

Mr. R. A. Gray, B.A., read a paper on "The place of Geometry in our Educational System."

Some discussion took place on the paper, after which it was moved by W. J. Robertson, B.A., seconded by Dr. J. A. McLellan, and unanimously adopted, That this, the Mathematical and Physical Association of the Province of Ontario, emphatically protest against the proposal now under discussion by the Senate of the University of Toronto to limit the requirements in Arithmetic for Matriculation Examination to those demanded for the Primary Examination, and that a copy of this resolution be forwarded to the Registrar of the University for the consideration of the Senate, and also to each of the High School representatives on the same.

The meeting then adjourned.

WEDNESDAY, March 28th.

The Association met at 2 p.m., the President in the chair.

Mr. W. J. Robertson, B.A., read the report of the Committee on the Condition of Mathematics in our High Schools, which was on motion received and adopted.

Prof. Dupuis then read a paper on "Geometry," and a vote of

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thanks was accorded Prof. Dupuis on motion of Prof. Baker, seconded by Dr. Birchard.

At the request of the College and High School Department and on motion of Mr. Manley, seconded by Mr. Thompson, it was resolved, That Messrs. W. J. Robertson, B.A., and A. T. DeLury, B.A., be the two delegates from this Association on the Joint Committee on University Matriculation.

Dr. J. A. McLellan gave an address on "The Meaning of Number." On motion of Mr. Glashan, seconded by Mr. MacMurchy, a vote of thanks was tendered Dr. McLellan.

The meeting then adjourned.

THURSDAY, March 29th.

The Association met at 2 p.m., the Vice-President, Mr. W. J. Robertson, B.A., in the chair.

Mr. Robertson explained his course of action on the Joint Matriculation Committee of the College and High School Department. After considerable discussion it was moved by Mr. A. MacMurchy, M.A., and seconded by Mr. R. A. Thompson, B.A., and carried unanimously, That, seeing that the Joint Committee of the Education Department on Examinations have no control over the Primary Examinations in our Secondary Schools, this Mathematical and Physical Association do not approve of the majority report which was adopted at the meeting of the College and High School Department this morning.

Mr. DeLury then read a paper on "Geometry."

The election of officers for the ensuing year was then proceeded with, and the following was the result: Honorary President, Prof. Alfred Baker, M.A.; President, A. T. DeLury, B.A., Toronto; Vice-President, R. A. Thompson, B.A., Hamilton; Secretary-Treasurer, Fred. F. Manley, M.A., Toronto. Executive Committee: R. A. Gray, B.A., London; T. W. Standing, B.A., Tilsonburg; A. H. McDougall, B.A., Ottawa; J. Davison, B.A., Guelph; C. A. Chant, B.A., Toronto.

The meeting then adjourned.

MINUTES OF THE PUBLIC SCHOOL DEPARTMENT.

TUESDAY, March 27th, 1894.

The Public School Department of the Ontario Educational Association convened in the public hall of the Education Department, at 10.30 a.m., the President, Mr. A. McMillan, of Toronto, in the chair.

The meeting was opened by reading of Scripture and prayer by Mr. Robt. MacQueen, of Kirkwall.

The roll of officers was called, and the President, Mr. McMillan, the Treasurer, Mr. Harlton, and the Secretary responded to their names.

The Minutes of the last annual meeting having been printed in the Proceedings, they were, on motion, taken as read and confirmed.

The President reported as to what had been done in the matter of laying the resolutions passed by this Department *re* Supplementary Reading, Public School Leaving Examinations, Superannuation Fund, Public School Drawing Books, Township Grants to Schools, and Easter Vacation in Rural Schools, before the Minister of Education for consideration.

Messrs. Young, of Guelph, and Weidenhammer, of Waterloo, were appointed to prepare reports of the proceedings of this Department for the press.

The Treasurer, Mr. W. H. Harlton, of Toronto, read the Financial Report for the year 1893:

Receipts—Members' Fees	\$7 50
Disbursements—Printing Reports, \$4.60; Postage, 50c.....	5 10
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Balance on hand	\$2 40

On motion, this report was referred to the auditors.

On motion of Mr. McAllister, seconded by Mr. Musgrove, it was decided that the sessions be from 9.30 to 12 a.m., and from 2 to 4 p.m.

The President then read his annual address, taking as his subject, "Defects in our Public School System."

Moved by Mr. McMaster, of Toronto, seconded by Mr. T. J. Wallace, of Griersville, and carried, That the paper read by the President be referred to a committee consisting of Messrs. McAllister, Palmer and Alexander for consideration.

On motion of Mr. Harlton, seconded by Mr. Harper, the thanks of the Department were given to the President for his able and instructive paper.

The meeting then adjourned.

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TUESDAY AFTERNOON, March 27th.

Business was resumed at 2 p.m. President in the chair.

The Minutes of the forenoon session were read and confirmed.

In answer to a question, the President explained the arrangements that had been made by the Board of Directors for the publication of papers in the Report of the Proceedings of the Association.

Moved by Mr. Gardner, seconded by Mr. Narraway, and carried, That the President's address be published in the Report of the Proceedings.

On motion of Mr. Baynton, seconded by Mr. Harlton, Mr. Robinson, of Ancaster, was appointed Minute Secretary.

Miss Purves, of Brantford, then read a paper, entitled "Lessons from the School of Experience."

Moved by Mr. Gray, seconded by Miss Smith, That the hearty thanks of the Department be given Miss Purves for her excellent paper. Carried

Mr. R. H. Cowley, M.A., of Ottawa, read a thoughtful and well-prepared paper on the subject of "Normal Schools as a Preparation for Public School Work," and was given a hearty vote of thanks.

On motion of Mr. MacQueen, of London, seconded by Mr. Munro, of Ottawa, it was decided to publish Mr. Cowley's excellent paper in the Report of the Proceedings.

Moved by Mr. McAllister, of Toronto, seconded by Mr. Weidenhammer, of Waterloo, That the term of the Normal Schools should be extended to one year.

After a lively discussion, in which Messrs. Martin, of Bradford, Cork, of Waterloo, Hill, of Dundas, Henstridge, of Portsmouth, Hicks and Gray, of Toronto, took part, the motion was carried unanimously.

Mr. Sanford, Director of Institutes for the State of New York, was introduced by the President, and made a short speech, which was listened to with interest.

The meeting then adjourned.

WEDNESDAY FORENOON, March 28th.

The meeting was called to order by the President at 9.15 a.m.

The Minutes of the previous session were read and confirmed.

A notice was received from the Training Department, asking for joint action with a view to lessening the amount of work required in the Public and High Schools.

On motion of Mr. Hand, seconded by Mr. Gray, the notice was referred back to the Training Department for further information.

Mr. C. B. Edwards, of London, read an exceedingly interesting paper on "What should be taught in Canadian Public Schools."

A profitable discussion followed, in which Messrs. Cork, Gray, Harlton, Cowley, Campbell, of Ottawa, and Mrs. Graham, of London, took part, and on motion a hearty vote of thanks was given to Mr. Edwards for his excellent paper.

After a brief discussion as to the suitability of the subjects on the programme, and the reading of several notices of motion, the auditors reported that they had examined the books and vouchers of the Treasurer and found all correct.

The report was adopted.

The meeting then adjourned.

WEDNESDAY AFTERNOON, March 28th.

Business was resumed at 2 p.m., the President in the chair.

The Minutes of the previous session were read and confirmed.

The election of officers then took place, and resulted as follows: President, Alex. MacQueen, London; Vice-President, J. A. Hill, Ph.B., Dundas; Secretary, D. Young, Guelph; Treasurer, W. H. Harlton, Toronto; Director, R. H. Cowley, M.A., Ottawa; Committee of Management: The officers, and Messrs. A. H. Musgrove, Wingham; P. H. McMaster, Toronto; and Keith, Bowmanville.

The Hon. Geo. W. Ross, Minister of Education, addressed the meeting in his usual happy and genial manner, and was tendered a very hearty vote of thanks for his kind and encouraging remarks.

Moved by Mr. Scott, seconded by Mr. McDonald, That in the opinion of this Association the Public School teachers in rural sections should be placed on the same footing as those in cities, towns, and incorporated villages, with regard to the Easter vacation.

After a brief discussion by Messrs. Scott, McAllister, Smith, and Wallace, the motion was carried unanimously.

Moved by Mr. S. A. Gardner, seconded by Mr. Narraway, That we wish to place on record our hearty appreciation of the manner in which the retiring officers of the Public School Department have discharged the various duties devolving upon them in arranging for and carrying out the practical programme that has been placed before us.

The motion was carried unanimously, and the President replied in behalf of himself and the other officers.

Mr. S. G. Brown, of Watford, read a very practical and interesting paper on "Entrance Examinations."

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The time of adjournment having arrived, the discussion of this paper was deferred to a subsequent session.

The meeting then adjourned.

THURSDAY FORENOON, March 29th.

Business was resumed at 9.30 a.m., the President in the chair, when the Minutes of the previous session were read and confirmed.

Moved by Mr. W. H. Harlton, seconded by Mr. T. J. Wallace, That in the opinion of this Department the amount of History for the Entrance Examination should be limited to British History from the reign of Henry VII. to the present time, and all the Canadian History.

Moved in amendment by Mr. Husband, seconded by Mr. Cowley, That in the opinion of this Department British History should be removed from the list of subjects for Entrance Examinations.

After a general and warm discussion, the amendment was carried by a small majority.

Mr. Jas. L. Hughes, of Toronto, gave an eloquent, thoughtful and helpful address on the subject of "Self-Expression *vs.* Expression," and on motion, was given a hearty vote of thanks.

Mr. Garvin then led off in a discussion of "Vertical Writing." After a large number of those present had given their experience in testing the system during the past year, and Mr Newlands, of Kingston had answered numerous questions as to the best methods of teaching the subject, it was moved by Mr. Harlton, seconded by Mr. Cork, That in the opinion of this Department the Vertical System of Handwriting is more desirable in our Public Schools than the Slope System, and should be authorized as soon as possible. Carried, and the meeting adjourned.

THURSDAY AFTERNOON, March 29th.

Business was resumed at 2 p.m., the President in the chair. The Minutes of the previous session were read and confirmed.

Moved by Mr. Young, seconded by Mr. Keith, That a committee be appointed to place the resolutions of this Department before the Minister of Education. Carried.

Moved by Mr. McQueen, seconded by Mr. Young, That this committee consist of Messrs. McMillan, Smith, McMaster and McAllister, of Toronto; Cowley, of Ottawa; Keith, of Bowmanville; Musgrove, of Wingham; and the mover and seconder. Carried.

Mr. Brown's paper on "Entrance Examinations" was then discussed by Messrs. Campbell, Putnam, Weidenhammer, Musgrove,

Gray and Purdy, and a hearty vote of thanks was given to Mr. Brown, to which he briefly replied.

The Committee on the President's Address, reported as follows :

The Committee begs leave to call special attention to the following points made by Mr. McMillan :

1. That while education is, and to some extent, should be, utilitarian, it should aim at the moral, intellectual and æsthetic training of the individual.

2. Owing to the fact that legislation in our Province has, for some time, been largely in the interests of High Schools, which constitute but five per cent. of our school population, our Public Schools, which comprise the remaining ninety-five per cent., have been far from receiving the support at the hands of the Legislature which their importance demands.

The Committee begs to recommend the adoption of the following resolutions:

1. That as an important means of remedying the defects pointed out in the paper, no one should receive a professional certificate who has not had at least two years' training in the practical work of the school-room.

2. That the training of pupils in our Public Schools is too important to be made subsidiary to High School work.

3. That every child is entitled to all the training which our Public School system is capable of giving apart from mere utilitarian considerations ; and that, if any class of schools is to receive special encouragement from the Legislature, it is that which devotes itself to the education of the masses.

The Committee would strongly recommend that the Public School teachers of the Province do their utmost to influence public opinion with a view to the improvement of Public School system in the direction Mr. McMillan has pointed out, and to this end we would also recommend the publication of the paper in pamphlet form, so that everyone interested in the Public Schools of this Province may have an opportunity of reading it.

On motion, the report was received and taken up clause by clause.

The last recommendation was amended, so as to read that the paper be published in the *Educational Journal*, and the report as thus amended was adopted.

Moved by Mr. Young, seconded by Mr. Scott, and carried, That in the opinion of this Department only inspectors of Public Schools and Public School teachers actively engaged in teaching should be examiners at the Entrance and Public School Leaving Examinations.

The Department then adjourned, singing "God Save the Queen."

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MINUTES OF THE KINDERGARTEN DEPARTMENT.

TUESDAY, March 27th, 1894.

Meeting opened at 10.30.; officers present ; Miss Laidlaw, President, in the chair. After the registration of new members, of which there were twenty-seven, the Minutes of last meeting were read and approved.

The President then gave an address on "The Development of Kindergarten Spirit in Ontario," stating there were Kindergartens in twenty places in Ontario, 200 teachers employed, and over 8,000 children in attendance.

Miss Agnes E. MacKenzie, of London, gave an excellent paper on "Kindergarten Extension," which was followed by discussion.

Miss O'Grady moved, seconded by Miss Young, That a committee be appointed to get estimates of the cost of starting and maintaining Kindergartens. The motion was carried, and following committee appointed : Miss O'Grady, Convener ; Miss Lawson, Mrs. Newcomb, Mrs. Hughes and Miss Young.

Miss Savage then opened a discussion on drawing with an interesting and instructive paper on that subject.

The meeting then adjourned.

 WEDNESDAY, March 28th.

After the Minutes of the previous meeting had been read and confirmed, a discussion was held upon the advisability of the Ontario Kindergarteners joining the "Ontario Council of Women." It was decided to leave the matter for further consideration.

Miss Mary MacIntyre, of Toronto Normal School, gave a short and interesting address upon "First Year's Training," Misses MacKenzie, of London, and Young, of Aylmer, also speaking upon the subject. A committee was formed, consisting of Miss MacIntyre, Convener ; Mrs. Newcomb, Miss A. E. MacKenzie, Miss Currie and Miss Laidlaw, to prepare a resolution to present to the Minister of Education in reference to first year's training.

Mrs. Hughes then gave an excellent and instructive talk on "The Development of Occupations with Assistants," illustrating it by means of paper-folding, weaving and drawing. The meeting then adjourned in order to hear Prof. Stanley Hall on "Child Study."

 THURSDAY, March 29th.

Meeting opened at 10 a.m. After reading the Minutes of previous meeting, the election of officers was proceeded with. Miss Mary MacIntyre, of Toronto, was elected President ; Miss Jean Laidlaw, of London, Director ; and Miss Florence Bowditch, of Hamilton, Secretary.

Mrs. F. T. Newcomb gave an excellent paper on "Transition Class," which was discussed. Miss O'Grady, of Boston, gave an interesting account of the Transition Class in that city; Miss MacIntyre also spoke of the class in connection with the Normal Kindergarten.

It was moved by Mrs. Newcomb, seconded by Miss MacIntyre, That this Association bring before Miss Blow, at the proposed meeting next summer, this discussion upon "Gifts and Occupations in Kindergarten," with a view to obtain suggestions in applying the materials. Carried.

A question drawer was then opened, and the following questions discussed :

1. Individuality in Gift and Occupation Books.
2. Prof. Stanley Hall's expressed opinion in regard to Kindergarten Occupations.
3. The admission of Form as a factor in weaving.
4. Having public lectures on Kindergarten subjects.
5. Professional standing of candidates for Directors' examination.

Reports of Libraries and Froebel Societies were then read by Misses Lawson, of Toronto; Laidlaw, of London; and Bowditch, of Hamilton.

Report of Committee on the Standard for Entrance to a Kindergarten Training School :

It is recommended by the Kindergarten Department of the Ontario Teachers' Association that the standard for admission to the training school be raised to two years' attendance at a High School or Collegiate Institute—such attendance to be certified by the principal—, or its equivalent.

Further recommended that the Minister of Education be asked to make some provision in keeping with the late regulations governing High School examinations, so that in case of failure of a capable student, the daily marking of essays and practical teaching can be taken into account, at least relatively.

Report of Committee of Estimate for Kindergarten Expenses :

This report is calculated for a kindergarten of fifty children for one year.

Furniture, tables, chairs, etc.....	\$70 00
Gifts and permanent materials	55 00
Occupation materials.....	50 00
	\$175 00

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The purchase of chairs, cupboards, wool, pencils, etc., from large dealers, the procuring of cutting and folding paper and blank cards from local printing offices, and the tracing of picture cards, will much assist in lowering expenses. The Committee would not, however, recommend the use of any materials less accurate and lasting than Bradley's.

Where economy is the first object with the School Board, the charging of a nominal fee of ten cents per month or five cents per week is found to be amply sufficient for all running expenses, even though not exacted from those too poor to pay. Where no fee is charged, \$35.00 per annum should cover all expenses, when the kindergarten is once started.

In private kindergartens, with a smaller attendance, the kindergartener can by the expenditure of extra time and labor lower this estimate.

The members of the Committee will gladly give further information and advice where it may be useful.

For members' addresses, apply to the Secretary, Miss F. Bowditch, Hamilton, Ont.

The Printing Committee, consisting of the presiding officers, decided, as the space was limited, to print only one paper, Miss Agnes E. Mackenzie's, on "Kindergarten Extension."

The meeting adjourned at 12.30, with a vote of thanks to retiring officers.

MINUTES OF THE TRAINING DEPARTMENT.

TUESDAY, March 27th, 1894.

The Department met in Mr. Kirkland's room at 10.30 a.m. Mr. Kirkland, the President of the Department, occupied the chair.

The following programme of work was arranged :

WEDNESDAY FORENOON.

9 o'clock. Report of Committee. Mr. Kirkland, M.A.
 10 " Dr. Stanley Hall.
 11 " Mr. Wm. Scott, B.A.

THURSDAY FORENOON.

9 o'clock. Reports of Committees. Mr. Houston and Mr. Scott
 10 " Mr. S. B. Sinclair, B.A.
 11 " Election of officers.

Messrs. Brown, Wilkinson, Elliott and Barber were appointed a committee to report on the circular sent out by the Minister of Education to inspectors and others in reference to the Constitution of County Boards of Examiners.

Messrs. Brown, Elliott, Jordan and Rannie were appointed a committee to prepare the Minutes of work done by this Department for the press.

Mr. Jordan gave notice of motion, Mr. Wilkinson seconded, That the percentage required for pass at Professional Examination for County Model School be uniform throughout the Province, and that such percentage be fixed by the Education Department.

Department adjourned at 11.45 to meet at 9 o'clock Wednesday morning.

WEDNESDAY, March 28th.

Department met at 9 o'clock a.m., Mr. Kirkland presiding.

After the Minutes of the previous session had been read and confirmed, Principal MacCabe, of Ottawa Normal School, took the chair, and Mr. Kirkland reported on behalf of the Committee appointed last year.

On motion the report as read was adopted.

The Committee appointed yesterday in reference to the proposed change of the composition of County Boards of Examiners reported. The consideration of the report was adjourned at 10.15 a.m.

Mr. Scott, of Toronto Normal School, read a paper on "Lesson Plans."

After considerable discussion Dr. G. Stanley Hall was introduced, and gave an address on "Child Study." After the close of his address a number of questions were asked and answered.

Dr. McLellan moved, and Mr. F. C. Powell seconded, a hearty vote of thanks to Dr. Hall for his excellent address given this morning, and also for that given last night. Carried.

The Minister of Education supported the motion by a short address.

The Department adjourned at 12 o'clock noon.

THURSDAY, March 29th.

Department met in the usual place.

The Minutes of the previous meeting were read and confirmed.

Mr. Houston reported that his Committee had been unable to come to any agreement in reference to limit of work in schools, owing

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to the difficulty in securing a meeting, but they desired to be allowed to continue the investigation of the subject and to report next year.

It was resolved to add Mr. Wm. Scott's name and to appoint Mr. Houston as Chairman.

The Committee is composed of Messrs. Houston, Scott, Alexander, Carson, McAllister, Kirkland and Dr. Carlyle.

Mr. Scott reported on behalf of his Committee, and, on motion of Mr. Scott, seconded by Mr. Barber, the report was received and adopted.

A committee, composed of Messrs. Kirkland, MacCabe and the President-elect of this Department for 1895, was appointed to wait on the Minister of Education and urge changes in the line of this report.

It was decided to have Mr. Scott's paper on "Lesson Plans," read yesterday, printed in the Proceedings.

Mr. Sinclair then discussed "The Teaching of Psychology in Model Schools." The address was spoken to by several members.

The final consideration of the report of the Committee on the Constitution of County Boards was then resumed. The report was amended, and adopted as amended.

The report, as finally adopted, was as follows :

1. The Training Department affirms the principle that every teacher receiving pupils should have a voice in the promotion of such pupils.

2. In view of this decision, Model School Principals should be members of the proposed Boards for the granting of Primary Certificates.

3. That one Associate Examiner should be selected from the teaching staff of each High School within the county, provided such High School is not already represented on the County Board of Examiners.

The following officers were then elected : President, Albert Barber, Cobourg ; Secretary, W. H. Elliott, Hamilton ; Director, S. B. Sinclair, Ottawa.

The Department then adjourned.

MODEL SCHOOL SECTION.

TUESDAY, March 27th, 1894.

The Section met at 2 p. m. in Mr. Kirkland's room.

In the absence of the President, Mr. Alexander was asked to take the chair. Attendance about thirty.

The President introduced Mr. Rannie, Principal of the New-market Model School, who addressed the Section on the subject, "Model School Text-Books." Discussed by Messrs. Sharman, of Athens; Allan, of Durham; Elliott, of Hamilton; Wilkinson, of Brantford; Suddaby, of Berlin; Barber, of Cobourg; Jordan, of Meaford; Reid, of Forest.

On motion of Mr. Barber, seconded by Mr. Elliott, a committee was appointed, consisting of Messrs. Rannie, Reid, and McDiarmid, to consider the subject of Model School Text-Books, and report tomorrow.

Mr. Wilkinson, of Brantford, was then introduced, and read a paper on the "Extension of the Non-Professional Standing of Model School Students."

Discussed by Messrs. McDiarmid, of Ingersoll; Merrill, of Brampton; Sharman, of Athens.

Mr. McDonald asked permission to exhibit apparatus for teaching Mathematical Geography.

On motion leave was granted. Mr. McDonald was to be heard on Thursday at 4.30.

On motion Mr. Tilley, Inspector of Model Schools, was asked to discuss before the Section the recent circular sent to Model School Principals.

The Section adjourned.

WEDNESDAY, March 28th.

The Section met at 2.30, p.m.

Mr. Alexander, of Galt, in the absence of Mr. Campbell, the President, in the chair.

Minutes of last meeting read and confirmed.

Mr. Jordan, of Meaford, moved, seconded by Mr. Reid, of Forest, that in the opinion of this Section rural school teachers should be granted the same number of holidays as in the cities and towns.

After considerable discussion the debate was adjourned until Thursday afternoon. The resolution was then further discussed and carried.

The Committee appointed yesterday on Model School Text-Books reported through Mr. Reid, of Forest.

Mr. Reid adopted.

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Mr. Reid moved, seconded by Mr. Rannie, that the report be adopted.

On motion of Mr. Barber, seconded by Mr. Broad, the Public School Physiology was substituted for the Manual of Hygiene.

A motion to strike out the clause in the report referring to military drill was lost.

On Clause 1 of the report which required Model School Boards to furnish a professional library, Mr. Campbell moved, seconded by Mr. Allan, that the County Council be required to furnish a professional library for Model School students. Carried.

The report was then adopted as amended.

Mr. Campbell, of St. Thomas, then introduced the subject, "How to Spend the First Two Weeks of the Model School Term." Discussed by Messrs. Reid, Broad, McDiarmid, Wilkinson, Wood, and Thompson.

The subject "Model School Principals" was then taken up by Mr. Barber. The paper suggested that the time of the Principal should be employed as follows:

1. Take charge of students in training, as at present, until such time as the Model School term is lengthened to a full year.
2. Take full charge of the schools of the town in which the Model School is situated.
3. Spend some time in the school of each student who secures a school in the county in order to follow up the work of the Model School room.
4. Visit, for the purpose of assisting in the programme, other associations than his own.
5. With the Inspector and High School Principal to take charge of Entrance Examinations.

In view of this increased work in the county the County Council should be asked to increase the grant to Model Schools.

Some discussion took place on the lack of thoroughness in the work of Public and High Schools, after which Mr. McDiarmid moved, seconded by Mr. Merrill, that in the opinion of this Section the lack of thoroughness in the work of the Public and High Schools of the Province is largely due to the amount of work required, and therefore Resolved, That this Section would call the attention of the Public and High School Departments of this Association to the importance of bringing the matter to the notice of the Minister of Education, with a view to materially lessening the amount of such work while maintaining its general character.

Mr. Jordan moved, seconded by Mr. Powell, that in the opinion of this Section the amount of history required for Entrance Examination be limited to British History from the reign of Henry VII. to the present inclusive, and Canadian History. Carried.

THURSDAY, March 29th, 3 p.m.

Mr. Campbell, President of the Section, in the chair.

A committee was appointed to report next year *re* qualifications of Inspectors and Model School Masters. The committee consists of Messrs. Powell, Suddaby, and McDiarmid.

Mr. Tilley was then called upon to discuss the circulars issued by him to Model School Masters *re* plans bearing on the internal work of Model Schools.

Mr. Tilley first traced the progress of Model Schools from their organization, in 1877, to the present time. He read some letters received by him in answer to request as to the working of suggestions made by him for the term of 1893. Only two were unfavorable. Mr. Tilley expressed himself as opposed to the Manual of Hygiene and to drill, saying that Calisthenics was sufficient.

After some discussion the thanks of the Section were tendered to Mr. Tilley for his address.

The officers for the ensuing year are: President, Mr. H. F. McDiarmid, Ingersoll; Secretary, Mr. Ward, of Collingwood.

The preparation of programme for the Section was left with the President and Secretary.

On motion the Section adjourned.

The committee, consisting of Messrs. Powell, Rannie, MacIntosh, Dearness, and Scott, appointed at the meeting of the Training Section of the Ontario Educational Association last year to consider the following points:—

1. What should be read at the County Model School;
2. What should be read between the County Model School and the Normal School;
3. What should be read at the Normal School;
4. What should be read after the student leaves the Normal School; and,
5. Give a brief synopsis of each;
6. How this reading may be enforced, beg to report as follows:—

In considering these questions as a whole, your Committee kept in view the great desirability of every teacher having a select library of professional works, believing if professional reading is begun when the student is on the threshold of his career as a teacher, the addition of a good work or two per year will, in a comparatively short time, put each in possession of what will be the nucleus of such a library.

With this end in view we sub-divided the subjects of a professional course into the four sub-departments of (1) Theory of Education,

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(2) History of Education, (3) School Management, and (4) Methods.

For the County Model School, to supplement what is now done there, the following works are recommended to be used by each student:—

Theory of Education: Rooper's Pot of Green Feathers, and Spencer's Education, Chapter II.

History of Education: Monograms on Comenius, Pesta'ozzi, and Froebel.

Methods: Klemm's European Schools.

The monograms to which reference is made are such as those issued by Kellogg & Co. on Pestalozzi. This one has twenty-nine pages.

Rooper's Pot of Green Feathers is a small work of fifty-eight pages, dealing with the subject of apperception.

Spencer's edition, Chapter II., deals with Intellectual Education, and in it he lays down educational principles.

Klemm's European Schools contains fifteen chapters, the first eleven being devoted to the schools of Germany and the last four to those of France, Austria, and Switzerland. It is largely taken up with modes of teaching various subjects, and many examples of good as well as an occasional one of bad teaching are given.

The reading of these can be readily enforced by the final examination at the County Model School.

Before coming to the Normal School it is recommended that Williams' History of Education and White's Elements of Pedagogy be substituted for the first sixteen chapters of Quick's Educational Reformers and the first five chapters of Fitch.

Williams' History of Education has an introductory chapter to the Renaissance which is lacking in Quick. It then contains a well written general view of education from the Renaissance to our own day.

White's Pedagogy has a chapter on the elements of Psychology. Then, after laying down principles to form the basis of his method of teaching, he takes up the teaching of the various school subjects, and ends with a chapter on moral training.

These would form the basis of the entrance examination to the Normal School, and it is confidently believed would be much better for that and subsequent purposes than those now prescribed.

While at the Normal School it is recommended that the students read the following:—

1. Fitch's Lectures on Teaching.
2. Quick's Educational Reformers.
3. McLellan's Applied Psychology.
4. White's School Management.

These are so well known that a synopsis would be useless.

The final examination would be based on these, and thus their reading would be insured.

Your Committee think that the only means of having professional reading continued by the greater number of teachers after leaving the Normal School, would be by devoting a part of each session of the County Teachers' Convention to the thorough examination of two works each year. This work might be conducted somewhat as follows: The conductor of the meeting, or one appointed specially for the purpose, gives a brief general analysis of the work as a whole, and then calls upon any one present to read his or her analysis of chapter I., or whatever part may be asked for. The leader criticizes. Another is then called on for an analysis of some other portion, and discussion and criticism follow, etc. Thus on until the work is finished. This would compel each to make a careful analysis of the work.

If the works to be examined are announced at the meeting a year in advance, and if these are the same for the Province, as they would be if some such plan as here outlined were systematized by the Education Department or agreed upon by the Inspectors at these meetings, it is believed that such work would be even more useful than that now done, as it would require each to make preparation to take part in an intelligent discussion of a work which all had read.

Even teachers who hold a Third Class certificate can be induced to take part in such work. This might take up from three to four hours of the two days' meeting.

The works recommended for 1895 are, Four Lectures on Teaching English, by Professor Laurie, or The Teaching of Geography, by Archibald Geikie. The latter is a small work of 200 pages, in which he lays down principles, discusses appliances, shows how to begin, and points out the connection of Geography and History. Mental Development in the Child, by Professor Preyer. This work treats of the senses of the new-born child; of the feelings, emotions, and temperaments in infancy; of the first perceptions and ideas; of the will; of the child's first learning; of language and the learning of speech; of the development of self-consciousness, and the conditions of mental development.

All of which is respectfully submitted.

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MINUTES OF THE INSPECTORS' DEPARTMENT.

TUESDAY, March 27th, 1894.

The Inspectors organized in the north library at 10.30 a.m. Arthur Brown, Chairman; J. E. Tom, Secretary; and T. A. Craig, Assistant Secretary. After a short address by the Chairman, the programme of the different sessions was discussed and arranged.

On motion of Inspectors Knight and Deacon, the Minutes of 1893 were adopted as printed.

Moved by Mr. Platt, seconded by Mr. McIntosh, That the sessions be from 9 to 12 a.m., and 2 to 5 p.m., each day. Carried.

On motion of Messrs. Platt and Summerby, the reading of papers on the subjects announced in the programme be limited to thirty minutes, and the members to five minutes each in discussion, and that no paper be given more than one and a half hours.

Moved by Dr. McDiarmid, seconded by Mr. Platt, That the election of officers take place on Wednesday morning at 10 o'clock, after which there shall be some time given to the consideration of the programme of 1895. Carried.

On motion of Messrs. Knight and Tilley, it was resolved, That Dr. Bremner, A. C. Mounteer and Mr. McDonald be each allowed twenty minutes to bring their respective subjects before the Inspectors' Department, viz.: Dr. Bremner, "Deformity in Children Caused by Faulty School Desks, etc.;" A. C. Mounteer, "Elocution;" Mr. McDonald, "Appliances for Teaching Mathematical and Physical Geography."

Mr. McDonald, by means of his globe and attachments, gave his methods of teaching mathematical and physical geography to small children.

Moved by Dr. Tilley, seconded by Mr. McIntosh, That the thanks of the Inspectors' Department be tendered to Mr. McDonald for his clear and interesting presentation of his subject. Carried.

On reassembling at 2 p.m., it was resolved, on motion of Messrs. Gordon and Tom, That at some time during the meeting, time be given for the discussion of subjects which may be previously announced.

On motion of Messrs. Tom and Craig, it was resolved, That those who introduce subjects be requested to hand a summary of their papers to the Secretary for insertion in the Minutes.

Dr. Tilley, P.S.I., Durham, read a paper on "Grammar and Composition in the Public Schools." He advocated giving more attention to sentences, phrases and clauses before taking up words. Many of the definitions and classifications in the Public School grammar he

considered very faulty. Composition should go hand in hand with grammar.

The discussion was continued by Dr. Kelly, Dr. McDiarmid, and Messrs. Carlyle, McBrien, Tom, Smith, Summerby, McIntosh, Chapman and Garvin. The chief points were (a) that grammar is poorly taught in many inspectorates; (b) that grammar is not clearly understood by most of the primary teachers; (c) that the relations of grammar and composition are not recognized in teaching these subjects.

A. Brown, P.S.I., Dundas, read an interesting paper on "Are Arithmetic and Grammar as well taught in our Schools now as formerly? If not, why?" He believed there was a falling off in these subjects. That the low percentages required at the various examinations partly accounted for this.

Mr. W. McIntosh thought pupils are expert in arithmetic, but that they do not know the reasons why the operations are performed.

Mr. Chapman believed that too much time is spent on long problems in arithmetic.

The discussion was closed by Messrs. Brown and Tilley.

Moved by J. Coyle Brown, seconded by C. A. Barnes, That Dr. Bremner be heard at 9 o'clock to-morrow morning. Carried.

Moved by Mr. Smith, seconded by Mr. Deacon, That Mr. A. C. Mounter be heard immediately after Dr. Bremner. Carried.

Wm. McIntosh, P.S.I., North Hastings, introduced "The Relation of the County Board of Examiners and the Public School Inspector to the Model School." He said that the Model School is the most important educational institution in the county; that the methods taught in the Model School and practised in the county should be the same; that the Model School Principal and P. S. Inspector should work together in promoting the efficiency of the Model School work; that the Inspector should visit the Model School very frequently.

Dr. Kelly stated that the Model School is, to a very large extent, independent of the Board of Examiners.

Messrs. Smith and Dearness stated that they have no Model Schools in their Inspectorates, and no legal connection with any Model School.

Mr. Chadwick agreed with Mr. McIntosh, and thought the Inspector should give a good deal of time to the Model School work.

Messrs. Deacon and Tom considered the Model School very important, and that its efficiency depends mainly on the culture and ability of the Model School Principal.

Messrs. Platt, Summerby, J. C. Brown, Smith and Carlyle continued the discussion, all of whom emphasized the importance of the Model School work. Mr. McIntosh was requested to embody his

proposed changes in the Schools in the Department to-morrow.

On motion adjourned.

At nine o'clock

Moved by Mr. Deacon with the business

On motion of the Secretary of the Department, Mr. Deacon was invited to attend the next meeting.

Hon. G. V. Deacon, Secretary of the Department, advised that they had recently received a number of matters which required more attention than the out-buildings.

After some discussion, on motion of Mr. Deacon, the Inspectors were invited to make their remarks.

Moved by Mr. Deacon to be heard at 2 o'clock.

The following were present: Mr. G. D. Deacon, Director, N. V. Deacon.

The Department.

At 2 p.m.

Dr. Bremner was caused by fault.

Moved by Mr. Deacon, Mr. Deacon's paper being tendered the Department.

Mr. A. C. Deacon.

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proposed changes in the present relations of Inspectors to the Model Schools in the form of a resolution to be brought before this Department to-morrow.

On motion of Messrs. Platt and Summerby, the Department adjourned.

WEDNESDAY, March 28th.

At nine o'clock Minutes read and approved.

Moved by W. McIntosh, seconded by A. Embury, That we go on with the business on the programme. Carried.

On motion of J. E. Tom and Dr. Kelly, it was resolved, That the Secretary of this Department issue a circular to each Inspector, asking him to suggest subjects to be brought before this Department at the next meeting, the circular to be sent out before October 15th next.

Hon. G. W. Ross, Minister of Education, was introduced to the department, and addressed the members present on matters pertaining to their official work. The Minister dwelt at some length on the reports recently received from the Inspectors, and called attention to several matters which may form the material of future reports. He believed more attention should be given to the condition of the school-house, out-buildings and grounds.

After some complimentary remarks by W. Carlyle and Dr. McDiarmid on motion of Dr. Tilley, seconded by J. C. Brown, the thanks of the Inspectors were tendered to Dr. Ross for his interesting and instructive remarks.

Moved by Dr. Tilley, seconded by J. C. Brown, That Dr. Bremner be heard at 2 p.m. Carried.

The following officers were elected for the ensuing year: Chairman, G. D. Platt, Picton; Secretary, N. Gordon, Orangeville; Director, N. W. Campbell, Durham.

The Department adjourned at 12 o'clock.

At 2 p.m. the Minutes of previous session were read and adopted.

Dr. Bremner, Toronto, read a paper on "Deformity in Children caused by faulty School Desks."

Moved by T. A. Craig, seconded by J. E. Tom, That Dr. Bremner's paper be printed in the Proceedings, and that the Doctor be tendered the thanks of the Department. Carried.

Mr. A. C. Mounter read an interesting paper on "Oral Reading."

On motion of Mr. Knight, seconded by Mr. McBrien, the thanks of the Department were tendered to Mr. Mounter for his paper.

J. S. Deacon, P.S.I., Halton, gave an able and interesting address on the question, "Have we a sufficiently high ideal of the work to be done in a Public School?"

Mr. Deacon was listened to with a great deal of attention, and at the close of his paper short addresses on the topics suggested were made by Dr. Kelly, Mr. J. C. Brown and others.

H. R. Sanford, Esq., Director of Teachers' Institutes in the State of New York, was introduced by Inspector Hughes, and gave a short address on "The State of Education in New York State." He dwelt particularly on the certificating of teachers and the appointment of School Commissioners.

J. Dearness, P.S.I., East Middlesex, introduced the subject of "How shall we secure Uniformity in the Extension of Third-class Certificates (Regulation 52)? Should extended certificates be Provincial?" He favored the limiting of Third-class Certificates to the county in which they are issued, and considered that all candidates for renewal of certificates should be required to pass an examination on some professional work.

After a spirited discussion, in which many members took part, it was moved by Inspector Dearness, and seconded by Inspector Campbell, That a committee consisting of Messrs. Clapp, Tilley, Summerby and Deacon be appointed to bring in a resolution bearing on Regulation 52 of the Education Department.

It being 5 o'clock the meeting adjourned.

THURSDAY, March 29th.

At 9 a.m. the Minutes were read and approved.

An informal discussion on the Public School course of study was participated in by Inspectors Dearness, Knight, Garvin, and others.

The remarks made by the different speakers indicated considerable dissatisfaction with the Writing and Drawing.

At the close of the discussion, the following resolution was proposed by Mr. Dearness:

That in the opinion of the Inspectors' Section the present regulations governing the examinations in Writing and Drawing are not giving the most satisfactory results, inasmuch as the exercise degenerates too generally into mere copying instead of true education in these important subjects.

Moved by Inspector Deacon, seconded by Inspector Summerby, That the resolution lie on the table until afternoon. Carried.

The members of the Model School Section then entered the room, having requested permission to meet with the Inspectors to hear

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Inspector Garvin's paper on "Are the Literary and Professional Qualifications for Public School Inspectors and Model School Principals satisfactory?"

On motion of Mr. Platt, seconded by Mr. Tom, the members of the Model School Section were permitted to take part in the discussion which followed.

After an able discussion on Mr. Garvin's paper by Messrs. Knight, N. W. Campbell, W. Elliott, Morgan, Chadwick, and Carlyle, it was moved by Principal Powell and seconded by Inspector Chapman, That a committee of six (three from each Section) be appointed to consider the suggestions in Mr. Garvin's paper, and report to the united Sections of Inspectors and Model School masters at the meeting in 1895. Carried.

On motion of Messrs. Smith and Kelly, Inspectors Garvin, Morgan and Carlyle were appointed members of the Committee from the Inspectors' Department.

Dr. Tilley read the report of the Committee appointed to consider changes in regulation 52.

Moved by Mr. Platt, seconded by Mr. Johnston, That the discussion of the report be deferred until the afternoon session. Carried.

The Department then adjourned.

At 2 p.m. the Minutes were read and adopted.

The subject of Writing and Drawing for High School entrance was further discussed by Messrs. Embury, Knight, Dearness, Carlyle and Tom. All were of the opinion that Drawing is not taught so as to be of any practical value to the pupils, also that most of the teachers do not know how to teach Drawing.

The Committee on Third-class Certificates and their renewal, reported, and, on motion of Messrs. Tilley and Summerby, it was resolved that this department is fully of the opinion that all Third-class Certificates should be limited to the county in which issued, and especially should this be done in the case of renewals or extensions.

It was moved by Dr. Tilley, seconded by J. Dearness, and carried unanimously, That this department is of the opinion that the \$50 grant from the municipality for each assistant teacher should be increased to \$100 (Section 109, Public School Act).

"Should the number of Trustees for Rural Schools be increased to Five?" was introduced by J. E. Tom, P.S.I., West Huron. He advocated the change for the following reasons: (a) It would make the position of the teacher more permanent than at present; (b) the

meetings of the Trustees would be more regular and business-like if there were five Trustees; (c) the interests of the Section would be better served.

After some discussion by Messrs. J. C. Brown, G. D. Platt, J. Dearness, A. Embury and Dr. Tilley, it was moved by Mr. G. D. Platt, seconded by Mr. J. Dearness, That the Secretary of the Inspectors' Department send this subject to the Executive Committee to be put on our programme of 1895. Carried.

The Minutes were then read and approved.

Moved by Inspector Embury, and seconded by Inspector Platt, That the thanks of this Department be tendered to the Chairman, Secretary and Assistant Secretary for their efficient services. Carried.

On motion, the Department adjourned.

MINUTES OF THE TRUSTEES' DEPARTMENT.

VISITOR :

The Hon. Geo. W. Ross, LL.D., etc., Minister of Education, Ontario.

DELEGATES :

PUBLIC SCHOOL BOARDS.—Geo. J. Fraser, Woodstock; Rev. Dr. Jackson, Galt; John Lyle, Bowmanville; Rev. Dr. McRobbie, Shelburne; A. Werner, Elmira.

HIGH SCHOOL AND COLLEGIATE INSTITUTE BOARDS.—John Anderson, Arthur; S. W. Brown, L.D.S., Dunnville; Colonel F. Cubitt, Bowmanville; J. B. Fairbairn, Bowmanville; Thomas A. Hastings, Wm. Houston, M.A., Mrs. O'Connor, Toronto; John Parry, J.P., Dunnville.

BOARDS OF EDUCATION.—Geo. Anson Aylesworth, Newburgh; James H. Burritt, Pembroke; Colonel Jas. Deacon, Lindsay; John Ball Dow, B.A., Whitby; J. E. Farewell, LL.B., etc., Whitby; J. B. Jackson, B.A., Ingersoll; S. F. Lazier, M.A., LL.B., Q.C., Hamilton; R. McKnight, Owen Sound; W. H. McLaren, Hamilton; J. R. McNeillie, Lindsay; A. McPherson, Hamilton; Rev. J. Somerville, M.A., Owen Sound; C. W. Thomson, Newburgh.

TUESDAY, March 27th, 1894.

The Eighth Annual Convention of the School Trustees of Ontario began in the Examiners' Room, Education Department, Toronto.

The President, Mr. S. F. Lazier, M.A., LL.B., Q.C., opened the Convention at 2.30 p.m. with a few appropriate remarks, welcoming

the delegates present. The fact that had caused an and notices of Trustees through many of the proved that the initiative of the improve its important education.

The Minutes in pamphlets, with

The Auditor

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Moved by Report of the noon session to

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The Trustees in the chair.

The Minutes

On motion into committee dance.

the delegates present, and expressing regret that a misapprehension of the fact that our Department is constituted entirely of delegates had caused an almost total omission of the distribution of programmes and notices of this Convention to the various Boards of School Trustees throughout the Province. Yet, since without notice so many of the former members of this Department were present, it proved that they were alive to the value of this Association, appreciative of the benefit derivable from its discussions, and disposed to improve its great opportunities for useful work in the ever more important educational field.

The Minutes of the Trustees' Convention of April, 1893, as printed in pamphlets, were considered read, and upon motion were adopted.

The Auditors presented the following report :

"The Auditors appointed to audit the accounts of the Secretary-Treasurer of the Trustees' Department, Ontario Educational Association, beg to report :

"That they have examined the books, accounts and vouchers of the Treasurer, and find the same correct ; and that there is a balance of \$6.80 in the hands of the said Treasurer.

"The Auditors respectfully call the attention of the Department to the desirability of placing more funds at the disposal of the Secretary-Treasurer, and suggest an increase of one dollar to the annual fee for membership ; said sum of one dollar per member to be paid into the treasury for the use of this Department.

"All of which is respectfully submitted.

"(Signed) JOHN BALL DOW, }
JNO. ANDERSON, } *Auditors.*

"TORONTO, March 27th, 1894."

Moved by Mr. Burritt, seconded by Colonel Cubitt, That the Report of the Auditors be now received, and considered at the forenoon session to-morrow. Carried.

Moved by Mr. McLaren, Chairman Hamilton Board of Education, seconded by Mr. Burritt, of Pembroke, That this meeting do now adjourn till 10 o'clock a.m. to-morrow. Carried.

WEDNESDAY, March 28th, 1894.

The Trustees' Department re-assembled at 10 a.m., the President in the chair.

The Minutes of the previous session were read and confirmed.

On motion of Mr. John Anderson, of Arthur, the meeting went into committee of the whole to consider the falling off in the attendance.

Mr. Hastings, First Vice-President, in the chair.

Moved by Mr. J. E. Farewell, LL.B., Q.C., etc., seconded by Mr. John Ball Dow, B.A., That owing to the fact that the various High and Public School Boards of Trustees have not been properly notified of the holding of this meeting, and the attendance thereat is not a representative one; therefore, be it resolved, That an adjourned meeting be held in this place on the first Tuesday of November for the purpose of considering all matters proper to be brought before the regular meeting of this Association; and that at such meeting the question of the propriety of this Department continuing a part of the Educational Association of Ontario shall be considered.

After an earnest discussion, in which it appeared that a considerable majority of the delegates present favored the immediate consideration of the programme, the motion was voted upon and declared lost.

The Committee arose, and reported progress.

The President, Mr. Lazier, resumed the chair.

The First Subject on the programme, "The Funds of this Trustees' Department," was introduced by the Secretary-Treasurer. He said that the Auditors in their report had made a recommendation which he thought would meet the requirements of the present state of affairs.

It was moved by Mr. Burritt, seconded by Mr. J. B. Fairbairn, That the Auditors' Report be now adopted, including their suggestion that the annual fee to be paid by delegates to this Department be one dollar and fifty cents each; of which sum one dollar per member shall be paid into the treasury for the use of this Department. Carried.

The Second Subject on the programme, was a paper read by Mr. J. E. Farewell, LL.B., on "Township Grants to Public Schools."

Moved by Mr. Farewell, seconded by Mr. Aylesworth, That in the opinion of this Association the 109th Section of the Public Schools Act should be amended, by making the annual grant to each Public School in a township the sum of two hundred dollars instead of one hundred. Carried.

On motion of the Secretary-Treasurer, seconded by Mr. Hastings, the hour of 4.30 o'clock p.m., to-day, was set apart for the election of officers.

The meeting adjourned, to meet again at 2 p.m.

The Trustees' Department re-assembled at 2 p.m., the President, Mr. Lazier, in the chair.

The Minutes of the previous session were read and confirmed.

The Fourth Deacon, of Lindsay, That the Educational Association of Ontario should consider the question of examiners for examinations for the purpose of aggregate requirements in future, with subjects in which

The Fifth Subject, introduced by Mr. Cubitt, of Bowling Green, Lindsay, That the Educational Association of Ontario should consider many subjects for consideration more than a subject, and that subjects were omitted to the advantage of the Association, and that the omission would be remedied efficiently, and that the maintenance of High Schools

After discussion

It was resolved that Mr. Fairbairn, be authorized to send a certificate to the University.

The Seventh Subject, and Night School

Mr. Thomson gave an interesting account of the Act in connection with the Act was doing the labors of the duty, and no Police Magistrate Public School sent of the offering the or to expulsions present to sup

He sketched the history of the Act in 1880. He said that the Act detracted from

Mr. McKim in connection

The Fourth Subject on the programme was introduced by Colonel Deacon, of Lindsay, who moved, seconded by Mr. McNeillie, also of Lindsay, That in the opinion of this Department of the Ontario Educational Association, candidates who appear before the Boards of Examiners for examination, and obtain a fair average of marks above the aggregate required, but fail in one or two subjects, should be granted in future, within three months, a supplementary examination in the subjects in which such failure occurred. Carried.

The Fifth Subject on the programme was introduced by Colonel Cubitt, of Bowmanville, who moved, seconded by Colonel Deacon, of Lindsay, That in the opinion of this Department of the Ontario Educational Association, the curriculum for High Schools contains so many subjects that pupils of ordinary capacity seldom obtain much more than a superficial knowledge of them; that if some of the subjects were omitted from the curriculum it would be greatly to the advantage of the pupils educationally and in respect to health; that such omission would also enable teachers to discharge their duties more efficiently, and would decidedly tend to reduce the expense of maintenance of High Schools which at present is somewhat oppressive.

After discussion the resolution was carried unanimously.

It was resolved, on motion of Colonel Cubitt, seconded by Mr. Fairbairn, both of Bowmanville, that the Secretary be instructed to send a certified copy of the above resolution to the Senate of Toronto University.

The Seventh Subject on the programme was "The Truancy Act, and Night Schools."

Mr. Thomas A. Hastings, of Toronto Collegiate Institute Board, gave an interesting address on the subject, explaining the workings of the Act in Toronto. He thought, on the whole, that the Truancy Act was doing much good in this city. One thing that increased the labors of the truancy officers—who were usually policemen, when off duty, and not in uniform—was that, owing to a decision of the Police Magistrate some time ago, inflicting a fine upon one of the city Public School teachers for flogging a pupil, the teachers, with the consent of the inspectors, had ever since adopted the plan of always offering the offending pupils the alternative of submitting to a flogging, or to expulsion. Mr. Hastings had no amendments to the Act at present to suggest.

He sketched also the work of the city night schools, established in 1880. He said they were undoubtedly of great help to numbers; but that the irregular attendance of the majority of pupils greatly detracted from the total of good results.

Mr. McKnight said much good was accomplished by night schools in connection with the Mechanics' Institute at Owen Sound.

Moved by Colonel Deacon, seconded by Mrs. O'Connor, of Toronto Collegiate Institute Board, That the thanks of this meeting be tendered to Mr. Hastings for his interesting address, and that a synopsis thereof be prepared for publication in the Minutes. Carried.

Mr. James H. Burritt, of Pembroke, read a paper on "The latest Departmental Regulations Concerning Fifth Form Work, and the Public School Leaving Examination."

After an animated discussion, it was moved by the Secretary, seconded by Rev. Dr. McRobbie, and resolved, That Mr. Burritt's paper be received, with thanks to the writer.

The following were elected :

OFFICERS FOR 1894-95.

President, John Ball Dow, B.A., Whitby; First Vice-President, Thomas A. Hastings, Toronto; Second Vice-President, James H. Burritt, Pembroke; Secretary-Treasurer, George Anson Aylesworth, Newburgh, Addington County.

EXECUTIVE COMMITTEE.

The above-named Officers together with ex-Presidents : 1887-88—Mr. J. E. Farewell, LL.B., Q.C., Whitby; 1889—His Honor Judge A. Bell, Chatham; 1890—Rev. John Somerville, M.A., Owen Sound; 1891—Mr. J. I. MacCracken, B.A., Ottawa; 1892—Rev. G. G. McRobbie, Ph.B., Sc.D., Shelburne; 1893-94—Mr. S. F. Lazier, M.A., LL.B., Q.C., Hamilton; and Rev. Dr. Alex. Jackson, Galt; Mr. J. R. McNeillie, Lindsay; Mr. W. H. McLaren, Hamilton; Mr. J. B. Fairbairn, Bowmanville; Mr. S. W. Brown, L.D.S., Dunnville; Mr. A. Werner, Elmira.

Colonel James Deacon gave notice of motion, as follows : That at the next meeting of this Department, he would introduce a motion to the effect that the Honorable the Minister of Education be respectfully requested to consider the expediency and justice of making a more equitable distribution of the public money between the High and Public Schools respectively.

President Lazier, Mr. Farewell, Mr. Burritt, Colonel Deacon and Colonel Cubitt, were deputed to wait upon the Minister of Education and to press upon his attention the resolutions adopted by this Annual Meeting.

The Trustees' Department adjourned, to meet again at 10 a.m., Thursday, 29th March.

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THURSDAY, March 29th, 1894.

The Trustees' Department re-assembled at 10 a.m., the President, Mr. Lazier, in the chair.

The Minutes of the last previous session were read and adopted.

The Executive Committee reported the nomination of Rev. Dr. McRobbie, as Director of this Department, to represent it—together with the President and the Secretary—on the Board of Directors of the Ontario Educational Association.

On motion of Mr. Burritt, seconded by Dr. Brown, Rev. Dr. McRobbie's nomination was received and confirmed.

It was moved by Mr. George J. Fraser, Woodstock, and seconded by Mr. Burritt, That the Report of the Committee on "Agriculture in Public Schools," as presented before the last Annual Meeting of this Department, and printed in the Minutes (pp. 16-18, 28-31—1893) be now adopted.

Mr. Houston briefly addressed the meeting on the advantages presented by Agriculture as a subject for educating the powers of observation, system, and generalization of facts, as well as for imparting knowledge, intellectual training and culture.

After Mr. Werner, of Elmira; Mr. McKnight, of Owen Sound; Col. Deacon, of Lindsay; Mr. Fraser, of Woodstock; and the Secretary and others had taken part in the discussion, the motion was voted upon and carried unanimously.

The President explained that it would not be possible for him to go at two o'clock this afternoon with the deputation appointed to wait upon the Minister of Education, to lay before him the results of this annual meeting.

On motion of Mr. McNeillie, seconded by Dr. Brown, the name of the Secretary was substituted for that of the President as a member of that deputation.

Moved by Mr. S. W. Brown, L.D.S., of Dunnville, seconded by Geo. Anson Aylesworth, of Newburgh, and unanimously adopted, the following resolution:

Whereas, Under the existing law the moneys which High School Boards are entitled to receive from County Councils and the Councils in the High School districts, for the maintenance of the High Schools under their jurisdiction, are not payable until the end, or nearly the end, of each year; and

Whereas, in the meantime and prior to the receipt of such municipal grants, money is usually required by such High School Boards for the maintenance and current expenses of such schools; and

Whereas, no provision is now made by law for raising the money so required for the purposes aforesaid pending the receipt of the

municipal grants, and it is desirable that some such provision should be made; be it therefore

Resolved, That it is desirable and expedient that The High Schools Act, 1891, should be so amended that the Trustees of High School Boards should be vested with power and authority to require the municipal council or councils in the High School districts to borrow upon the credit of such municipalities until the amount of the annual grant shall be levied and raised, and, when borrowed, pay over to the High School Board such sums as the High School Board may require to meet the current expenditure of the Board until such time as the municipal grants to which such Board shall be entitled shall be received—the sums so borrowed not to exceed in the aggregate an amount equal to one-half the total municipal grant or grants of such councils of the year previous.

By request, the President left the chair, after having called Col. Cubitt thereto.

It was moved by Col. Deacon, seconded by Mr. Farewell, and

Resolved, That this Department hereby places on record a cordial expression of thanks to Mr. S. F. Lazier, M.A., LL.B., Q.C., for the courteous, intelligent, and impartial manner in which he has presided over our deliberations; and also our hearty congratulations upon his election to the important position of President of the Ontario Educational Association.

After Mr. Lazier had appropriately responded, the meeting adjourned till 2 p.m. of the Tuesday first following Easter Sunday, 1895.

Memoranda of a meeting with the Honorable Minister of Education, Ontario, of a deputation from the Trustees' Department Ontario Educational Association. The deputation consisted of Cols. Cubitt and Deacon, and Messrs. Farewell, Dow, Anderson and Aylesworth.

The meeting took place in a room in the Attorney-General's apartments, Ontario Parliament Buildings, on the afternoon of Thursday, 29th March, 1894.

The deputation brought to the attention of the Minister the resolutions adopted by the Trustees' Department relative to—

- I. The overcrowded condition of the High School curriculum.
- II. Doubling the minimum amount of municipal grants to rural Public Schools.
- III. Providing necessary funds for High School Boards for the part of the year previous to the latest date fixed for paying the annual municipal grants.
- IV. Supplemental examinations for candidates failing in only one or two subjects at Departmental examinations.

The Minister with the Trustees recommended that wait upon the S

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The Minister expressed himself as entirely in sympathy and accord with the Trustees' Department, as regards Resolutions I. and II. He recommended that a deputation from the Trustees' Department should wait upon the Senate of Toronto University with Resolution I.

As to Resolution III. he stated that he would endeavor to persuade the Legislature, before the close of the session, to amend the Municipal Act so as to give Municipal Councils authority to borrow money for High School purposes previous to the paying in of taxes in each year, and to empower High School Boards to require Municipal Councils to pay in monthly instalments the grants of money to which such schools are entitled.

As to Resolution IV. he proposed, instead of supplemental examinations, to extend to the other Boards of Examiners the same latitude and authority now possessed by Boards of High School Entrance Examiners; namely, to admit candidates failing in only one or two subjects, where the aggregate number of marks obtained by the candidate thus failing is large.

The Minister of Education having called the attention of the deputation to the abstract from the Minutes of our Association published in his latest report, and having received the thanks of the members of the deputation, brought the interview to a close.

FINANCIAL STATEMENT OF THE ONTARIO EDUCATIONAL
ASSOCIATION, 1893-94.

RECEIPTS.

Balance from last Statement	\$254 81
Members' Fees	221 50
Ontario Government—Annual Grant	300 00
Sale of Minutes	85 80
Advertisements in Minutes	17 00
Interest	15 39
	\$894 50

EXPENDITURE.

Membership Register	\$10 50
Secretaries of Departments	36 00
Railway fares—Lectures	25 40
Expenses of Convention—Attendance, chairs, etc ..	14 25
Printing circulars, programmes, envelopes, etc.....	42 30
Postage and mailing	20 02
Board of Directors, railway fare to meeting held in November	44 85
Printing Minutes	299 68
Salary of Secretary	75 00
Salary of Treasurer	10 00
Balance	316 50
	\$894 50

Respectfully submitted,

ROBERT W. DOAN,
Secretary.

W. J. HENDRY,
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PAPERS AND ADDRESSES.

GENERAL ASSOCIATION.

THE RELATION OF EDUCATION TO OUR NATIONAL DEVELOPMENT.

[*An Abstract.*]

ALEXANDER STEELE, B.A., ORANGEVILLE.

Our national development, its rise and progress, the dangers that beset it, and its future possibilities are subjects of abiding interest to every patriotic citizen ; and more especially are they of interest to us to whom is entrusted the education of those that shall guide this development during the first half of the coming century. It is believed by many close observers of social phenomena that we are on the eve of a great social revolution, and, if that be true, the educator of the present day has entrusted to him a work that may well make him pause on account of its important and far-reaching consequences.

Guizot, in his "History of Civilization in Europe," Chapter II., writes as follows : "When we look at the civilizations which have preceded that of modern Europe, whether in Asia or elsewhere, including even those of Greece and Rome, it is impossible not to be struck with the unity of character which reigns among them. Each appears as though it had emanated from a single fact, from a single idea . . . which determined the character of its institutions, its manners, its opinions. . . . The civilization of modern Europe [on the other hand] was diversified, confused, stormy. All principles of social organization are found existing together within it ; powers temporal, powers spiritual, the theocratic, monarchic, aristocratic and democratic elements, all classes of society, all the social institutions, are jumbled together and visible within it." He then proceeds to establish his dictum that the overpowering influence of a single principle leads either to stagnation, as in Egypt, India, Asia Minor, or to a brilliant rise and a rapid decline, as in Greece ; and that the conflict of many powerful principles, each striving for the mastery, but none successful in permanently subduing the others, promotes vigilance, activity and energy, and contributes to the continuous and healthy development of civilization.

An examination of the principal civilizations of Europe and

America serves to confirm more strongly the generalization made by Guizot. As examples of states in which the dominance of a single principle has produced stagnation or decay, we may cite (1) Spain, where the principle of authority in church and state has sapped a once vigorous life, and has brought on extreme senility; (2) the Central and South American Republics, where ultra-democracy rules supreme, and, by its fickleness, destroys national stability and progress; (3) Russia, where unlimited monarchical authority holds sway, producing popular discontent and anarchy, and retarding the development of the country and the progress of European civilization in the north.

The civilizations of England, Germany, and France serve to illustrate the fact that the incessant struggle carried on between powerful principles tends to the freer and fuller development of national life. In England at present a great struggle is carried on between the *masses* and the *classes*; between Home-Rulers and Unionists; between church establishment and disestablishment; between militarism and commercialism. The result is that the civilization of England has renewed its youth, and is showing a more rapid and healthy growth than ever before, the chief characteristics of which are a vigorous, powerful, and fearless discussion of all questions, religious, scientific, philosophic; the undiminished production of wholesome and inspiring literature; vast industrial development and unbounded commercial enterprise.

In Germany there is an incessant conflict between militarism, socialism, governmental authority, and industrialism. Literature, philosophy, art, and science also exert a powerful influence in shaping the nation's development. The result is that out of many petty states there has been built up a powerful nation.

In France, also, the ceaseless struggle carried on between contending principles is giving greater depth, constancy, and moral intensity to the French character, and is ensuring the continuous development of French civilization.

There is one point in the generalization made by Guizot that does not find illustration in the cases already cited. In Greece, and later in the Italian republics, the continued mastery of a single principle led to a rapid and brilliant rise, followed by a speedy decline. Prof. A. D. White, ex-President of Cornell University, finds in the civilization of the United States a similarly rapid and brilliant national development, under the almost supreme influence of a single principle, which he calls "mercantilism"; and he warns his fellow-countrymen that it is necessary to strengthen other factors in their civilization in order to avoid national decline.

On account of our proximity to the United States, our civilization, to a certain extent, resembles that of our southern neighbors, although it has been less brilliant in its development. The danger that besets American (United States) civilization may also beset ours. It is undoubtedly true that mercantilism—a combination of the industrial

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and trade spirits—is with us becoming every day more and more powerful. It is sapping the foundations of all true political or patriotic spirit. Our ablest men are so engrossed in business that very few of them can be induced to devote their time and talents to the furtherance of national interests. The care of the great affairs of state is becoming more and more entrusted to men of only moderate ability, and frequently even to men that seek personal or party advantage at the expense of national prosperity and advancement. No doubt able and patriotic men are still to be found in the political arena; but as these withdraw from the conflict, it is found to be increasingly difficult to get competent men to take their places.

Is it not true also that industrial and mercantile pursuits lead away many brilliant minds from the realms of literature, where they might exercise a powerful influence in shaping the nation's destiny? And, notwithstanding the encouragement given by our leading daily and weekly newspapers, do not those that have engaged in literary pursuits find much to discourage them on account of the woeful lack of interest taken in their work by the great majority of the people?

Education, too, is suffering from the blasting effects of the same supreme influence. The true aim of education is being lost sight of, and what is demanded is not true education at all, but merely instruction, especially the instruction that will most speedily equip for work in the factory, the office, the store, or on the farm. The instruction that will fit for making money is considered of primal importance; the education that develops character, manliness, patriotism is considered of secondary importance.

Religion, also, as a formative principle in our civilization seems to be losing power. Men's energies are so absorbed in their daily vocations that religion has ceased to exert much influence over them. More than the masses are drifting away from the Church. Statisticians tell us that the percentage of the population attending the Church is much smaller than it was half a century ago.

There are principles that exert a powerful influence on European civilization, and yet find no place in ours. Such are anarchy, socialism, militarism, aristocracy, monarchy. These may, therefore, be left out of account in estimating the elements that enter into our national life. What influences, then, can be so strengthened as to keep in check this all-powerful mercantilism? Only the ones mentioned, viz., patriotism or political spirit, literature, education and religion; and patriotism, literature, and even religion from the human side, may be said to be dependent on education. The continuous and permanent development of our civilization, then, in the final analysis, rests on education—not the education of the few, but the education of all; and the burden of this education should be, "No man liveth unto himself."

All development takes place along two lines: (1) development in individual character; (2) development of the social organization.

These two kinds of development are to a certain extent interactive, although one may be fostered while the other is neglected. The Greek developed the individual at the expense of society; the Egyptian developed society at the expense of the individual. In both cases the results proved detrimental to the permanence of national growth. It remains for the civilization of the present day to co-ordinate these two great principles, and to foster their simultaneous development. There is no conflict between them; in fact, an absolutely perfect social organization would exhibit the two working in perfect harmony.

The nature of the individual is threefold—physical, mental, spiritual. To obtain the nearest approach to perfection in the individual, it is necessary that each of these three be developed symmetrically, and that all be developed harmoniously. It is certain that the development of mind is limited by the physical condition and development of the body, and that the development of the spirit is to a certain extent dependent on the development of both body and mind. There is no doubt also a reactive influence: mind affecting body, and spirit affecting both mind and body. To produce the highest manhood it is necessary, then, that all these elements of the individual organism should receive the fullest development of which they are capable.

The proper development of the social organization depends on the great principle, "Thou shalt love thy neighbor as thyself." The grasping principle of mercantilism has led to a wrongly constituted social organization that is producing almost universal discontent. The farmer, the artisan, and the laboring man may be better off than they were a generation ago; but they believe that they are not receiving an equitable proportion of the increased wealth of the country. Hence they are dissatisfied. The invention of agricultural machinery and improved means of transportation may have benefited the community at large by cheapening the price of grain, but what compensation has the farmer received for low prices of farm products, and the depreciated value of farm lands? The invention of machinery has vastly increased the productive power, and therefore the wealth of the country, but the laboring man and laboring woman receive but a meagre portion of the increase. We are told by the American Statist, Mr. T. G. Shearman, that "it may safely be assumed that 200,000 persons control 70 per cent. of the national wealth of the United States," or as Dr. Josiah Strong puts it, "one man in 300 receives \$70 out of every \$100, and 299 men receive \$30, which if averaged would give them about ten cents each." These same authorities tell us that the 100 richest Americans have yearly incomes of between \$1,200,000 and \$1,500,000 each, and Mr. Shearman adds that within the next forty years we may expect the American billionaire.

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women of the coming generation. They are being taught to read, to observe, to reason; in a word, to be discontented. For can a working-man be other than discontented if he knows that it would take him from twelve to fifteen hundred years, at an annual salary of one thousand dollars, to earn the yearly income of one of these richest Americans? By public parks, by art galleries, by exhibitions, and in many other ways, efforts are put forth to develop the æsthetic side of human nature, and the awakened tastes demand satisfaction. The desire has been awakened, and there will be discontent till it is satisfied. The lower class and the lower strata of the middle class have demanded the ballot and have obtained it. That alone is not going to satisfy them. They are demanding a complete revolution of the social organization, and from their limited and very imperfect knowledge of social phenomena, there is danger that they may become the dupes of unprincipled demagogues, who would use them to promote selfish interests.

What is required then to conserve the interests of all is a considerable body of men of high character, who, by thorough training in literature, history, mathematics and philosophy, are fitted to solve the complicated problems of modern society, and to guide the minds of the people to just conclusions.

If it is necessary then for the safety of the State that all its citizens should receive at least a common school education to inculcate obedience to authority and respect for law, it is equally necessary that the gifted few should receive the highest training the State can give to fit them for leading their fellowmen into the avenues of true social and national advancement. To ensure true social progress it is almost more essential that Government should provide this higher training for the few, than that it should provide the lower training for the many.

It is asserted sometimes that men that have received such training as I have mentioned are likely to be visionary and not practical. Hear what ex-President Andrew D. White has to say on that point. He says that in the city council of Berlin are to be found such men as Rudolf Gneist, one of the most distinguished professors in Europe, and with him are associated others hardly less famous. The result is that Berlin is a model city, well lighted, well paved, with beautiful parks, clean streets, noble public buildings and excellent drainage, and yet, although in size and rapidity of growth it may be compared with New York, the total civic expenditure is only a trifle more than the interest on the public debt of the city of New York. And he adds, that the government of Berlin "is at once dignified and economical." In the language of Emerson, "To save the state a body of (such) workers is required, placed at many points, and working in many directions." "Men that love righteousness and hate iniquity."

To each man is entrusted a portion of the power belonging to the race. This is a sacred possession, and the object of all education,

and especially of higher education, should be to conserve this power and develop it to the utmost. It has been said that the aim of education should be to bring a man into harmony with his environment, that is, the social organization to which he stands in certain established relations. Is not its true aim rather to so develop the powers of the individual that he may be able to comprehend the relation existing between him and his environment, and so gain such power over that environment as to make it conform to what he conceives to be the divine ideal.

Mercantilism tends to selfish individualism, but true education leads to enlightened altruism. "The greatest work [then] which the coming century has to do in this country is to build up an aristocracy of thought and feeling which shall hold its own against the aristocracy of mercantilism." And to accomplish this it is necessary to strengthen at every point our Provincial University and all the other universities of our land.

" Make knowledge circle with the winds ;
But let her herald, Reverence, fly
Before her to whatever sky
Bear seed of men and growth of minds."

NOTE.—For valuable information on the influence of mercantilism, I wish to acknowledge my indebtedness to a lecture, entitled "The Nineteenth Century to the Twentieth," delivered by Prof. Andrew D. White before the Alumni of Yale College in 1883.

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COLLEGE AND HIGH SCHOOL DEPARTMENT.

THE CONFLICT OF STUDIES.

I. J. BIRCHARD, M.A., PH.D., TORONTO.

Before the beginning of the present century the task of framing a curriculum of studies was a comparatively simple one. The time-honored Department of Classics and Mathematics had then no rivals. The disputations of the schoolmen were forgotten, modern languages were not thought worthy of serious attention, and science, as we understand it to-day, was not yet born. The field of knowledge was not too wide to be covered by a single University course. Education was almost wholly confined to the nobility and the wealthy, who valued it more as a mark of social distinction than for its practical application. Under these circumstances little difficulty was experienced in making a suitable selection of subjects for study and for subsequent examination. But during the present century changes, great and far reaching in effect, have been slowly but surely and permanently making themselves felt.

Learning is no longer the monopoly of the few, but is claimed as the right of the many. The words of the old Book, "A wise man is strong," are more widely appreciated and education is now valued more for the powers it confers than for what we may call its "society" value. The present age is at once democratic and commercial—two peculiarities which are strongly influencing the course of education to-day. The multitude desire to be educated, but demands an education which can be directly or indirectly converted into money.

Again, the field of knowledge has been both widened and deepened. The old departments have been greatly enlarged and entirely new ones have been added. Mathematics, always great, has received enormous developments. Modern Languages, no longer confined to ladies' schools and a very insignificant place in colleges, have taken their place in Universities as a department quite on an equality with the ancient and aristocratic Classics. Natural Science, long denied a place as a part of a liberal education, has at length compelled recognition. The question of its value as an instrument of mental discipline is still discussed with varying results. But there is money in it, and that settles its position. Call it a bread-and-butter subject if you will, deny its students a social equality with "Classics," call them sceptics or infidels, so long as a discovery in chemistry or an

ingenious application of electricity can transform the author into a millionaire, the hard names will be forgotten and students of Science will be on the increase. Whether for good or for ill, Science as a Department has come to stay.

The difficulty of too large a programme has thus far been met by a series of options. As the number of subjects has increased, so has the number of optional courses, each leading to the B.A. degree. Formerly a diploma from a reputable University, represented a fairly well known quantity; to-day, as the result of options, it has become a "variable"—shall I say an "independent variable" instead. To such an extent has this principle been extended that the thorough study of the different courses permitted in some modern Universities would constitute an excellent training in the subject of Permutations and Combinations.

Again, options were at first permitted only in the advanced years of a University course. Gradually the point at which the options commence has receded. The matriculation point being reached, options of necessity began in the Secondary Schools. From the Matriculation Examination the principle has been extended to teachers' certificates of all grades. The public schools alone remain, but even here there are indications that the seeds have fallen and are taking root. I believe it has been gradually proposed to "specialize" in the Toronto public schools. If so, the *reductio ad absurdum* has been reached, and it is to be hoped we shall soon start in a more promising direction for the solution of the Educational problem.

But the whole difficulty has not yet been stated. In primary and to some extent in secondary education we have a new claimant for a place on the curriculum—a claimant whose voice is loud and whose demands are strong—the claimant is "Manual Training. Not very aristocratic, perhaps, of humble birth, not aspiring to culture, refinement, or the ornamental, but demanding a place, if not alongside of, then to the exclusion of, the older subjects, on the practical ground of being useful.

Again, I say we may not like these claims, we may protest the room is already filled, this new claimant has already gained a hearing, is firmly linked to its relative science, and, in the writer's opinion, it too has come to stay.

What shall be done to relieve the pressure? How shall we decide which subjects shall find a place upon the curriculum when there is not room for all? These are questions which meet us in the Public School, the High School, and the University, and questions which we are compelled to answer. Even the system of options, employed so freely in recent years, is no longer sufficient for the difficulty. A great University can make provision for instruction in all, and allow each student to select his own course, but this is impossible in secondary and primary schools. In these the programmes must of necessity be limited to a comparatively small part

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of the educational field. And even in the University a further difficulty still arises in the question—How much of one subject shall be considered an equivalent for a given quantity of another? There is no common standard of comparison—no fixed unit of measurement. Representatives from the several departments meet to discuss the requirements for a particular examination. Theoretically, each specialist is expected to present the peculiar claims of his own department and to listen in turn to the merits of the other departments as presented by their own representatives, and finally from the united wisdom of all we might reasonably expect the best possible selection to be made. Practically, we find each specialist thinks his own department the only one of importance, the only one worthy of serious attention. The conference degenerates into a contest of factions, each party trying to secure the lion's share in the programme. Broad comprehensive views of the whole question are rarely entertained. The decisions being based not upon principle, but upon the relative strength of the factions present at one meeting, are liable to be reversed at the next. Confusion and change without definite purpose is the inevitable result.

The first step towards a solution of the difficulty is to decide upon some things which should *not* be done. A school should not be made a commercial institution, though it should certainly be conducted on sound business principles. My meaning is that it should neither seek to enrich itself at the expense of its students, nor attempt to train its students in the art of amassing wealth in after life. Private schools may with perfect propriety do both. A private tutor may teach anything—not immoral—which his students desire to learn, and charge any fee which they are willing to pay. The teacher barter his labor for a stated sum of money, the student exchanges his money for what he considers an equivalent in instruction, and the transaction is complete—no other person has any concern or interest in the matter. But with public institutions the case is very different. They are largely supported from public funds, and consequently the subjects taught should be for the benefit of the whole community, for those who never enter them as well as for those who do. Fees may be charged, because it is very reasonable to assume that those who take a High School or College course receive more personal benefit than those who do not, and consequently they should bear a larger part of the expense. They should not, however, bear the whole of it. The welfare of the nation is largely dependent upon its educated men, and the humblest toiler who has never seen even the outside of a college is indirectly benefitted by living in a land where learning abounds. On the other hand, mere professional training should not be given at the public cost. To spend public money in training individuals in the art of money getting, *i.e.*, in making them more capable of competing with those who have not been trained, is a manifest injustice. It is a compound robbery; it first takes A's money and

gives it to B, for the purpose of helping B to get more money which would otherwise have been obtained by A. Such a course could be justified only in case it could be clearly shown that an increase in the number of a particular profession would be of substantial benefit to the whole community.

These general principles will, I presume, be readily admitted by all. In their practical application opinions may differ, and probably will differ, on the subject which I proceed to offer as an example.

The Commercial Department lately added to our Collegiate Institutes will doubtless meet with the approval of those who desire education to be made practical. It cannot, however, be defended upon sound educational principles. It is practical for those who receive the training. It assists a number of young men and women to earn a livelihood, and is therefore of decided benefit to them. But does it render any service to the community, as a whole, in return for the public money which sustains it? It will scarcely be contended that there are not enough competent merchants to supply the country with goods; or that there are not enough book-keepers to keep these merchants' books; or that more commercial travellers are necessary to supply them with merchandise. If not, why should public money be spent for what the public, in its united capacity, neither needs nor wants? If the wants of the individuals who compose the public are to be considered, then all must be supplied—a conclusion we are hardly prepared to accept. The only rational course is to provide a public education which increases intelligence, develops power, and lays the foundation for success in any department of life, but to leave technical and professional training to the private enterprise of the individual concerned.

My second theorem is, *Schools should not be made popular by omitting essential difficulties.*

A good education, like many other good things, is costly, and a part of the price is hard work. In times past the young men and women of Ontario have shown themselves able to grapple successfully with the necessary difficulties of a thorough educational course. They have not only been successful at home, but have made themselves and Ontario's schools respected abroad. There is no necessity for lowering the standards or eliminating the difficulties to popularize our schools. In recent years great advances have been made in numbers in our higher educational institutions, but it is questionable whether the quality has been maintained along with the increased quantity. In some respects there has been a decline. Mathematics, for example, do not stand to day where they stood ten years ago. Some allowance must, of course, be made for the levelling up and the expansion of other parts of the curriculum, but the fact remains that there has been a weakening in the Mathematical Department. There are probably a number of causes for this unfortunate result, of which one at least is not far to seek. Mathematics are difficult. They are costly.

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They demand natural ability at the beginning and steady hard work throughout the course. A fair paper in Mathematics will always pluck a considerable number of candidates. They form an insuperable barrier to incompetency, whether from defect of natural or acquired ability. Following the Departmental Examinations we have a yearly chorus from the friends of the unsuccessful candidates, condemning the Mathematical Papers. Teachers of other departments, jealous of the amount of attention necessarily devoted to Mathematics, have lent their influence to assist in crushing out the difficult subject. The work prescribed remains as before, but the amount demanded has been materially lessened. The weaklings have cried out and their voice has been heard; the strong ones—both teachers and students—have been silent and their influence has not been felt.

The Mathematical Papers have sometimes been unsuitable and in a few cases unreasonable, but for every fairly well prepared candidate who has been rejected a considerable number of incompetent ones have been passed. A fair and reasonable standard in Mathematics uniformly maintained would be a decided benefit to all departments of learning.

This desire to avoid difficulties has borne evil fruit in another department. Science, in our secondary schools, has of late received a large share of both money and attention. The curriculum has been greatly expanded in surface, but in one important branch, that of physics, proportionately reduced in thickness. In this particular, however, Ontario is simply moving with the rest of the world. Science is everywhere being popularized, which in most cases means that it is shorn of its strength by the omission of Mathematics. I have nothing but praise for the introduction of the experimental part, which has been so magnified of late, providing it be kept in its proper place. Our knowledge of the physical world is derived from two sources: first, observation and experiment; second, deductions on mathematical principles from data so obtained. Both parts are necessary; my objections are not raised to the presence of the former in our schools, but to the absence of the latter. A knowledge of isolated facts, gained from experiment, may be practically useful, but without the underlying principle which binds them together, without the deductions of reason, it is worthless educationally. Under any circumstances it is a means, not an end, and should be kept in subordination accordingly. This point I consider of great importance. To emphasize and support it I quote the words of one of the first physicists of the present age, Professor Tait, of Edinburgh University. In speaking of the study of Physical Science, he says: "There is no admission for any but a Mathematician into this School of Philosophy. But there is a lower department of Natural Science, most valuable as a precursor and auxiliary, which we may call 'Scientific Phenomenology,' the office of which is to observe and classify phenomena and

by induction to infer the laws which govern them. But the inferior and auxiliary science has of late assumed a position to which it is by no means entitled. It gives itself airs, as if it were the mistress instead of the handmaid, and often conceals its own incapacity and want of scientific purity by high-sounding language as to the mysteries of nature."

Science is nothing if not definite and precise. Physics especially, without Mathematics, may furnish amusement for the idle and the indolent, but as an instrument for serious education it is sham and a fraud. Mathematics is but another name for the laws of nature. To simplify a course of study by omitting the former is to leave the student unable to comprehend the latter. Let me now repeat the enunciation of my proposition. Schools should not be made popular by the omission of necessary difficulties.

Having dealt at some length with the negative side of the question, let us consider the positive. The rational course to pursue is to determine the mental powers we wish to develop and then select the most efficient means to secure the desired result. This is but another mode of saying that we should proceed according to a fixed principle instead of being led by chance. But just here the grand difficulty appears. We are not at all agreed, either upon the end to be accomplished nor upon the most efficient means of securing a specified result. Education is one of the natural sciences, and as such its foundations must be laid upon the results of observation. In Physics, for example, certain natural constants have been carefully measured, the facts observed and classified, and the underlying laws deduced by induction, and upon them the science of Physics is based. But unfortunately this preliminary work in the case of Education has not been done, and we are not in possession of the data necessary for founding a reliable Science.

Permit me here to remark parenthetically that I am aware this is debatable ground. I had collected evidence in support of the opinion here advanced from the number and character of the changes in educational affairs in Ontario during the last ten years, but I will not inflict them upon you. For my present purpose I only ask your assent to the statement that it is very desirable for our knowledge of the Science to be improved.

Patient investigation long continued, skilful and intelligent observation of facts, careful classification and study of data acquired, are the chief steps by which the foundations of the other natural sciences have been laid. If we are willing to pay the same price for a Science of Education we can obtain it upon the same terms. The laws of mind are surely not less definite than the laws of matter. We manipulate magnets and electric currents at will, and can at any time determine the physical agents necessary to produce a desired physical result. A knowledge of the laws of mind, which would enable us to make a similar prediction regarding mental results, would give us the ideal Science of Education.

The difficulty is insuperable. It has been in possession of their nature is a process is a considerable portion of our former with its matters we can proper apparatus ones we wish to various combinations dealing with the of plants by the liberty to perfect children.

Again, mathematics is the same at all times exhibit the same infinitely varied is true of one of the difficulties.

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The difficulties in the way, however, are great, but I think not insuperable. If they had not been great we should long ago have been in possession of the desired information. A clear conception of their nature is the first step towards their solution. The educational process is a slow one. Cause and effect are usually separated by considerable periods of time. The elements in each are very numerous and complicated, and it is difficult to connect an element of the former with its legitimate consequence in the latter. In dealing with matters we can vary the conditions at pleasure. By constructing proper apparatus we can exclude all elements or conditions except the ones we wish to study. We thus examine causes in detail, or in such various combinations as we desire. This is utterly impossible in dealing with mind. We learn the influence of light upon the growth of plants by placing them in a darkened room, but we are not at liberty to perform analogous experiments in the education of living children.

Again, matter is homogeneous. Pure water, for example, is the same at all times and places, and samples of it, wherever obtained, exhibit the same unvarying properties. But human beings are infinitely varied. No two are precisely alike, and consequently what is true of one is not necessarily true of another. These are some of the difficulties we encounter at the very threshold of our observations.

But very similar difficulties have been surmounted in other fields of knowledge. In Astronomy, for example, the motion of a planet is the result of a very complex system of forces. But by patient and laborious observation the laws governing these forces have been discovered, so that we can now predict the future course of a planet with the utmost precision. We are not able to subject the heavenly bodies to arbitrary experiments, yet from observing them for a sufficient time in the regular course of nature, we have been able to collect a great amount of accurate knowledge concerning them.

Again, a difficulty very similar to that presented by the variety of mind has been successfully solved by the life insurance men. The uncertainty of human life is proverbial when any one individual is concerned. But when large numbers are considered the law of mortality is about as fixed and certain as the law of gravitation. So with regard to the mental peculiarities of individuals. Beneath the infinite diversity of individuals the great laws of mind are fixed and unchangeable. A problem so vast and complicated can scarcely be successfully attacked by a single observer. What is needed is large number working in concert. We need the work to be divided into small parts, with a number of enthusiastic observers working on each. The whole ground must be examined microscopically and the results tabulated, compared and organized. When this has been done we shall have the data for constructing a Science of Education.

It appears to me that the work thus outlined can be performed by members of this Association. I believe that we have unusual facili-

ties for so doing. We have with us representatives of every phase of the educational problem. Specialists in every department of learning; teachers familiar with all grades of work and with students of all ages; inspectors watching the educational process under the most varied circumstances; examiners who have excellent opportunities to note results, and, finally, this annual meeting to organize the separate observations into a symmetrical whole.

Two lines of research appear specially appropriate at the present time. The first is the value of Science as an instrument of mental discipline and culture. We already have any amount of opinions on the subject, opinions from all sorts of people, but that is not what is wanted. In the study of Science itself opinions do not count, except in so far as they are supported by evidence. In the Science of Education the same principle should be observed. The value of Science in its practical aspects is no longer in question; a perpetual demonstration in visible and tangible form meets us at every turn. Now, Herbert Spencer asserts that Science is equally valuable as an instrument of mental culture; that the knowledge which is most valuable *per se* is also the most valuable for mental discipline. Coming from a man like Herbert Spencer, the opinion is worthy of attention. But remember it is only an opinion. What I propose is to verify its truth or prove it to be false. If it be true that the educational value of a subject is proportional to its practical value the discovery is entitled to take rank along side of the law of gravitation. The solution of the educational problem will be, if not quite complete, at least in sight, and the working out of the details will be a comparatively easy task. What we first require is the demonstration.

The second subject to which I would ask your attention is that of the education of women. A new era in the world's educational history has begun. Hitherto one half of civilized humanity has been without the higher forms of mental training. It has been accepted as an axiom that women were unable to grapple with the subjects of a University curriculum. The events of the last few years have shown the error of this opinion. They have shown that the girls are quite able to hold their own alongside their brothers throughout the High School course. Even the rugged and thorny path of Mathematics has been traversed, and we have lately seen a new species of wrangler in the person of a lady at the head of the Mathematical Tripos of Cambridge.

As usual, public opinion has at a single stroke passed from one extreme to the other. The theorem now is, "Woman is man's equal intellectually." Two corollaries are added, viz.: Co-education on the same curriculum and admission on equal terms to all the professions. The proposition has been by no means proved, and the corollaries are not legitimate inferences. It has been proved that some women can pass even the most difficult examinations with high honors, but the more important questions still await an authoritative answer. How

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does woman's powers compare with man's in practical work in these new departments? We have ample means for collecting data on this question, as far as teaching is concerned, with Medicine and Law to be heard from in the near future.

Again, setting aside the question of professional power, and considering her as a person to be educated, what is the most suitable course of study? Should it be the same as for man? The fact that she can study the same subjects does not answer the question. Perhaps a different training would be of more service to her. These questions can be answered only from observation. We have plenty of opinions; we want facts, an accurate measurement of the natural constants involved. Thus far I have not expressed any opinion myself; permit me here to give a brief one based upon some years of careful observation. There *is* a radical difference between the male and female intellect, not necessarily in *quantity*, but in *quality*. On some future occasion I may point out some of the peculiarities; for the present I simply assume their existence and offer it as a reason for selecting this subject as a suitable one for investigation.

The chief object of this paper has been to direct attention to the necessity for careful study of the Educational problem. No attempt has been made to settle the conflict of studies, but the rational method of attaining that object has been pointed out. Should the idea here expressed appear practical and worthy of serious consideration it will be necessary to secure the active co-operation of a large number of Educationists to give them effect. An organization similar to the "Committee of Ten" appointed for a very similar purpose by the American Association in 1892, would probably be most satisfactory. Originally my intentions were to recommend a detailed method of proceeding, but time forbids me to do so at present. Should such a committee be appointed I shall be glad to lay before its members some results of observations already made. In conclusion, let me hope that in the near future Educational problems may be solved upon fixed principles rather than by compromises between conflicting interests.

THE QUALIFICATIONS OF SPECIALISTS.

L. E. EMBREE, M.A., TORONTO.

[An Abstract.]

The speaker did not approve of specializing so early in the University course, believing that a broader and more general course would best serve the great majority of students, including those who are preparing to become teachers.

He advocated :

1. That all specialists should be graduates in their respective special courses.

2. That, even if the special courses be continued as at present in the University, specialists be required to take a broader course, somewhat as follows :

For all specialists—pass English to the end of the second year, or honor English to the end of the first year.

For specialists in Classics—pass French and German to the end of the second year, or honor French and German to the end of the first year.

For specialists in English and Moderns—pass Latin to the end of the second year, or honor Latin to the end of the first year, and pass Greek to the end of the first year, or honor Greek at matriculation.

For specialists in Mathematics and Science—the same requirements in French and German as at present, with the option of the honor work for one year less, as in the case of specialists in Classics.

Of course, it is intended that all additional pass work now required be continued, and that where honor work is required in the first year, it also be required at matriculation.

3. That at least two years' successful experience in teaching be required before the specialist certificate is granted.

He placed particular stress on the last requirement, as experience does not count in the teaching profession as it does in other departments of work.

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POST-GRADUATE COURSES IN THE UNIVERSITY
OF TORONTO.

J. SQUAIR, B.A., TORONTO

In educational matters in this Province we have doubtless much to be thankful for. We have as complete a system of kindergartens, primary schools, secondary schools, universities, and professional schools as exists in any country. And these schools are all so well supported and used by the people, that few of our native population can be found who have not enjoyed the advantages of school education. There is probably as wide a diffusion of knowledge amongst us as amongst any people.

And yet there is a strange lack amongst us of the higher products of scholarship, and, what is worse, a strange indifference regarding such products. We hear often a good deal of complaint that we have produced so few writers in works of imagination, but rarely do we hear anyone lament our poverty in works of science or of erudition. Indeed, our poverty in this respect is a thing we are not a little proud of; it is something to boast about rather than something to be ashamed of. It proves that we are strong, practical people who are above mere matters of pedantry. If even a teacher shows signs of industry in scholarly research, he is ranked by the public as unpractical, and to him "plums" rarely fall. The good places in the teaching profession are for the reward of those gifted with powers of discipline and organization. You may hear parents complain that the teacher is lacking in suavity or dignified bearing, but never that he is lacking in scholarship. The most highly honored teachers in our country are those who have the ability to make the school machinery go at a humming rate. And do we teachers love learning more than the people? Look at the programme of our teachers' conventions. The scholarly subjects do not constitute a tithe. Poor little sickly plants, they dwindle under the superabundance of the pedagogical topics. We are forever discussing how we shall impart the knowledge we do not possess. And our students, how lightly do they esteem knowledge! They will work to pass examinations, or they may do something which does not bear directly on examinations, if it lends itself to dithyrambs, but they have small taste for a piece of plain, honest work, the reward for which will simply be the satisfaction of having acquired new knowledge. There are vast realms of inquiry about which they have not the slightest curiosity. In literature they are fairly willing to go into raptures regarding what they call the beauties of style, even before they have read the authors who are being discussed, but they are not willing to master the grammar and rhetoric and history of the language in which these beauties of style occur.

It has even come to this pass in our universities, that the hero of the class is the athlete, while the butt of the class is the industrious student who bears the dignified name of "plug."

Yes, scholarship is at a low ebb amongst us, and it is no wonder that serious-minded persons are looking for remedies. Some have suggested the establishment of post-graduate courses in our universities, and one university at least in our Province has published its programme of studies for the degree of Doctor of Philosophy, and has, I believe, begun to award such degrees. Our subject of discussion to-day is, what should the provincial university do in regard to the matter.

The first thing to be said is that the University of Toronto does now offer in the Faculty of Arts all the facilities it possesses of lectures, library and laboratories to all its graduates, with the right of competing for honors in the ordinary undergraduate departments at the May examination. It also provides for the granting of an extra degree (viz., the M.A.) to anyone presenting an approved thesis in any subject of study within the limits of the work of the Faculty of Arts. Here then is machinery which might be utilized by those desirous of prosecuting post-graduate courses, namely, the means of instruction and the recognition of work performed. And yet no one, or next to no one, has availed himself of the opportunities offered. It may be said that the staff of the university, being so busy with the large number of undergraduates, would not have time to devote to graduate students if they should come in considerable numbers. It is quite true that the university would be ill able at present to cope with any serious extension of its work, yet there are very few graduates who would not profit by attending many of the lectures given to undergraduates, and I am sure all the members of the staff would be willing, in addition, to give a good deal of help in the way of useful guidance in reading. At all events, no graduate has any right to complain that the university is lacking in enterprise if he has not shown a readiness to accept the facilities she has already offered him. It may be said, too, that the degree of Master of Arts has fallen so low in public estimation that the university can hardly expect it to serve as a stimulus in the prosecution of difficult studies. There is force, no doubt, in such an objection, but it raises the unpleasant question whether the same causes which produced the fall of the Master's degree in public esteem might not have the same effect on the Doctor's degree. For what is there about the Doctor's degree which does not exist in the Master's degree? Nothing, unless it be the name. There are some who would have us believe that some new thing has been discovered, something which is proof against deterioration. But after all, the merit of a degree depends upon the kind of people who participate in the taking and the granting of it. If we cannot have a new spirit which will prompt men to thoroughly master all that is known in some department, and to widen the bounds of

that department laboratories, it is in spirit and the in purpose.

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that department, and if we cannot have the necessary libraries and laboratories, it is useless for us to add new degrees, and if we had the spirit and the implements, the old degrees would perhaps serve every purpose.

If the university adopts the policy of granting Ph.D. degrees, there seem to be three courses open to her: (1) She may prescribe courses and grant degrees without giving instruction; (2) she may prescribe courses and give instruction in some departments only, and (3) she may prescribe courses and give instruction in all departments.

There are very serious objections to the first of these plans. If the university decides to grant Ph.D. degrees, it is an announcement to the world that she has decided to enter the arena to compete in the highest kind of work with the great universities of Europe and America. What effect would it have upon her reputation, to admit that she was unable to teach the subjects upon her curriculum, and what guarantee would she have that her theses, in the hands of learned men all over the world, would be worthy of respect, if she did not have a corps of examiners whose sole business was to keep themselves abreast of the scientific research of the world? A respectable Ph.D. degree course is impossible without a body of professors whose time is spent in giving instruction and examining in the subjects prescribed for such a course. Without such a body of men, the Ph.D. degree would sink as low as the M.A. degree has sunk.

Regarding the second plan, it is safe to say that no one who desires peace in the university and in the educational profession generally would recommend it. I can think of nothing more calculated to stir up jealousy amongst the various departments of study, and surely no one desires to see more ill-feeling than at present exists.

The third plan is, then, the only one which could be adopted, and unfortunately it is quite out of the question, at least at present, on account of the largely increased expenditure of money which it would necessitate. It cannot be too plainly stated that the present equipment of the university is inadequate to do fitly its undergraduate work; the members of the staff are so busy with lectures that it is only with difficulty that time can be found for work outside of the ordinary course. Our numbers ought to be increased by at least one-third, to do the work now demanded of us. The laboratories are in many cases, also, quite deficient in capacity, and the library is so meagre that it would not begin to suffice to furnish material for respectable post-graduate work, except, perhaps, in a limited number of subjects.

Seeing, then, that it is not possible at present to organize Ph.D. courses in the University of Toronto, I might very properly close my paper at this point, but it may do no harm to look into the question whether the establishment of such courses at some time in the future be the proper ideal for the university to cherish. It seems to be assumed by many that if we are to have any development of higher scholar-

ship, it must come by means of so-called post-graduate study in our universities. Now, is this the only course of action left open to us? It seems to be forgotten by some that there are countries in the world in which high results have been achieved in scholarship where there are no double-degree arrangements in the universities.

There appear to be two ideals of university development which we, in this country, may set before ourselves: (1) The single-degree system, such as obtains in German universities, and (2) the double-degree system as we find it in certain American universities.

What can be said in favor of, and what in opposition to, each of these? In favor of the single-degree system, it can be said that it involves no outward change and no large extra expenditure of money for some time. We have it now. All that we need to do is to set about raising our standards of matriculation and graduation, which, if carried far enough, might in time place us on a level with the great universities of the world. There is also this good thing about the plan—it is modest, and cannot bring upon us any disgrace, such as failure to maintain a high double-degree system would be sure to entail. Furthermore, the effect upon the secondary schools of raising the standard of matriculation would be most beneficial, and it seems very problematical whether the standard of university work can be raised much if the standard of High School work is not raised at the same time. There is such a close connection between these two parts of our system. The university needs the High Schools in so many ways—as feeders, to keep up the supply of good students, as bonds of union between the university and the people, and as receivers of the best products of the university, that is, its brightest sons and daughters who are to devote themselves to the noble calling of teaching. The importance of this has not been fully realized in the past, but more and more does it become plain that the fate of the university is bound up with the fate of the High Schools. It will be difficult, perhaps impossible, to raise the university if we let the High Schools lie in their present situation. If the people of Ontario could be induced to increase the efficiency of the High Schools so as to make their programme cover what is now done in the universities up to the end of the second year, the difficulties surrounding the question of higher education would be for the most part solved.

Against adhering to the single-degree system as a permanent one, it might be said that the B.A. degree has fallen so low in public esteem in North America that our graduates would be always at a disadvantage, no matter how high their attainments might be. There is a probability, also, that, as the number of doctors of philosophy increases in the United States, the B.A. will sink still farther in that country and in our own as well. Another thing is the difficulty of raising the standards of matriculation and graduation. Judging from the tone of the criticisms directed against the High Schools by tax-payers and by Public School teachers and inspectors, it would

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seem to be almost impossible to raise the standard of all the High Schools much above what it now is ; and if an attempt were made to raise a certain proportion of them to a rank high enough to produce matriculants corresponding to those who enter the German universities, for example, it would be resisted most bitterly by the smaller schools. Every High School in Ontario wishes to have the opportunity of preparing students for the university—a laudable ambition, perhaps, but one which may help much to delay the coming of the time when the higher learning shall flourish amongst us. Nor is it quite clear that the teachers are much in favor of raising the standard of matriculation. Most of us will assent to the reasonableness of the abstract proposition that the standard ought to be raised, but when concrete proposals are made regarding the addition of subjects to the programme or the omission of subjects from the programme, or when rigid marking at examinations would tend to cut down the number of successful candidates from our own schools, then we enter vigorous protests against high standards. An objection against raising the standard very much may also come from the university. A very high standard means a smaller amount of fees from students, and as time goes on, students' fees will become of greater and greater importance to the very existence of the university.

What can be said in favor of the double-degree system? Evidently what has just been said regarding the difficulty of raising the standards of matriculation and graduation becomes an argument in favor of establishing Ph.D. courses. If the standard of matriculation cannot be raised, then the B.A. course can never become an equivalent for a course in a German university, nor even for a post-graduate course in an American one, and we shall be forced either to put up for all time with an inferior system of higher education or to add something to what we now have. Another reason in favor of the Ph.D. course is, that it might furnish a new spur to the ambition of our young men and women to thoroughly equip themselves as scholars in some branch of learning. And another reason in its favor is our proximity to the United States, whose systems we may be forced to imitate because we most certainly shall be forced to compete with them more and more as time goes on.

Coming now to the difficulties which beset the organization of a system of Ph.D. courses, the first one which occurs to me, after the financial one, is the difficulty of seeing from what sources we should draw our students. We should not be able to draw many from the ranks of those who intended to enter the clerical, medical or legal professions unless we made the work so light that it could be done concurrently with the work necessary for preparing the students for entering their respective professions, and such courses would be a disgrace to the university. There would remain those who intended to enter the teaching profession, either in Colleges or in High Schools. The number of college professors required in this country is very

small, and we could hardly hope to draw from Europe or the United States, and so our chief source of supply would be those who intend to become High School teachers, and it is likely that few of these would come unless the Education Department should give a legal value to the Ph.D. degree, by refusing, say, a head master's or specialist's certificate to any but doctors of philosophy. This brings me to the next set of difficulties. Such an enactment as I have just referred to, would probably create a rush towards Ph.D. degrees, with the probable result of rendering it very difficult to maintain a high standard in both the B.A. and Ph.D. courses. And it is likely that the standard of work done in the High Schools would be lowered also, for it would come about in the end that the three courses—High School, B.A. and Ph.D. taken together—would not be much, if any, longer than the High School and B.A. courses taken together, now are. And so we should have added an extra piece of machinery without having increased the efficiency of our already sufficiently complex system of education.

Of course this whole debate is settled for the present by our unfortunate financial position. Whether we will or no, we must content ourselves for a while with what improvements, great or small, we can effect in the single-degree system we now possess, and fortunately any steps in advance we may take, will not embarrass future action. And what steps can be taken? The standard of matriculation can be raised a little, let us hope. This appears likely to be accomplished, although I am afraid but little will be done unless there is a combined effort by all those who have the matter at heart. There is a great deal of small, narrow selfishness to be overcome if we really are to succeed. The university must be willing to lose some students and the schools must be willing to have smaller success at examinations, or the same old evils will go on for ever.

I know I am touching on a delicate subject, but I cannot refrain from saying that in my opinion there is a great loss of time in both our Public and High Schools on account of wrong notions regarding the meaning and purpose of schools and of subjects taught in the schools. It would be impossible at present to give in detail the reasons for my views on this point, so I must content myself by naming briefly some of the things in which I think time is lost. I think that Scientific Temperance, for instance, is an improper subject for Public Schools, and I think that far too much time is spent at Arithmetic, Euclid, Grammar, Book-keeping and Calisthenics in our High Schools. With regard to the time spent in some of these our country stands alone, and so far as I can see there is no achievement in scholarship to which we can point to justify the wisdom of our exceptional conduct. Often during the last fifteen years have I heard foreigners express their astonishment that we spent so much time on the futile problems of Arithmetic and Grammar, and so little on the much more important problems of Higher Mathematics, of History, of Natural Science

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and of Linguistics. To my mind it is idle to look for any real raising of our standards until there is a radical reconstruction of our programmes and time-tables.

The university must also try to raise the character of the undergraduate work. At present it is far from satisfactory. The spirit of the average student regarding learning is not right. He boldly avows that he does not come to the university for knowledge; but for various other reasons, such as to mix with his fellows, to learn how to do business, how to manage elections and societies, to edit newspapers, to debate, to look after his body, to become an athlete, foot-ball player, boxer and fencer, in short to do any and everything but what ought to be the business of a university. Of course, there are other types. One very common is the serious-minded, narrow man who is anxious to pass his examinations creditably, but who absolutely refuses to do anything that is not prescribed by the curriculum.

It is hard to find a student who has any strong desire to know things for their own sake. Those who have any buoyancy or eagerness are extremely rare. There seems to be a sort of *blasé* condition amongst them in spite of their ignorance. Now, what is to cure this? Like all other deep-seated, chronic diseases the cure will be slow. A right spirit amongst all teachers is what is first required. We must set a good example before we complain too much of the defects of our students. And the teachers of this country, both in High Schools and universities, have not done their duty in the past. In addition to this matter of arousing a right spirit, certain practical measures may be taken gradually as circumstances permit, as, for example, the institution of a new test for graduation with Honors, by making it necessary for candidates to present an approved thesis in some subject, in addition to the tests already in existence.

But some may say, that is all very well as far as the undergraduates are concerned, but has the university no duty towards its graduates? I believe it has, but it seems clear to me that it would do very little good to this class by the establishment of post-graduate courses. What it ought to do is to establish a journal or a series of journals in which its graduates might publish the results of their investigations in the various departments of study in which they are interested. No matter what degree a man may take, it will amount to very little, if, as soon as he obtains it, he ceases to study and investigate. The possession of organs for the publication of investigations is a necessity to higher learning, no matter what sort of university courses you may have. But the poverty of the university may interfere here as elsewhere. If so, can the teachers themselves do nothing in the meantime? We have our four special associations whose programmes are always open to us, and it is a disgrace to the teaching profession of this country that those four programmes are always so meagre in scholarly things.

The greatest source of discouragement in connection with educa-

tion in Ontario is the fact that there is such an indifference regarding growth in knowledge amongst our university graduates. How many men in this country can be looked on as being amongst the authorities in any subject? How many can be found whose knowledge in any subject would be called even respectable by the great authorities? There are some, but they are very rare. The university graduates of our country need an awakening, and that awakening ought to begin amongst the teaching profession. What are the hindrances to such an awakening? They are numerous. We are a very material people, although we do not seem to know it. The Anglo-Saxon who lives in North America is amongst the most material of civilized beings. His great object in life is "getting on." So long as he can have warm houses, soft beds and "square" meals, questions of an intellectual or artistic character have small attraction for him. He demands of his school teachers, not that they shall advance human knowledge, but that they shall make the school a success, that they shall pass many candidates at the various examinations in vogue amongst us. So the poor teacher must be a hewer of wood and a drawer of water, one who shall teach all day and correct exercises all night. Why should a teacher have an opportunity to increase in knowledge? Knowledge is of no value, and if the teacher had any extra time he would not spend it in gaining knowledge, but in gambling in stocks or real estate or the like. In time the teacher gets to look on sentiments like these as quite natural and proper, and moreover he does not wish to be loaded with extra educational baggage, particularly since it might interfere with his success in running in the race for better positions. He comes to look on things as his master the trustee looks on them: *tel maître, tel valet*. Shall it be ever thus? Will there not come a time when boards of trustees shall look for higher results than those that can be measured by examinations, and inspectoral visits? Yes, when a different spirit pervades our people. And that different spirit will come when a fair proportion of teachers show that they are themselves devoted body and soul to the interests of learning. There is no reason why there should not be a respectable number of young teachers ready every year with scholarly papers for our association meetings, if they would only get to work. True, there is a sore lack of libraries, but if all were in earnest that lack could be remedied in some way or other. Why do not the so-called specialists of our profession get to work on some branch of the departments to which they have devoted themselves, and then give us the results of their investigations? It is very difficult to get anyone to read papers of any kind at our meetings, and unfortunately the majority of those that are read are on some pedagogical topic, or they are a defence of a particular department or an attack on other departments. Let us be done with this, and let us add to our programmes subjects of a scholarly character, the results of our own patient investigations, and make the proceedings of the Ontario Educational Association a credit

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to our profession and to our country. Certainly the Proceedings are not a very fitting organ for the expression of the scholarship of a country, but let us not complain of the organ until we have shown we are worthy of a better one. As soon as we have a little band of investigators who can really say something worth listening to, the ready listeners will be easily found, and the worthy organ or organs will come into being. Not a few fruitless attempts have been made in our country to found high-class journals, and in every case I venture to say the failures have come about more from the lack of articles than from the lack of readers. We are continually making the mistake that it is improvement in literary style which we need, while as a matter of fact it is greater knowledge. We are dying for lack of knowledge, and we won't believe it.

To bring this too long paper to a close, let me repeat in concise form what seem to me the only things we can do at present to increase the efficiency of the higher parts of our educational system:

(1) Raise the standard of matriculation by a wise selection of subjects, as well as by a raising of minimum percentages.

(2) Raise the quality of the undergraduate work by attempting specially to excite a love of knowledge for its own sake amongst students and a curiosity which will lead them to make independent investigations.

(3) Let all of us, but particularly the younger members of the profession, begin to study in a thorough fashion some limited portion of some department of knowledge, and let us present it to some part of our Association in the form of papers to be published in the Proceedings.

MODERN LANGUAGE ASSOCIATION.

BLANK VERSE.

W. J. ALEXANDER, PH.D., TORONTO.

The importance of the invention of blank verse for the development of English Literature can scarcely be exaggerated. Without it, our greatest poets, Shakespeare and Milton, cannot be conceived as attaining that perfection of expression which characterizes their works. "Lear" and "Paradise Lost" would inevitably have lost much had they been written in rhyme. The readers of Shakespeare's early plays have all felt the loss in dramatic effectiveness when a transition is made from blank verse to the rhyming couplet (*e.g.*, *vide* Richard II.). Nor do I know of a more striking parallelism anywhere between form and matter, than we find in the simultaneous development, climax and decline of blank verse and the Elizabethan drama.

Everyone feels this, everyone feels the adaptability of the metre to the needs of Shakespeare and Milton; but to say just what makes blank verse so much more suitable to their purposes than, for example, the pentameter couplet, is not so easy. There are points and suggestions given in books on prosody, but they lack definiteness and completeness. In the course of my teaching I have had occasion to examine the subject closely, and I propose to lay the result before you.

The first English blank verse is to be found in a translation of a part of the *Æneid* made by the Earl of Surrey, in the early part of the sixteenth century. What suggested blank verse to Surrey is a matter of doubt. It is quite conceivable that in attempting to render "Virgil" he may have found the difficulty, which every translator finds, of making rhymes without departing from fidelity to his original; and the fact that this original was written in non-rhyming verse, would readily suggest that in the translation also rhyme might be neglected. It may have been, on the other hand, that the hint came from a contemporary translation of the same books of the *Æneid* into Italian non-rhyming verse. Whatever be the true account, one thing seems clear, that the verse itself which he adopted, is not modelled on any foreign measure, but is practically the old iambic pentameter couplet, with rhyme dropped.

This new metre, as written up to the middle of Elizabeth's reign, cannot be called satisfactory. To our ears it is extremely flat and monotonous—not the splendid metre we are accustomed to in the works of Shakespeare, Milton, or Tennyson. It was only gradually

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that the secret of its melody was acquired ; in the drama, it is at its best in Shakespeare ; after his death there is decline, and at the beginning of the reign of Charles II., we feel the secret has been lost by all writers except Milton. The verse then written may indeed answer to the definition of blank verse, but the music and charm have departed.

In what respects then did these earlier and later writers of the period fail ? As regards the earliest writers of blank verse, what the critics say is that they followed too closely the model of the pentameter couplet. If the origin of blank verse be such as I indicated such a mistake is natural enough ; but why should the poets not have followed closely the model of the rhyming couplet ? In what respects ought they to have departed from the model to attain to good blank verse ? We can, at least, *feel* that it is a mistake to follow exactly the rhyming pentameter. Take the following lines :

Not with more glories, in the ethereal sky, [plain]
 The sun first rises o'er the purpled main,
 Than, issuing forth, the rival of his light [beams]
 Launch't on the bosom of the silver Thames,
 Fair nymphs, and well-dress't youths around her sit, [shone]
 But ev'ry eye is fix'd on her alone.
 On her white breast a sparkling cross she bears, [wore]
 Which Jews might kiss, and infidels adore.
 Her lively looks a sprightly mind display [disclose]
 Quick as her eyes and as unfixed as those.
 Favours to none, to all she smiles affords ; [extends]
 Oft she rejects, but never once offends.
 Bright as the sun her eyes to gazers seem, [the gazers strike]
 And, like the sun, they shine on all alike.
 Yet graceful ease, and sweetness void of ill, [pride]
 Might hide her faults, if Belles had faults to hide ;
 If to her soul some female errors cling, [fall]
 Look on her face, and you'll forget them all.

We feel that this is not particularly good blank verse ; yet by changing the last words of each second line, as indicated in the margin, we turn it into an excellent example of the rhyming couplets from Pope's " Rape of the Lock."

To get at the reason of this difference, let us consider what are the effects of dropping the rhyme of the couplet. In the first place, there is, of course, a greater freedom in the choice of words. But this is an advantage to the writer, not to the reader. To the reader two elements of pleasure are lost—the element of pleasure from the sense of difficulties overcome, which counts for a good deal in artistic work, as we see in the satisfaction afforded by the successful conquering of difficulties in perspective in a painting. Further, there is a loss of the element of pleasure arising from the sensuous charm of rhyme—a very potent factor in modern poetry. Blank verse, in so far, is then a form inferior in poetic power to rhyme. So, indeed, Dryden and the critics

of the Restoration period thought; but we, when we compare the blank verse with the rhyming verse of English poetry, will be scarcely likely to admit this inferiority. It is clear, however, that *if* blank verse be exactly the same as the heroic couplet with rhyme dropped, it *is* an inferior form. If blank verse be superior, there must be something added to compensate for the loss pointed out.

What is this added factor? Let us examine more closely the effects of dropping the rhyme in pentameter verse. Rhyme not only has a pleasing effect on the ear, but serves to bind successive lines together. In verse there is, first, the unit of the foot, then the larger unit of the line, and beyond that we have necessarily, if rhyme is introduced, the unit of the stanza. Though this name is not usually applied to the couplet, the couplet is in every respect a stanza; it is a combination of lines linked to one another, and separated from the rest of the composition. By dropping rhyme we get rid of stanzas. Further, rhyme indicates clearly the close of the line, and serves to mark off one line from another. Accordingly, in blank verse the stanza entirely disappears, and the next lower metrical unit—the line—is much weakened.

Now, in primitive and natural poetry, metre and sense correspond; metrical units correspond to sense units, metrical pauses to sense pauses, metrical accents to sense accents. We see this in nursery rhymes, "Jack and Jill," etc. Modern departures from this are sophistications, and owe their effectiveness to the very fact that they are felt to be departures (Cf. the run on stanzas in "In Memoriam"). A stanza, therefore, necessarily imposes certain limitations on the thought. In rhyming couplets, it is natural to make any one couplet a more or less complete expression of thought—a sentence usually,—and to make the main division in the sentence correspond to the division between the two lines. This is abundantly illustrated in Pope.

Further, each form of stanza has a music and associations of its own, which may be varied, it is true, but only within limits. The effects of Butler's tetrameter couplets on "Hudibras" could not be given by pentameter couplets; and the use of the tetrameter couplet in a narrative poem (as in the "Lady of the Lake") imposes a character on the narrative different from that which it would have possessed, had it been written in pentameter. Of course, in more elaborate stanzas, as in the stanza of "In Memoriam," or of Shelley's "Skylark," the inevitable effect of the form is more marked, and the possible range of effects less extensive than in the simpler couplets.

In selecting a stanza, therefore, a poet then is imposing on his work a fixed form to which he must shape his thought. In blank verse there is no stanza; even the division between the lines is weakened; hence greater freedom for the thought. In this freedom there are possible advantages, but the poet who continues to shape his thoughts as if he were writing couplets, loses these advantages as

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well as the sweetness of the melody which rhyme gives. This is the great mistake of the early writers of blank verse. Like Falstaff's soldiers, they moved as if the fetters were still on their legs. A good example of this is the earliest piece of blank verse with which most readers are acquainted—the first piece of blank verse in Ward's Selections. I quote a few lines :

“ Alas, my Lord, my haste was all too hot
I shut my glass before you gazed your fill,
And at a glimpse my silly self have spied,
A stranger troop than any yet were seen :
Behold, my Lord, what monsters muster here,
With angels' face, and harmful hellish hearts.”

—Gascoigne.

The rhythm of this passage closely resembles that of the blank verse made from Pope's couplets. We note here the end-stopped lines, the tendency to make pairs of the lines, and the uniform cæsura at the end of the second foot. These same peculiarities are to be found in many passages where rhyme is employed, but then these peculiarities are not felt as defects, *e.g.*:

“ On her white breast a sparkling cross she wore,
Which Jews might kiss, and infidels adore.
Her lively looks a sprightly mind disclose,
Quick as her eyes, and as unfixed as those.
Favours to none, to all she smiles extends ;
Oft she rejects, but never once offends.”

—Pope.

Not only do we note this monotony and stiffness, this control of the sense periods by the verse periods in the earliest blank verse writers, but we further note that as blank verse improves, there is a *pari passu* freedom in the arrangement of the sense pauses.* The thought is no longer framed to suit the verse, but, as Corson says, “is to have its own way, determine its own orbit, and the verse is, in turn, to submit to that way.” Each period has its own metrical effect. The lyric poet selects the stanza which seems to suit his subject on the whole; but the writer of blank verse may vary his stanza—his poetical melody, for each thought which he expresses.

* When this paper was read, this assertion was illustrated by a table giving the results of an analysis of passages of seventy lines from Surrey, Gascoigne, Sackville, Marlowe, Milton and Tennyson. Such results as the following were exhibited :—In Gascoigne, fifty-three of the cæsural pauses were massed at one place (end of second foot); in Marlowe, twenty-seven was the greatest number of cæsural pauses at any one place (again at end of second foot); in Milton, seventeen (end of third foot); again, in Gascoigne, there were only three unstopped lines; in Sackville, fifteen; in Milton, thirty-one; etc. The table could not be conveniently printed, but any person interested can easily make a similar investigation for himself.

Note the great importance of this as regards the drama. The very essence of the dramatic is change and development; whereas the lyric poet dwells on and elaborates his thought or sentiment. This is illustrated by comparing the elaboration of simile and metaphor in lyric poetry with the swift suggestion of imagery so characteristic of Shakespeare's later works—what some might call confusion of metaphors. Now, in blank verse we have a form which may be changed as rapidly as the feeling; the feeling and thought mould the plastic verse. Imagine a drama written in Spenserian stanza, or in ballad stanza; or observe the monotonous and undramatic effect of the rhyming couplet when employed in dramatic work, and you will not wonder that the development of blank verse and of the English drama went hand in hand.

Blank verse has also been employed with great success in long narrative and descriptive poems, because in these the tone and mood necessarily vary—the matter is now lofty, now commonplace—and blank verse, through its range and variety, can be accommodated to the matter. So, in Scott's "Lay of the Last Minstrel," we observe that the poet feels the desirability of altering his verse, and we recognize the occasional fitness of the change of stanza. But, on the whole, there is a clumsiness about these changes, not merely because of Scott's deficiencies in technique, but because the stanzas are not sufficiently pliable. The change must be made with a sudden jerk, and not, as feeling and thought change gradually. The reader is unpleasantly jolted from one rhythm to another. The only case where such combinations of stanzas are in any measure effective is where each lyric represents a distinct scene or mood cut off from the rest by an interval of time, as in Tennyson's "Maud." But in Milton, as in Shakespeare, the blank verse ascends and descends with the thought—now scarcely differing from prose, now animated, curt, emphatic, now sonorous and musical. For example, I open Tennyson's "Morte d'Arthur," and find the following passage, where the thought is not poetic, and where several of the lines, if printed as prose, might be read without our noticing their rhythmical quality:

"At which the parson, sent to sleep with sound,
And waked with silence, grunted 'Good!' but we
Sat rapt: it was the tone with which he read—
Perhaps some modern touches here and there
Redeem'd it from the charge of nothingness—
Or else we loved the man and priz'd his work."

Turn your eyes to other parts of the same poem, and you see passages written in the same blank verse, but in blank verse possessed of the most striking and poetical rhythm.

Of course, in any stanza, more particularly in a simple stanza, like the rhyming couplet, there is variety,—varieties of rhythm, degrees of elaboration, of metrical effect, etc., but the range is smaller than in

blank verse. elaboration, as those just verse approach should be great that there are grand and sublime Milton and Spenser

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What, we it is a falling-sion it is appropriate the ear what amount of stress. No amount of stress, the possibility would be monotonous an iambic foot the first, but the foot. Indeed stress than the line of "Paradise" emphatic syllables are bound into strongly stressed produce a sound Every word has a compound to accent (cf. blank discourse, phrases dominating accents to fall into pieces verse of Gascoigne

blank verse. The recurrent rhyme introduces a sense of preparedness, elaboration, and artificiality, which is quite absent from such simple lines as those just quoted from Tennyson. In its range downwards, blank verse approaches very closely to mere prose. Why its range upward should be great is less apparent *a priori*; but *a posteriori* we can say that there are no rhyming couplets in the language which possess the grand and subtle metrical effects to be found in the blank verse of Milton and Shakespeare.

Having seen, then, the freedom of blank verse, its variety and adaptability, it remains to inquire how these higher results are attained, what are the elements which produce its sonorousness and exquisite rhythm. By the loss of rhyme it is, as I have pointed out, so far inferior in sound-effects to other sorts of versification. In the best blank verse there must be something to compensate for this loss, for no one can say that the best examples from Shakespeare, Milton or Tennyson lack sensuous charm.

Every reader of "Paradise Lost" would say that one of the beauties of the verse is its sonorous, harmonious, and varying *cadence*. This is due, in some measure, to the varying position of the pauses—now at the end of the line, now in the middle; now at this foot, now at that. Corson speaks as if this were the main element in Milton's rhythm; but surely it is not very difficult to vary the position of the pauses in blank verse, and experiment will show that this by itself will produce the very effects of "Paradise Lost."

What, we inquire first, is a *cadence*? As its etymology indicates it is a falling—a falling of the voice from tone to tone; by extension it is applied to similar risings of the voice. A cadence is to the ear what a curve is to the eye—a gradual increase or diminution of stress. Now, if all the accented syllables in a line had the same amount of stress, and all the unaccented the same amount of weakness, the possibilities of cadence would be very limited; each line would be monotonously like the other. But this is not the case. In an iambic foot the second syllable must have a greater stress than the first, but the amount of that difference may vary from foot to foot. Indeed, the unemphatic syllable in one foot may have more stress than the emphatic in another foot, as may be seen in the first line of "Paradise Lost." In the best blank verse, the intensity of the emphatic syllables varies within each line; and thus portions of the line are bound into sound systems, or cadences, by subordination to these strongly stressed syllables. This power of a dominating accent to produce a sound-unity is familiar to us in the case of individual words. Every word has a dominating accent, and the complete transition of a compound to a single word is the union of the parts under a single accent (cf. *bláck bérny*, *bláckberry*). In like manner, in connected discourse, phrases and sentences have, to a greater or less extent, a dominating accent. If a line lacks these dominating accents, it seems to fall into pieces, and has a lack of vitality as is illustrated in the verse of Gascoigne, already quoted.

Mr. A. J. Ellis (as quoted in Mayor's *English Metre*, chapter v.), says: "In modern verse of five measures there must be a principal stress on the last syllable of the second and fourth measures [*i.e.*, feet]; or of the first and fourth measures; or of the third and some other measure. There is, also, generally a stress on the last syllable of the fifth measure." Mr. Ellis barely states the fact, as on observation, without indicating any grounds for it; but it seems to me that this generalization points to the need of cadences for binding the parts of the line into longer units than would be given either by the metrical feet, or by the words. Mr. Ellis mentions the principal stresses in pairs; and this evidently points to the tendency to make the part before and the part after the cæsural pause each a complete cadence.

In order to produce these cadences, there is, however, another element besides the subordination of accents, and that is the running together of words. There is a natural metrical pause after every iambic foot (*vide Amer. Jour. of Psychology*, January, 1894), just as there is a stronger one at the end of every line. Now, if the end of the word corresponds with the end of the foot (diæresis), this pause is intensified, and the verse falls into a monotonous series of similar units of sound. If, on the contrary, the pauses between the feet are bridged over by dividing a word between two feet, the feet are joined together into larger masses, and with a proper arrangement of accents a cadence is enforced upon the voice. Sometimes the bridging over is accomplished by the close connection in sense between the word ending with a foot and the following word, as is illustrated in the first line of "Paradise Lost" in "man's disobedience," "and the fruit." The unpleasing effect of diæresis is again illustrated in Gascoigne.

The importance of this grouping of the sounds of a line is shown by the effectiveness of the use of polysyllabic words in blank verse. Polysyllabic words, owing to the graded accentuation of the syllables, are favorable to the production of cadence, as we see even in cadenced prose,—*e.g.*, Dr. Johnson's. Marlowe, the first poet to write really effective blank verse, is fond of such words; and, as he tells us in his prologue to "Tamburlaine," consciously resorts to "high astounding terms" to give vivacity to his verse. I need not recall Milton's fondness for them. His imitators in the next century, Thomson and Cowper, seemed to feel the need of ponderous words to give rhythm to their verse, and as their subjects were usually less dignified than Milton's, they sometimes fell into absurd incongruities in their language. When short words, especially monosyllables, are employed, cadence does not come so easily; and the skill to write good non-dramatic blank verse under such conditions seems to have been fully attained only in our own century. We see abundant examples of this power in Tennyson.

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which have been described, ought to predominate, lines in which these characteristics are wanting, are not necessarily excluded, but have an excellent effect when used sparingly and in the proper place. For example, the closing line of Tennyson's "Ulysses" is marked by strong diæresis and lack of cadence—evidently to produce a certain effect:

" Heroic hearts
Made weak by time and fate, but strong in will
To strive, to seek, to find, and not to yield."

But a poem written in lines like the last would be decidedly unpleasing, as would a poem written in lines resembling Milton's

" Rocks, caves, lakes, fens, bogs, dens and shades of death."

The inexperienced amateur often betakes himself to blank verse because it is easy. It is easier not to find rhymes than to find them; but, in truth, to write good blank verse is more difficult than to write any other English metrical form. There may be some difficulty in finding rhymes, but this is a definite thing which may be attained; and when attained, provided other definite requirements as to number of syllables and alternative of emphasis have all been fulfilled, the verses, as far as metre goes, will seem, at least, not bad. But in blank verse the poet may fulfil the obvious requirements of the metrical norm, and the result still be utterly flat. In order to get beyond this he has but little definite direction. There must be superadded a number of subtle and indefinite peculiarities, which in the main are the outcome of a fine ear and poetic endowments. Many men without any real poetic genius have written fair heroic couplets, as the literature of the eighteenth century attests. But blank verse requires a poet. Those subtle and manifold qualities which, of course, exist in poetry written in any metre, are more essential in blank verse than elsewhere, just because of the freedom which blank verse in many points permits. When these do exist in large measure, as in Milton, their sensuous charm linked with that variety which belongs only to blank verse, and that subordination of metrical to sense effect, gives blank verse that supreme excellence which confers on it the right to be called the greatest of English metres.

THE MODERN LANGUAGE MASTER'S AIM.

C. GUILLET, B.A., OTTAWA.

The most serious hindrance to wise and effective work in our High Schools is the lack of real harmony in spirit and aim in the various departments of study. This will, of course, be more or less true according to the wisdom and judgment of the head-master. He must be a man of broad culture and sound sense. He must have put much thought on the correlation of subjects of study and the proper place of each subject in a wisely planned system; and he should have sufficient ability and tact to enlist the earnest and enlightened co-operation of all the masters. Until this sort of head-master is more common in Ontario than he is to-day, we shall not cease to hear of over-worked pupils, narrow specialists, examination rivalries, unprofessional conduct, stupid supervision by idle principals, and conflicts between masters, who of all men ought to have a common feeling and purpose.

My object to-day, however, is to discuss the question of unity of aim with regard to one of the several departments of High School work, namely, Modern Languages. "The Modern Language master's aim?" some one will say. "Why, to teach Modern Languages, of course, and in such a way that the pupil will be able by the time he leaves the High School to speak, read and write these languages as his own!" So one would say who had never attempted consistently to carry out such an aim; but let him try a few years in one of our High Schools to attain it, and he will sadly pronounce it impracticable. He will come to see that his aim must be modified to suit the circumstances in which he finds himself and his pupils. Most Modern Language masters are only too well aware of the discouraging nature of these circumstances: the purely English environment both of master and pupil; the size of the classes; the encroachment of other studies, especially of mathematics, serious even when necessary and fair; the inadequacy and one-sidedness of the examination tests; the long hours, throughout which it is impossible to do really good work. These things must be taken account of. The aim cannot remain that of teaching the pupil to speak, read and write these foreign languages as he does his own, but must be narrowed down to some one of these divisions. So that every thoughtful master must sooner or later ask himself the question which of these *aims*, speaking, reading, and writing, is to be regarded as the most important and as that to which the others, while not wholly neglected, must be subordinated.

To decide this question we must consider what the average High School pupil's aim should be in learning a modern language, we must consider, in fact, what kind of knowledge of French is most valuable

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and that with which we should ourselves be most unwilling to part. This last remark reminds me of the fact that our aim will also have to be modified by the degree of mastery to which we ourselves have attained over the languages we are claiming to teach.

Now, to my mind, the ultimate aim of the teaching of *French*, for example, should be to appreciate the mind and character of the French people and the part they have contributed to the progress of mankind; and the most ready, practical way of attaining to this appreciation is by direct reading of French literature: not translation or the reading of another's translation—which are about as good the one as the other—but *reading*.

The ability to speak and write a foreign language with facility is chiefly good for so-called practical purposes, and the value of such ability to the man of affairs is greatly over-estimated and confined to but a few, who had best attend language schools conducted expressly to meet their wants. As to the advantage to the traveller of the ability to speak, I need only point out that the man who has been properly trained to read French or German, will be able both to understand and to make himself understood; and the fluency, which will generally be necessary to him in proportion to the length of his stay, he will be able to acquire there, if he ever could. Apart from foreign travel, how often have we really occasion to speak at length to a Frenchman or a German who does not himself understand English and prefers to use it in conversing with us? Whereas we shall often find it of the highest advantage to be able to read French and German at sight, whatever subject of study we may be pursuing.

I am of the opinion, however, that there are masters in this Province who are not aiming to teach the pupil any of these things. They are aiming at teaching him to translate French into English and English into French, with a little formal grammar thrown in, because that and that alone is required for the examinations. Those who think to offer any further reason for thus teaching French, will say that it has a disciplinary value. In answer, I will only say that discipline is sufficiently emphasized in other subjects, and in some of them of necessity exclusively aimed at, and that plenty of good mental discipline will naturally result from enlightened methods of teaching the pupil to read. We sometimes commiserate the teacher of dead languages, forgetting that to many teachers of French and German, not to speak of their pupils, these languages are practically dead!

This brings me to the second part of my subject, Methods: for methods are so much bound up with the aim that the latter cannot be understood without a consideration of the former. I shall, therefore, explain my present method of teaching the pupil to read French, and whatever interest or value it may have for you will consist in the fact that it is my method, not that of a Frenchman, but that of an English Canadian, like yourselves. A man's method depends very

largely on the extent to which he has mastered his subject, and the best way of all to acquire a better method is to learn more about one's subject. It is therefore rather a delicate matter to talk about—one's method! But if discussion is to be of any value at all, it must be conducted on a frank basis.

My pupils begin to learn French by hearing it and seeing it. Object lessons and translation chiefly form the first year's work, the former being especially emphasized the first term. The object lessons I conduct as nearly as may be after Sauveur's plan. The teacher may think out various ways of supplementing this; for example, by question games, such as those known among children by the names, "The Three Kingdoms," and "Yes and No." The pupils possess no grammar, but I teach them the regular conjugations and the auxiliaries systematically during the second term. The class begin to translate at once from the Reader, making out all they can with the aid of the vocabulary and promptly getting me to help them out of their difficulties as I pass around among them. I also frequently read to them what they have translated, so as from the very beginning to accustom their minds to apprehending French through the ear as well as the eye. In this connection permit me to relate a little personal experience. I used to be very much dissatisfied with my ability to read German directly, that is, without the necessity of stopping frequently to translate it. But a few years ago it was my good fortune to be able frequently to hear discourses in German. These were too rapid for me to keep up with in translating, so I was simply forced to try to understand them without translating. I was forced to take in the idea expressed in a sentence in the order in which it was presented and without thinking of English equivalents. I soon found myself doing the same thing fluently in reading. I therefore make much use of audition in all my classes, and I impress upon the pupil the necessity, as he listens to French or German, of connecting the ideas with the French or German sounds, and of banishing from his mind all thought of English, which acts only as a barrier to the apprehension of the sense.

In the second year the Reader is made the centre of the teaching, composition and conversation being based on it. The pupils are aided in writing questions and answers about the stories, and in answering orally the questions I put to them. As the time they can, and should, employ at home is very limited, a fact, by the way, that too many schools, and too many teachers, lose sight of, I have them still do a good deal of translating in class with my help, so that they may get over as much as possible, and so that the bright and willing pupil's progress need not depend so much on that of the backward pupil. Following this plan, the teacher will also be able to give the backward pupils considerable individual attention. It should be possible to finish the High School Reader during the second year. The irregular conjugations are learned in the second year, also systematically. As

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soon as a verb is learned, the pupils must make use of it in sentences of their own composition. It is well to have them do the same with prepositions, conjunctions and any useful expressions they have met with in their reading. I encourage them to boldly attempt writing whatever they like, and to use me freely as a living dictionary of words and idioms, which, with all its frankly admitted shortcomings, is better than any dead one for their purpose.

After the second year the pupils will, in most cases, enter forms that have examinations immediately ahead of them. In these forms the dire necessity of preparing pupils for the written examinations in grammar and translation, compels me to depart from my method of teaching sufficiently to ensure the pupil's passing. I must be more particular in grinding them in written grammar exercises, exact translation into the vernacular, and a knowledge of parsing and the rules of syntax, most of all which is a waste of precious time at so early an age. The rules of syntax I try to lead the pupils to deduce for themselves from examples in the prescribed text, and then give them for translation at home pieces of continuous prose that illustrate the rules thus learned, more especially those relating to the use of the articles and the tenses and moods. I endeavor, also, to put on the board each day an extract for sight translation. These extracts should, of course, each have unity, and should be varied in subject and style. In this connection I would add that there is no subject taught in our High Schools—not even excepting Science and English Literature—over which the incubus of the written examinations and minute regulations hangs so heavily as over Modern Languages. The teacher should have more liberty. He should not be the mere drudge and slave of any system, however good.

In Ottawa we are happy in having one upper form, called Lower Fourth, that is in preparation for no immediate examination, but will, the following year, form the Upper Fourth, whose goal is honor matriculation, or First C. This Lower Fourth form it is a pleasure to teach. In it I am free consistently to pursue my aim. In the reading classes, little time is taken up with translating, but much with reading. The class read in turn, all having books closed, as a rule, except the one reading. Of course, I read a great deal myself, both of the text prescribed and of selections, that the pupils have not seen. Reading aloud to the pupils helps them very much, both to get the exact meaning and impression that the writer wished to convey, and to appreciate the piece as an example of French style. I have sometimes been told by pupils that they had been unable to understand certain pieces until I had read them to the class. Moreover, only when the pupils frequently hear French read, can they be expected to read it themselves with any proper expression and to any good purpose. Therefore, I do not think it worth while to have pupils read much, early in the course. They should be urged in reading to think of the sense without the help of English, and to

convey it to their hearers with all suitable expression. Indeed, they should give it, as nearly as possible, the expression that a Frenchman would use. I find it well at first to have the class read together after me, phrase by phrase, imitating me not only in pronunciation but also in expression. This gives the pupil courage to speak out and do his best, and besides, saves time. I have also found it helpful to have pupils learn poems off by heart and recite them before the class. To return to Lower Fourth, one lesson-space a week is reserved in this class for supplementary reading. As many different works as there are pupils are purchased plus one, so that as soon as any pupil has finished his he may be given another, until all have read all, if there is time. There are at least two dictionaries in the room including myself, but the pupils are urged to try to divine the meaning of a new expression by the context, and to read as fast, and translate as little as possible. Instead of formal grammar, the pupil, in one lesson-space a week out of the four, is encouraged to compose in French letters and short essays, the teacher being always at hand to supervise and help. Thus the work of this higher form is direct reading and, as far as may be, direct composing. However, no very great emphasis is laid on the latter, and sometimes translation of prose passages is done instead. But before beginning to translate the pupil must be made to appreciate both the meaning and the style of the original, so as to be able to reproduce these as exactly as possible in the French. Further, this work of translating into the French is largely oral in this class, as by that means much more practice can be had and greater readiness and ease acquired. Now, indeed, and more especially in the following year, when this form has become Upper IV., may the attempt be made to some good purpose to write French prose, both by way of translating English into French and by composing in French. But to lay much stress on this earlier in the course, when the pupil has read and heard so little French, is unnatural, futile and mischievous. There lies the great fault of modern language teaching in this province.

It is fortunate that the aim which may be considered the most important, namely, ability to read, is also the one most readily attained under the circumstances. To teach the pupils of our High Schools to speak and write French with any real ease and fluency is impossible. If any teacher thinks he has ever succeeded in doing so, I should like very much to interview him on the subject. If my pupils, when they leave the school, are able to read so well that they may pursue a study of French or German literature with ease and pleasure, I am content. Any serious study of the literature cannot, of course, be attempted in the High School; though much may be done, especially in supplementary reading, to form their taste for good French literature, and to supply them with information concerning the writers most worth their reading.

The teacher, however, should himself surely be still engaged in

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I am free to put forward is possible under present become a really ambitious to pursue science and of ambition on the great quest soul-benumbing years he too will by the time he has such utterance as have renounced feeling his own wheel of progress this desperate corner the time to devote and unnecessarily of Göttingen, expect time a High School in the German grammar hours a day. The to have sufficient what sort of teacher of our five hours' who filled an early saved ourselves as lower plane through was concerned, it feature about it is for private study among his fellowmen. The of education. In excepted, leisure for just as scanty, but with. To the law relationships are progress is his vita

such serious study of the literature. This, I repeat, is the essential: that the master should be himself progressing; that he should not only seize every opportunity that vacations afford for perfecting himself in speaking and writing French and German, but he should especially be reading widely in the languages he teaches and using them freely in connection with any other subject he may be working at. The master that does this will be full of resource and will find the inspiration of the moment far more valuable than that wasteful, pedantic preparing of "lessons," in which so many teachers use up the little energy left them after a long day's teaching.

I am free to admit, however, that the conception of a teacher just put forward is largely ideal, and I do not myself regard it as possible under present circumstances for a High School teacher ever to become a really cultured man. The young teacher filled with an honest ambition to pursue his researches, barely begun, into the realms of science and of art, and keenly conscious of the crudeness of his ideas on the great questions of life, makes desperate efforts to resist the soul-benumbing process that at once set in. But in vain. In a few years he too will have joined the ranks of the intellectually dead. And by the time he has reached middle age he will resent or ridicule any such utterance as this as a personal insult. For by that time he will have renounced all hope, he will have lost the capacity for even feeling his own sad state, and will have become a pitiful clog on the wheel of progress. One has not far to go to find the chief cause of this desperate condition of affairs. The fact is the teacher has not the time to devote to self-culture: the hours of teaching are too long and unnecessarily long. A German gymnasium teacher, a graduate of Göttingen, expressed much surprise when I told him the length of time a High School teacher had to teach in Canada. He said that in the German gymnasia each teacher taught on an average three hours a day. Their Government, he said, believed the teacher ought to have sufficient leisure to progress himself. He wondered, also, what sort of teaching we could be doing during the last hour or two of our five hours' work. I told him that, except in the case of a few who filled an early grave, we made allowance for the long hours and saved ourselves as far as possible, so that our teaching was on a lower plane throughout the day, and as far as the last hour's work was concerned, it was about as good as the first. But the worst feature about it is that the teacher has so little time and energy left for private study and advancement, not to speak of intercourse with his fellowmen. This is an exceedingly grave defect in our system of education. In other occupations and professions, the ministry excepted, leisure for advanced study and broad culture is doubtless just as scanty, but at the same time it is much more easily dispensed with. To the lawyer and the doctor, for example, public and social relationships are much more indispensable. But to the teacher progress is his vital breath. The unprogressive teacher becomes to

his pupils a stagnant pool, and to his fellowmen a narrow, dogmatic, spiritless creature—an object of disdain to the pragmatist and the prejudiced, and of pity to the well-disposed. When will the teachers rouse themselves from their fatal inertia and demand this and other reforms whose necessity they are continually being made to feel in the most painful and humiliating way? Until a radical change is effected, our profession, if indeed one can call it such without irony, will continue to be drained of its best energy and of its best men.

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THE GOUIN METHOD OF TEACHING AND STUDYING LANGUAGES.

MISS J. H. ROBSON, B.A. GUELPH.

The study of languages has gone on for centuries ; but, whether it is that we know too little or that we know too much, no really satisfactory method has been found for learning them. We who are old enough to know how to think and study, toil at memorizing and translating for years, without then being able to speak the foreign languages, while little children learn from their mothers or their nurses to speak quite fluently in a very short time. The student who would trace out for us the steps by which the baby learns his language, and make it possible for us to follow them, would deserve our deep and lasting thanks.

This is what Professor Gouin claims to have done. Whether the claim is well or ill-founded, let us see. The suggestion came from watching a little nephew of the professor, who was learning to talk. One event was of particular importance. The child made his first visit to a mill. He went over it from bottom to top, examining it inside and out, and asking questions about everything. Then he pondered over this fresh knowledge for about an hour in silence ; and, after that, began eagerly to tell what he had seen, going over it again and again. Then he went through in action what he had seen, talking all the time, expressing his acts aloud.

The visit to the mill was very important, because, through it, the child had learned a great deal more of his own language ; and to find out how this had been done would be to find the secret of Nature's method. The professor believes he has accomplished this, and thus he gives it to us.

The first step was perception. The child had looked, listened, questioned, and received a certain amount of knowledge. The first thing done by the learner is, then, not the declining of nouns, or the conjugating of verbs, but seeing, seeing with the mind's eye. This is directly oppose to the usual methods of language teaching, which begin, not with things, facts, but with words, and printed words at that.

Next after perception came digestion or incubation, when the boy reflected on what he had perceived. It was found, that in this process, the ideas were not thrown together into a confused mass, but that the connection between them was logical, and governed by two principles. First, the ideas were connected by succession in time, each sentence being joined to the preceding by the words "and then ;" second, the ideas were connected as means to an end, each action at the mill

having for its object the grinding of corn. The third and last step was the reproduction of what had been perceived.

Here, then, are the means which nature has given the child, perception of the relation of succession in time and perception of the relation of means to an end. Join to these a period in which the thoughts are digested or incubated, and the reproduction by the child of the perceptions, and "you have," says Gouin, "the secret of the prodigious memory of the child, which without having learned by heart grammar, or authors, or roots, or vocabulary; but after having played some sixty games similar to that of the mill, finds itself shortly in possession of its mother-tongue."

Again, it is to be noted, that, in passing from one idea to another, the child proceeded, not word by word, but sentence by sentence. This revelation is of the highest importance, because this method of procedure is altogether different from the one usually followed in teaching languages. •

Once more, in passing from act to act, the child articulated to himself the expression of his act. This expression was the verb. The verb, then, was the principal word in the sentence. This, also, is in direct opposition to the classical method in which the greatest emphasis is placed on the noun. The verb is the time word, and the method based on the verb is really based on time, and, therefore, on a principle of order.

Finally, and in striking contrast to the methods of the classical school, comes this point. All the statements that had been made to the child to help him understand the mill, had been received by him, not through the eye but through the ear. He had not read one word of it, he had heard it all.

Professor Gouin had now the principles: the three processes, perception, incubation, reproduction; the steps, not words, but sentences; the pivot of the sentences, the verb; the ideas arranged in order of time, and the sentences connected by the word "and then;" each set of ideas also connected as means to an end. The next thing was to arrange the system.

The Professor said to himself that this same method had been used by the child in learning all he had learned about everything else besides the mill. It seemed to him, then, that all life might be divided into chapters of which each experience such as that of the mill would make one. When the learner had mastered this book of chapters, he would be in possession of the language. There would be, it seemed, about fifty of these chapters, or, as they are now called, series.

By a linguistic series is meant "a connected sequence of statements, expressing successively all the moments and all the phenomena known by us, and reproducing them in the order of their natural development." All life is divided into seven general series, dealing respectively with the man, the quadruped, the bird, the reptile, the insect, the plant, the elements. Each of these is sub-divided into

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special series, the series into chapters, and the chapters into exercises. When all the series have been mastered, the student will be in possession of the language, for he will know how to express in it every phenomenon of the life of every creature.

This looks like an enormous task ; but, happily for us, language is not nearly infinite. In English, according to one estimate, the language of ordinary cultured conversation uses from three thousand to five thousand words, and the best writers use probably less than ten thousand words each. In arranging his system, when he had constructed a series, M. Gouin crossed out of the dictionary all the words that belonged to that series. At the end of about the fifteenth general series, he had crossed out all the thirty thousand words of the dictionary, a much larger vocabulary than most of us need. So that it is not necessary to know all life in order to know all language ; the limits of the latter are comparatively narrow.

We have now a general view of the system. To regard it more particularly, let us take a special exercise. Now, in a foreign grammar, an exercise is chiefly a drill on forms of words, the plural of nouns, or the agreement of adjectives, etc. But one of these exercises is much more ; it is a definite portion of the experience that really comes to the person or thing treated of in the exercise.

The first exercise given is usually the one called, "I open the door of the class room." Each exercise relates the attaining of an end, and each sentence relates the use of some means to that end. In this, the end is the opening of the door.

Suppose the class are English and are learning French. First, the aim of the exercise is given, and the steps—thirteen of them—namely, I walk towards the door, I approach the door, I come nearer and nearer the door, I arrive at the door, I stop at the door, I stretch out my arm, I take hold of the handle, I pull the door, The door yields, The door turns on its hinges, The door turns more and more, I open the the door wide, I let go the handle.

The sentences are arranged in three sets ; the exercise is given orally ; the pupils learn the whole exercise in English before getting a word of French.

Then the teacher repeats the first sentence in English, detaches the verb, and gives its French equivalent. He treats the second sentence in the same way, and repeats the first. He goes on in this way through the first step, repeating from the beginning every time he adds a new verb. Then the pupils give the teacher the English verbs, and he gives the French. When the class have taken these in, they are asked to repeat the verbs in order in French. Observe that the verb is mastered first, before the rest of the sentence is attacked.

After the verbs are learned, the rest of the sentence is given, the subject and the complement. It is very easy to learn these when the verb is learned, and they are repeated so often that one learns them almost without trying. Each step, each moment of the exercise is

thoroughly mastered before the next is attacked. And, mark this, not one word is seen, much less written, by the pupil, until he can say and think the whole exercise. After that, he is allowed to read it, and then to copy it.

We find, regarding each exercise, that the sentences are perfectly simple, the connection is the most obvious possible, the nouns are constantly repeated, the fewness of the nouns, and the frequency of their repetition lets the mind dwell chiefly on the verb. The constant repetition guarantees a good pronunciation.

So far, we have dealt only with the language expressing actions or events, that is, the Objective. The Subjective language, that of thought and feeling, is combined in teaching with the Objective. The manner in which the pupil carries out his task furnishes a motive for the whole of the Subjective language, praise, blame, encouragement, or warning. The Figurative language is taught after the other two have been learned; the exercises in it are added to those of the Objective series to form a sort of complement.

The method of teaching Grammar by this system is rational, easy, delightful. The subject is divided into three parts: The study of the verb, the study of the sentence, the study of the moods and their expression. Grammar is begun in the very first lesson. The personal forms are learned, not by declension or conjugation, but by expressing acts performed by different persons. The tenses are learned by expressing acts performed at different times.

For the moods, the question, "If you wished to open the door, what would you do?" brings in answer a sequence of statements in the conditional mood; the question, "To open the door, what will it be necessary that you do?" brings a sequence of statements containing the subjective mood. A change of tense in the question causes change of tense in the answer.

The study of the sentence begins with the first lesson. The pupil learns, without an effort, to distinguish the verb from its subject and from its complements; thus he grasps the functions of the different members of the sentence.

Again, as to declension, the pupil will notice—and if he does not, his attention should be called to it—that he says, in Latin, now "ad portam," and again "portae;" in German, here "die Thüre," and there "der Thüre;" and so the teacher has an opportunity of explaining the different kinds of complements and the origin of cases and declensions. By the end of the twelfth lesson, all possible case-forms will have appeared. The case-forms are classified (1) as belonging to the subject and belonging to the verb, and (2) as answering certain questions. The complements of the subject answer the questions, "what?" and "of what?" or "whose?" The complements of the verb answer the questions "what?" "to what?" "by what?"

Here, then, is the system. Let me emphasize very strongly this dif-

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ference between it and the ordinary methods : we try to teach our pupil to say again in the foreign language everything that he has already learned to say ; let me repeat it—to say again what he has learned to say in English. The Gouin method teaches him to express in the foreign language what he does or thinks—to express his own thought, not to translate an expression given to him.

The time required for the complete study of a language averages 800 hours—is 900 at the outside. At five hours a day this would require thirty weeks of six days ; at two hours and a half, twice as long, or about fourteen months.

Our Ontario pupil will spend in five years' study at the High School, say, 400 hours in the study of a foreign language. At the University he spends probably time enough in class work alone to carry the total number of hours far beyond 900. Add to this the time spent in preparation, which may well-nigh double it. And when all this is done, how many are able to converse fluently in French or German ? How many dream of conversing in Latin or Greek ?

It will have been seen that this method applies to not only the Modern Languages, but also to those of more ancient date. In studying Latin and Greek according to the Gouin method, pupils assimilate in five minutes what they could not manage to interpret correctly on the old system in two hours with the aid of a dictionary. Five minutes against two hours ! No comment is necessary.

In conclusion, as it has perhaps been shown that the Gouin method is natural and logical, let me show that it is practicable, and that moreover it has been attended by great success. We have first the testimony of its originator. Prof. Gouin had tried for ten months to learn German from books, and had failed ; but following the series method, and learning by ear at first from some children, he soon became so proficient that in two months and a half he took part in a philosophical debate in Germany at the Berlin University, and was victorious. We have also read of the children of Mr. Stead, of the *Review of Reviews*. After six months' study, they performed astonishing feats in French ; and we have testimony from teachers who speak of the pleasure found in teaching in this way, of the interest taken by the pupils and especially of rapid progress.

And now, either this method is the best one or it is not. Either it is practicable or it is not. If it is true and practicable, what is our duty regarding it ? The thought of introducing such a system into our schools comes with a kind of shock. It would involve a change in examinations, text-books, and teaching ; it would oblige some of us to learn a great deal more of the languages we teach than we know at present. But, though a scheme be difficult, it may not be impracticable. Revolutions have been accomplished before, and the trend of modern teaching of languages seem to be in this direction—towards the expression in foreign languages of our real experience—rather than the learning of the forms and modifications of printed shadows.

THE HIGH SCHOOL COURSE IN FRENCH AND GERMAN
—ITS SCOPE AND AIM.

[*An Abstract.*]

A. W. WRIGHT, B.A., GALT.

The aim of the High School course in French and German is not merely to prepare pupils for the University, so far as these subjects are concerned, nor is it merely to impart oral facility in the use of these languages, nor is it merely to establish the habit of translating into "elegant" English, nor is it to give a complete mastery of vocabulary, grammar and idiom. Not any one of these things as a hobby, not all of them completely, but all of them within well-defined and not too extensive limits, should be its aim. Our pupils should feel, on leaving us after passing the Primary, or the Junior Leaving, or the Senior Leaving Examination, that so far as they have gone, they have some substantial knowledge for their pains, and no mere smattering. As teachers, our immediate, practical aim should be thoroughness. In order to be thorough, we must know exactly what we have to teach.

In our courses in French and German it is a difficult matter to arrive at this. The Departmental Regulations are beautifully symmetrical, but very vague. In both languages and for all grades—Primary, Junior Leaving, and Senior Leaving, we have monotonously repeated: "Grammar, composition, conversation, dictation, the prescribed texts, and sight-reading." There is no grading, and no explanation is vouchsafed except the following tolerably clear commentary on "sight-reading": "In each language . . . there shall be two papers, one on authors, and one on composition and grammar. . . . At all the examinations, each paper on . . . authors shall contain, in addition to questions on passages from the prescribed texts, questions on passages from works not prescribed, but similar in style and of equal difficulty, and the meaning shall be given of words not likely to have been met with by the candidates. The examination in "sight-work" shall determine, not whether the candidate has read more than the prescribed texts, but whether he is familiar with idioms and constructions met in the prescribed texts." The University curriculum gives the following information with regard to the *Pas Matriculation Examination*: Composition—(a) "Translation into French (or German) of short English sentences as a test of the candidate's knowledge of the grammatical forms and structure, and the formation in French (or German) of sentences of similar character; (b) Translation of unspecified passages from easy French (or German) authors." For Honor Matriculation we have: "Translation from English into French" (no limit); "Writing easy French from

dictation," and "Translation of unspecified passages from modern French prose."

The High School inspectors have not a little to do with the course, especially with the oral work, which is so important in a living language. Here, however, we are hampered for want of time, by the uneven attainments of the members of our classes, by the crowded state of some of our class-rooms, and by our own want of familiarity with the terms and idioms necessary for doing the class work in the foreign language. If our authorized text-books supplied the terms, etc., it would be of some advantage.

But the examinations constitute our best and surest guide. From the examination papers there is much to be gleaned, though we have often to go far afield. We find that our pupils are expected to parse any word that may occur in the text, though parsing in English is almost a lost art. Some papers deal exhaustively with a few points, ignoring altogether parts which we thought to be our work, and upon which we spent much time and labor with our pupils. Sentences given often fairly bristle with points. For translation from the prescribed texts a number of short extracts of exceptional difficulty are picked out. I venture to question the wisdom of that, as well as its fairness. It presupposes a minuteness of preparation for which we really have not time, considering the amount prescribed. On the whole I think it would do some of the examiners a world of good to teach in a High School for a while; they would then better understand our limitations, and appreciate our difficulties. They would know better what might fairly be expected of the average pupil. Once, perhaps, we graduates, honor graduates, medallists, specialists, were ourselves struggling candidates with very imperfect acquirements, and sometimes we lose sight of the fact that we were the bright students of our day, and that hardly so much is to be expected of an ordinary juvenile as we were able to accomplish.

The Associate Examiners set the standard of thoroughness. What degree of accuracy is to be exacted in reading the answers of candidates is rather a nice question to settle. I once saw a paper of a young lady from a boarding school so marked by the examiner, that if it had been nothing but mistakes, she would still have got seventy per cent. on the paper. On the other hand it is possible to be so exacting that the slightest mistake will vitiate the whole paper. Where is the happy medium, and have our associate examiners struck it? I think that measurably they have, and I should have no fault to find with their work, if the field of examination were properly circumscribed. Their mysteries must not be revealed to an outside world, but I dreamed that I was one of them, and I was surprised at some things I saw. We were not all of one mind. Some were more severe than others. Absolute uniformity of course is impossible. Some were finically nice as to the English to be used in translations, ignoring the fact that a juvenile translator's attention and energy are concentrated on the language from which he is translating. We not seldom dis-

agreed among ourselves as to what the correct answer was, and the poor candidate did not always get the benefit of the doubt.

Though indicating what I conceive to be defects in our present course, I do not wish to be understood as denouncing it, or as wishing a different course substituted for it. I think that, in outline, it is a very good course. It certainly is a great advance on the course of years ago. It is more practical, and more thorough, as well as more extensive. What I do object to is that it is *too* extensive, and that its limits are not clearly enough laid down. The present University curriculum (1891) was originally too extensive, and had to be curtailed in French and German. So, I think, in the High School work we are too ambitious. Slipshod work on the part of many is unavoidable. We do a good deal of floundering. Lay down such a course as the average pupil may hope to cover, and as the average teacher may be able to teach, with some degree of thoroughness in the time at their disposal, and I think still further improvement will be manifest. Some teachers of soaring genius who find delight in uncertainty, may object, but surely they are few. We should have plenty of scope left.

But how can improvement be effected? I shall content myself with three suggestions: (1) A reasonable system of options might be introduced. The system which was inaugurated a few years ago, and which, so far as French and German are concerned, is deservedly regarded as a failure, was not a rational system of options. For the bewildered candidate it afforded the old choice between Scylla and Charybdis. One set of questions of varying difficulty was set up against another set of varying difficulty, so that really there was no advantage at all to the candidate. Why, in composition, cannot, say, 50 sentences be given, and the candidate be required to answer 30, and not more than 30 of these? Why, in grammar, cannot, say, 12 questions be set of about equal value, and the candidate be required to answer only 8 of these? Why, in translation, cannot the candidate have a choice of 2 out of 4 selections, merely for translation, and without the troublesome appendage of a number of questions on the text? If our present comprehensive course is to be continued, a system of options in the line indicated would be an incentive to thoroughness on the part of teacher and pupil in the portions of the work that their time will permit them to overtake. (2) The work might be defined by prescribing certain books, or portions of books, for the various examinations, and seeing that the papers set keep within the limits. This would be the most convenient way if we could secure the right kind of books. (3) The work might be indicated by a syllabus in greater detail than the one now in use. The Science men make use of such a guide, and I believe with advantage. Any text-book might be used, or none at all. The syllabus might be made to suit certain books, or books might be prepared to suit a syllabus. Or we might have the advantage of all three methods mentioned—options, prescribed books and a syllabus.

NOTE.—The forms Junior Leaving Examination, etc., is that used by the Education Department.—A. W. W.

REFORM IN MODERN LANGUAGE METHODS IN GERMANY.

W. H. FRASER, B.A., TORONTO.

The question of method is second in importance to no other which has come, or probably will come, before this Association. I use the word method in a wide sense to include the "what" as well as the "how." The two things cannot properly be separated. The discussion of how to teach modern languages without a clear understanding as to what is meant by the learning of modern languages will be fruitless. On both points there is great diversity of opinion here and elsewhere, and this diversity of opinion is one of the most hopeful aspects of modern language work. Considering the importance of this matter, it has appeared to me profitable to give some account of a reform which for more than twelve years has been in active progress in Germany. The circumstances of Canada and of Germany are, of course, widely different, but, after all, language learning is practically the same in both countries, and we have surely something to learn from the longer experience of an older land. I had thought at first of discussing, in detail, the various principles of this reform, but I find that this will be quite impossible within the limits of my paper. Hence, I shall confine myself to giving a brief historical sketch of the movement in question, and leave discussion to the meeting, either on this occasion or at some future time. In doing this, I shall first outline as clearly as I can the principles and the method of putting them into practice; and, secondly, I shall give some account of the progress which the movement has made.

Indirectly the reform I am about to describe was one of the results of the "Bildungsfieber" which supervened in Germany in the "boom" period which followed the Franco-Prussian war. Before the war modern languages were of quite secondary or even tertiary importance, and were often taught, as they still sometimes are, as a "Nebenfach" by teachers in other departments. After the war their importance was fully recognized, a lively demand for what we should call modern language "specialists" arose, and the supply was scarce and not up to the mark. Meanwhile the "Bildungsfieber" was crowding the classrooms of the secondary schools, which in self defence were forced to raise the standard. Then came a cry of over-pressure, and it was in connection with this cry that the modern language reform came definitely before the public. Its earliest and most zealous advocates sought to save labor and attain better results by what they called more rational and practical methods.

Every reform has its initial stage of dissatisfaction with existing conditions. It was so in this case. The dissatisfaction was not

confined to modern language teachers, and indeed the father of the whole reform movement may in a certain sense be considered to be Heinrich Perthes, whose work, "Zur Reform des lateinischen Unterrichts," appeared in 1875. One of the earliest mutterings of discontent came from abroad, and appears to have made a profound impression. In 1877 Sweet wrote, "If our present wretched system of studying modern languages is ever to be reformed, it must be on the basis of a preliminary training in general phonetics"; and again, "Without a knowledge of the laws of sound-change, scientific philology—whether comparative or historical—is impossible, and without phonetics their study degenerates into a mere enumeration of letter-changes." In Vol. I., p. 598, of "Anglia," Trautmann had said, "Die Aussprache des Englischen und Französischen, welche bis jetzt in der grossen Mehrzahl unserer Schulen gehört wird, ist wahrhaft grauenvoll." In 1880 Kräuter called German school-French "ein haarsträubendes, oft geradezu unverständliches Kauderwelsch." These more or less casual references were followed by more serious and radical attacks by Graf Pfeil, in 1879, in "Beiträge zur Erziehung im Hause," "Unser höheres Schulwesen ist schwer krank," "Gedächtniskunst und Vokabellernen," 1882. Contemporaneously appeared in 1882, "Der Sprachunterricht musz umkehren," by Quousque tandem, since known to be Professor W. Viator, and the gauntlet was formally thrown down. I should say, incidentally, that the way for reform had been paved by phoneticians like Sievers, Trautmann, Kräuter, Viator, Techmer, Ellis, Bell, Sweet and Storm.

Viator's book is a violent attack on methods and results—brief, lively, sarcastic. A fair idea of its style may be gained from his apt quotation of Scharfenmeyer :

"Sprecht ihr aber doch französisch,
Soll's nicht lauten wie chinesisches,
Träng, Detalch und Reglemang
Ist ein sonderbarer Klang."

Or, again, in his own assertion, "Unsere Realabiturienten können so wenig einen französischen und englischen Brief schreiben, als sie sich in London oder Paris in ihrem Jargon ohne Stocken und Hacken um die nächste Strassenecke fragen können." Nor is he less severe on his classical brethren: "Man weisz welch elendes Phrasen-Zusammengestoppel unter dem Namen 'lateinischer Aufsatz' geht," or his denomination of their fine talk about the beauties of classical rhythm founded on ignorance of the real sounds as so much empty "Phrasengeklingel" and "Wortgeplapper" belonging to the trade. His estimate of language teaching in German schools may be summed up into: The maximum of idle pedantry and the minimum of useful results.

At the close of the pamphlet he sketches a method of language-teaching in substance as follows: A preliminary study of the sounds, and, perhaps, of the principal grammatical forms. At school the

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teacher reads a short piece as often as necessary, slowly and distinctly to the class, who listen with closed books, the teacher supplying the meaning of unknown words. Only then are books opened. The piece is read, and re-read with open books. Then follow questions, as soon as possible to be given in the language being learned, which are answered also in the foreign language in complete sentences. Books are closed, and pupils re-cast the piece in the foreign language. Then it may be written in the form of answers to the teacher's questions. Repetition of the piece follows in the next lesson. Dictionaries and vocabularies are to have phonetic transcription of words. No written exercises at home are allowed. No translation of sentences, or of connected pieces. The pupil is to think and express his thought in the foreign tongue. Translation is an art which does not concern the school. The aim of the teaching: Comprehension and Reproduction. What about the grammar? Review of what has been read with reference to chapter and verse of the grammar. Should the foreign languages be spoken in the class-room? Undoubtedly. He ends with a strong general appeal for less work at home and in school and much more play.

An important contribution to the reform literature is that of Felix Franke's "Praktische Spacherlernung auf Grund der Psychologie und der Physiologie," 1884. If Vietor be taken as a type of the radical, practical reformer, Franke may serve as a type of the theoretical reformer. A preliminary inquiry leads him to the conclusion that language is either (1) "Inhalt unseres Denkens," or (2) "Form unseres Denkens"—we may learn *about* the language, or we may learn to *use* the language. The problem of language learning he states to be: "In what way can we completely master the mechanism of a foreign language so that it shall go hand in hand with our thought, like our mother-tongue, with the smallest possible expenditure of time and strength?" His answer is: (1) Restrict the teaching to the spoken language, which is the real language; (2) employ the organs of sense as far as possible, especially the eye and ear; (3) both learning and teaching should be done as far as possible without recourse to the vernacular of the pupil. Translations into the foreign language are condemned. The theoretical basis for all this he finds in the discussion of how the child learns its mother-tongue. This method, as compared with the old, is for the pupil, says he, "like a happy jaunt over the Alps as compared with the reading of a Baedeker on Switzerland by one's own fireside." The remainder of the book is a discussion of practical ways and means. Pronunciation is to be taught by practice, *i.e.*, *systematic* practice, by which he means elementary instruction in phonetics. On this he lays great stress, and declares from experience that this method really is a short cut, and besides makes the pronunciation possible for those not gifted with a good ear. As to grammatical forms, syntax and vocabulary, Vietor and Franke agree in principle. The text read is to be the basis for their inductive mastery.

Very prominent among the reformers is Dr. Julius Bierbaum of Baden-Baden, whose book, "Die Reform des Fremdsprachlichen Unterrichts," 1886, I shall now deal with briefly. By the way, his motto is "Der Buchstabe tötet, aber Der Geist macht lebendig." The problem, as he states it, is the same with that of Franke, and he answers it thus in substance :

1. The teaching should proceed from the sound, on the basis of phonetics, since speech is physiologically sound, not orthography.

2. All forms of the spoken, *i.e.*, the real language are audible, hence the teaching of grammatical forms should be based on phonetics.

3. Language is a psychological organism, and hence should not be paralyzed by analysis, and cannot be learned by study of vocables or disconnected sentences, but in connected reading and conversation.

4. Since language is inherent in the individual or the nation, one language cannot be taught or learned through another, *i.e.* not by translations.

5. Since language cannot be at once content and form of thought, grammar leads to thinking about language, but not to thinking in the language, and hence has a subordinate part to play in language teaching.

These propositions are fully developed in a very able and suggestive pamphlet of 135 pages, of which I have only space to quote the conclusion, in which he contrasts the fundamental differences between the new method and the old as follows : "The sound, the living element of language, comes to the front, spelling goes to the rear. Hence reading and speaking as the real living expression of language are cultivated most of all, whilst writing, as a mere image of language or a defective artifice for its reproduction, takes second place—in both points the very opposite of previous methods. The second important difference to be emphasized is that the teaching proceeds from connected reading as a basis—it being the nearest approach to human speech—, and not from grammar, which is the abstract side of language, and has no significance of itself. Hence the translation method falls to the ground, and the exchange of thought in the foreign language, as far as possible, takes its place. The art of translating is no longer the goal of language learning, but the capacity to express thought in the foreign language as well as may be." Through this method, he asserts, the scope of the instruction is widened beyond the school-room, and its work becomes, as it should be, a preparation for after life.

For the sake of fulness I give in somewhat condensed form an enumeration of the principles of the Reform party as drawn up by one who is not fully in sympathy with the movement, Albert von Roden, of Wismar, 1891 :

1. Modern language teaching is to be given according to correct psychologic and natural principles. The learning is to be based on observation and imitation.

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2. The pupil is to learn to speak and understand, since French and English are living, that is, spoken, languages.
3. Hence, conversation is to begin early: the pupil is to hear only the foreign language; the vernacular as little as possible.
4. Translations from German into the language are forbidden.
5. The principal aim of elementary instruction is to obtain a good pronunciation. Instruction in this is to proceed not from the text but from the sound, and the results of phonetics are to be utilized.
6. Knowledge of grammatical forms is to be based on phonology.
7. Grammar is not to be taught apart from the language. Rather is the pupil to be introduced first to the language, and to learn the grammar afterwards inductively. Grammar is to be excluded, as far as possible, from the elementary classes, and in general to be confined to essentials.
8. Connected reading is to be used at first, and the reading matter is to be the central point of instruction.
9. Written exercises are to consist of various kinds of reproduction of what is read.

Viotor, Franke and Bierbaum may be taken to represent the extreme radical wing of the Reform party. Between these and the dyed-in-the-wool Conservatives are to be found all grades of opinion. These varieties of opinion I cannot note in detail, but there is a distinct and strong general movement along the lines laid down. The fight has been going on furiously for more than ten years, and shows no abatement. I have a list of some 200 publications bearing on the question, including text-books, controversial writings, auxiliary literature, etc. I must here close this short description of what the reform is. The state of things to be reformed, which logically, perhaps, should have also been described, may be readily enough inferred from the demands of the Reformers, and by what I shall say under the second division of my subject, viz., the progress of the movement.

One of the characteristics of this movement has been the practical application of its theories to the work of the schools, in spite of the fact that the prescription of work by the Government and the examination tests are not such as to favor the reformed method. Its advocates have tried to prove that what they consider a real power over the language to be taught will tell at the examinations whether or no. After some years of controversy in public, along with earnest work in the schools, the Reformers made an effort to take stock of progress. This was done in the pages of the *Phonetische Studien*, the principal organ of the party, published from 1888 to 1893. The method employed was a circular letter with questions addressed to teachers of English and French in all the secondary schools, Gymnasien, Realgymnasien, Realschulen, Höheretöchtterschulen, etc., the answers to be sent to the *Phonetische Studien*, in which they were published. Some of us know from experience that the proportion of answers to such circulars is usually small. In this case, however, there

were seventy-two in all, and the reading of them in full is about as suggestive to modern language teachers as anything I have ever met with. For our purpose just now they serve not only to indicate the progress of the reform but to give a fuller idea of its scope. I shall take up the questions *seriatim*, and quote the substance of a short summary of the answers from the periodical mentioned.

1. In teaching pronunciation do you proceed from the sound or from the text? Only 9 or 10 begin with the text; 2 or 3 are undecided, and all the rest of the 72 begin with the sound.

2. Do you use (a) phonetic charts, or (b) phonetic transcription as an auxiliary? To the phonetic charts, 19 answer "yes," and 32 "no." The rest give no answer. To the phonetic transcription, 29 answer "yes" and 28 "no."

3. What phonetic transcription do you use for French and English? This is merely a question of detail. Vietor's Lautschrift is used by 12, Sweet's by 6, Kühn's 5, Passy's 5, etc.

4. When do you pass over to the ordinary orthography? Some answer, "after a few lessons," others, "after two or three months," one "only at the end of a year."

5. Have any disadvantages followed, and, if so, of what kind? To this, 7 out of 33 find that weak pupils at first sometimes write the phonetic transcription instead of the conventional orthography, and one has given up the phonetic transcription on this account.

6. Is the rudimentary teaching of pronunciation given from poems, reading extracts, or pictures? The large majority decide for the connected reading matter, although most of them soon introduce poetry.

7. Do you use exclusively connected reading matter or detached sentences as well? Only a few vote for detached sentences.

8. Do you have your pupils translate from German into the foreign languages, and, if so, do you use detached sentences or connected pieces? Only a few are entirely against such translations. Some translate sentence by sentence from the old-fashioned text-book. The majority use translating only after considerable familiarity with the foreign languages has been attained, detached sentences being used rarely, and only for certain grammatical purposes.

9. In which class do you introduce translating? Much difference of opinion. One immediately, another only after four years.

10. To what extent do you use picture-charts? About twenty use these, and mostly the "Hölzel'sche Bilder der vier Jahreszeiten." The most use none, because they have none. One emphasizes the fact that the best object lesson is what immediately surrounds the pupil. They are used for conversation and grammar.

11. How, and to what extent do you teach conversation? Almost all base conversation on the reading matter—questions by the teacher, and answers from the text. Later, re-casting.

12. Is grammar learned inductively, or by the translation of

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detached sentences? The majority are for the inductive method, twenty-five exclusively so. Agreement on the whole that grammatical principles as such should be studied only when a basis of knowledge has been laid by study of the language, detached sentences to be used for the teaching of certain parts of the grammar. The form of this question is criticized by some, as the two things are not mutually exclusive.

13. In what do the written exercises consist in the different grades, and how often are they prepared? A very important question, but the answers are so many and so varied as to defy classification.

14. How are you satisfied with your method? Naturally all are fully satisfied, Reformers as well as Conservatives, the Reformers particularly so, however.

15. What advantages do you find as compared with previous methods? Greater interest for teacher and pupil, accuracy in pronunciation, greater proficiency in the use of the foreign language, power to think in French or English, less work for the pupil, practical union of grammar and language, etc.

16. What defects have appeared? The Reformers mostly answer "none," some say, "want of aids to instruction," "great exertion required of the teacher at first," etc. One says, "the new method impossible if the teacher cannot speak the foreign language."

17. What about the knowledge of the more important rules of grammar? All, or almost all, Reformers declare that there is improvement.

So much for the progress of the reform in the schools. The questions and answers though instructive, give nothing like a consensus of opinion on general principles. They inform us, however, as to the practice of teachers with regard to some of the requirements of the Reformers. Fortunately for our inquiry the question of Reform has been taken up in the "Verband der deutschen neuphilologischen Lehrerschaft," and a general expression of opinion obtained. This body, founded in 1886 with 300 members, now numbers about 1,000, and held its fifth general meeting in Berlin at Easter, 1892, with 240 members present. At this meeting Dr. Waetzholt, of Berlin, gave an address, "Über die Aufgabe des neusprachlichen Unterrichts und die Vorbildung der Lehrer der neueren Sprachen." This covers the whole ground of discussion. His conclusions and demands I summarize as follows:

1. "Scope of the School Course." Its immediate aim is to enable the pupil to understand with ease a modern English or French writer, to understand spoken French or English quickly and easily, and to use the language orally and in writing without constraint in the simple forms of daily intercourse. Its secondary aim is to enable the pupil to appreciate the mental and material culture, the life and customs of the foreign nation.

2. "Training of Teachers." (a) In addition to the scientific

seminar an independent practical seminar for practice and writing in small groups and for the study of literature, sociology, politics and culture of French and English is demanded. (b) More attention should be given to the literary and linguistic development of the present day, and to the authors afterwards to be taught. (c) The candidates for positions in the lower classes in the schools should be required to study abroad for several months, since the required knowledge and practice are not to be had at home. (d) Candidates for the higher classes should spend the time in England and France, and should study the country and the people as well as practise the language. (e) Governments and municipalities are urged to contribute to this, and to grant leave of absence for the purpose. (f) Summer schools of language conducted by French and Englishmen for those who cannot go abroad are recommended. (g) Candidates are to be recommended only to institutions whose directors understand and have an interest in the special objects of modern language teaching.

This was followed by the address of Professor Rambeau, late of Hamburg, now of Johns Hopkins University, "Die offiziellen Aufforderungen in Bezug auf die Sprachfertigkeit der neueren Sprachen und die realen Verhältnisse." The address covers the same ground as the second part of Professor Waetzholt's, with special reference to the Realschulen in which, of course, French and English take first rank as linguistic studies. His points are :

1. It is desirable that the teachers for the lower forms in French and English should be required to read fluently, correctly, and have a good pronunciation and a competent fluency in conversation, and that the other requirements should be moderated.

2. It is desirable that phonetics with reference solely to the sounds of the mother-tongue and to the foreign language which the candidate is to teach, should be obligatory on all, because it forms the surest basis of a good pronunciation and of competent speaking power.

3. The authorities are urged to entrust French and English teaching, especially in the lower forms to modern language masters, and never to classical, mathematical, or other masters without special qualifications.

4. The authorities are urged to diminish the correcting of exercises as now prescribed.

5. Students in modern languages should have in every university an opportunity to obtain a fundamental, theoretic knowledge of phonetics and a good pronunciation and conversational power, as far as this is possible without going abroad.

6. The regulation prescribing two years on trial is useless and even harmful for the development of modern language teachers, and it is urged that this be commuted to one or one and a-half years abroad.

7. The Ministers of Education of the different provinces are urged to contribute to the expenses of students so studying abroad.

8. Also leave of absence for six months is asked for regular teachers to go abroad.

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9. Relief for the University professors of modern languages is asked for by a division of the work and the founding of new chairs.

10. It is urged again that the professorships of Romance and English philology should be separated, and that the department should not be left to a Privatdozent or a professor-extraordinary.

11. A division of university work along the lines of the older and newer stages of the languages is recommended.

12. Each university should have a professor of phonetics to treat thoroughly German, English and French phonetics, and a professor of comparative literature, especially for Teutonic and Romance languages.

13. A request is added for the appointment more frequently than heretofore of experienced teachers to university chairs.

Before the close of the session a warm discussion took place, and the meeting adopted, in general, the theses developed in the two papers, and ordered the executive of the society to bring them to the notice of the various educational authorities. You will readily perceive that what this body accepted by vote is not exactly identical with what has been laid down by Vieter, Franke and Bierbaum, and yet it is in the same direction and is considered by the Reformers as a decisive victory, since the society in question is a representative body for Germany to the same extent as our Association is for Ontario.

Here I must end this brief outline of the reform movement. I should have liked to add some criticism, but, as I have already said, the time at my disposal does not permit. I do not hesitate to say that I am in general sympathy with the movement; indeed, I fear I stand more or less committed to it, since I read a paper before this Association more than six years ago, before I had heard of the German Reformers, which I find on comparison to have much in common with what I have been describing. My opinions held then have only been confirmed by experience. I am not a revolutionary, but there are reforms that are necessary here as well as in Germany. We are making general progress, it is true, and I think in the right direction, but each individual can do a great deal to reform his own method by giving time and thought to it. Methods are not to be had ready-made—each man must make his own—and for those who are in earnest there is nothing I can more confidently recommend than a further study of the reform movement of which I have attempted to give some account.

NOTE.—For the sketch of the origins of the reform movement (see paragraphs second and third) the writer is indebted to Dr. Ernst O. Stiehler's excellent pamphlet "Zur Methodik des neusprachlichen Unterrichts," from which the facts of these paragraphs have been taken, and in which also are mentioned many important reformers whose work it has been impossible to treat of within the limited plan of this paper.

NOTES ON CURRENT GERMAN LITERATURE.

[An Abstract.]

W. H. VANDERSMISSEN, M.A., TORONTO.

As Mephistopheles, "the spirit who still denies," did not walk for the first time in Goethe's great drama, so he has not ceased to the present day walking to and fro upon the earth and seeking whom he may devour.

"Vanitas, vanitatum! omnia vanitas!" was the cry of the wise and somewhat *blasé* King of Israel, at the height of Hebrew power and culture; stoic and cynic philosopher follow the intellectual age of Pericles; even Horace, the usually jovial singer of Rome's Augustan age, sings:

"Damnosa quid non imminuet dies?
Aetas parentum, pejor avis, tulit
Nos requiores, mox daturos
Progeniem vitiosiore."

Rome, at the height of her imperial power under Constantine, offers a favorable soil for the propagation of Christianity, with its inculcation of the negative virtue of self-abnegation; the despairing cry of Freidank follows on the splendors of the Hohenstauffen age in mediæval Germany; Hobbes follows on the heels of Shakespeare and the Elizabethan men of action and of letters; and even Shakespeare has his negative hero, Hamlet; after the glories of Louis XIV. comes Voltaire, and, later, Rousseau, with his negation of conventionality and culture, and his cry: "*Retournons à la nature!*"

Periodically, then, whenever the world has been saturated with culture and prosperity, humanity seems to call a halt in the upward march, and to survey the ground covered from the height so far attained. The retrospect seems discouraging: but little seems to have been gained; and men come to the same conclusion as Faust in his introspection, when he exclaims:

"Wena wir zum Guten dieser Welt gelangen,
Dann scheint das Bess're Trug und Wahn."

It is therefore no matter for surprise or discouragement if, after the era of unprecedented intellectual expansion and material progress marked by such names as Darwin, Spencer, Huxley, Tyndall, Helmholtz, Siemens, Koch, the world, at the close of this nineteenth century, should assume an introspective and pessimistic mood, and be, for the nonce, "sicklied o'er with the pale cast of thought."

The leading spirits in this present phase of pessimistic negation of "das Gute dieser Welt," are Ibsen, the Norwegian; Tolstoi, the Russian; and Zola, the Parisian. All preach the vanity of things in general, but each in his particular way. Ibsen's negation has regard chiefly to matters social and political; Tolstoi, the fanatical obscurantist, deals principally with religion and the present state of Chris-

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tianity ; Zola with art, specifically of course with literary art, in which his methods have been not inaptly compared with those of the photograph and phonograph. All these are Mephistophelean rather than Faustian, since they are negative, and deny all existing things, rejecting, like Faust, all illusion, and especially, with the exception of Tolstoi, patience and resignation. They are all, as a recent writer says, "abstract idealists," dealing with the abnormal and exceptional, instead of with what is general. Ibsen despairs of a cure ; Zola seeks none, but only describes the disease ; Tolstoi's remedy is complete abnegation and renunciation. Ibsen pictures the narrowness and smug hypocrisy of Norwegian life ; Tolstoi, the corrupt semi-barbarism of Russia, with its veneer of refinement ; Zola, the absinthe-drinking boulevard-trotter and the degraded peasantry. Science, art, religion and intellect are to them the curses instead of the blessings of humanity.

As to Germany's share in this movement, it is characteristic, in the first place, that the earliest leaders were philosophers—Arthur Schopenhauer and Friedrich Nietzsche. Schopenhauer is the pessimist, and his remedy is extinction, though he acknowledges that even this would be useless, since the world would reconstruct itself in precisely the same way. Nietzsche changes all moral values, setting them topsy-turvy. In his eyes the cardinal vices, which have brought about the decadence and degeneracy of the present generation, are morality, humanity, sympathy, love, pity, altruism ; the instruments by which this decadence, or culture, which with him is synonymous therewith, has been brought about, are religion, science, art, and intellect. Culture has turned man from a magnificent beast of prey into a tame and spiritless domestic animal, whose regeneration can only be effected by the cardinal virtues of unbridled selfishness, cruelty, brutality, lust, ignorance, stupidity and malice. His highest type of man is the "blond beast ;" his greatest hero, Cæsar Borgia ; his motto, "Nothing is true, everything is permissible."

Coming to German literature in the stricter sense, it is again characteristic of the universal receptivity of the German mind, so strikingly typified in Goethe, that Germany has readily assimilated all these foreign elements. Of all these, Ibsen has had undeniably the greatest influence ; and perhaps it is owing largely to this that the dramatic form is at present most prominent in German literature. In this branch of literature there may be mentioned in particular two recent dramatists of great original power, who are likely to leave their mark permanently on the world-literature of the age, Gerhard Hauptmann and Hermann Sudermann.

An abstract was then given of two plays of the former author, "Vor Sonnenaufgang" and "Die Weber," and of Sudermann's comedy "Die Ehre." Other works briefly referred to were : Hauptmann's "Hannele" and "Kollege Crampton ;" Sudermann's romance, "Frau Sorge," his comedies, "Sodom's Ende" and "Heimat ;" Wolzogen's "Lumpengesindel ;" and Ludwig Fulda's "Talisman."

THE USE OF *PAS* WITH CERTAIN VERBS.

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I shall confine the present discussion to the use or omission of *pas* with *pouvoir* and *savoir*, neglecting the cases of *bouger*, *oser* and *cesser*, on account of the fact that these three occur much less frequently than the two first mentioned.

It was my intention to read a number of works in modern French of a variety of kinds—such as novels, plays, critical works, histories, etc., and to note every case of *pouvoir* and *savoir* used negatively, so that it might be possible to make some general statements on the point which might be fairly trustworthy, but I found that the time at my disposal would not allow me to read more than a very few pages. So I decided to read *Les Mensonges*, of Paul Bourget, and Mr. George E. Shaw kindly undertook to read *Le Monde où l'on s'ennuie* of Pailleron, and to mark every case of *pouvoir* and *savoir* occurring therein in the negative. Both of these books, the former a novel, and the latter a comedy, are modern, and by men who are considered excellent writers of French.

In *Les Mensonges* it was found that *pouvoir* occurred in the negative (omitting the cases with *ne . . . que, jamais, plus, guère, personne*, etc.) 68 times, of which 42 cases were with *pas* and 26 without; in *Le Monde où l'on s'ennuie* there were 7 cases of *pouvoir* used negatively, all with *pas*. As regards *savoir*, used negatively, there were in *Les Mensonges* 23 cases, 17 with *pas* and 6 without, and in *Le Monde où l'on s'ennuie* 17 cases, 14 with *pas* and 3 without. Adding the cases in the two books together we have 75 cases of *pouvoir* in the negative, of which 49 are with *pas* and 26 without, and 40 cases of *savoir* in the negative, of which 31 are with *pas* and 9 without. The percentage of cases, then, of *savoir* with *pas* omitted, was quite small (22.5), and with *pouvoir*, a little larger (34.6).

(1) Of the 75 cases of *pouvoir* all but 10 are cases in which the infinitive follows, and in these 10 *pas* is used invariably.

(2) Of the 26 cases of *pouvoir* without *pas* they are all but 1 in some of the past tenses, and this 1 (*pardonnez-moi si je ne peux vous prier chez moi*) follows *si*, which might be a sufficient reason for omitting *pas*, even if any other verb were used.

(3) Of the 25 cases of past tenses without *pas*, *n'aurait pu* occurs twice; *ne pouvait*, 5 times; *ne put*, 12 times; *n'avait pu*, twice; *n'ai pu*, once; *n'aurait pu*, 3 times.

(4) Of the 39 cases of *pouvoir* with *pas* followed by the infinitive, *ne peut pas*, etc., occurs 17 times; *ne pouvait pas*, etc., 15 times; *ne pût pas*, once; *n'ai pas pu*, once; *ne pourrait pas*, etc., twice; *ne put pas*, once; *n'aurait pas pu*, once.

(5) Of the 9 cases of *savoir* without *pas*, 4 of the 9 cases are the peculiar phrase, *je ne sais quoi*, etc.; of the remaining 5 only 1 is with an infinitive following: *il n'aurait su dire quoi*; *je ne sais si* occurs twice; *je ne sais ce qui*, once, and *je ne sais pourquoi*, once.

(6) Of the 31 cases of *savoir* with *pas*, *savoir* is followed in 5 cases by the infinitive; the phrase, *je ne sais pas* occurs 6 times; and *savoir* followed by a noun, pronoun or clause, 20 times.

It is true that in these two books we have not sufficient data for making large generalizations, but it would seem that we can draw one rule which elementary classes in our Canadian schools may safely follow in their spoken or written French composition, viz., that since the cases of *pouvoir* and *savoir* in the negative with *pas* so far outnumber the cases without *pas*, and since apparently any mood or tense may be used with *pas*, it is better for beginners to use *pas* in all cases. (Exception is of course made in the case of *je ne sais quoi*, etc., and of *je ne saurais* which latter does not occur in either of these books.)

Pouvoir WITH *pas* IN "LES MENSONGES."

où elle ne pouvait pas aller
 Bah ! Ils ne pourront pas
 puisque S. ne pouvait pas savoir
 je ne pouvais pas songer
 qui ne peut pas se dissimuler
 mais je ne peux pas vous expliquer
 et je ne peux pas me montrer
 quelle étrange chose qu'elle ne pût pas secouer cette idée
 elle ne pouvait pas avoir
 demain, je ne peux pas
 qui ne pouvait pas tenir compte
 est-ce qu'il ne pourrait pas travailler
 elle ne pouvait pas suivre le détail
 non, il ne le pouvait pas
 elle ne pouvait pas se donner
 sinon que je ne peux pas supporter de
 je ne pourrais pas supporter que
 je n'ai pas pu le supporter
 je ne peux pas
 s'il avait dû l'exprimer, il n'aurait pas pu
 sa présence ne pouvait-elle pas s'expliquer
 il ne pouvait pas demeurer l'ami
 elle ne pouvait pas croire que
 je ne peux pas te laisser me donner
 cette vie ne peut pas durer
 je ne peux pas te les répéter
 je ne peux pas l'articuler
 si douloureuse qu'elle ne put pas la supporter
 non, non je ne peux pas
 je ne peux même pas être jaloux
 elle ne pouvait cependant pas me demander
 S. ne pouvait pas le penser

où vous ne pouvez pas douter que
 tu ne pouvais pas douter du sentiment
 je ne peux pas vivre
 comme si la réponse de S. ne pouvait pas être douteuse
 non, je ne peux pas
 non, je ne peux pas non plus (three times in succession)
 je ne peux pas les manquer

Pouvoir WITHOUT *pas* IN "LES MENSONGES."

il n'aurait pu le dire
 elle n'avait pu retenir un cri
 il ne pouvait se retenir de mesurer
 quand F. aperçut le visiteur, il ne put retenir
 ce dernier ne put empêcher que
 comment eût-il deviné que sa réponse ne pouvait déplaire
 dont on n'aurait pu dire
 je n'ai pu y tenir
 elle ne put se retenir d'une comparaison
 elle ne put s'empêcher de dire
 je regrette de n'avoir pu encore vous présenter à M.
 pardonnez-moi si je ne peux vous prier chez moi
 il ne put s'empêcher d'établir
 elle ne pouvait, vis-à-vis de ses gens, aller au delà
 elle ne put s'empêcher de jeter
 si sincère qu'elle n'avait pu dissimuler son cœur
 il se coucha et ne put dormir
 il ne put s'empêcher de raconter
 si bouleversé que F. ne put se retenir d'
 l'analyste lucide ne pouvait se retenir d'observer
 elle aura été désolée de n'avoir pu causer avec vous
 leur train de vie ne pouvait se soutenir sans
 car elle ne put dissimuler une expression
 il ne put s'empêcher de
 jusqu'à n'avoir pu rouvrir le manuscrit
 qui ne put résister au plaisir de

Savoir WITH *pas* IN "LES MENSONGES."

je ne sais pas
 vous ne savez pas sa boisson ordinaire
 elle n'a pas su la faire parler
 elle ne le saura pas
 il ne savait pas mes heures
 il faut ajouter qu'elle ne le savait pas
 trop habituées à chiffrer pour ne pas savoir
 elle réfléchit qu'elle ne savait pas l'adresse
 je ne le savais pas
 vous ne savez pas ce que c'est que cette vie
 que ne sut pas dissimuler la gêne
 je ne sais pas
 vous ne savez pas ce qu'elle était pour moi
 vous ne le savez pas
 je ne sais pas ce que j'ai
 vous ne savez pas ce que c'est que

Savoir WITHOUT *pas* IN "LES MENSONGES."

elle gardait ce je ne sais quoi
 ce je ne sais quoi
 je ne sais si je vous enverrai
 un je ne sais quoi d'attristant
 le je ne sais quel caractère qui,
 il n'aurait su dire quoi

Pouvoir WITH *pas* IN "Le monde où l'on s'ennuie."

ça ne peut pas être là-dessus non plus
 elle ne peut pas être tombée autre part
 tu crois qu'on ne peut pas aller à son cours
 je ne pouvais pas rester là, voyons
 je ne peux pas
 tu ne peux pas laisser éternellement tes invités
 je ne peux m'en empêcher

Savoir WITH *pas* IN "Le monde où l'on s'ennuie."

ceux qui ne savent pas s'ennuyer
 je ne sais pas (four times)
 je ne savais pas que tu arrivais
 vous ne savez pas ce que vous avez perdu
 elle ne le sait pas
 je veux croire que vous ne savez pas la gravité
 je ne sais pas ce que je lui avais fait
 elle ne savait pas ce que cela voulait dire
 tu ne sais pas combien je t'adore
 je ne savais pas que cela s'appelait comme ça
 je ne sais pas dire ces choses-là

Savoir WITHOUT *pas* IN "Le monde où l'on s'ennuie."

mais je ne sais si c'est la fatigue
 je ne sais pourquoi, ce soir
 je ne sais ce qui s'est passé en moi

PRACTICAL AIDS TO SPOKEN FRENCH.

JOHN HOME CAMERON, B.A., TORONTO.

The general history of the new movement in the teaching of modern languages has been very clearly presented in Mr. Fraser's paper. It will be interesting to note the particular shape which the reform has taken, as regards French more especially, in the last year or two.

There is centred in Paris a vigorous society which includes most of the leading men of the new school of methods throughout Europe. This is the Phonetic Association of Teachers of Modern Languages (*Association Phonétique des Professeurs des Langues Vivantes*). Any one may become a *membre adhérent* of this society by paying three francs a year, or a *membre actif* by paying five francs.

The fundamental principles accepted as a basis by the Association are, in substance, the following:—

1. The study of a foreign speech should begin with everyday language, not literary forms.

2. The first care of the teacher is to familiarize the pupil with the sounds. To this end he will use at the outset phonetic transcriptions exclusively.

3. Then follow the more usual idiomatic sentences and expressions. This requires the study of continuous texts of various sorts, as easy and natural as possible.

4. Grammar is to be taught inductively, until the pupil is well advanced.

5. Translations from and into the mother tongue are to be avoided rigorously, and replaced by object lessons, pictures, and explanations in the foreign language.

6. The advanced work is to take the following order: First, reproductions of texts read, then recitals made by the pupils *vivâ voce*, then free composition, and, lastly, translations both ways.

This programme indicates the *general tendencies* of the Association, and not the individual views of each member.

The official organ of this Association is the *Maître Phonétique*, a little journal appearing monthly and sent free to all members. It contains the most practical material in English, French, and German, with considerable quantities of several other languages, all printed in the phonetic type forming the International Phonetic Alphabet adopted by the Association. The editor is M. Paul Passy, who is a professor in the *Ecole Pratique des Hautes Etudes*, Paris, and the leading French reformer in modern languages. Our Canadian

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teachers will find nothing more useful and suggestive than this little journal, which aims at being of practical use to everyone who teaches.¹

In the way of text books, the most important is the work printed in Germany known as the *Elementarbuch des gesprochenen Französisch*, by Franz Beyer and Paul Passy.² This book contains forty-two specimens of every-day French in phonetic type, followed by a grammar of the French language in German, full of the most instructive information regarding pronunciation, and divided into *Laut-, Form-, und Satzlehre*. Then follows a glossary of all the French words occurring in the book, with their German equivalents. Corresponding to this book there is an *Ergänzungsheft*, which gives the ordinary French type for the forty-two specimens, and a number of practical hints and explanations in elucidation of the text.³

A very original work has just been published by M. Paul Passy.⁴ It is a familiar translation into French of the Gospel of Luke, printed in phonetic characters. The style is that of every day, and nothing could be more instructive than the study of the book side by side with the ordinary literary version. M. Passy has in preparation a similar version of the Acts of the Apostles. Among the smaller books are three—one a collection of twenty-five popular hymns, another a first reading book, and then a second reading book—the prices being 25, 20, and 50 centimes respectively. These are also in phonetic type.

The well-known book of M. Passy, *Les Sons du Français*, has been reviewed, and is now in its third edition. It is indispensable for a complete understanding of his system of phonetic transcription, while it is full of information regarding French sounds in general.

It is not too much to say that every teacher of French and German in Canada ought to possess and perseveringly study three of the works mentioned above: (1) The *Maître Phonétique*, (2) The *Elementarbuch*, with its *Ergänzungsheft*, and (3) *Les Sons du Français*. One of the great advances made by the reformed methods in modern languages is the insisting upon phonetic study, and we in Ontario cannot afford to neglect the many aids to it now within our reach, both in the instruction gratuitously instituted in the University of Toronto by Mr. Fraser, and in the publications which are becoming more and more numerous and practical.

1. M. Paul Passy's address is 92 Rue de Longchamps, Neuilly-St. James, France; but subscriptions may be sent either to Professor A. Rambeau, John Hopkins University, Baltimore, or, for Ontario, to John Home Cameron, University College, Toronto. There are at present (July, 1894) some twenty-four Canadian members.

2. Cöthen, Otto Schulze, 1893. Price (bound) 3 marks.

3. Same publisher. Price 1 m. 50.

4. L'Évangile de Luc, version populaire, Paris, Firmin-Didot, 1893. 2 fr. 50. Key to the same, in ordinary type, 0 fr. 50.

CLASSICAL ASSOCIATION.

THE SEMINARY IDEA AS APPLIED TO MEETINGS OF THE CLASSICAL ASSOCIATION.

E. W. HAGARTY, B.A., TORONTO.

The Association is organized to promote the interests of classical study. How can this best be accomplished? Obviously there are two battle-grounds on which the cause of Classics must be upheld: first, that of rivalry for place and due recognition in the school and college programme; and second, that of the healthful development of classical teaching from within.

The first involves a very important part of the work of this Association; in fact, it was the necessity for safeguarding the interests of Classics against aggressive and not overly thoughtful foes that called the organization into existence. So far our efforts have met with gratifying success. Thanks to our able champions, thanks to the cohesiveness given to classical men by meetings of this Association, a determined attack has been frustrated. It will still be our duty to watch and guard. No doubt a great deal remains, too, to be done in the way of completing and rendering effective what has already been accomplished. The school programme is overcrowded by other studies that can be dropped, curtailed or made optional. Undoubtedly the Classics are being crowded out by a mass of work that should be relegated to the Public Schools. In the opinion of many enthusiastic classical teachers, the programme is overcrowded partly by the prescription of too much purely laborious and non-productive work in our own department. All this will still demand the time and attention of the Association.

I hope, however, to be pardoned if I venture the opinion that rather too much time has been devoted in the past to desultory discussion on minor points in the controversy between Classics and rival departments. Indeed, it is a question in my mind whether Classics, whether education generally, would not better be served if controversy were reserved for the wider arena of the College and High School Department, where missionary zeal would count for more, and where a calmer style of discussion on the part of opponents of Classics might, by hearing the other side, be engendered. I sincerely believe that the mutually tolerant spirit thus promoted would prove the key to the solution of that vexed question of overcrowding that now confronts us. Certainly, the leaving of more time to the sections for purely scholastic topics would tend to elevate the love of learning in our midst.

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Surely teachers of Classics throughout the Province must feel that the chief advantage of this annual gathering lies in the opportunity thus afforded of concentrating our minds for a brief space upon some phase of classical study; of leaving behind us the cares and distractions of school-room routine and becoming students once more, students from a teacher's standpoint; of meeting with our old college professors and others engaged in university work, hearing them discuss topics bearing on our work, and even perhaps communicating to them some of the sympathy for school-boy difficulties and school-boy instincts that we derive from every-day familiarity: in short, of assembling in an atmosphere of books and learning, of large libraries and industrious labor in the higher plane of literature and scholarship.

Who will say that when he left college he knew enough of Cæsar, Xenophon, Homer or Virgil to make him perfectly familiar with every question that may arise in the ordinary class discussions on these authors? Who, even after years of faithful toil, when he resigns his task to younger men, will then say that he is satisfied with what he knows of these authors as exponents of classical style, or as a medium for studying the mechanism of human speech? Yet these authors are the common currency of the school-room. We have had an admission from a young teacher that when he entered the profession he found his knowledge of Latin grammar insufficient, or too poorly organized, for his purpose. Yet Latin grammar is supposed to be covered by honor matriculation. I mean, of course, second-hand Latin grammar, studied out of text-books. How many graduates know the grammar of Cæsar or of Xenophon, from a personal and critical study of these authors?

And here I would dwell for a moment on what appears to me one of the weak spots of our university curriculum. It is claimed that the chief work of the Provincial University is to train teachers for the secondary schools. Yet there is little provision throughout the course for specializing on those authors that are read almost exclusively in our High Schools. Would it not be well if the University would embody in its curriculum, and University College in its course of lectures, provision for the exhaustive study of some one author of the school course? Or, still better, if much of the time now devoted in the School of Pedagogy to "methods" and to theorizing on the "raw material of knowledge" were applied to a course of post-graduate study tending to a proper digestion of those "raw materials" bolted during the student's hurried college career?

However, such provision has yet to be made, and when made, if ever, will affect only future recruits to the army of classical teachers. It has occurred to me that those of us who are already in the profession might, so far as we ourselves are concerned, take the matter into our own hands. With university men to lead us, what is to prevent our instituting a series of post-graduate inquiries or discussions on the co-operative or seminary plan, attempted not in too lofty, learned or

scholarly a spirit, but with a practical view to the necessities of the school-room? The time of our meetings is limited, our opportunities for united study and collation of results are small. But small though the actual amount of work may be, the method after all is the main thing, and the stimulus thus given to individual investigation may lead to discoveries creditable to Canadian scholarship. "*Docendo discimus*" is a motto the truth of which none of us took long to discover, but "*Discendum ad docendum*" perhaps furnishes a more truly inspiring maxim for every enthusiastic teacher.

(The rest of the paper was taken up with outlining a plan for carrying out the seminary idea, the general principle of which was adopted and referred to the Executive Committee for embodiment in the programme of the next meeting.)

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MY FIRST YEAR'S EXPERIENCE IN TEACHING
CLASSICS.

F. W. SHIPLEY, B.A., LINDSAY.

It is now two years since, with *testamur* under my arm, I stood with my back to *Alma Mater*, and the necessity of deciding on the character of my life-work before me. Other men have stood in the same position; the same crisis met Lucian, the same critical moment came to Hercules, but to them came *Θεῖα ὀνειράτα* to decide their choice. Lucian on entering life was chaperoned by the vision of education, Hercules by that of virtue, and one of our prominent educationists by that of pedagogy. With myself, however, and perhaps with most of you, it has been a case of *urget necessitas*; but though the only influence swaying our choice has been hard cash, yet there is no one who has been an enthusiastic student of the Classics, to whom Cicero and Demosthenes have been a pleasure, and the *Iliad* and *Odyssey* a delight, who has not had his *θεῖον ἐνύπνιον*, his heavenly vision, in some shape or other, at the prospect of living over again for his classes with the noble and great who are gone, the honored and blest of former ages, and of making them live for the rising generation, as they have lived for himself, and as they have lived for Gladstone and Brougham. Some of us have even had a noble impulse to really benefit that rising generation intellectually in addition to drawing our salaries, and some few the lurking hope of being able to improve on old methods and old ideas of teaching Classics.

Into this dream of the neophyte, *amo, amas, amat* does not enter, at least as a pleasurable element, and the awakening in actual teaching brings many surprises. In my anticipation, reading Greek and Latin authors with the Matriculation Class was the one thing to which I looked forward with the greatest pleasure. In the disillusionment I find that I derive my greatest enjoyment from teaching elementary work in the junior forms, where I had expected to find drudgery. Mental dyspepsia on the part of the pupils caused by the surfeit of work forced on them by the examinations, and mental distraction arising from the multiplicity of subjects daily to be grappled with—the former causing a nausea and apathy towards school work, and the latter violating the greatest educational principle, attention—combine to bring about the result, and occasion the teacher as he considers the work done in the higher forms, a certain amount of despair—a despair heightened by the thought of what might have been, *Si mens non lava fuisset*.

The first disappointment to meet me was the fact that although at the School of Pedagogy I had been thoroughly instructed in the

Science of Education and in methods of teaching, yet on entering my first school I found myself teaching in very much the same way as I myself had been taught by the majority of teachers—though there is one grand exception—under whose instruction I came, whose methods did not pretend to follow the principles of the development of mind. The fault lay not with either Dr. McLellan or his assistants, whose work has been invaluable to me, but was owing to no provision having been made for teaching real pupils in my course at the School of Pedagogy, and to my having no opportunity to study the child; and instead of having the subjects of my future instruction to experiment with, my knowledge of the principles of teaching resembled that of men who study chemistry from books, without experiments with actual chemicals, and consequently a great deal of the benefit to be derived from that institution was lost, for the time being at least. Thus as I had no practical knowledge of the child, my teaching instead of taking into consideration the state of the pupil's knowledge and of the development of his mind, as well as the presentation of the subject to be taught, concerned itself with the latter merely, and at the outset my lessons resembled those of the text-book, a logical presentation of the subject, suited to a man of twenty rather than to a boy of thirteen. Thus, then, like an amateur orator who has prepared in his study a very fine speech and memorized it, but who when the time comes to deliver it finds that the circumstances have so altered that his finely prepared speech will not suit the occasion, and has to come down to very commonplace eloquence, I, too, had for the time at least to cast the principles of pedagogy to the winds, and to make use of the same hackneyed methods by which I had been instructed, and which have rendered the line of Virgil applicable to the school-room: *Umbrarum hic locus est, somni noctisque soporæ.*

Yet I used these hackneyed methods in full conviction that they were wrong. The study of the Science of Education at the School of Pedagogy, the recollection of my own school experiences, and what little thought I gave to the problem of education, could not fail to make me see that there must be some reason other than stupidity for a great many of the difficulties which boys used to encounter. That they knew all their verbs in terms of *amo, moneo, rego* and *audio*, that they had such insuperable difficulty with the exceptions, that they did not know as much about a book of Cæsar after a whole year's study as they know of an English story of much greater length read through in an hour, were phenomena to be attributed not so much to inborn stupidity as to bad teaching. I recognized that these old-fashioned methods did not follow the principles of the development of mind, and that they ought to be supplanted by more scientific methods, which had at heart the real education of the child, the drawing out of his faculties instead of cramming in the knowledge of the teacher—methods wherein the individuality of the teacher would be separated from that of the compiler of the text-book in use. I

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believed there were abstractions in the teaching of language too great for boys of thirteen, and that they ought to be reduced to a minimum, that Latin words ought to mean ideas and not English words, that *equus* ought to call up the picture of a horse to a boy, rather than the English word *horse*, and that methods could and ought to be adopted which would make the ideas in a Latin sentence as vivid and presentative as those of an English sentence. But though convinced from the lectures in the Science of Education that these old methods were wrong, I used them at the outset chiefly because the instruction at the School of Pedagogy had been in the general principles of education, and I had as yet had no experience in dealing with an actual class. To me, at the beginning the subject was the important thing and not the class; and it was only on becoming acquainted with the pupils to be taught and the character of their needs, that I was able to apply, and only tentatively at first, the principles of education I had learned. Apart from this point, the School of Pedagogy has been of the greatest value. It has established a perspective in education, it has given an insight into what education really is, and what the aim and scope of teaching ought to be; the lectures on methods outlined by examples the direction which teaching should take; in short, it has presented the general problem of education, leaving the solution in matters of detail to myself, the working out of my own methods by the actual study of my classes, and though this is for a time an inconvenience, it is perhaps better that the teacher should have this to do, and should not be ready-made.

My greatest disappointment at the outset, however, was in Greek and Latin grammar, and I think that I am here giving the experience of every new teacher, whether he cares to own it or not. As an honor graduate in Classics I had every confidence in my knowledge, and that as far as the teaching of grammar was concerned, the sailing would be plain; but it did not take more than one day's teaching to show me the character of my knowledge in that subject, that it consisted of a chaotic mass of unorganized materials which for teaching purposes was not knowledge at all, and the maxim of the Delphic oracle, *γνώθι σαυτον*, was driven home in a very forcible manner. This was the case in grammar particularly, though also to a certain extent in the other subjects as well. While I knew the rules of grammar and enough of the rules of syntax to avoid any serious mistakes in writing prose, and could give correctly the genitive plural of all the words which had *ium*, yet in teaching, the mere knowledge of *how* to do a thing will not do at all, unless the pupil understands *why* he does it; and in the case of an irregularity the explanation of it is the hammer which drives the nail home. What I lacked was not knowledge, but organized knowledge, and it is likely that many a young teacher has found his case very similar, if he cared to confess it.

The reasons for my short-comings—and when I say short-comings

I do not mean any inability to tell the pupils *what* to do, but the inability to tell them *why* they should do it—are due in a large measure to the character of my own work, but the High School and the University have each to take their share of the blame. With one grand exception, whom I shall always remember as an oasis in the desert of my High School classics, the teaching in the High School consisted of the two-pages-for next-day system, memorizing of book rules and guides on the irregularities, and rules for gender which were forgotten as soon as learned. The majority of the teachers, having said that a thing was so, considered that their duty had been admirably performed, and with arms folded each one said to himself, *ego certe officium meum præstiti*. That the Roman had any reason for thinking a thing out differently from an Englishman, and expressing himself accordingly, and that there was any reason in his vagaries of language, why he said *turrium* but *trabum*, why he said *monui* but *complevi*, never struck the pupil because the master had never taken the trouble to think it out, and so memory had to do double work for the memory and the understanding as well, a task for which in many cases it proved itself entirely inadequate. The University, on the other hand, acting on the supposition that a pretty thorough knowledge of grammar had already been acquired in the schools, and looking on it as a matter altogether beneath its high and lofty ideals, devoted itself to giving a knowledge of the literature of the Greeks and Romans, neglecting systematic grammar altogether as a dry and prosy subject. True, a great deal of light was thrown on the subject of grammar in connection with the lectures on the text, and by reading texts, doing sight translation and writing prose, the use of correct forms became a habit; but this process lacked one essential, that of organization. A series of valuable lectures in grammar was commenced in the last two months of my fourth year, which merely showed me how much I had missed during the other three years and a half, whereas had they been commenced in my first year, my knowledge of the ways of thinking of the Greek and Roman, and the reasons for his expressing himself as he did, would have been increased tenfold, and I should have had the opportunity of using the knowledge acquired, and of testing it in connection with the reading of the texts. Thus the opportunity for a comparative study of grammar and the science of language was lost, and I departed from my *Alma Mater* to the school with a knowledge of the rules of grammar, it is true, but in a condition too unorganized and too mechanical to be of value to a teacher; a condition of things which, to my mind, should not exist, believing as I do that grammar, intelligently taught and intelligently understood, is one of the best educational instruments which we have on the High School curriculum, and that of the University as well.

And when I say this about grammar in the High Schools and the University, I need not confine my remarks to the Classics. From

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modern language teachers, with whom I have conversed about this subject, I have learned that their case is similar. The University appears to leave the whole matter to the schools, forgetting that in order that the work may be thorough there, the teachers must be thoroughly trained, and that that training must be given by the University.

But my own difficulties and perplexities on which the school failed to throw light have their use in directing my teaching now. That I myself have had a difficulty with a point which was long clearing up, is a sufficient guarantee that the average pupil will find trouble there also, and that if he is to understand it some other method of enlightenment is to be adopted than that which caused me many a hopeless jumble; where teacher's telling and memory work have failed in my own case, they are not likely to be successful in the case of the schoolboy now. Thus, my own schoolboy experience brings to me the recollection of the rocks in my own path, and the necessity of avoiding them in teaching by other methods than those which in my own case were a failure.

These difficulties lay chiefly in the irregularities; I never could remember the words which had *ium* in the genitive case, the declension of *deus*, of *ναῦς* and of *οὔτος*, until by actual practice and continual meeting with them in the texts, they were so dinned into me that I could not forget them if I tried. In each of these cases an explanation of the irregular forms seems to me to be the way of nailing them in the pupil's mind, and even though it be not absolutely correct it will still answer the same purpose. Take, for instance, *deus*, which is in the singular uncontracted, but contracted in the plural, although the same form *dei* is common to both. A boy in the first form wanted to know why that was. I was at a loss for a while, but finally explained that the Romans were polytheists, and, like other mortals, were given to profanity, that men when profane are generally under the influence of passion and speak hastily, and do not use long expressions where shorter ones are just as expressive; that these contractions occur in the cases which would be used most frequently in swearing or in addressing the Deity, and do not take place in the singular, because when they swore by one god they used his name, *Mehercle*, *Edepol*, etc., and that there, too, the same contraction occurred. That was at the beginning of the year's work; only a couple of weeks ago I had an examination, and gave the word *deus* to decline. The explanation may, or may not, have been correct, but it fastened the word so securely in their memories that only two or three out of a class of 25 made a single error.

Οὔτος is another word whose declension I never could remember; but by an attempted explanation of the irregularities, that the vowel preceding the *v* in the first syllable, depended by attraction on the vowel of the ending, according as its basis was *α* or *ο*. The matriculation class have remembered it without any difficulty, though even at the University I have written *ταύτων* in genitive plural feminine.

These explanations give little trouble, and save the pupil a lot of useless and ineffectual memorizing, as well as excite his interest in finding out reasons for himself, and it is among these very irregularities, which used to be the bane of my existence, where I have taught my most interesting lessons, most interesting to myself and to the class. *Docendo discimus*, says the proverb, and by teaching Latin grammar I have learned a great deal. To teach this subject intelligently one has to understand all around the points he wishes to teach, top, bottom and sides, and to give attention to points which would otherwise be passed over; and, further, to become acquainted with the laws of thought both of the Greek and Roman, and the Englishman, and how they differ in expression, and why. In short, I have learned more grammar in my year of teaching than in nine years studying it; and to one who meditates taking a post-graduate course, I think a year or two years' teaching indispensable, to organize the knowledge acquired in his undergraduate course.

I have already mentioned that my first year's teaching has been necessarily a year of experiments in methods. I shall merely mention two which have had a measure of success. How to obtain the interest of the First Form has been a vexed question to me; the average boy does not find much to interest him in exercises consisting of sentences such as, "The boy is giving another feather to the girl," translated out of the book and corrected; and it is not surprising, for there is nothing in them to raise a responsive note in his bosom, and if the getting of his interest is not done by the teacher it will never be obtained by the book. In order to vary the monotony of book exercises, I have, for some time past, had them bring in their own exercises in the shape of sentences of their own composition on any subject which took their fancy. There are twenty-five in the class, and twenty-five such sentences make an exercise long enough to cover a whole space. This expedient has a fourfold advantage: as I read them out with errors corrected they have a splendid exercise in translation at hearing; the correction of these sentences which are wrong, is good practice in false syntax; the words discovered and used by twenty-five different pupils daily widen their vocabulary; and, lastly, the sentences have the interest of the pupils, for what is interesting to one is generally interesting to another; they are to them presentative because they are expressing their own ideas, and possess variety and novelty, for according to the interest of the particular pupil, their subjects vary from remarks about their teachers and fellow-pupils, to dog-fights and the episodes in which the schoolboy takes delight. This expedient was used merely as an experiment, but it has been so successful that if I neglect to mention this usual weekly exercise, they do not fail to remind me of it, and I continue it in the full conviction that if it is a means of keeping up the interest of the class, it is right.

Another matter to which I gave a good deal of attention was the

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understanding of the Latin complex sentence, for in this there seems to be a great mountain of difficulty for the boy who is beginning to translate Cæsar. Aware from my own experience that it was useless to let him blunder away in the hope of its clearing up for him some day, I first tried the expedient of taking up the complex sentence as a simple one, calling attention to the fact that each clause was really one of the parts of speech, but without any material result, and I again despaired until a couple weeks ago I resolved to try another expedient. Instead of wandering away in the labyrinth of the complex sentence, I had the class—the Second Form—first get out in their order all the ideas going to make it up,—for they can recognize without difficulty the idea in a clause—and make of each idea a simple sentence; then without the book put each idea or simple sentence into Latin—a capital exercise in prose composition; then group these ideas wherever a number were connected and grouping could be done, and having done all this and seen the relation between the thoughts, and having in fact gone through all the processes of thought which Cæsar went through in its composition, supply the connectives, and of themselves again build up the complex sentence. This is an experiment I tried as late as week before last and consequently I am not able to give definite results, but on that occasion there were at least some in the form who were able, after all the work had been erased and books closed, to write out from memory the whole chapter on Cæsar's landing in Britain. The same plan also worked excellently in getting a good English translation: for half the reason why translations are so bald is because the Latin means nothing to the class, and they translate word by word instead of expressing the idea which they do not grasp.

In my year's teaching I have met, and still continue to meet, with many disappointments, particularly in the teaching of Greek and Latin authors, chiefly because it is there I expected to find, and ought to find, the greatest pleasure, and there are so many possibilities which tantalizingly present themselves, but fly as soon as one follows; and here chiefly have I been confronted with the ancient antagonism between the idea and the reality, what one *should* reach, and what he *has* to reach.

There is in the teaching of Latin and Greek abundance of opportunities to make our subject exceedingly interesting both to ourselves and to our classes—more interesting, I believe, than any other—but we are prevented from making use of even a fair percentage of them. We might in the junior forms create a passion for Classical literature, and also develop the imagination of the pupil by reading or telling stories of the ancient Classical world of the gods and heroes of Greek and Roman story in which we ourselves took delight as schoolboys, and from which we derived in a great measure our inspiration to study the classics. We might read to them the Lays of Ancient Rome, or read from some interesting history of Marius, Sulla,

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Pompey, Cæsar, Alexander and other ancients who have made history, which would not only interest a boy in the languages which these men spoke, throw light on their literature and arouse the main essential in education—interest—but also stir up in the boy's breast that prelude to a laudable ambition—hero-worship. We might, by way of varying the ordinary lesson, read with these classes easy Latin on the subject of these men, where the subject-matter would arouse sufficient interest and attention to enable the pupil to retain a fairly vivid impression of the garb in which it is clothed. In Latin and Greek poetry we ought to read each work in conjunction with an English poem of the same stamp, encourage poetical translations, criticize the various verse translations, Pope, Dryden, Derby, etc., and adopt many other ways of bringing the poetical nature of Homer and Virgil home to the pupils' mind, instead of the present monotonous round of prose translation and parsing. In philology there is an abundance of interesting problems, illustrations of Grimm's Law, the relation of Greek and Latin to each other and to the other languages of Europe, and the use of language as a proof of history. The writing of original compositions in Latin and Greek, translating at sight and at hearing, encouraging the understanding of Latin read aloud without translating, and a greater use of the *viva voce* method in teaching them at present, are things which we would all like to carry out. But these expedients and methods which would not only be pleasurable to a teacher who is interested in the unfolding of the youthful mind, but also profitable to the pupil, as widening his range, arousing his attention, developing his imagination and reason, and educating along true psychological principles, though occasionally resorted to, have generally to remain as experiments, through crowded time-tables, short lesson-spaces, pressure of examination, the necessity of covering a given quantity of work in a given time, and the pressure of parents who are too eager to hasten on their boy's promotion. Thus, *bubulco judice*, we are condemned to forego a great deal of pleasure for the ordinary drudgery of the schoolroom, which makes the teacher, as Mr. Carruthers has said, appear to carry on his shoulders and countenance the intellectual cares of the universe.

A word about Ancient History and I am through, and I mention it, not that I may give any information as to what I have myself done, but that I may get suggestions from others. It is the subject from which I expected to derive the greatest pleasure, but after teaching it for three terms I have not yet experienced the paradise. Ancient History is a subject which cannot be severed from the Classics, and is, in fact, one of the greatest incentives to their study. It was the reading of Rollin's Ancient History, when I was still at the Public School, which created my preference for Classics on entering the High School. At that early age I read it nearly through, for it proved more enchanting and more interesting than all the stories for boys then within my reach; the Miltiades and Themistocles, whom I

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still love, are not the characters of Grote and Curtius, but the heroes of Rollin's page, and had my taste for the study of Classics depended on a book like the present text-book, it should never have been formed at all.

What the teaching of History should consist of at this stage of the pupil's development is a very important question, as I have found by the partial failure of my own year's work with the Junior Leaving Form. With regard to the Greek History, I took it up politically, and from the philosophical standpoint of cause and effect, dwelling on such matters as the evolution of government, the reflex effects of the Greek colonies on Greece herself, the discipline of Lycurgus, the legislation of Solon and the democracy of Pericles: but, though the older ones did profit by these lessons, and have a good grasp of Greek History, yet the teaching must be for the youngest in the class and not the oldest. I have felt that my lessons have not been interesting to the younger ones, and I have found out that what the boy of fourteen wants is not the abstract state, but the concrete individual. The statement has been made by a Frenchman, whose name I do not remember, that whenever he read Homer he felt twenty feet tall; and after all should not the history for the growing youth be like Homer, a history of men and of heroes, whose motto has been *αἰὲν ἀριστεύειν, καὶ ὑπεῖροχον ἔμμεναι ἄλλων*, instead of social and political abstractions which he does not comprehend. Herodotus comes in time before Thucydides, and there is in education the time when Herodotus and his stories are the proper thing, and the time later on for the Thucydidean spirit in history: the one belongs, I think, to the school, the other to the university; the one to growing boyhood, the other to maturer age. But for neither of these periods is the present text-book of value. In order to make it brief, all the interest is taken out of it for the pupil, and its study becomes the grinding of dry bones, a gathering of dates and names which will never inspire a pupil's ambition, or cause him to emulate the men of whom it tells. And taking the second conception, the philosophical interpretation of cause and effect, there too it loses value: and thus in making it brief, the boy is compelled as it were to chew dry biscuit, when, by the addition of a little moisture, its quantity would indeed be increased, but it could be swallowed with a great deal less difficulty. In fact, had we a text-book where history is taken up biographically, and made as interesting for the boy as that of Rollin, half the work would be done, for the pupils would read it of themselves, and there would be little need for the teacher to dwell on points which now take up his time.

In conclusion, then, my year's teaching has organized my knowledge as it was never organized before; it has established a perspective of what is difficult and what is easy; it has given me experience of the principles on which knowledge comes; it has satisfied me that by teaching Classics no irreparable injury is done to the youthful mind,

as some seem to think. The classical boys are neither book-worms nor ancients, and no pupils are found more persistently in the reading-room than they, posting themselves on current events, and none take a more active part on the school paper, in the school societies and school sports. I have not yet found any of the monotony I had expected at teaching the same things over and over again, and should the original enthusiasm fade away, it can easily be renewed by drinking once more from the fountain head.

On the whole, I am able to say with Wordsworth, "Joy have I had ;" and if for entering teaching I do not bear away my recompense, the fault will be my own.

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WORDS THAT WILL NOT BE PARSED.

W. M. LOGAN, M.A., HAMILTON.

When this paper was written for the Easter meeting of the Classical Association, it had no ulterior object but the bringing into prominence some of Cæsar's grammatical idiosyncrasies. Having been hurriedly written at that time it required a good deal of revision, and in its present form differs somewhat from its original character. Its object, however, is the same, seconded by the hope that its publication may prompt some of our classical students to further investigation of the value of Comparative Syntax, a country almost wholly unexplored.

Note the following few of the many irregularities in Syntax to be met with in Cæsar's Gallic War. The list is confined entirely to the Third and Fourth Books.

In Book III., Chapter i., we find, "Galba, missis ad eum undique legatis, constituit cohortes," etc., where "eum" refers directly to "Galba," the subject of the sentence.

In Book III., Chapter v., is written, "Cum jam amplius horis sex continenter pugnaretur," etc., where general usage would compel "horas." We find, also, in Book IV., Chapter xxxvii., "Atque amplius horis fortissime pugnauerunt." To the writer, it seems very misleading to explain either of these cases as being a form of the Ablative "within which." How could the first example be so understood?

In Book IV., Chapter ii., may be found, "Equestribus proeliis saepe ex equis desiliunt." Is not "proeliis" here a very near relative of the Ablative Absolute, rather than a pure local Ablative?

In Book III., Chapter xvii., we read, "Sabinus castris sese tenebat," where "castris" is so frequently explained as a compromise between the local and instrumental Ablatives. Surely this will bear further inspection.

In Book IV., Chapter xxi., we find, "Quibus auditis, liberaliter pollicitus hortatusque ut . . . permanerent, eos domum remittit," where custom suggests "quos auditos." Exception was taken to the above criticism, and the suggestion made that the passage means, "Having heard these things," etc. The suggestion is untenable, and the contrary in the writer's opinion easily proved, but space forbids the discussion of the point here.

In Chapters viii. and xvi. of Book IV., we have marked examples of Cæsar's violation of the usage of tense-sequence in indirect narration. The examples are patent, and there is no need to dwell upon them. Other instances are numerous, and a collection of them would certainly be interesting reading.

In Book IV., Chapter xxvii., we see, "Obsides daturus quaeque im-

perasset facturos polliciti sunt," and in the same chapter, "Ignoscere imprudentiae dixit." Strange that these two irregularities of the same nature should occur within a few sentences of each other.

Again, in Book IV., Chapter xxi., we have, "Qui polliceantur obsides dare atque . . . obtemperare," occurring just beside one of the cases above noted.

Now, to say that Cæsar is writing bad Latin in the quotations given, or even to try to excuse him on the ground of carelessness, while the implication remains that he is writing bad Latin, both seem blameworthy.

There are two kinds of language in this world, and there always will be two, a psychological and an analogical. The highest form of the first is the illiterate talk of the child, the highest form of the latter is the crystallized thought of a cultured writer.

To take a humble example borrowed from Kellner's Historical English Grammar, a child wants butter, and says "Butter!" We, in our wisdom, trained analogically, say, "Please, pass me the butter," and use this form for no better reason than because other men have used it before us. The order, psychologically, would probably be, "Butter, me, pass, please."

The grounds for Cæsar's deviations from rule must, in the writer's opinion, be sought in the colloquialisms of Rome in Cæsar's time. What conversation allows, literature often rightly neglects. The subject is interesting, and will well repay the inquirer.

One more quotation, this time from Professor Greenough: "It cannot be too often repeated, that ancient literature is addressed to the ear, and proceeds like conversation, with changes of the point of view, and corrections as the thought proceeds."

HOMER IN THE HIGH SCHOOL.

[*An Abstract.*]

E. O. SLITER, M.A., KINGSTON.

The question as to what class of students should study Homer is not simply one of ability to read and understand him. As Greek must be commenced with Attic, it should be evident, in view of the differences in dialect and vocabulary, that a fair knowledge of Attic inflection and syntax, with something of vocabulary, is necessary before Homer is begun. The average pass candidate for matriculation does not possess these requisites; and in consequence—though it must be admitted that he will find Homer interesting and comparatively easy of comprehension—any advantages he may derive will be far outweighed by the confusion and indefiniteness in grammatical knowledge which is the inevitable result when Homeric Greek is studied under these conditions. The inference is, that more time for preparation must be allowed, or Homer should be dropped from the pass matriculation curriculum.

For well-grounded students Homer is excellent. On the principle of doing one thing at a time, it is recommended that (*a*) translation, grammatical and linguistic study, (*b*) literary study and (*c*) study of scansion and metrical reading, be kept distinct so far as possible. Let one careful and thorough reading be devoted to the first of these; then let portions of the book, noteworthy for style or sentiment, be taken up for analysis, in particular such passages as contribute to our knowledge of the modes of life and thought characteristic of the heroic age. Then a series of lessons may be set apart for the study of metre, scansion of numerous lines, and metrical reading of selected portions. Such a method of treatment requires very little more time than is ordinarily spent, while the gain to the student in definiteness of knowledge must be considerable.

MATHEMATICAL AND PHYSICAL ASSOCIATION.

ON THE FUNDAMENTAL CONCEPTS, AND METHODS OF OPERATION IN GEOMETRY.

N. F. DUPUIS, M.A., KINGSTON.

Ladies and Gentlemen,—I should be very much pleased to be able to attend all the meetings of this Association, and to take an active part in furthering its interests, which, as I understand them, are the general consideration, and discussion, and improvement, if need be, of the mathematical teaching and general mathematical interests of Ontario, and, through Ontario, of the whole Dominion. I should like to hear discussed, not only the character of the mathematical teaching in the High Schools and Universities of our Province, but also the character of the mathematics taught. For mathematics, unlike classics and modern languages, and much like speculative philosophy, of which it in reality forms a part, is capable of being developed along different lines; and it may require a great amount of discussion, and thought, and experience to determine which line of development is best adapted to all the varying circumstances which surround school and college life in our country.

I have said that I would be much pleased to attend these meetings. Circumstances, however, frequently make it impracticable. I have no Easter holidays, and, living at a considerable distance, I can scarcely get here without doing more or less of an injustice to my classes. I can only promise you, then, that I will be present whenever I can fairly do so, and I trust I shall always be found ready and willing to do what I can for the good of the Association.

I am going to address you upon the subject of geometry, and I propose to give you some of my ideas upon the fundamental conceptions of the science, and upon the lines along which, in my opinion, the subject should be developed.

Upon this matter I have thought a great deal for some years past, and I can assure you that what I shall give you are conclusions which have been arrived at after full deliberation upon my part.

I start with the principle that every science should, as far as possible, be developed from a natural and, I am disposed to say, a naturalistic basis.

Our knowledge is principally derived from experience, and the modern principle of evolution tells us that what we call our intuitions are but the inherited experiences of the human race. Arithmetic

had its beginnings in the experience of primitive man in counting objects for his own safety or convenience, and elementary algebra is only arithmetic extended and generalized. So also geometry is a growth which is rooted in man's primitive experience, and which has grown with the developing powers of the human mind. Hence, I hold that pure abstractions form poor and unsatisfactory beginnings, however useful they may be thereafter, and that in establishing first principles we should, as far as possible, go back to experience.

Let us consider first, then, the geometric element which we call a line; and in doing so, I shall generally refer to a line which is ostensibly straight, as being the simplest geometric element, although such a mental reference is by no means necessary.

The only conception that we can form of a line must have some analogue in our experience, and hence our definition of a line should be in some way related to that experience.

Clifford says that a line is the edge of the black band which we make by drawing a pen across paper; but he admits that this is not a good working definition. Euclid's definition of a line, as being that which has "length without breadth," is too abstract, and is impossible as a concept, since there is nothing to be conceived of. Besides, length alone is not what constitutes a line, inasmuch as it must at the same time have both direction and position.

It appears to me that the only natural way is to start from the real and the physical and to work our way up to the abstract and the geometrical, if we are to furnish or to retain any firm ground for the formation of concepts. No person ever thinks of a line as being length only, for in his mental consciousness there is always present the idea of a something, as attenuated as you please, but a something which extends from point to point along the line. The first idea seems to be that of a visible physical line. From this we gradually eliminate the character of breadth, until it ceases to be considered as an elemental part of the line, but in our conception we still cling to the physical line, though vague and infinitesimal in breadth it may be, as the something which marks out the course of the geometrical line. This does not in any way interfere with the logic of our argument, for wherever the idea of breadth intrudes itself, we cast it aside as something not belonging to the line.

It seems to me, then, that the proper way to define a line is as the limit towards which a physical line approaches, when its breadth is continually diminished. In this way the physical line passes away into the invisible, but whether visible or not, we retain a consciousness of a something which, passing along the physical line and being directed by it, and yet forming no part in its breadth, is the geometrical line. This gives us not only a real concept, but a true one, which includes along with the idea of length those of both direction and position; and it seems to me that this is the most logical definition that can be given, inasmuch as it is in accord with experience,

possesses the required accuracy, and leads readily to the only conception of the line which our finite faculties are capable of comprehending.

Let us next consider *space*.

Euclid, and all geometrical systems which go under the name of Euclidian, assume that space is homogeneous, of one kind and one property throughout, and that the properties of a geometrical figure, whether relative or absolute, are consequently independent of the position which the figure occupies in space. This assumption requires that space shall be infinite and unbounded, for if it be bounded, those parts which lie near the boundary cannot be the same in every way as those which are situated far from the boundary. This is also, therefore, equivalent to assuming that a straight line can never return into itself, and that parallel straight lines can never meet.

Of late years, and especially since the advances made by Riemann, speculative geometry has entered upon an inquiry in regard to the necessity or the validity of the Euclidian assumption, and has shown that a whole system of geometry can be built up upon an entirely different assumption, and in fact upon several different assumptions in regard to space. In this new space several of Euclid's fundamental principles and axioms would be invalid, inasmuch as in this space parallel lines would meet, and a straight line would return into itself.

Thus Clifford, Helmholtz, and others have speculated upon the nature of what has been called spherical space, ellipsoidal space, etc., and Clifford has gone so far as to postulate that such phenomena as magnetism, electricity, etc., may be due to something like stresses brought to bear upon matter by its necessity, as a part of the solar or even stellar system of having to pass through a non-homogeneous space. And another mathematician has quite recently said that it can be proved to a certainty that a straight line can and does return into itself if sufficiently produced.

I admit that it is *possible* that the Euclidian idea of space may be false, but at the same time I hold that it is the only assumption that satisfies the logic of the human mind. It may be said that we cannot conceive infinite space. But neither can we have any logical conception of a space which is necessarily bounded, for it is a contradiction in thought. A bounded space necessitates the idea of a boundary, and therefore of something being beyond the boundary, and as that something must be space, our boundary is an arbitrary thing making a part of space lie without its own limits. So that with all deference to Clifford and to all others who hold like views, I still believe with Clark Maxwell that, whether the Euclidian assumption be correct or incorrect, space as a mental concept is necessarily infinite, and that what is called spherical space is in reality only a part mentally separated from the infinite whole, and endowed with such properties as may be supposed to belong to it.

Upon the assumption of spherical space, a plane becomes a portion

of the surface of an indefinitely great sphere, and a straight line becomes a great circle of the sphere. And as there is no doctrine of parallels in spheric geometry, so there can be no such parallels as Euclid defines, in spherical space. I do not think, however, that it is worth while to carry this subject any further, but Prof. W. B. Smith is evidently of the opinion that something should be said of this matter even in very elementary geometry, and he accordingly says, in his recently published elementary work, that either the sum of the angles of every triangle is two right angles, or the sum of the angles of no triangle is two right angles.

For my own part I dissent totally from such a view. To mature minds exercised in all the fundamental principles of the subject, such speculations as spherical space and four-dimensional space may prove to be both interesting and profitable. But if geometry as presented to beginners cannot be placed solely upon that rational basis which is in evident conformity with our powers and limitations of thought, it can be productive of nothing but bewildering confusion.

Let us next consider the straight line.

Euclid says that it is a line which lies evenly between its extreme points. But the meanings attached to the word evenly ($\epsilon\tilde{\xi} \iota \sigma\upsilon\upsilon$) are almost as numerous as the commentators on Euclid's works, and if these are not agreed as to the idea in the great Greek mind, it is not likely that our youths can make much out of it. A better working definition, and one that would have saved Euclid some theorems, is that "a straight line is the shortest distance between its extreme points," for this seems to be self-evident even to many of the lower animals, and it is certainly intelligible. Of course it partakes of the nature of an axiom, but not to a greater extent, I think, than Euclid's definition does.

My own opinion is that a straight line cannot be satisfactorily defined upon any principles such as those here involved.

The preceding definitions are both faulty, from the fact that the straight line as a geometric figure has no extreme points, and should therefore be defined without any reference to such points. This is expressed in the language of modern geometry by saying that a straight line goes to infinity, or extends to infinity. These expressions, while convenient and very suggestive, need produce no difficulties when one comes to understand what they really mean. Infinity, as thus employed, is not a place but a property, and the meaning of the phrase is that we can form no conception of any point in a line so remote that the line must necessarily stop there and cannot be produced beyond it. As this idea is necessary in thought, as it plays an important part in all extended geometry, and as some of the most beautiful and interesting extensions in the elementary portions of the subject are due to it, it appears to me to be most worthy of introduction into our teaching of elementary geometry.

But to return to the definition of the straight line. Prof. Halstead

thinks that in laying down the fundamental principles of geometry, such an indefinite and evasive thing as direction should be carefully excluded.

I would like to ask the reason why. Geometry has only two fundamental conceptions—length or distance, and direction, or, to express it mechanically, transference, which has to do with length, and rotation, which has to do with direction, and these two are totally and necessarily distinct from one another. Pure transference measures out distance, and pure rotation measures out angle, and the most forcible and natural definition of space that can be given is that it is that which admits of all distances in every direction.

That these two conceptions are independent of one another is patent to every person who thinks upon the matter, for no amount of transference can produce rotation, at least upon the Euclidian assumption of space, and no amount of rotation can produce transference of the point about which rotation takes place. The reduction of all geometry to these two conceptions is forcibly brought out in DeMoivre's formula, and the resulting geometrical treatment of the complex variable, as also in the related quaternionic method wherein all relations are expressible as function of tensors and versors, while these in themselves are so distinct as to be subject to quite different laws of transformation. It is also worthy of notice that while we have no system of geometry of any importance founded upon length alone, we have a whole complex system, spherical trigonometry, founded upon direction alone.

But some person may think that length is something real, tangible, absolute, while direction is not. That is a totally false idea. The very conception of length involves the existence of a line, and an inseparable property of a line is direction. Also, unqualified length is just as vague as unqualified direction. In geometry we always compare lengths; and in the same way we compare directions, and everyone who understands the English language forms just as definite an idea of what is meant by different directions as he does of what is meant by different lengths. In like manner, the statement that two lines have the same direction is just as definite and exact as the statement that two finite lines have the same length.

And how does Prof. Halstead define a straight line? He says that if a piece of space be taken from any part of the line, it will fit every other part. This definition may be ingenious, but certainly it is anything but elegant, and it seems to me that a piece of space is fully as evasive an idea as direction is.

Holding as I do, I should then define a straight line as a line of which every part, or of which all the parts, have the same direction. This subject of direction is too important to be dismissed just yet, so that I will return to it again after a short digression.

A piece of a line Euclid calls a finite line. No objection can be taken to this, except that it is somewhat long. Halstead uses the

word sect. This is certainly short, but I think unfortunate, as we have sects enough already; besides, it is too nearly related in sound to sector, which has an entirely uncognate meaning. I use the term line-segment, or, simply, segment, which means a part cut off. I am aware that the word is used in different senses, as the segment of a circle, of a sphere, etc.; but in these cases we always qualify the term by stating the kind of segment. If, then, it were agreed that the unqualified word should mean a segment of a line, as being the one most frequently brought to our consideration, no difficulty could arise in regard to its application. I may say, however, that I am not wedded to the term, although I do not know of any one that is better and more convenient.

The most peculiar perversion of terms that I know of is W. B. Smith's use of ray for a straight line. The word ray has a very definite and restricted meaning, and it occurs so frequently in physical work as to render it totally unfit to express the general line, as any two rays must radiate from a common point. We might possibly get along with it in plane geometry, but how would it apply in spatial geometry, where two lines do not necessarily have any common point, either finite or at infinity?

Returning from this digression with these ideas before us, I think that it will be easy to show that many other fundamental ideas, if not all, follow simply and logically.

Just as length is measured out by the translation of a point along a line, so angle is measured out by the rotation of a line about a point. The analogy is complete; but as translation and rotation each operates in its own way, it follows that angle can be measured only by angle, and length only by length; and as we practically measure a length by an inch, or a foot, or a metre, each of which is itself a length, so we practically measure an angle by a degree or a radian, each of which is itself an angle. The separation of these two conceptions has been one of the great strides in geometry, and any of you who have read old works upon trigonometry, such as Vince's, are aware of the great simplification that has been effected by leaving out the ubiquitous R for radius, and thus relegating length measures to their proper place.

Thence it follows that an angle is not the opening between two lines, nor is it, as one writer says, the pointed piece of plane lying between the lines, but simply a difference in direction; and when any two lines differ in direction they form an angle with one another, and this definition applies as well in space as on the plane.

Lines which do not differ in direction, *i.e.*, which have the same direction, are parallel, just as line-segments which do not differ in length, *i.e.*, which have the same length, are equal. Thus "parallel" holds the same relation to directions that "equal" does to lengths.

Thence it follows that parallel straight lines can not meet, for if so, they cannot have the same direction at their point of meeting,

and hence they are not parallel, or one of them at least violates the definition of the straight line, *i.e.*, a line of which all parts have the same direction.

Thence it follows, also, that the magnitude of the angle between two lines is the amount of rotation required to bring one line into the direction of the other, this rotation being expressed in any arbitrary unit; and this applies equally well to plane or spatial geometry.

Taking the analogous case, the excess of one line-segment over (or with) another is the *amount of production* which will bring one segment to be equal to the other, *i.e.*, the extent to which one line must be produced to make it equal to the other.

I do not wish just here to deal with what the French geometers call the *sense* of a magnitude, but these analogies between rotation and translation are worthy of careful study, if we are fully to catch the drift of modern geometry. It is then worthy of mention that when two lines differ in direction, either one may be rotated into the direction of the other. But these two rotations being exactly opposite in character, so that if one follows the other the effect is nil, are to be considered as having different senses, or, in the notation of algebra, are to have different signs. Similarly, if two line-segments differ in length, either may be brought to be equal to the other, the shorter to the longer by producing the shorter forwards, or the longer to the shorter by what we may call "producing the longer one backwards," *i.e.*, by making our productions, in these two cases, in opposite directions, starting in each case from the corresponding extremities of the two segments; and as in the case of the rotations, if one of these productions follows the other the effect is nil. These distinctions come out prominently in trigonometry, and owing to the great modern development of this subject, or probably, rather to the fact that this subject was not stereotyped by the ancient Greeks, the nomenclature is much more complete for rotations than it is for translations.

Then as to measurement of angle. Rotation in a plane is an operation which necessarily has a cycle, the rotating line returning, after a time, exactly to its initial direction.

This complete cycle, which I have ventured to call a circumangle, but which Prof. Smith calls a round angle, seems to me to be the simplest natural unit of angular measure, as there can be no question of the uniformity of our standard. Then the straight angle is best defined as one-half a circumangle, and the right angle as one-fourth of a circumangle, or one-half a straight angle.

This definition certainly makes all right angles equal, and thus avoids a weakness in Euclid's definition, which without extraneous aid, either does not necessarily make all right angles equal, or does not necessarily make four right angles with common vertex, fill the plane.

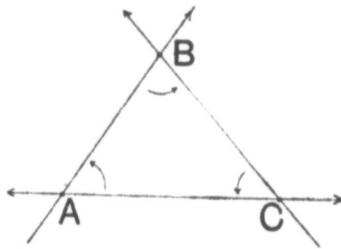
Example.

After this, it is easily shown that the sum of all the angles upon

one side of a straight line is a straight angle, or two right angles, and consequently, that if a straight line is rotated through two right angles, it is reversed in direction, and conversely.

Taking now these ideas and definitions, in conjunction with the Euclidian assumption of space, the theorem that the sum of the three angles of a triangle is two right angles, follows in the most direct and simple manner.

ABC is a triangle. Rotate the side AC about the point A until it comes into the position AB, as indicated by the arrow. This rotation describes the angle A. Now rotate AB about B until it comes into the position CB. This rotation describes the angle B. Lastly, rotate about the point C until CB becomes CA, and thus describe the angle C.



We have thus described the three angles of the triangle, but in so doing we have reversed the direction of the original line AC. Hence the three angles of the triangle are together equal to a straight angle.

Numerous illustrations might be given of the application of the same prolific principle, but the following one, which finds an application in the theory of the mariner's sextant, must suffice :

ABC is a triangle. AP, the internal bisector of the angle A, and CP, the external bisector of the angle C, meet in P. To prove that the angle APC is one-half the angle B : Denote the angle BAP by α , and the angle BCP by β . Rotate CP to direction AC about the point C. The angle described is γ . Then rotate AC about A into direction AP. The angle described is $-\alpha$. Therefore the angle APC is $\gamma - \alpha$.

Now rotate CB to direction AC about C, and rotate AC to direction AB. The whole angle described is $2\gamma - 2\alpha$, which is the angle B; and the theorem is proved.

Feeling that I have dwelt long enough upon this part of my subject, I shall proceed, after making a single remark.

For some centuries past it appears to have been the prevailing opinion in Great Britain that there could be no logical sequence in geometry except that given by Euclid, and that no methods of operation were allowable except those employed by Euclid. In fact, the English mathematician of the eighteenth and the earlier part of the nineteenth century was so lost in his admiration of Euclid and Newton that he either assumed that these two great men had completed the whole fabric of mathematics, and that there was little, if any more, to be done, or he was too busy in doing homage to his heroes to observe what was going on about him. As a consequence, and to his loss and lasting disgrace, he allowed the French and German geometers to leave him far behind in the race; and no English name, as a result, can be placed by the side of those of Steiner, and Gauss, and Poncelet, and Chasles, and Monge, as being equally or similarly connected with

the great advances which have been made in modern geometrical thought and methods during the past two centuries. Even yet Oxford and Cambridge, those two great eyes of British liberty, as they have been named, still cling to the old Greek methods, although an important association of nearly four hundred of the most eminent teachers in Great Britain, and including such men as Sylvester and Henrici, has been for years agitating for some radical reform in the methods of dealing with elementary geometry, so as to bring it into line with modern thought and modern usage.

These feel, as many intelligent teachers in this country feel, that however complete and finished Euclid's work may be in itself, it forms but a poor introduction to that line of thought which has been foremost in developing the beautiful system of modern geometry; for although the methods of the Greeks are to be praised for their logical presentation and rigor of demonstration, yet as Prof. Cajori has said, they are not capable of advancing geometry very much beyond the point at which the Greeks have left it. And even the Greek mind, in its progress, would have found it necessary to discover or invent new methods of dealing with the many problems which pressed for solution.

The tendency at the present time is to introduce, as far as is practicable, and in an elementary way, most if not all of the methods which play so important a part in the extensions of pure geometry, such as superposition, continuity, motion, sense, limits, etc., and with this tendency I am heartily in accord, for instead of leaving an absolute and complete chasm between the elementary geometry and the higher, it makes the former to be a natural and fitting introduction to the latter. A variety of methods not only gives interest to the work, but some methods are better adapted than others, even peculiarly adapted to throw light upon certain metric or descriptive problems, and to give the student a particular insight into their relations and generalization.

Thus, if Euclid had dealt with the circle in a somewhat different manner, and had employed the modern and more accurate definition of a tangent, his theorems on the tangency of circles might have been thrown into concise, elegant, and highly suggestive forms, which is certainly not the case with them at present.

But to proceed, superposition furnishes the simplest and most satisfactory of all geometrical proof, and lies at the basis of all geometrical demonstration. Our definition of equality depends upon superposition. For two line-segments are equal when their extreme points, or end-points, can be made to coincide by superposition, and angles are equal when their arms can be made to coincide by superposition. This fact should be put prominently before the pupil, that superposition is the ultimate resort, the final court of appeal in geometry, and that out of it, as one of the undeniable facts of our sense experiences, grows the whole structure and system of the science.

Euclid does not make as much use of this method as he might have done, and not as much, in my opinion, as he should have done. In many places in his First Book, especially in the celebrated *pons asinorum*, in the theorems concerning the equality of parallelograms, and triangles with equal bases and altitudes, and in other places, he might have employed superposition with a very marked advantage over the methods actually followed.

Instead of employing any word having a similar meaning to our word "congruent," Euclid uses the word equal in a double sense, and thus necessarily makes his demonstrations in many cases longer than they would have been if he had used a distinct word to signify capability of becoming one, or identical, by superposition.

In his Second Book he employs superposition to a considerable extent, but not always as happily as he might, as, for example, in his eighth. His ninth and tenth would have been much more readily proved by superposition than by the method there given. Take his tenth, for example.

He works, also, altogether by additions, and hence some of his results are not in the most convenient forms for modern use. Thus his fifth, Book II., is more conveniently stated thus: "The rectangle on the sum and difference of two finite lines, is equal to the difference of the squares on the lines."

Again, I cannot see that there is any necessity, in beginning a course in geometry, to mix up constructive geometry with descriptive, and I do not believe that it is the better way. We can prove, for example, that a given line-segment has one and only one middle point by superposition, and we thus come into all the properties of this point without entering into any graphical method of finding it. Similarly we define a right angle and perpendicular lines, and we found our geometrical arguments upon these definitions and not upon any construction for making a right angle or for drawing one line perpendicular to another.

There is no doubt that constructive geometry forms an excellent exercise for the student, and in the advanced parts of the subject may lead to new and beautiful theorems or to other important constructions. But it serves its purpose best as an exercise, when the student has acquired a sufficient mastery over elementary principles in descriptive geometry to enable him to make some choice of methods in his constructions. The mere learning of a construction from a book, and where no important principles are involved, and no extensions are in view, is of very little educational value.

The principle of continuity is of singular importance, if the theorems of geometry are to be considered in any other than a merely local and restricted sense. The beginner is very apt to think that the relations which he obtains by reasoning upon a diagram are in some way connected with that particular figure. If the figure is much changed in form, he begins to doubt as to whether his derived properties still belong to it; and if by continuous variation it passes into

some novel but quite logical transformation, he fails completely to connect the new form with the old, and he no longer thinks of applying to this new figure the relations of parts which he has shown to belong to the old. The student who has no deeper insight into geometry than this, can have no true conception of its scope and meaning, even though he knew every proposition in Euclid; for Euclid lends himself to this very restricted view of geometry by making at times several distinct cases where only one is necessary, and by carefully avoiding any attempt at generalization through the principle of continuity.

It should be strongly impressed upon the mind of the beginner that geometry is founded upon fundamental concepts and upon definitions, and that the diagram, although a necessary element in a demonstration, is nevertheless an accidental one, a mere type which, in general, may have any one of a thousand forms or sizes, provided only there are present the relations involved in the demonstration. The sooner this fact is grasped by the student the better it augurs for his future success in geometry.

But, as far as I know, the best way to enforce this principle is to vary the form of figures continuously, and to trace any changes, if there be any, which take place during the variation, and to push such variation to extreme and even to limiting cases.

To quote a recent author: "There are two principles which underlie modern plane geometry, and distinguish it from that of the ancients and from Euclidian methods. These are the principle of continuity and the principle of duality. By the principle of continuity is meant that a theorem should be of universal truth and application, and should involve no exceptions. If altered circumstances seemingly make the theorem untrue, the circumstances must give way, and not the theorem—that is, suitable conventions must be introduced in interpreting the circumstances, so that the enunciation of the theorem is not invalidated."

Now, in order to carry out the ideas of this writer, and to understand and apply this principle of continuity, it is essential that we introduce the convention of opposite senses, and express these by appropriate words, or, if we employ algebraical symbols, that we introduce the use of positive and negative signs. This usage renders geometry consistent with itself, and supplies the deficiency arising from the necessarily restricted use of the words of a spoken language. No word or phrase in language can be as broad in its significance and general in its application as the symbols of algebra or the relations of geometry, since these latter, from their very nature, include what, in a spoken or written language, may at times appear to be contradictory. Thus, the addition of $-b$ to a , or of -4 to 6 , is a subtraction rather than an addition, so that the sign $+$ has at times to express two seemingly contradictory operations. Similarly, we speak of dividing a line-segment when the point of division is on the line but without the segment, and thus apparently make a part of the segment to be

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greater than the whole; and we may also speak of producing a segment, when the operation actually makes it shorter rather than longer.

But these are necessities, not belonging to geometry, but arising out of the fact that the generalizing power of our reason is tied down by the restrictions of that language in which we have to think and to express our thoughts.

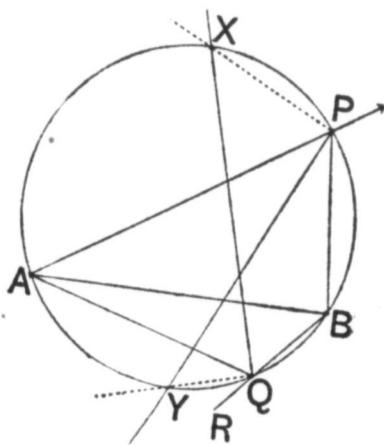
The carrying out of the preceding ideas involves nearly all the modern methods referred to, and also requires some modification in our usually accepted definitions of rectilinear figures. Thus a triangle should not be defined exactly as in Euclid's work, but as the closed figure formed by three non-concurrent lines and their determined points, or by three non-collinear points and their determined lines (using "line" for a straight line, as a curved line is usually called a curve). This way of defining a triangle, while perfectly exact, generalizes matters and avoids the necessity of speaking about sides produced.

Then such theorems as the following very general ones become intelligible: (1) "The sum of the three perpendiculars from any point to the three sides of an equilateral triangle is constant;" a theorem which is true for every point in the plane, if sense be considered, and the sides of a triangle be taken generally as the lines which determine the triangle; (2) "To find a point equidistant from the three sides of a triangle;" and the generalization of the construction which gives the one point, will give other three.

The principle of duality cannot be introduced to any great extent into elementary work, but it is worth while to lead the student to think about these things by showing him that just as two points determine one line, so two lines determine one point, and that just as four points determine at most six lines, so four lines determine at most six points; and as he can find four points equidistant from three given lines, it may interest him to try and find four lines which shall each be equidistant from three given points, which form the vertices of a triangle.

As illustrations of the preceding principles, I give the following as examples of the principle of continuity, and allied processes and their results:

1. AB is a chord of a circle, and P is any point upon the circle. Then since $\angle APB$ is one-half the angle at the centre, and standing upon the same arc, it follows that the $\angle APB$ remains constant while P moves along the arc from A through X to B . Now when P passes B and comes to Q , the $\angle APB$, apparently at least, changes to $\angle AQB$, which is the supplement of $\angle APB$, and this change appears to take place suddenly, just at the moment that P , in its motion, passes B ; and if P moves on along the circle, the reverse change will take place when P passes A .



This seems to interfere with the principle of continuity, for if the $\angle APB$ remains constant while P passes along any portion of the circle, it must be constant under all circumstances of motion in the circle.

Let us then examine this. Take X the middle point of the arc APB and Y the middle point of the arc AQB . It is readily seen that the internal bisector of $\angle APB$, and the external bisector of $\angle AQB$ pass through Y , and that the external bisector of $\angle APB$ and the internal bisector of $\angle AQB$ pass through X ; and as X and Y are fixed points, it follows that the internal bisector of $\angle APB$ *always* passes through Y , etc., and that accordingly the $\angle APB$ has not become the $\angle AQB$, but the $\angle AQR$, and that the principle of continuity is not violated.

2. $ABCD$, in Fig. 1, is a normal quadrilateral, and the sum of its angles $\alpha, \beta, \gamma, \delta$ is four right angles. Now let C move to the left until it passes over D , and gives the crossed quadrilateral, as in Fig. 2. The angles denoted by γ and δ

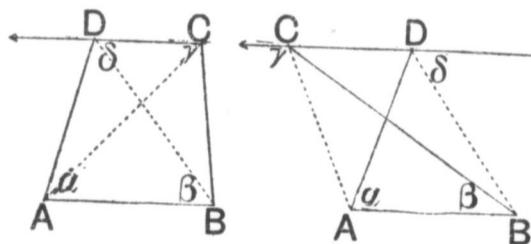


Fig 1.

Fig. 2.

in Fig. 1, become external angles γ and δ in Fig. 2, and the sum of the four angles $\alpha, \beta, \gamma, \delta$ is still four right angles; and not only is the principle of continuity inviolate, but its application shows us how we are to interpret the angles of the crossed quadrilateral.

3. The diagonals of the quadrilaterals 1 and 2 are AC and BD , and we thus see that in the normal quadrilateral both diagonals lie within the figure, while in the crossed one both diagonals lie without the figure.

If E and F be the middle points of the diagonals, then the relation $AB^2 + BC^2 + CD^2 + DA^2 = AC^2 + BD^2 + 4EF^2$ is equally true for both quadrilaterals—a rather remarkable fact when we consider the difference in the disposition of the diagonals, and of the join EF in the two cases, but a fully expected fact when we recognize that one figure passes into the other by a continuous motion, and that in all such cases the law of continuity must of necessity apply.

4. In the normal quadrangle, Fig. 1, we know that the joins of the middle points of opposite sides taken in pairs, intersect one another. And by noticing that this applies equally to the crossed quadrangle, we have at once the generalized theorem. If four points on a plane be connected two and two, by six lines, the three joins of the middle points of these connectors, taken in opposite pairs, pass through a common point and mutually bisect one another.

Illustrations similar to the foregoing might be multiplied almost indefinitely, but the following, which have relation to the sense of

segments, and which involve the employment of terms opposite in meaning, are all that can be given at present :

1. ABC is a triangle, Fig. 1, acute angled at A, and CD is perpendicular upon AB ; then, by a well-known theorem, $BC^2 = AB^2 + AC^2 - 2AB \cdot AD$, as expressed in algebraic symbology.

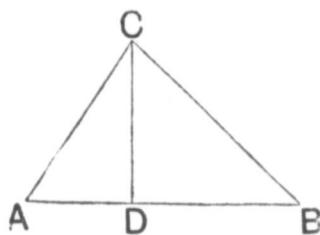


Fig. 1.

2. Let D be the foot of the perpendicular from C to AB, and let the triangle so change its form that D moves along and arrives at A, as in Fig. 2. Then, since AD is zero, the last term of the foregoing expression is zero, and we have the theorem, Euc. 47, I.

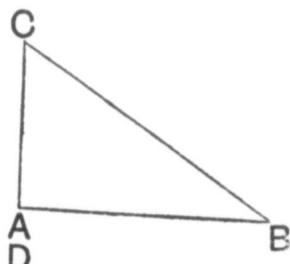


Fig. 2.

3. Let the triangle continue to change so that D passes through A and appears upon the opposite side of it, as at Fig. 3. Then, as AD is measured in one direction in Fig. 1, and in the opposite direction in Fig. 3, the segment AD has opposite senses in these two cases, and as we have written

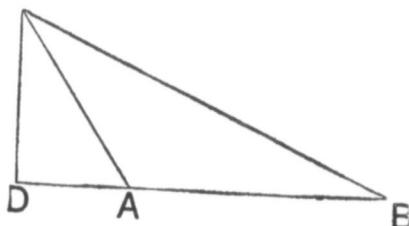


Fig. 3.

$AB \cdot AD$ with a negative sign in the case of Fig. 1, so we must write this rectangle with a positive sign in the case of Fig. 3, and we then have theorem Euc. 12, II., which applies to obtuse-angled triangles. Or, if we see fit to state the theorem in words, we say that for the acute-angled triangle the square on BC is *less* than the sum of the squares on the sides AB and AC, and in the case of the obtuse-angled triangle, *greater* than the sum of these squares by twice the rectangle on AB and AD.

4. If, in Fig. 1, C comes down to the line AB at the point D, or any point between A and B, the theorem reduces to Euc. 4, II. ; and if C comes down to D, in Fig. 3, we obtain Euc. 6, II. Thus we learn that the five theorems referred to are all interconnected, and in fact that they are all modifications, or rather, particular cases of one general theorem.

As a final illustration, we may take the following: Modern geometry recognizes the fact that every plane angle has two bisectors, an internal one and an external one, and it properly assumes that every descriptive and metrical property belonging to one of these bisectors belongs also in some way to the other. In some cases this is very obvious, as, for example, that the internal bisector and the external bisector, of the same angle of a triangle, divide the opposite side in the same manner, the first one internally and the second one

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In other cases, however, a change of word has to be introduced which is symbolically equivalent to a change of algebraic sign, when we pass from one bisector to the other.

For example, if ABC be any triangle, and P be any point on the internal bisector of the angle A , the *difference* between PB and PC is *less* than the *difference* between AB and AC . But if P be on the external bisector, the *sum* of PB and PC is *greater* than the *sum* of AB and AC .

Here we notice the change from *difference* to *sum* and from *less* to *greater*, and this may be taken as a typical example.

These illustrations might be extended at pleasure, but I feel that I must draw these remarks to a close, although I have not overtaken one-half of the matter that passed through my mind when I began the preparation of this address.

I would like to have discussed the subject of purely descriptive geometry upon which Euclid scarcely touches at all; to have dealt with metrical geometry in its relations to the fundamental principles and rules of mensuration; to have considered the legitimacy, the methods and the advantages of employing, not algebra, but algebraic symbolism in geometric investigations; to have dealt with the matter of ratio and proportion, and the theory of similar figures in the light of modern developments, and to have dwelt for a little upon the aid which geometry receives from algebra, and upon the light which geometry, in many of its constructions, throws upon algebra, and especially upon the theory of the quadratic and other equations. But these must be left for some future time, if indeed we are all spared to see the advent of such a time.

And now, in conclusion, there are two ways which lead up the steep ascent of the hill of geometry. One is an old pioneer road, cut through by mighty workers and without the aid of modern appliances, and travelled for ages by thousands of anxious searchers after the truth which lies hid in the *divine science*. Every obstacle has been removed, and not a stone or a weed remains to obscure the path, which is trodden smooth and hard by the thousands of passing feet. But on either side the underwood stands close and conceals from view the surrounding regions, and no promising vista spreads out to cheer the plodding traveller.

The other way is a broad and a new one, less travel-worn, but leading its frequenters through open fields and more attractive scenery. Here it leads into the shady grove where the toiler may rest—there it opens out into wide expanses and flowering meadows, and all the while the sweet radiance which emanates from the summit of the hill, rests on all and over all, and binds each to each in the bonds of universal and eternal truth. Of these two roads it is ours to make the choice.

PUBLIC SCHOOL DEPARTMENT.

DEFECTS IN OUR PUBLIC SCHOOL SYSTEM.

A. McMILLAN, TORONTO.

Our school system is a fruitful theme for panegyric. Visitors from the Old World and the New speak of it in terms of unstinted praise, and we need not doubt their sincerity. Have we not free Public Schools at almost every door, with an army of trained teachers? Have we not a very complete system of High Schools; and, to crown all, a university which is the pride of every Canadian? With this evidence before us, it would seem rash to say anything which could be construed as a reflection on any part of our system. Yet, educational systems, like all else, obey the laws of evolution. In their growth and development they are susceptible to environment, and are liable, at times, like other things, to exhibit unhealthy tendencies. Pruning and training may be necessary here, as in the growth of the tree. We do well, in educational matters, as in business, to take stock occasionally that we may know how we stand. I have, therefore, no apology to make for what may be regarded as a stricture on some phases of our school system—a system which we are pleased to say merits to a large extent the confidence of the people.

In dealing with the subject it will be necessary, following the line which I propose, to refer to our school system as it relates to the Public and High Schools, and in doing so permit me to observe that the most palpable defects of our Public Schools are due partly to a wrong conception of what the Public Schools are for, and partly to an undue predominance of the High School in our system.

Let me here disclaim any desire to reflect unfavorably on our High Schools. We all know the zeal and intelligence which characterize their management and work. Of all that pertains to them apart from their relation to the Public Schools, I have nothing to say. We cannot, however, ignore the fact that the tendency of our educational policy is to magnify the High Schools at the expense of the Public Schools. If this is capable of demonstration, then no false delicacy should enjoin silence. It is too serious to be ignored. The importance of the Public Schools cannot be too strongly urged. The Public School, it has been well said, is the University of the masses. This definition gives us at once the correct conception of the Public School. Ninety-five per cent. of all in attendance at school belong to it. Their education begins and ends here. It is, therefore, a truism to assert that, for weal or for woe, the influence of the Public School on our national life far outweighs all other influences.

But, let me ask, is the Public School fulfilling its mission? To answer this, we must first define the scope of the work assigned to it, and then inquire whether it is adequately equipped for doing this work. There are, as you know, two theories, to some extent conflicting, as to the duty of the State in the matter of education. One maintains the right of the State to provide for such education only as will enable its citizens to provide the means of existence, and is commonly called the utilitarian or materialistic theory. The other, recognizing that man is something more than material, holds that culture should be the basic element in education. The mean between these appears not only the most rational, but that which at present is most in favor. Surely it will not be urged that purely utilitarian views should prevail in our Public Schools, where, as already stated, ninety-five per cent. of our population receive all their school training. Were this granted, what more effective means could be devised for creating and perpetuating in a democratic country, class distinctions? Thus would we adopt in the New World the almost effete systems of the Old. This, it need scarcely be added, would not harmonize with the spirit of modern civilization. If the masses are to govern, then must they be educated, and that education must be in keeping with the requirements of the age. The fact must not be overlooked, that, within recent years, great advances have been made in science, in government, as well as in the social conditions of the people, and that an educational standard adapted to primitive conditions of society will scarcely meet the demands of the present, much less the future. While it is necessary that our Public Schools should furnish a good, sound training in the instrumentary branches—the three R's, for example—it does not follow that the line should be drawn here. The complexities of modern civilization call for more than this. To be more specific, I venture the opinion that our Public Schools should furnish not only a thorough training in the three R's, but some definite knowledge of the history of our race, with its geography—some practical knowledge of elementary science, the advances in which have in recent years done so much to revolutionize the industrial, the commercial, and the social life of the world; and not least, though last, should, as far as possible, lay the foundation of a taste for the language and literature of the mother-tongue.

But, it may be answered, that our system already makes provision for this, or the greater part of it. Theoretically, it does in part; practically, it does not. The average schoolboy receives more training in the solution of complex problems in arithmetic than in expertness in applying the first principles of the subject to practical purposes. He is, as a rule, well stocked with the mere technicalities of English grammar, but he has little facility in the correct use—either in speaking or writing—of the mother-tongue. His knowledge of the fundamental laws of science—the operations of which might daily constitute for him simple object lessons—is practically *nil*. Why

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stones are heavy, why a piece of wood floats in the water, does not, as a rule, excite his curiosity. Then, as to his taste in reading, is it not too often accurately gauged by the thirst which he betrays for stories of a sensational or blood-curdling character, or for those columns of the newspaper which contain the captivating details of the most recent "slugging" match? In a word, the majority of our young people leave school with very inadequate preparation for the ordinary duties of life, much less for the duties of citizenship.

What, then, is the cause of this? While it may not be due solely to what has already been suggested, viz., our lowered conception of the Public Schools as a result of the overshadowing influences of the High School, yet this enters largely into the question. In a paper read by Mr. Reazin before the General Association last year, the injurious effects of the Entrance Examination were forcibly pointed out, and the more we consider his statement of the case, the more fully are we convinced that his position is unassailable.

Since the Public Schools must furnish all the education which ninety-five per cent. of our population receives, why should the course of training in these schools be in any way subordinated to the requirements of the High Schools? Why should the ninety-five per cent. suffer for the five per cent.? This is where we have erred. We are absolutely dominated by the High School idea. In our desire—no doubt an honest one, though very short-sighted—to preserve *unity* in our system, and to give it a finely-rounded appearance, we have overlooked the fact that the *Public Schools were not created for the High Schools, but for the people.* While we have been congratulating ourselves on the perfect harmony of all the parts of the system, we have been working serious injury to its most vital part. Not only our programme of studies, but the scope of our teaching has been conformed to this one ideal—utterly fallacious, it is true, yet absolutely overmastering. Should not our Public School system in itself be regarded as a distinct entirety without any special regard to High School requirements? Why should the Entrance Examination be made the "be all" and the "end all" of the Public School course? There would be some justification for a policy so one-sided as this, if it were true that any appreciable number of our school population continued their education in the High School. Of late we sometimes hear the term "Primary Schools" applied to our Public Schools, and this is significant as showing the tendency in certain quarters to degrade the true status of the Public Schools. By what authority, then, has the true aim of Public School education been thus perverted? Surely this is not the conception of the system which its founder entertained. Somebody is responsible for this, and although it may not be easy to locate the responsibility, I venture to say that it is not enlightened public opinion.

Not only is it the case that in this way the true status of the Public School has been lowered, but we are doing nothing towards

increasing its efficiency within the narrower limits by which it has been circumscribed.

According to the Report of the Minister of Education for 1891, there were 8,336 teachers in the Public Schools. Of this number, 255 were first class, 2,999 second, 4,274 third, and 812 nondescript—the latter two combined exceeding the two former by 1,836, while the third class alone exceeded the first and second combined by 1,024. In other words, sixty-one per cent. of all our teachers possess the minimum or lowest qualification. It is not necessary to remind you of the nature of this qualification—that it is covered by passing the primary or lowest examination in the High School, with a very short grind at the County Model School. It will not be denied that the teacher should be possessed of some breadth and culture—a model not simply for his class, but for the community in which he moves. Will anyone seriously assert that the average primary certificate necessarily represents sufficient culture for the teacher? If so, it should be remembered that the standard for admission as a student to our University is from one to three years in advance of this. Surely the times demand more than a mere modicum of culture in those charged with the education of the people. Model School masters of long experience have informed me that, not unfrequently, candidates for the Model School are sadly deficient in orthography.

Then, apart from literary culture, consider the pedagogical outfit of the average graduate of the Model School. If we add to his meagre literary attainments, his youth and immaturity, his almost total ignorance of mental science, either theoretical or acquired, it is not surprising that a short term in the Model can do but little for his pedagogical equipment.

It will scarcely be maintained that the work of the teacher—embracing as it does so much of a psychological character—is less delicate, less intricate, or less easy of mastery than that of the student of medicine. The latter has to deal mainly with the physical, but the teacher with the mental and moral; therefore successful teaching demands talent of as high order and as much training as success in medicine. But imagine a medical profession composed largely of members who have barely any preparation for their calling beyond that which is furnished by their entrance examination. Or imagine the practice of law monopolized by students who have just gained admission to the Law Society.

But this is not all nor even the worst phase of the question. Granted that the teacher has literary culture and professional training, a very important, if not the chief, aid to success is experience. What do the statistics say in this respect? During the last fifteen years 18,281 candidates passed the examination for Third-class certificates. This, let me say in passing, was ninety-five per cent. of the whole number in attendance at the Model Schools. During the

same period of fifteen years, there have been in attendance at the Normal Schools 5,958 students in training. There are no figures as to the number of successful candidates here, but the percentage is probably little below that of the Model Schools. By some mysterious law of selection, it so happens that nearly all candidates for these examinations are adjudged competent, after a very short period of training, to enter the ranks. But what becomes of this large army of recruits? For the fifteen years already mentioned, the total increase of teachers in actual service was 1,868, or a yearly average of 125. To supply this increase of 125, we have the annual output of the Model Schools, numbering an average of 1,200. Need we ask why 1,200 new teachers are annually required to fill 125 positions? The death rate among teachers, we are informed, is not higher than the average. We know where they go. With humiliation it must be owned they go to swell the exodus from a calling which has no future for men possessed of sturdy intellect and laudable ambition. They go, too, when they have remained barely long enough to make their stay anything more than a mere apprenticeship. Why should they wish to remain with us? The talents, energy, and perseverance necessary for success in teaching, will in other callings bring much richer rewards.

Consider for a moment the inducements which teaching offers. The average salary of male teachers throughout the Province, in 1891, was \$423. The minister's report presented recently in the Legislature makes it less for 1892. In the fifteen years prior to 1891, the average salary of male teachers increased but \$16. It is lower now than during the five years immediately preceding 1889. Some time ago the city council of Toronto adopted a by-law fixing the minimum wages of corporation laborers at fifteen cents an hour, and no one will assert that this is too high. Yet it is a fact that with steady employment the earning capacity of the corporation laborer at this rate is quite equal to that of the average male teacher, and considerably in excess of that of the female teacher. It may have been the laborer's misfortune never to have entered a school; he may not know how to read or write, yet his earning capacity may equal that of his unfortunate brother, who, instead of plying his avocation with pick and shovel, has elected to tread the thorny path of pedagogy.

It may be urged that the public will not endorse increased expenditure for education. In 1877 the total cost per pupil of public school education was \$6.26; in 1891 it was \$8.34, an increase of 33 per cent. The advance in teachers' salaries during this period being merely nominal, this increase is largely due to other causes, chiefly to a liberal outlay for new buildings, so that while the public has been generous in providing adequate school accommodation it has not shown the same liberality in dealing with the teacher. Why should it, looking at it from a purely business standpoint? Is it not a question of supply and demand? Is there not always a superabundance of raw

material available to conduct the education of our youth at an average annual cost of \$5 a head. The average citizen need not be expected to pay as much yearly for his child's education as for the shoes which his child wears, especially as the price of brains in the pedagogical market rules lower than the price of leather.

I have said that this is a question of supply and demand. But what is the cause of this abnormal demand for cheapness in the teacher? Coincident with the predominance which the High School has acquired in our system has been the elimination of the higher classes from our Public Schools and their absorption into the High Schools. Material must be found to feed these schools, and so, as was well shown in the paper already referred to, came the lowered status of the Public School with its deterioration. Anyone could now teach the babies, a mere boy or girl could fill the bill. Third-class teachers, or rather the apprentices, underbid the higher grade and more experienced teachers, who in many cases quit the field, with the result that we have more third-class teachers to-day than at any time in the past.

This unfair treatment of the Public Schools provoked criticism in the Legislature. A remedy was provided, the chief characteristic of which was its mildness. We were given the Public School Leaving Examination, but as its ostensible purpose was to benefit the Public Schools, it must cost nothing. *And it did not.* The rigorous conditions attached to it made it perfectly safe in this respect. However, a little more pressure from those interested in the welfare of the schools led to some relaxation of the conditions, still we are but toying with the evil. The last report from the Education Department gives no particulars regarding the operations of the Leaving Examination for last year. It is known, however, that for the whole Province probably less than three hundred certificates were issued and about \$1,000 granted on the conditions which the regulations prescribe. This munificent sum means an average of seventeen cents for each Public School in the Province. But this, it must be remembered, is for the advancement of Public School education.

How different has been the fostering care bestowed upon the High School; and this, too, when public opinion is divided on the question of granting State aid to higher education. As teachers we realize the value of higher education to the State, and it should be our desire to see an efficient High School system maintained. But it should be a system such as the needs of the country demand. Owing to geographical conditions we are necessarily an industrial people, and any system of education which ignores this fact must in the end prove a failure. We need good Public Schools everywhere, but it is doubtful whether we need a High School in every village or on every cross-road. We now have one hundred and twenty-six, and many believe that fewer schools well equipped would suffice. Even then we should be better supplied than most, if not all, other civilized nations.

Massachusetts ranks high in education—higher, perhaps, than any other state in the Union. In the matter of High School education this is emphatically so. For the whole of the United States there are but 33 High Schools sufficiently well equipped to prepare candidates for admission to the leading colleges, and of these Massachusetts has 25. Though her population is greater than ours we have five times as many High Schools. While she has one for every 90,000 of her population, we have one for every 16,400. If the comparison be carried further the disproportion becomes vastly greater.

This multiplication of High Schools, apart from its injurious effects upon our Public Schools, has not been without bad results in other directions. Many are attracted to the High School whose usefulness would be enhanced by a good Public School training, but with the craze for the so-called genteel occupations, which seems everywhere prevalent, they take a course in the High School, and leave it to still further swell the ranks of professions already overcrowded. The larger proportion, however, take a short course, receive a modicum of preparation, and at once, or all too soon, blossom out as teachers. It may not be fair to charge this solely to the High Schools, but it will not be denied that our copious system of High Schools offers facilities for perpetuating the most flagrant defect of our Public Schools, viz., the transitory character of the teacher's calling.

I have referred to the Leaving Examination as an instance of the generous treatment which the Public Schools have received from the Legislature. That we may view more fully the contrast in the treatment of our High Schools, let me quote the following figures:

In 1891, there were registered in the Public Schools, 491,741 pupils, and the total legislative grant for the year was \$289,610 or 58 cents for each registered pupil; the grant for 1892 being several thousand dollars less than that for 1891. In the same year, 1891, there were registered in the High Schools, 22,230 pupils, but the legislative grant was nearly \$100,000, only \$300 less, or \$4.48 per pupil. There are no figures showing the additional grants to High Schools on the score of equipment, but leaving this out of the calculation it will be seen that the grant per capita is nearly eight times greater for the High Schools. This money, it should be remembered, belongs to the people, all of whom are vitally interested in the Public Schools, and the great majority of whom are but indirectly interested in the rest of our school system.

The plea usually advanced for this discrimination in favor of High Schools is, that their efficiency must be maintained in order to supply teachers for the Public Schools. Bearing in mind what has already been said about the Model Schools, viz., that 1,200 teachers are annually turned out from them to fill positions, which, with anything like adequate safeguards for their protection, should not number more than 200; bearing further in mind the fact that a large propor-

tion of the 1,200 put in but a brief and perfunctory apprenticeship to the business, and while still prentice hands forsake the calling, making way for the new army of recruits; bearing still further in mind what has been said regarding the undue stimulus which the omnipresence of the High School has given to aspirants for genteel occupations, how transparently fallacious does this plea become! Is it not the sheerest mockery to urge that this is in the interest of the Public Schools? Increased expenditure may be justified on other grounds, certainly not on this. Our High Schools could even, if made largely self-sustaining, furnish many more than the necessary number of teachers, and this, too, with little fear that some "flower might be born to blush unseen."

This degradation of the people's schools has gone on with such constancy that it has become familiar and has ceased to excite wonder. True, we have deplored it and have recognized the blighting influence, but, apparently, we have become convinced that it is inevitable. This is where we most seriously err. Silence on our part implies either want of faith in ourselves or indifference, not only to our calling but to the interests of the schools.

I confess that it is easier to point out these defects than to provide a remedy which will be at once feasible and effective. Evils that have been allowed to grow without any adequate attempts to curtail them, do not readily yield except to heroic treatment. Yet the status of the teacher, or in other words the condition of the schools—the one determines the other—is a matter vital to the State, and the State, which means the people, will in this, as in other questions, look for light to those who are specially concerned in the work and welfare of the schools, and who are in a position to give expert testimony regarding the same. The public is to blame only so far as apathy on its part permits the continuance of evils, the existence of which has been clearly pointed out. It should be borne in mind that the average citizen is better fitted to judge of matters pertaining to his own particular avocations than to questions which may be foreign to it. Here then is a field for effort. If we shirk the responsibility which the situation imposes on us, and trust—as I fear we too often do—to our legislative godfathers, then we need not hope for improvement.

I have indicated some of the weakest spots in our system, and likewise some of the contributing causes. There are other defects which are allied to, or spring from those suggested. Let us inform ourselves fully as to the effect upon our schools and teachers of what has been feebly pointed out here. Then our part will be clear.

In conclusion, let me say a word bearing on the relation of the teacher to the State. Is it not strange that the teacher—and think of what this word should suggest—is in the position of a ward to the State? It is difficult to realize how a condition of tutelage can be compatible with the development of true manhood or womanhood. Yet those qualities are expected in the teacher, and rightly so. But

do we realize what their absence implies? We may almost say with Shylock, that "Sufferance is the badge of all our tribe," and assuredly we utter nonsense when we speak of teaching as a profession. True, there is no higher work, regarded intrinsically, but look at the conditions which hedge around it. Here then is scope for effort, and in this direction, at least, lie some of our responsibilities. The time has long since passed when teaching should be something more than a mere temporary convenience for the many at the expense of those who are giving their life to it—something more than the by-word makes it, viz., "A stepping-stone to something better."

With the assurance that springs from a righteous cause, we should insist on such changes as will give more stability, and, therefore, more dignity to the teacher's calling. We can insist on this, too, with the full conviction that it is not only compatible with, but essential to, the highest interests of the community. The conditions now are such that we can and should have a higher standard for entrance to the ranks—higher from the standpoint of age or maturity, higher from the standpoint of literary culture, and higher, too, from the standpoint of professional training.

Of this we may be assured that apathy on our part means the perpetuation of existing evils. If we are convinced that these evils exist, our duty is clear. The words, "Who would be free himself must strike the blow," even if trite, should possess inspiration for us; and if we cannot achieve all we desire, let us for the cause—which, though too often trailed in the dust, is yet noble and dearly loved—transmit to those who follow an improved heritage.

LESSONS LEARNED IN THE SCHOOL OF EXPERIENCE.

MISS A. C. PURVES, BRANTFORD.

Lessons learned, not in the Model School, nor the Normal School, nor the County Institute, nor the Provincial Association, but in the school-room itself, by the faithful and earnest doing of the daily task, and the wise appropriation of wisdom's experimental hints: that is the way every faithful teacher, who is properly constituted and evolved, gets that final and supreme training which is the secret of professional success. The teacher may come from the Model School armed *cap-a-pie* with all the equipment of knowledge and method, but she will be as awkward and as ineffective as David in the armor of Saul until she has put off her profundities and her theories, and stooped to pick some of the smooth stones of wisdom from the brook of practical experience; and the crucial question with School Boards in selecting a teacher is, or ought to be, not how much does this or that applicant know, but how much of what she does know is she capable of imparting to others.

Admitting, then, that the best lessons for a teacher—lessons which consummate and crown and make fruitful the whole educational process—are learned by practical experience in the school-room, it will be interesting to study for a few moments the methods by which this reflex educational process is accomplished, and to note the results which follow this course of instruction. First, the teacher is directly taught by the pupils. What a debt of gratitude we all owe to our classes for the discovery of new points of view, for fresh and unhackneyed interpretations of truth, for keen, earnest questions that pierce to the very heart of a subject, for nutritive hints and suggestions throwing their light far beyond the topic under discussion. No amount of mere knowledge can supply the place of this, which is gained only by coming in contact with child-nature; and children are sometimes permanently injured by teachers, who, however well-meaning, have not learned to supply their pupils' mental needs, who praise when they should be silent, bring into prominence when they should ignore, discourage by blame or punishment some really healthful tendency, who, in short, from want of direct, sympathetic insight, have failed to learn the lessons which unconsciously the children are so competent to teach.

It may be that the lesson comes in the way of rebuke. Many a teacher has blushed with honest shame at the quiet, straightforward, naive criticism of a clear-eyed child. No one so quick, so sure to spy a fault, and, having spied it, to frankly point it out, as a schoolboy or a schoolgirl. Respect the honest faces of children. It will not do to be anything but sincere and genuine before such batteries of innocence and sincerity. Have you never felt genuinely foolish and unprofitable before one of those wide-awake, common-sense, intelligent little

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fellows who comes into our Public Schools, and who knows more about so many things than you do? Before he could read for himself, his father or mother have read their long stories of Indians, animals, fairy tales, history stories, and he has augmented this knowledge by copious draughts from the same spring. His street-lore, too, is appalling. He comes to school expecting wonderful things, and I know of nothing more pitiful than the contempt, the surprise, the rebuke, depicted upon the countenance when, instead of teaching him something on a level with his intellect, and satisfying his thirst for knowledge from the clear, living fountain of wisdom, the teacher regales him with the muddy waters of a stagnant pool, merely repeating that knowledge along the line of which he has already advanced so far. What are the results? The teacher is troubled, and foreseeing breakers ahead, reports the boy "idle" and "inattentive." The parents are disappointed; the boy himself grows to be a moral and mental pachyderm—and this trouble to the teacher, this cramping and dwarfing of the ambition and courage of the boy, become more and more apparent as the time goes on. The rebuke and its accompanying punishment have been given. How is the teacher going to profit by them? By sympathetic insight, by laying aside her preconceived formulæ and methods, and putting herself *en rapport* with child-nature, and the particular phase of it exemplified in this one particular boy. He asks for bread—the bread of knowledge. To supply this want with the piece that is best suited for his capacity is not chance, but harmony between the teacher's perception and the child's need. Thus the child's confidence will be gained, and the way to future research and instruction be paved. If, on the contrary, she be so absorbed in her own theory of what he ought to want, and gives him a stone instead of bread, neither is that chance, but discord produced by disregard or ignorance of the laws of nature, and cannot result otherwise than injurious to the boy. Study of child-nature needs patience. It is necessary to look beneath the surface, to give our attention to cause rather than effect, to find out the real meaning that lies beneath the outward forms, and to avoid forming hasty judgments of individual cases. And this study of child-nature cannot be pursued so successfully any place as in the schoolroom, where the teacher is brought in contact with such widely different intellects and dispositions.

Again, instruction may come to the teacher in the way of appeal. One of the greatest benefits of dealing with young people is the magnetic way they have of drawing a person out. Their needs, their demands, even their manifest failings, make a certain helpful draft upon the teacher's resources. The lack in the pupil must somehow be supplied by a greater sufficiency in the instructor, and this is a healthful and invigorating demand. It puts new strength into the helper's mind just as guiding and lifting over hard places puts new strength into the helping hand. The teacher who has had no experience in the

way of supplementing the needs and deficiencies of pupils has lost or neglected one of the most valuable aids to self-development and equipment for her chosen work. The appeal of the student should be one of the teacher's most potent inspirations and incentives.

In the school of experience we learn also by our mistakes. No worker of any kind is worth much who has not made mistakes, and profited by them. This is wholesome discipline and instruction. One never forgets the lesson of a mistake, and the first few years of any teacher's experience are sure to be checkered by many errors of judgment, but instead of being a period of depression, as this time too often seems to be, it ought to be a time of perpetual thanksgiving, for throughout it all wisdom is conferring her most precious gifts upon the novitiate. For every received and acknowledged mistake you receive as a voucher one of the golden coins of experience; and more than that, fortune supplies you with a safety-valve in which to keep your wealth. For if you had learned these very lessons theoretically you would be very apt to forget some, but having learned them through the hard discipline of mistakes, you will never forget one of them. The soundest and sweetest fruit of experience is made up of amended mistakes.

A few of these golden coins may be acceptable. It is a mistake to think you can overestimate the influence of manner and voice. "Prevention is better than cure," and she who appears before her class calmly, lets nothing visibly irritate, hurry or confuse her, speaks firmly but in an ordinary tone, has prevented more than half the difficulties that would have arisen had she exhibited any sign of nervousness, such as anger, haste or irritability. The effect of the teacher's voice alone is incalculable. It will cause either harmony or discord, maintain order or destroy it. Assume a high, unnatural tone, as if you were in the midst of warring elements, and the children will soon let you see that your efforts are not wasted. Continue raising your voice, and the confusion will only increase. Try, instead of this, a low, calm, firm tone, such as you would use in conversing with a friend, and the subdued restlessness will show how quickly the children again respond to the magic influence of voice.

Another coin—Aimless work is worthless work. There must be an ideal, and the ideal school is one in which the proper work is done quietly, faithfully, well; where both teacher and pupils know their own places and keep them; where the voice of only one person is heard at a time for all study, to be polite; where the teacher proceeds with no lesson, no explanation unless all attend, for inattention is as contagious as scarlet fever; where the pupils control their desire to talk, and thereby acquire one of the noblest virtues—self-control—the teacher herself talks but little, but that little is surprisingly well said, and shows careful forethought; where good cheer prevails, polite request accomplishing that which loudly-spoken commands fail to do; where peace seems to dwell like a benediction, as she ever

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abides with strong authority ; where pupils knowing the purpose of the school learn to be self-reliant, never borrowing, never getting help, never depending upon another for that growth which only strong personal effort makes possible—always busy but never bustling ; both teacher and pupil growing stronger by exertion. A high ideal is it not ? but “aimless work is worthless work,” and “not failure but low aim is crime.” Study of child-nature in the best of all studies ; the schoolroom is the only means of attaining this excellency. Development, not repression, is discipline. You would not think of saying that a boy was responsible for the shape of his nose or the color of his hair, neither is he responsible for his disposition. If stubborn or ill-tempered, and it be his misfortune to fall into the hands of a teacher of the same disposition, it is merely a contest of stubbornness, and the one having the most muscles usually prevails. But after succeeding in subduing him the boy is in no better condition than he was before. The same sentiment, the same disposition to resist authority still exist, and will exist, until he meets with some one wise enough to look beneath the surface and study causes rather than effects. Sympathetic insight suggests finding out something that will interest the boy. If you are really in earnest you cannot fail to do this ; then after having gained his confidence, it will not be difficult to convince him that it is to his interest to have the school orderly, and that it is much against his interest to have it disorderly. Let him understand that the bravest, most manly boy in the school is the one who insists upon the observance of its rules, that only a mean sort of fellow will defy authority. With this sentiment prevailing, there will be but little business for the rod. The business for the school will be getting an education and the uplifting of all elements that go to make up a manly character.

You ask, what are the elements of good government ? Sympathy, will-power, firmness, decision, are some of them, but there can be no stated formula. Each teacher must originate for herself according to the circumstances in which she is placed, and the dispositions she has to deal with. Sympathy is the key-note. Training along this line can only result in the development of the noblest of God's creatures—good men and good women.

THE NORMAL SCHOOL AS A PREPARATION FOR
PUBLIC SCHOOL WORK.

R. H. COWLEY, M. A., OTTAWA.

The training of teachers is now recognized to be a thing of such vital importance to a national system of education as to challenge the best thought of our leading modern educators. But though there is still some divergence of opinion as to the exact sphere of the training school, and though there is no marked evidence that the ideal Normal School has yet appeared, we may nevertheless discern a growing concurrence of view, which is a reasonable ground for belief that we are at least reaching a higher professional standard, gradually if slowly.

In Ontario, we have apparently been acting on the conviction that the perfecting of our system of training may be attained through a process of gradual development rather than by application of the insight and constructive genius of any one person.

As I sympathize with this view I can make no pretensions to an exhaustive treatment of the Normal School question. I can do nothing better than to discharge, as briefly as possible, the functions your committee has entrusted to me—that of introducing for your discussion the subject in which we are all intensely interested. To this end I shall take occasion to indicate what I conceive to be some of our present defects and limitations, while emphasizing features that we should diligently strive to conserve and intensify. For, as I understand it, this convention is assembled neither to advance nor to damage any personal or political interest, but by candor of expression and sincerity in discussion, to labor loyally for the welfare of an entire system, helping it on to higher unity and excellence.

Though there is still some difference of opinion as to the progress Ontario has made within the last decade, in the quality of her education, probably all are agreed that there has been a considerable growth toward greater unification of the system. And this unification has naturally been characterized by division of labor and specialization of function. We have practically determined, for instance, that the function of our Normal Schools must be of a professional nature, and that the strictly academic studies must be relegated to other departments of our system. Herein we have made an important decision in advance of many other communities—an advance that is highly consonant with scientific principles of progress, since specialization of function is one of the marks of higher organic development.

But no mere system of education, however unified in design, can be an agency for much good if those who work under it confine their sympathy too exclusively to one particular branch of the system, and fail to manifest a loyal interest in the whole. The interdependence

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of parts must be recognized, and misgivings as to the undue amplification of one part to the detriment of another must, as far as possible, be kept in the background. We can rest assured that such amplification would soon defeat its own ends ; for if the High Schools were to be favored by Government at the expense of the Public Schools to-day, it would result in the High Schools being developed at their own expense to-morrow.

Each branch of our system has its relation to every other branch, and our educational organism, as a whole, has arrived at such a degree of unity that no one part can safely say to any other part, "I have no need of thee." If we, then, recognize this fact we can best contribute to the good of our system by working assiduously in our own specific field, maintaining at the same time a general interest in the whole, strengthening as we may every right tendency, and helping to define and eradicate the things that are inconvenient.

In the Ontario system the Normal School stands in very direct relation to the Public School ; in fact, it exists for the Public Schools, and its functions must be determined by the needs of the Public School. At present, our Public Schools are, and for some years they must remain, pre-eminently the schools of the people. They furnish all the education that the State has the opportunity of giving to the majority of our young people. In these schools we have an assembly of individuals whose faculties are in a comparatively nascent state. They are to be prepared for the business of living. A curriculum of studies is prescribed as part of the means to that end, and along with the curriculum a series of text-books that particularly define it. Then there is the teacher, who is chief functionary in adapting means to end. The Normal School is deeply interested in the teacher, the child, and the curriculum of the Public School ; and it may reasonably be expected to perform at least three general duties :

- I. It should give a true view of the Public School work.
- II. It should prepare the teacher for his part in that work.
- III. It should be a centre of educational progress.

I. If the Normal School is to give the teachers a true view of Public School work, it must begin by having that view itself. It should be convinced of the high purpose of education. It should emphasize the fact that the development of faculty and the evolution of right character are infinitely more important than the standard of attainment that examinations guarantee. If the Public Schools send into society boys and girls who are loyal to the right, and wise to plan, and skilful to do, the amount of information they carry away will at once have become a matter of secondary import.

The age in which we live has become impatient of abstractions. Its faith is in the practical, the useful, the concrete as the divinely ordained media through which men may best attain to the highest. We are growing away from the ancient notion that matter is essen-

tially evil, and a horrible nightmare it was. The claims of our natural and tangible environment are borne in upon us as never before; and it is fast becoming clear to us that the practical and useful are, in a high sense, lawful ends of a true education. In Ontario, at least, philosophic dualism has had its day in our educational system, and we shall soon be prepared to stand or fall by the thesis that the school ought to respect the unity of the child; that in school we must not divide the living child in two; that the highest ideals of development include the physical as well as the spiritual aspects of the pupil; that we can best produce a true saint by first producing a good citizen.

We say we are free men; we say that our country is free; but, as the poet sang, "by the soul only the nations shall be great and free." And strength of purpose and bigness of soul must be the test of a free man, and a free government, too. The State ought to combine heart with purpose in providing an education that will bring every child in the land to as high a standard of manhood as possible. It is essential that the Normal Schools should become seized of this view, if they are ever to fill the Public Schools with teachers who will do more than fit the children for purely academic tests. To cover the Public School curriculum and to master the examinations, is not the end. These are but means, and good means if kept in their place. As the high purpose of human life is to rise to a realization of the true, the good, and the beautiful—to know the self and to know God—so the greatest end of the school is to develop faculty, to energize the soul, and emancipate the will. The child himself is the end in view; and if the Normal School has the right power it will transfigure the commonplace of the curriculum, and reveal mathematics and literature and object lessons in such a light that the young teacher will see how there inheres in these a power to mould the moral nature and enlarge the life.

II. A second function of the Normal School is to prepare the teacher for his part in Public School work. A prime characteristic of the teacher is that he possesses organized knowledge and the power to organize knowledge. The graduate from the good High School always comes to the Normal with this preparation, for it is one of the fruits of good teaching. And whatever the Normal School had to contend against in the past on account of bad teaching in some of the High Schools, there will be little ground of complaint in this respect in future; for with the proper equipment of the School of Pedagogy—for which we should all earnestly pray—every High School will soon be reinforced with those who are fit to teach.

If, then, the Normal School student has been under the influence of good teaching, the work of the Normal School in giving him right methods will proceed with greater facility. But methods are not all. In the Ontario training schools we have been inclined to magnify methods, to lose our individuality in the technics of the work—just

as our colleges have tended to look askance at pedagogics. Undue stress on methods has suppressed individuality and has resulted in a dead level of uniformity. Individuality may have defects against which a system must protect itself, but an educational system must encourage a strong, free, healthy individualism if it would be a living, life-giving system.

The shortness of the term is perhaps the Normal School's greatest disadvantage at present. The student finds himself on a short and narrow way, at the end of which stands the inexorable examination gate. Considering the length of the time, the Normal School curriculum is an ambitious one. There is scarcely opportunity for proper assimilation. The majority of the students feel the rush and pressure of the work, and to them the examination test is of paramount importance. With little time to select, and less to reflect, it is natural that they should conclude that there is at least safety in imitation. The external methods are more quickly acquired than the spirit embodied in them.

In the Model School the manner of the teacher and his method of presentation are the chief thing that the student sees; and in nine cases out of ten he copies the teacher as closely as he can when his own turn to teach arrives. Ten or twelve practice lessons are not a lengthy course, but these lessons are a chief factor in determining the student's rank as a teacher; and when every circumstance of the position is considered, it is difficult to see how the student can work with the absorbing earnestness and independence of the right spirit. Each student teaches but twice or three times before each critic; he has little opportunity of knowing his critic, and the critic has less opportunity of knowing him. Thus there is no occasion for the growth of confidence between student and critic; consequently the power of criticism, under present arrangements in our Normal Schools, is not very effective. The management of criticism is at once our most important and at present our weakest point.

Apparently our students do not grasp the fact that no method is absolutely orthodox, at least they do not practically apply it. The method must be regarded in its relation to the personality of the teacher on the one hand, and in its relation to the personality of the pupil on the other. And as there is infinite variety in personality, so infinite variety in methods is permissible, even desirable.

But a method cannot teach school—it takes a man or a woman to do that. There is no true teaching without contact of spirit with spirit, and the method that offers least resistance to the interflow of influence between a teacher and his pupils is the best method for him. But the interflow of influence is the very thing that the student observes least of all—the very thing that examinations, unfortunately, can do little to discover. The pupils, therefore, are usually so many machines to the student teacher; his method and the facts to be presented are of absorbing interest, and it cannot be denied that he

is measured chiefly in these matters at the final examination. Thus it falls out that the *imprimatur* of the Normal School is not an exceedingly reliable guarantee as to the comparative efficiency of its graduates. Every inspector in the Province can bear testimony to this.

Under present conditions it is difficult to maintain moderation in emphasis of methods. With examinations in the foreground, the external and artificial aspects of professional work must remain prominent, while that which is the pith and soul of teaching is proportionately obscured.

Of course there is difficulty in prescribing a substitute that would entirely take the place of the examination, especially in the judgment of the people whose money sustains our school system. But the less mechanism there is about our way of measuring the teacher the more rational and reliable it can be made. With the Normal School term lengthened to a year, the Department could afford to lay less stress on the final examinations; much more valuable training could be done, and the sanction of the Normal School could be more fully based on the character and personal power of the teacher.

Men are always greater than the systems they devise; and under a highly organized system like that of Ontario it is now very essential that the independence of the teacher be everywhere impressed and insisted on. If, then, the Normal School keeps in view the fact that the teacher must remain a free, aggressive, personal power, the sphere of method-study will become all the more productive and useful.

But freedom to choose the "how" involves, to some extent, freedom to choose the "what." Now, our authorized text books are rather explicit regarding the "what," and if the Normal School master is to respect them he must often do so at the sacrifice of his own choice. Here we have a ground of conflict, a cause of confusion; and, be it little or great, there is of necessity a resulting loss of power. The most earnest friends of our educational system recognize that the text book question is still a serious one. Our text-books seem to be the centre of inertia of our system. Ten years ago we had good, bad and indifferent text-books in our Public Schools; and to-day we have good, bad and indifferent books on the authorized list. They are not thoroughly representative of our highest scholarship and professional skill. Some of them would never have passed the judgment of this Section or of the Normal School. If the Normal School is to be a head-centre for the dissemination of right methods and principles, it seems but reasonable that it should have some part in the sanction of Public School text-books.

At present, there is no organic connection between our system and the text-books, and whether these books are excellent in themselves or not, they can never be so generally serviceable until they become the product of the system. One or two persons may succeed in compiling a good text-book, but the most widely acceptable books can be

produced only under free competition and the amending influence of the highest corporate professional judgment.

If knowledge of method is of some importance, how very important is knowledge of mind as a qualification of the Public School teacher. Happily there has been a growing recognition of this within recent years. It is mind that creates the cosmos—the world set in order; and because there is an orderly unfolding of the child's mind and spiritual nature, this must postulate a science of pedagogy. The presence of Psychology on the Normal School course has done something to argue for such a science. If we admit an internal structure and logical order in studies, in the very same breath we admit a science of mind. Then there must of necessity be a function for the Normal School to perform—in bringing objects of knowledge and the mind into vital contact. This is the sphere of applied Psychology.

We have often heard it said that the teacher, like the poet, is born, not made. The fatalism of such a dictum as this, if accepted, must be mischievous in the extreme. Perhaps we have hitherto been influenced too much by the assumption that there is a special genius for teaching. If so, the recognition of Psychology as a necessary part of Normal School work is evidence of the growing conviction that teaching is a science that may be rationally learned. Psychology will do away with the empirical in our methods; and we know that the empirical has prevailed to an alarming extent. But we were not alarmed because we did not perceive. Psychology will create in the teacher a habit of introspection. He will be led to take an interest in the processes that are going forward in the pupil's mind. He will come to a scientific knowledge of the conditions of progress. Psychology will rationalize his methods.

But knowledge, and knowledge of method, and knowledge of mind, are not the whole equipment of the teacher. Greater than all these is heart-power and moral interest in the highest aspirations of the human spirit. The teacher must have an educational ideal. This ideal will be measured by his purpose and moral interest in life, his sympathy with humanity, his love of the good. He will be helped to a higher view of "man, the heart of man, and human life" by some knowledge of Ethics as well as Psychology.

The man who is indifferent toward moral ideas is indifferent toward life; and he, who is indifferent toward life, can never be a good teacher if character and faculty are the end of education. It is, therefore, incumbent upon the Normal School to give the utmost possible guarantee as to the moral interest, ideals and heart-power of the teacher. This is more than all whole burnt-offering in the form of scholarship, method, tact, fertility of expedients, and all the rest of it. The study of Psychology and Ethics will give emphasis to the right spirit, and if also in the Normal Schools the teachers in training are surrounded by the vitalizing influence of men of scholarship, broad sympathies, high ideals and force of character—the Public Schools

of our Province will stand a national pride, and a signal triumph of free education.

III. In the third place the Normal School should be a centre of educational progress. If our system is truly organic it cannot remain in a static condition. It will conform to the organic laws of growth. The growth will be endogenous—from within outward. There will be a due development of the system in all its parts. If so, the training schools, as fountains of inspiration, as the conservators of our educational ideals, ought to be centres of vantage for the propagation and distribution of progressive views.

If, for example, we are convinced that an intelligent agrarian life is a good basis for an inalienable patriotism; that scientific cultivation of the soil means increased prosperity, morality and vigor in our national life—what better plan than to give prominence to agriculture in the Normal School course. For teachers may be powerful centres of influence in such matters, and the results of their interest and co-operation can scarcely be overestimated.

If again, the extension of object teaching and physical training in the Public Schools is desirable, where is there a better place to illustrate this than in the Model School?

To-day, there is a strong call for a better balancing and blending of the subjective and the objective in our common school education. In approving of the Kindergarten, we have admitted the thin end of the wedge. But why stop short with the Kindergarten? We should be at least consistent and whole-hearted in our educational designs. If the principles underlying the Kindergarten are right, we should by this time have had an orderly incorporation of them in the work of the other classes in the Public Schools. If the Normal Schools were to take the matter up a great impetus would soon be given, in practice, to an all-sided education—a thing we have been sagely theorizing about for many years.

Manual and Industrial training schools have proved their right to exist, wherever they have been tried; while the exclusively subjective methods of our Public Schools are becoming more palpably inadequate to meet the needs of our age. If we do not believe that the world is ever moving on to the highest and best, it matters little what happens to our institutions; but if we have faith in the progress of the age, we should heroically modify our systems to satisfy its requirements. Our educational system must continually embody advanced ideas if it is to be the faithful servant of a living nation.

WHAT SHOULD BE TAUGHT IN CANADIAN PUBLIC SCHOOLS.

C. B. EDWARDS, LONDON.

In laying the foundation of our Educational System, Dr. Ryerson was, to a great extent, guided by the system of England and Germany. It may be safely said that in the main, the subjects taught to the youth of the older countries were the subjects to be taught to the youth in the new country, with this difference, that education was to be more general.

Now, in the older countries those who received an education were mostly destined for a professional or a commercial life, while from the nature of things in Canada people would be required to follow a commercial or agricultural occupation. To a close observer of our present educational system, it is very apparent that the majority of those attending school with a definite aim are striving to enter the professions.

From the nature of things in this country, agricultural and manufacturing pursuits employ fully four-fifths of our population; therefore our system of education should be of such a nature that it would foster a love for these rather than a distaste for them.

I think it is generally admitted that the curriculum at present in force in our Public Schools does not tend to produce a love for manual labor.

In the brief outline of the plan that is contained in the subsequent part of my paper, I have striven to formulate a curriculum that, while following the unfolding of the mental faculties of the child will tend to ennoble manual labor and elevate it to its proper place.

The unvarying topic of those who are looked upon as the chief lights in our Educational world is the perfection and all-sufficiency of *our* system of education.

To those conversant with our system for the last twenty years and who will take the trouble to make close comparisons between education, then and now, this will quickly appear to be true, with respect to Secondary and College Education, but with respect to our system of Public School education this progress is more imaginary than real.

Disguise the Public School curriculum as you will, the fact remains that, except as to the methods of teaching, the subjects are practically the same.

The Kindergarten is indeed a great blessing to the child between four and seven, who may be so fortunate as to be able to attend a properly conducted one, for even in this line there are Kindergartens and Kindergartens. It takes the child and gives him work suitable to his mental powers, something that I fear is not always done for the

pupil in our Public Schools. This work is natural, that is, the physical as well as the mental nature of the child is employed and he *learns*. He learns because the things to be taught are put before him in such a way that learning is involuntary as well as pleasing.

There is no question but that among the first awakened faculties of the child is the observing faculty. This fact is made use of in the Kindergarten system. And truly wonderful are some of the results accomplished by following out the natural order of development in the child-mind.

There appears to be a serious break between the Kindergarten and the Public School, for no sooner does the child enter the Public School than the natural order of teaching is to a great extent reversed. He is shut up between four walls, for fear, it would seem, that he should see something. His observing faculties are, to a great extent, left in abeyance, and the main effort of the teacher is to cultivate prematurely the reasoning faculties by means of problems, instead of training the observing faculties, which are then in their most plastic state. The little Kindergarten child will eagerly notice the way-side flower, the passing butterfly, and the flying bird, the Public School boy is even less moved at these than was Peter Bell by the wayside primrose, and is very apt to shy a stone at the bird.

Are we not committing a great mistake in letting slip those years between seven and fourteen during which the observing faculties are at their best, instead of turning them to account. If these faculties be not cultivated they are dwarfed and weakened from disuse, as the failure to use a muscle weakens it. This weakness is very apparent when the pupil, at the age of say fifteen, for the first time is put at the study of Science which calls largely upon the observing faculties. In conversing with teachers of Science in our High Schools, and I have noticed it myself, they say that they find it a most difficult task to get a pupil to acquire the habit of observing closely and rationally. They show no skill in noticing resemblances or discriminating differences. Now, if the development of the observing faculties were begun at the proper time, he would have acquired such power in the fundamental principles of scientific investigation that such a disproportionate time would not need to be devoted to the study of Science in the High School as is now done, to the detriment of other equally important branches.

The next thing to consider is, "How may we develop these useful and important mental faculties?" The reply is by the study of Nature, or what we usually term Science, in our Public Schools.

It may seem strange, but is a fact, that the beginnings of Science are taught in the Kindergarten. Children are taken for walks, flowers are gathered, and the little ones soon know many by name. Differences are noticed and resemblances remarked. Ponds are visited and they are told of fishes and tadpoles. If these things may be done with children of six or seven, what may be done with child-

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ren of from seven to fourteen? The different branches of Science that may be taught, profitably and easily, are Botany and Physics. I do not advocate the teaching of technical terms, but even these are easy when the need for a term is felt. In education, as elsewhere, interest and enthusiasm overcome all difficulties; besides, these simple studies are healthful, for they will induce many pleasant walks. This should be a consideration in favor of Science-teaching in our Public Schools. I hope that I will not be considered radical when I say that, for example, arithmetic would be better learned if all except the purely mechanical part were put off till the child had reached the age of ten or twelve.

Let me briefly sum up, even at the risk of repetition, the benefits to be derived from the substitution of the study of Science for some of the other subjects of our present curriculum, between the ages of, say, seven and fourteen.

1. We would be proceeding on strictly psychological lines.
2. We would put the pupil in the way of much better progress in advanced Science.
3. As education is largely made up of the ability to recognize resemblances and to detect differences, the pupil would be better able to cope with his studies.
4. The pupil so trained would be more likely to follow a mercantile or agricultural pursuit than to still further crowd the already overcrowded professions.

We are now met with the question, "What are we to drop from our present curriculum to enable the pupil to get the benefit of this Science training?"

The subject that we could most profitably postpone till the pupil takes up High School work is English Grammar. To understand it properly the pupil must have a tolerably wide range of language, which can only be got by extensive reading and long experience. He must be able to notice nice distinctions as well as to form judgments founded upon the results of his observances of similarities and forms of difference. The practical value of language training in the use of our vernacular could be taught by English Composition. The chief value of English Grammar, apart from its use as a mental training, is when we come to study other languages. The greatest objection to the study of formal Grammar is that it is mentally unsuitable to the age of the child to whom it is *attempted* to be taught.

The next subject I would wish to see dropped is Physiology and Temperance. It is true that Pope has said, "The proper study of mankind is man," but he did not say that "The proper study of children is man." There is no doubt that it is considered unfitted to be a school study by the majority of teachers. Its present place on our school programme is due, (1) to politics, (2) vapid theorists. All science points to temperance in everything. Home training should, and in the majority of cases does, tend to favor total absti-

nence from intoxicating liquors as a beverage. I am fully aware of the value of Temperance, but I consider that while our Government licenses the sale of liquors we should leave Temperance teaching, like religious training, to the home.

I shall now briefly indicate the English subjects that might be taught in our Public Schools. The first place should be assigned to English Literature, which includes reading and spelling. The ordinary reading books, beginning with the Second, ought to be largely supplemented by suitable selections. During the last two years I have tried this with my entrance class, getting six pupils to buy the same book and exchanging books every two weeks or oftener. Some of the texts read were, (1) *The Deserted Village*, (2) *The Ancient Mariner*, (3) *The Prisoner of Chillon*, (4) *Evangeline*, (5) *The Cricket on the Hearth*, (6) *Tanglewood Tales*, (7) *The Sketch Book*, (8) *Sir Rodger de Coverly*. I found that in the majority of cases that real interest was awakened. Now, there is no reason why this should not be extended to the lower classes.

The next English subject would be Composition. It is only in the last decade that this subject has received the attention that its importance deserves. It is unnecessary for me to dwell on its value as a mental training or practical benefit.

The other English subject that I would teach is History. Moreover, as long as we remain an integral part of the British Empire, and I hope it will be for a long time, I should certainly teach English History. We have all noticed the avidity with which children listen to stories. Now, if History be adapted to the age of the child, it will furnish the food that the story instinct of the child demands. There is no subject more interesting, in the hands of a skilful teacher, or one that will make a deeper impression on the child's mind than this. If our children are to grow up, true to their British extraction and true to our country, history must be taught, designing politicians to the contrary notwithstanding.

With respect to the Mathematics to be taught, I would make no change in the subjects now taught in our Public Schools—Arithmetic up to entrance to the High School and for advanced work, Algebra and Euclid. However, there is one thing that I have noticed in Public Schools as well as in High Schools, and it is this: In many cases, in fact the majority of cases, time is spent in trying to teach, prematurely, difficult problems to the pupils. Problems requiring considerable powers of reasoning. Now, this is wasting time that could profitably be employed in drilling on the fundamental principles. Besides, the teaching of the elements is in too many cases neglected. Last autumn I made a careful test of a fourth class of about fifty, and, incredible as it may seem, twenty at least were failures in multiplication and division with respect to accuracy and speed. Instances can be multiplied of pupils, even in High Schools, who are imperfect in the fundamental rules of Arithmetic.

I shall now proceed to offer some suggestions as to what should constitute the Science to be taught in our Public Schools. Each Public School should be supplied with apparatus which, though useful, need not be expensive, for the apparatus that is of real use in teaching the elements of Science is not costly. It is usually the apparatus that is of more use in displaying the knowledge of the teacher than instructing the student that is so costly. With this apparatus and the right kind of teaching, the pupils between the ages of seven and fourteen could be taught the elements of Physics, Botany and Chemistry. Not, let me say, as these subjects are understood in our High Schools of to-day, but taught inductively, giving the pupils time to do some thinking for themselves. They would have time for investigating simple statements and to collect facts about many natural things close at hand. As the majority of our Public School pupils are in the rural districts there would be plenty of raw material for them to work on. Further, as only sixteen per cent. of our school children reach the High Schools, this plan would enable the eighty-four per cent. to benefit by the training now enjoyed by a fraction of the sixteen per cent. Geography, taken in its scientific aspect, would necessarily occupy a prominent place in the science studies in our Public Schools.

In conclusion, I shall briefly summarize the subjects that I have advocated to be taught in our Canadian Public Schools.

The curriculum to be in three divisions, (1) English, (2) Mathematics, (3) Science.

The English to include Literature, Composition, and Language training, History, English and Canadian.

2. Mathematics. Arithmetic, with particular attention to the four fundamental rules.

3. Science. By means of useful apparatus, teach the child to understand in some degree the nature by which he is surrounded. Teach him to *observe* and think, to collect and reason. Teach him cause and effect, and thus he will get, in a rational manner, the elements of Physics, Chemistry, Botany, and Geography.

ENTRANCE EXAMINATIONS.

S. G. BROWN, WATFORD.

The Secretary in his note requesting me to read a paper before this Association, intimated that it was the aim of the officers to make the Association, as far as possible, the educational parliament of Ontario, and that, therefore, they would prefer a paper bearing on the regulations referring to some part of Public School work. This, then, together with the fact of its general interest to Public School teachers, as well as the urgent need of some change in the regulations, is my excuse for discussing that subject, which is annually discussed in every teachers' association throughout Ontario.

The subject is so broad that I cannot hope, in the limited time I have, to treat it as fully as I should wish, and I shall, therefore, confine my remarks to a few divisions of the subject, hoping, at least, thus to provoke a discussion from which I trust good results may proceed.

In view of an approaching election, which, if we are to believe the Opposition, looms up before the Government like a hideous nightmare, it is not without some feeling of temerity that I undertake to discuss the subject of English History, lest I anticipate the Educational Department in one of their sudden changes of policy, or find myself drawn into a controversy with some over-zealous admirer of the British Empire. Let us trust, however, that with the work of the present session, and with the excitement consequent upon an approaching election, the Minister and his deputy will be kept so busy that they will have no time for further interference, and that, therefore, we may hope that the July examinations will be conducted according to the present existing regulations, for certain it is that, when bye-elections and other influences are brought to bear upon the Department, new regulations are formulated so frequently, or are rescinded with such dispatch, that we might well exclaim, in the canting phrase, "Verily, we know not what a day, nor even an hour, may bring forth," and the teacher living in the outskirts of the province, at some considerable distance from the educational centre, is kept constantly writing to the educational journals, or to the Department, in order to keep posted as to what is, or is not, the regulation on some particular point.

Aside from the humorous aspect of the matter, it is to be regretted that the subject of English History, and the teaching of it, has been drawn into the discussions of political cliques and parties.

No subject is ever discussed rationally by the average political campaigner, and wherever this subject has been discussed by political parties, it has been done with more than the usual amount of bitter-

ness and exaggeration ; the result is that the unreading and unthinking portion of our population are being so prejudiced, and so influenced and excited about matters they do not understand, that it will require years to allay the evil effects.

It is, also, much to be regretted that the Educational Department has, for this or for some other reason, rescinded the regulation requiring that English History be taught in the Public Schools, but that pupils be not required to write on it at the Entrance Examinations. The Department in making this regulation claimed that they were acting upon the almost unanimous request of the most experienced teachers and inspectors of the Province. Upon whose advice or request, then, did they act when they suddenly made a change in the regulations in December, again giving English History a place on the Entrance Examinations ?

It is a reproach to our boasted educational system that those who are at its head have been thus influenced by political schemers, who go about the country before an election like a flock of ravens before a thundercloud, filling the air with their hollow cries. It is an insult to the intelligent teachers of Ontario to insinuate that they have degenerated to that low and sordid condition that they do not faithfully and conscientiously perform their duty, and that they have become so slavishly base that they will do only so much work as the great taskmaster, the pending examination, compels them to do. Do these self-appointed, patriotic demagogues forget that we, too, are British subjects, and love and cherish our British law, our British freedom, just as dearly as they, though we blush to vaunt it in empty boast ? Do they dare to insinuate that we have forgotten the noble deeds of our forefathers, as they stood for civil or religious liberty ? Are we not as proud as they of the great warriors and the great statesmen that have controlled the destiny of the greatest nation of the world ? And do we not admire the noblest sovereign that has ever ruled this great nation—our noble Queen ? Ah, yes ; and we are as anxious as they that young Canada, now in the kindergartens and schools, shall grow up with that same love and respect for their country that we possess. But we are not going to inspire either respect or love in pupils for their country through the medium of an examination. Certainly, English History should be taught in every school, and taught thoroughly and intelligently. It should be taught in such a way that the pupil will find pleasure in the study of it. Let the teacher first interest the pupil, then teach him how to discover the facts for himself, rather than teach him the facts. Let the teaching be such that when the schooldays have faded into the dim memories of the past, there will still remain a desire to acquire and the power to assimilate knowledge. Then we need have no fear that our children will grow up ignorant of the great Empire to which they belong.

To accomplish this we must hasten slowly, and, therefore, as long

as pupils are hurried through the whole English and Canadian History, and crammed with meaningless terms and disconnected facts, just so long will the desired result be impossible. Hurried over the work, as they are now compelled to be, there is created in the pupils such a dislike for the study that they will remember it with repugnance to the end of life.

Now, if we really must have English History for examination, why should we go from one extreme to the other. It has been found unsatisfactory to attempt to teach all the History for examination. It has, also, been found inexpedient not to have it at all for examination; then why not adopt the only sensible course left, and take only a part of the English History.

I also wish to call the attention of the Association to the fact that we have no authorized text-book or exercise-book in composition. The Public School grammar contains a few exercises, but they are far from being sufficient to supply our need. Some may say that we have too many text-books already, that the buying of so many books already taxes to the utmost the capability of many families; or where the free text-book system is in vogue, it is found to be a heavy item in the burden of the ratepayer. There is, however, no necessity for an extra book. One book in grammar and composition, with a sufficient number of suitable exercises in each department, should be arranged and authorized. It is true that there is at present a very wise regulation which does not require pupils for Entrance Examinations to write on a composition paper composed of a number of puzzling questions. They are simply required to write an essay or a letter of reasonable length. But at the same time it is equally true that pupils cannot acquire the power to compose and write an intelligent and readable essay without a great number of previous exercises. They must be trained to think—to think connectedly and to express what they think. They must be able to write grammatical statements, and to join these statements into graceful and well-balanced sentences. They must be able to give variety to their forms of expression. They must understand at least some of the principles underlying the formation and construction of the paragraph, and then, and not before, are they in a condition to take up essay writing with any measure of profit to themselves. This condition can be reached only after a long and careful course of training in the many exercises involved in the work.

Many teachers, who have neither the time nor the experience necessary to prepare suitable exercises to cover this work, have availed themselves of some of the exercise books now in publication, but to do this is unsatisfactory, for since none of these are authorized they are not supposed to be placed in the hands of the pupils, and thus a great deal of unnecessary work, particularly in the fourth classes, is forced upon the teacher, and time, which could be employed much more advantageously, is thus unnecessarily consumed in copying or dictating

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exercises. Not only is it unnecessarily employed, but injuriously, as it is liable to produce the habit of careless writing.

There is an old proverb which says, "He is a poor workman who quarrels with his tools." But even at the risk of being classed in that undesirable category, I want here to express my unqualified condemnation of the Public School arithmetic, for the following reasons: (1) It dwarfs the habit of reasoning, and places a premium on the "rule method;" (2) it is mathematically inaccurate, and therefore (3) encourages loose calculation; (4) it does not meet the requirements of either teacher or pupil, particularly in the Entrance work. After having used this book more or less since it was first published and placed in the schools, I am satisfied that when I make these statements I am not speaking too strongly.

The first three of these defects are found in connection with exercises taken up in classes lower than those preparing for Entrance Examination, and therefore I would not feel justified when discussing Entrance Examinations in spending much time in discussing these points. I cannot, however, pass them without giving first some reasons for making these assertions. Take, for example, the exercise on lathing and plastering. In teaching this, everything approaching the semblance of rule should be studiously avoided. It should be taught so that the pupil will know the reason for each step he takes, always going on true mathematical principles, and not taking into consideration arrangements or agreements existing only in the commercial world. Why should the pupil's memory be burdened unnecessarily at this early age? What the teacher should aim at is, that the pupil may acquire accuracy, rapidity, precision and intellectual power. I have sufficient confidence in the proficiency of the teachers of Ontario to believe that the great majority teach with this aim, and teach intelligently and successfully. The pupil, however, invariably works for the answer, and when he finds that his answer will not correspond with the one given in the book, as he certainly must, he makes use of the rule which he finds in connection with the exercise, and by means of this he is able to get the desired result, and as a matter of course he uses the rule instead of his reasoning power. The following is the rule: "Measure the total areas within the boundary lines of the work, including all openings; from the gross area deduct *half* the area of doors, windows, etc., and take as the net area the *whole number nearest* the remainder." In the first place, deducting half the area of doors, windows, etc., does not give the net area of the surface to be plastered, as the rule states; and besides, I emphatically object to the practice of finding "whole numbers nearest." If the pupil is to guess the answer in the end, what is the need of any accurate work? What need of the pupil's being careful about multiplying, adding or subtracting? One or two units astray does not seem to matter, and thus there is encouraged in the pupil a habit of carelessness, the habit of guessing.

There is also given a similarly loose rule for solving problems in shingling, thus: From the total area of the roof deduct all the area of the openings in it, and divide by 25; the whole *number nearest* the quotient is the number of bunches required." And again, the exercise on bills: Pupils are asked to reckon each item to the nearest cent, instead of taking into consideration the fractions thus accruing and carrying them all to a total. And thus the great object of all mathematical teaching is entirely lost sight of, viz., accuracy. But perhaps the climax of absurdity is reached in the exercise on papering, p. 78, where the author goes on the assumption that all houses are of equal height, and forms his rule accordingly, regardless of height of ceiling, regardless of the depth of base-board, regardless of commonsense itself. The author claims in the preface to have omitted a number of rules found in other text-books, in order to give place to problems. He might have gone much further, and omitted many more.

We do not need any rules and explanations in a book on primary arithmetic. No intelligent teacher requires them for his own use, nor will he allow his pupils to use them, if he can prevent them from doing so. No problem, no exercise is ever given to a class before all the principles involved have been explained and mastered, and therefore any rule or any explanation given by the text-book is, to a very great degree, superfluous. The text-book is only a convenience for the teacher to supply him with suitable exercises for seat work for his pupils, and thus to save the time of the teacher and labor of pupils in dictating or copying. It is with regard to the lack of suitable problems for a senior fourth class that this book is especially faulty. To supply this deficiency the teacher must purchase some supplementary exercise book, laboriously write or dictate each exercise, or run the risk of debarring his school from the Government grant by allowing unauthorized text-books to be used.

Let us now consider the subject of Literature. The Regulation reads thus: "The examination in Literature will be based partly on the prescribed selections from the authorized Fourth Reader and partly on the remaining lessons in the same Reader." What does this mean? It means that the pupil preparing for the Entrance Examination is expected to prepare 335 pages of literature, comprising at least one hundred selections, written by seventy different authors, whose method of treatment, diction, phraseology, and style is as diversified as the authors are numerous. They are expected to have a general knowledge of the lives and principal works of at least a part of these authors. They are expected to commit to memory any suitable selections from the literature through the Reader, which, at a very low estimate, would amount to at least three pages, and besides this they are supposed to prepare especially for memorization poetry to the amount of 22 pages or 635 lines, making in all at least 25 pages or 775 or 780 lines. It is simply absurd to expect pupils from ten to fourteen years of age to prepare with any degree of satisfaction to

the teacher or profit to themselves such an enormous amount of literature. I appeal to all those who know the first principles of education, I appeal to teachers who have spent many weary hours in devising means and ways how best they can cram their pupils through the requirements of the Department, and I ask you if the very thought of having so much to accomplish is not enough to discourage any child, and to attempt it is to violate all educational principles and to lose sight of the very object for which Literature is taught.

Probably the object of placing the whole book on for Literature was to prevent teachers from cramming pupils upon a few lessons, but I believe that it would be better to teach a few lessons well than to attempt so much. Even if this were the object to be gained, the regulation has not only failed to accomplish its purpose, but has rather intensified the evil, for instead of teaching literature as it should be taught, many teachers, in their vain attempt to cover the work, cram their pupils with facts which they reproduce at the examination with little regard for their bearing upon the question which they are attempting to answer. In proof of this statement I have only to refer you to anyone to whom has fallen the duty of reading a set of Literature papers sent in by a class of Entrance pupils.

But perhaps someone will argue that it is not necessary to teach all the book, for any pupil who is prepared to enter the High School should be able to answer with intelligence questions based on any paragraph that might be given them. This I admit to a certain extent to be true. They should answer intelligently all general questions bearing directly on the paragraph quoted. But they should not be expected to know the relation of the paragraph to a story which they have probably never read. They should not be expected to know the meanings of words they have never seen before, and never hear used in general conversation. They should not be expected to know facts regarding places of no commercial or historical importance. Nor should they be expected to write biographical notes on any, excepting the most prominent, of the world's greatest men.

But if we are to judge from the questions on the last two papers, we must conclude that the pupils have been expected by the examiners to know these things. Take, for example, the paper of 1892, the first year the regulation was in force. In the second part of the paper is given a paragraph of about twenty-seven lines taken from the "Conquest of Bengal," which was not one of the lessons especially set apart for Literature. One of these questions asks for events that led to the battle. This I would consider a fair question in History for Primary or Junior Leaving Examination, but surely no one who has given the matter any consideration would expect pupils at this age to be acquainted with detailed accounts of the sieges and conquests of the British nation. There are many things in the history of our own country which concern them more, and which they should first know

before they have anything further than a general outline of British History. Regarding this as a question in Literature, I can not see how it would be possible for a pupil to give a satisfactory answer to it if the pupil had not studied this selection more minutely than he could possibly do in reading three hundred and thirty-five pages.

Then, again, another question asks for the meaning of such expressions as "expediency of retreating," "insidious advice," "onset of disciplined valor," and so on through the whole paragraph. But why go further. I think that I have clearly shown that both the amount of work prescribed is too much, and the style of questions asked is entirely unsuitable for the mere children for whom they were intended. Seeing such questions asked, under the existing circumstances we must be led to believe that the examiners have been dealing so long with maturer minds that they do not know how much to expect from children.

There is also too much given for memorization, and also much given, the possession of which does not compensate a pupil for the time and energy expended in committing it to memory. For instance, "The Forsaken Mermaid" is one of the prescribed selections. There is not a selection in the whole book more difficult to memorize, and what is there in it when it is memorized? There are thousands of gems worthy the gathering to fill the mind with which is to enrich it, but surely this can scarcely be called a gem.

What is the object of teaching literature? Is it to fill the minds of the pupils with cold facts? Is it to give information in geography, history or science? These are not the primary objects. The primary object that every teacher should have in view is to cultivate a love for that which is beautiful, for that which ennobles and broadens the mind and which deepens and purifies the thought; to so influence the mind of the pupils that they will acquire the power to appreciate in after-life the works of great authors, and thus give them such a desire for knowledge that their whole lives will be influenced by it. We should also endeavor to make the pupils familiar with the language and style of the author, and thus place before them an ideal worthy of imitation.

None of these objects can ever be gained so long as the present regulation is in force: nay, more, these objects can never be gained so long as we have to teach what someone has designated "scrap literature." To accomplish satisfactory results, we should take with each class the works of only one or, at most, two authors. Then an interest could be created in the work.

To do this we would require a book especially prepared for literature. This book should contain a number of selections from each of the five or six of the standard authors. By taking selections from one or two of these authors, a pupil failing at an examination would not lose interest by going over the work a second time, and thus, also, several years would elapse before a teacher would be required to teach the

same work again. Having only one author to teach each year, he could afford to supply himself with necessary books for parallel reading.

If this course were followed not only would the pupils be benefited beyond any possibility of the present system, but the teaching profession would also be benefited, and such an army of readers and literary students would soon be produced that their influence would be felt upon the literature of our country in the years that are yet unborn.

KINDERGARTEN DEPARTMENT.

KINDERGARTEN EXTENSION.

MISS AGNES E. MACKENZIE, LONDON.

The time has now come in the history of the Kindergarten in Canada, when the necessity for a more active advance movement than has been carried on in the past, is felt.

Many places are seeking for further light on the subject of Kindergarten methods, yet there are many more that have never given it a thought ; so, in addition to satisfying the demands already existing, we require to put life into these dead places.

Taking an example from successful business men of the day, we must not only fill chance orders but must canvass the country, advertising our wares and soliciting fresh orders.

As yet our Kindergarten system is comparatively unknown, and still less understood and appreciated ; more than this, the very mention of the name often rouses up the most unmeaning opposition. It is regarded in the light of a new kind of play, for the conduct of which little or no training is required—or of a nursery where babies are taken in charge—in order that their mothers may have more leisure for running about. The very last thing to be appreciated is the educational value. To many, and, among them, we are sorry to say, we find some to whom are intrusted the educational interests of our country, it is simply a useless expense. These prejudices are some of the obstacles in the way of our progress, and only by the dissemination of truth regarding the system can they be overcome.

Kindergartens have been introduced in ways that could not be termed "general methods," and I shall refer to some of these exceptional cases that have come under my own notice, believing that they may prove suggestive. The first success of which I shall speak, was due entirely to the enthusiasm of one young lady. She was so filled with the spirit of the Kindergarten that wherever she was the conversation was sure, sooner or later, to turn on this subject. Now, for one result. An influential gentleman from a certain town met her, and was so thoroughly convinced of the truth of her theories that, on his return home, he urged the members of the school board to give her an opportunity to explain the new method. This was done, and after much discussion, she was given \$100 to furnish a room in which to try the experiment. She bravely began her work, and when I last heard of her, the people were almost as enthusiastic as she, for they had experienced the benefit of having a Kindergarten among them. We

must be filled to overflowing with the spirit or we cannot communicate it to others.

The second instance is an illustration of the means that has, perhaps, hitherto been one of the most fruitful of results. A resident of a far-distant State chanced (if chance there be in the world) to go into a veritable child-garden, where one of these enthusiasts cultivated many little child-plants. He entered, knowing little about Kindergartens, and caring less, but before the morning was over, so much food for thought had been given him that he left with brain busy planning how he could bring a similar blessing to his own home, and he has succeeded beyond even his most sanguine expectations, for Kindergartens are now established in connection with some of the Public Schools there. Cases, similar to this one, might be multiplied, but one is sufficient to show how powerful a thing "a word spoken in season" may be.

Hundreds of people visit our schools every year, many of them, doubtless, to seek for information, but the majority merely to satisfy curiosity or to spend a pleasant morning. [Example: One lady remarked, as she was leaving a room, "I have enjoyed it so much; it is as good as a matinee."] But these are golden opportunities, and we should not let them slip. The kindergartner should always try to give at least one seed for thought, and, like all seed, it must germinate and grow when the right time comes.

Now, as to the more general methods. Among these, public speaking holds a prominent place. Let those who have this gift use it, and not only go when invited to speak, but make opportunities for themselves. We, in London, owe our kindergartens to the timely words of one whom we all know, Mrs. Newcomb, one of our indefatigable workers and greatest enthusiasts.

Some inquiry had been made about the "new education," and an invitation was sent to Mrs. Newcomb, asking her to explain it before a teachers' association. The wide-awake principal of one of our schools was present, and when the necessity for opening a new room arose, he proposed to begin a Kindergarten. After careful inquiry, the proposition met with favor, and in Westminster township one of the first kindergartens in the West was opened, and proved a success. When this district became part of London three years later, two more were opened, and since then five others, making eight large kindergartens in the city. Like the mustard seed which, from a small beginning, becomes a great tree, in which the birds of the air find lodging, so, from the seed sown that day has grown this great tree, where so many little birds find shelter and gain strength to take the long flights which lie before them.

A more neglected but most powerful method is the use of the pen. Many who cannot speak in public, can write. Every paper is on the *qui vive* for something fresh and new, and many a bright, short article which has never been written, except in the brain of some

of our busy workers, would have produced untold good had it been published. Incidents in our daily life, facts about the after-progress of the children, statements regarding the expenses entailed in conducting a Kindergarten—all would do something towards knocking down the barriers of prejudice which are now raised across our path. There is nothing so impressive as facts; they win, when sentiment and everything else fails.

There is still another way open to those who feel that they can neither speak in public nor write, that is, by scattering Kindergarten literature broadcast over the land. Simpson, 21 University Place, New York, has published a series of tracts especially adapted for the purpose.

These methods have all been tried, but others might be suggested which would be quite as successful.

One briefly outlined is this. Let some experienced Kindergartners spend part of the summer in a place where there is no Kindergarten, and gathering together some children conduct a free class, showing practically the benefits accruing from the practice of the so-called new methods of education. Objections will be raised to this scheme, I am sure, but yet in many cases it is feasible, if only we are willing to give our time and services.

In some places a good private Kindergarten would pave the way for its introduction into the Public Schools. There is, of course, a certain amount of risk in an enterprise of this kind; but if there were a previous agreement with the trustees that if it were successful it would be incorporated with the Public School system, there would be some encouragement to undertake it.

The last method I will speak of is as follows: Let our Kindergarten Association send one or more of the members on a lecturing tour, that they may remove ignorant prejudice and explain our methods, and in this way prepare the way for the establishment of Kindergartens. This is purely aggressive work, but if it should be adopted, we are sure the happiest results will follow.

An example of this method has lately been seen, *i.e.*, the wonderful success attending the meetings addressed by Lady Aberdeen in behalf of the Women's Council. In every instance the desired end was attained, and so might it be if a Kindergarten enthusiast gave her time and her talents to this work. While urging the spread of this gospel of Froebel, we would not wish to see too rapid growth, lest the kind would be a hot-house plant which the first breath of the chill winds of adversity would cause to wither and die.

We must also guard against sending untried teachers to the front. If possible no one fresh from her studies should go to a place where she will be alone. The first year, as we all know, is a trying one, and a teacher is the better of the support and sympathy of others. The double work demanded of all directors, *i.e.*, that of conducting a class and training assistants is too much for an untested teacher, so

I would urge that an arrangement be made to let every graduate have at least a year under a director or supervisor before attempting pioneer work.

I believe that lack of experienced teachers has been at the root of all apparent failures, both in Canada and elsewhere.

The strongest and best teachers usually prefer the larger life of a city, and often leave the places which require the strong to those who are weak, and the method is blamed, when it is simply the inability of an inexperienced teacher to show the benefits of the method.

Now to sum up. We have spoken of six ways which might be employed to introduce Kindergartens into new places.

1. By being so enthusiastic ourselves that our enthusiasm will be communicated to others.

2. By speaking a word in season to those who visit our Kindergartens.

3. By addressing teachers' associations.

4. By writing to local papers—sending articles written by others—and distributing Kindergarten literature.

5. By giving time and service to conduct a free experimental class.

6. By sending out organizers to waken the country to a realization of the benefits to be derived from the establishment of Kindergartens.

If we really lived up to our belief, *i.e.*, that every child who has not the advantages of Kindergarten training will be handicapped in the race of life, in comparison with one who has been so developed, then there would be no need to urge the sacrifice of time, strength or service, for all would be eager to spread the good news. Self-seeking would be lost in seeking for the universal good of humanity, and when we think of wrecked lives and wasted years, because of efforts misdirected, we surely see that there is no work grander or more fruitful than that of establishing in the minds of children the principles of true living. More and more the wise are coming to understand that philanthropy guiding the young is better than philanthropy trying to convert the old and hardened. Love may fail to touch the heart of the grown man, and the seeker of his good may become misanthropic because of failure. But the child's heart is hungry and thirsting for love: it is plastic to every good influence: and looking into the eager, happy faces of her children, a Kindergarten mother cannot help being an optimist.

TRANSITION CLASS.

MRS. LEONTINE T. NEWCOMB, HAMILTON.

Emerson says, "No man can teach another, only remove obstacles from the path and secure liberty in following nature's indications." Froebel echoes the same thought in the "Education of Man," viz., "Education should not be prescriptive but passively following, leading and directing."

Ruskin tells us that to "know what you have to do, and to do it, expresses the great principle of success in every direction of human effort," but the unrest which still prevails among educationists of the present day, shows we have not yet reached the Elysian fields our eyes are turned towards; and ever and anon we pause to consider the transition stages of the great unfolding. We are not builders for ourselves alone, and it follows that we must know far more even than the present time and needs demand. The broader and more thorough knowledge is, the better we may cope with its elements, and the firmer we may unite the relationships that exist in all the several parts.

So, too, with our educational system; and this brings me to the question, after the Kindergarten, what?

The so-called "Transition Class" is knocking at the door of our consciousness; and we, as kindergartners, must fully realize what seeds we are planting, and what nourishment giving, that will produce the proper growth and fulfilment on the next plane. Again, those who pick up the thread where we leave it, must spin on to a finer and more difficult web that will embody the warp and woof of the whole fabric.

In the Kindergarten the children learn by doing, and the elementary class following should unite instruction with the deed. Children from the Kindergarten, accustomed to all sorts of activities, find it difficult to conform to ordinary school discipline, and to follow, more or less, abstract subjects. From the Kindergarten to school the child should go with faculties alert, and the power to conform to new conditions, if these conditions do not violate the natural law of rational progress, otherwise Kindergarten or school, or both, must be at fault.

No new treatment of life and things, or new steps of development, should stand in strong opposition to preceding ones.

According to Froebel's principles, instruction in the class following the Kindergarten dare not stand in direct opposition to what has preceded it. Mental growth follows laws as immutable as those of physical and spiritual growth, and, if we respect gradual development in the mind of the child, as we assuredly do in the works

of nature, intervals and jerks will be fast obliterated in the practical application of principles.

The "Transition Class" should be the highest division of the Kindergarten, and an extension, rather than an abolition, of its aims and methods.

The new element of the school question need not antagonize the familiar one of Kindergarten, but should aid and help the child along lines of familiarity which bear out Spencer's idea of progression from the "known to the unknown, from the concrete to the abstract." The concrete in the Kindergarten recognizes all the advantages that come from a training which starts without books, but which places the hand of the child—that marvellous instrument which is the complement of the mind in dealing with matter—in that of nature, and develops the very "stuff" that books are made of, by parable or comparison.

Life and self-activity, rather than books, is the point of issue. Expression and free creativity on each plane of the child's growing consciousness helps him to emerge from the chrysalis of vague thought to definite power, and renders him more receptive on the next plane of metamorphosis.

The "Transition Class" should be the vestibule of the school. The door that has been opened by the Kindergarten should lead to the larger room by way of this vestibule, which in turn has its doors open in both directions. Life, Light and Love should be the "open sesame" in all three rooms, and the highest one of the college and the university will indeed be garnished for its guest. With the examples of traditional education as a warning, with the differences in national history, social conditions and, consequently, standards of life, the Kindergarten, guarded and modified, with some things eliminated and some things reinforced in the "Transition Class," may prove a blessing in elementary education, and a fortress of strength to the whole successive school life, which must be an organism that not only reflects inner connection in outward forms of variety, but assists the functional power in all its necessary parts. The kindergartner should know for what she is preparing the child, and the teacher should know the experiences which the child has passed through and the work to follow, that the connection may be unbroken.

Many futile attempts to solve the problem of this connection have been undertaken, but experience leads me to the conclusion that none but thoroughly equipped persons, with a knowledge of *both* primary and Kindergarten instruction, can undertake the work with any degree of success. The day is not far distant when the demand for dual training will be upon us, and the blended qualification of kindergartner and teacher will be required in all who guide and direct the development of all little children in elementary grades. Then, and not till then, will the problem of the "Transition Class" be solved. In the meantime, kindergartners should make their efforts a power for good in laying the foundation upon which our hopes are to be realized. In

the business world, the possessor of capital has the control over subsistence, and he can wait, even at some loss to the original amount of his capital, but in the world of thought the possessor of a truth cannot afford to wait. To possess it truly we must act it out, or, "let our light so shine" that we stand as a cloud of witnesses for the hope that is in us. The joy springing from the true possession of a thought outweighs the mere holding of prejudices, and causes them to sink into insignificance in due course of time. The genuine manifestation of the true principles of our work will win to the side of those evincing them strong helpers from the rank and file of parents and educators. As kindergartners let us strive to perfect the work at hand before reaching out to comparatively unexplored regions in transition classes, lest we be overtaken by that worst of all darkness, lack of insight.

Groping along the line of empirical thought has produced many a "mental tramp," who is among all tramps the most incorrigible. He disdains the solid bread that is the "staff of life," and flings it to the roadside, clamoring for the dainty bits to please the insatiable and vitiated taste of the wanderer. The old but forcible adage of the "rolling stone that gathers no moss," is applicable to many lines of work to-day, and we must discern, with a clear vision, the speck no larger than a man's hand, on the horizon of the future, that threatens overthrow to educational principles. Imbued with Froebel's spirit in our work, we will have a sunbeam in our hearts and minds that will give out its own energy to make all we do a living example of the truth and beauty of his principles; and just as the sun's nature really becomes organized in the things which grow out of the earth, and in the creatures which live on the earth, so will Froebel's truths penetrate and become properties of every act of the true kindergartner, and the real "gospel of education" become an energizing factor in the schools and homes of the land.

Let us be strong first as *Kindergartners*. Any flaw in the title invalidates all claim to consistency, and if not consistent with Froebel's principles and spirit, we fall short of the noblest calling of those whose privilege it is to guide "these little ones." We are now in the spring-time of our work and hopes, and our watchword is "Be strong!"

"The late benumbed and torpid heart is waking,
The warm sap floweth, creeping higher, higher ;
For Life hath seasons ; Winter's chain is breaking ;
New hopes and purposes the soul inspire.
All sights and sounds are prophecies,
Bidding the heart in joy arise.
Sweet Hope, its own fulfilment thus beginneth,
And out of Winter's chill a glorious Easter winneth."

TRAINING SCHOOL DEPARTMENT.

LESSON PLANS.

W. SCOTT, B.A.

[*An Abstract.*]

I. System is of value to all, especially the beginner.

1. It aids the teacher to accomplish the work to be done—
 - (a) By securing efficiency everywhere.
 - (b) By producing good work.
 - (c) By giving clearness of grasp of the subject.
 - (d) By causing growth—unorganized knowledge has no seed germs of growth in it.
2. It helps the pupil:—
 - (a) Pupils are like their teachers.
 - (b) They learn indirectly the value of order and system.

II. Definition of.

Notes of a lesson are the systematic arrangement of the information a teacher wishes to impart on a given subject, together with an outline of the method to be pursued in imparting it.

III. Why should notes of lesson be insisted upon?

- (a) Such notes lead to system.
- (b) The student is, so to say, compelled to teach the lesson to himself before he comes before the class.
Thus both the class and student, but the student especially, profit by this.
- (c) He discovers in this way the weak places in his armor, and is thus much more likely to know the subject with a fair degree of thoroughness.
As we all know, for teaching purposes—half-knowledge, nebulous knowledge—indefinite knowledge is no knowledge at all.
- (d) The notes compel him to freshen his present knowledge and thus renders it available for use now.
We all know Thomas Arnold's opinion of teaching from a stagnant pool, etc.

(e) The fact that he has been over every foot of ground, so to speak, and knows what mountains are to be climbed, what rivers are to be crossed, and how this is to be done, is of great service in imparting confidence to the beginner, and self-confidence and self-possession are large factors in success.

IV. In order to teach any subject successfully, and hence in order to draw up proper notes of lesson, the teacher must be prepared to answer clearly the question, "Why teach this subject?" "What end have you in view in teaching this subject?"

REASONS.

1. This knowledge serves as a guide in practice.
A wrong end is a radical error; it subverts effort, wastes time, energy, and opportunity.
2. This knowledge serves as a measure of the success of one's energy.
3. This knowledge serves as a guide to method and tests one's means or devices.
4. This knowledge is needed for definite preparation.

As well expect the gunner to hit the target who does not know where it is, as to expect good teaching from one who does not know why and wherefore he teaches a subject.

V. What should notes of lesson show?

1. The matter of the lesson, *i.e.*, what is to be taught arranged in short, comprehensive propositions.
2. The order of presentation, *i.e.*, what is to form the introduction, the first point, the second, etc.
3. How each point of the matter is to be taught. The arts and devices should be mentioned, diagrams shown, as well as the general mode of procedure.
4. The B. B. summary.

VI. How to prepare a subject for teaching and the necessary notes.

1. The student should first fill his mind with the subject—first freshen and quicken his old knowledge.
2. He should then set down on a separate sheet *one* point that must be taught, then a second, a third, etc., in any order until he considers the subject is exhausted.
3. He should then consider the work from the child's point of view, or point of contact, and seek to discover something in the child's previous knowledge or experience, to which the new may be referred or through which the new may be apperceived.

4. He should then arrange the different portions of the matter he has decided to teach in short paragraphs, so as to show the main points of information intended to be taught, and in such order as will enable him most scientifically to connect it with the old and the several parts with one another, *i.e.*, the subject should be arranged logically. This will insure clearness and a proper and natural order.
5. In connection with each part he should settle definitely :—
 - (a) Its relative importance, and hence how much time is to be devoted to it.
 - (b) How it is to be brought before the class and the nature of the illustrations used, so that the subject of this part may be clearly apprehended, and then, as far as possible, become organized knowledge.

VII. To write out the necessary notes.

1. Place at the head of the page :—
 - (a) The subject of the lesson.
 - (b) The class for which it is designed.
 - (c) The time of the lesson.
 - (d) The apparatus to be used.

Two modes of procedure :—

1. The matter and method are mixed together.

ADVANTAGES.

- (a) It is difficult at times to separate matter and method in the notes, as it is difficult to separate them in the actual delivery of the lesson.
- (b) When the separation is made it is often forced, artificial, and partial.

DISADVANTAGES.

- (a) The effort to discriminate clearly between what is to be taught and the means employed in doing the teaching is as good a training as a young teacher can get.
2. To divide the page into two columns, one headed matter and the other method. Under the matter column state in short pithy propositions :—
 - (a) What is to be reviewed.

- (b) The points to be taught in the order in which they are to be taught, as already arranged for, and in the method column opposite each separate point show the method to be adopted in explaining, illustrating, and teaching the subject. Draw diagrams used, etc.

The method should not be a stereotyped one which, under the circumstances now existing, it would be impossible to follow, but should have a certain elasticity about it so as to be at once adapted to the thought suggested by the pupil. Each subject and part of a subject will require a manner of treatment of its own. Adopt the method best suited for the point under consideration—sometimes induction, sometimes deduction, sometimes interrogation, etc.

Finally—Whatever mode of drawing up a plan is adopted a sketch of the B. B. work should be appended.

VIII. Common Faults.

1. Mixing of matter and method in No. 2.
2. Some parts are too fully written, while other parts are too brief.
3. The terms *educe*, *elicit*, *show*, *lead to see*, etc., are used without stating how the matter is to be *educed*, *elicited*, *shown*, etc.
4. Diagrams are often omitted.
5. Matter is not clearly arranged under headings and in separate paragraphs.
6. The B. B. sketch is often omitted.

INSPECTORS' DEPARTMENT.

GRAMMAR AND COMPOSITION IN PUBLIC SCHOOLS.

[An Abstract.]

W. E. TILLEY, M.A., PH.D., BOWMANVILLE.

Public School pupils frequently regard Grammar as dry, uninteresting and almost useless. The method of presenting the subject to their young minds must be responsible for this—not anything in the subject itself. Grammar, including composition, is perhaps the most useful subject on the Public School programme, and should be one of the most interesting.

Too often the child is taught to regard Grammar as an extensive system of classifications and definitions which the teacher frequently condemns as faulty and inaccurate, but which, nevertheless, the child is required to learn either in the exact words of the text-book, or in what is equally difficult and useless to the pupil, the exact words of the teacher. The narrowness of this plan of dealing with the subject is often intensified by a carefully learned and studiously followed method on the part of the teacher in presenting information to his pupils. In his home-life and in his out-of-door experience, the child had learned the use and meaning of words and expressions by hearing them from others, and by repeating them himself—not by defining them. Grammar would be more popular among our Public School pupils, and at the same time much more useful to them, if taken up more in harmony with their out-of-school life. Classifications, definitions and rules, so far as these are necessary, will not trouble a child after he has become familiar with grammatical terms by *hearing* and *using* them. Memorizing such faulty definitions, as, "a clause is a sentence that is joined with one or more other sentences to make a larger sentence," will not, in the least, assist a child to understand what a clause is, but rather will confuse his ideas in regard to both *clause* and *sentence*. As well might a window be defined to be a house that is joined with one or more other houses to make a larger house. I do not think it wise to differ from authorized text-books, except where the text-books are clearly at fault; but where fundamental principles of classification or definition are violated, as is too often done in our text-books, the errors should be pointed out, and the principles which they violate should be definitely fixed in the child's mind. But it is not my intention in this talk to deal so much with "text-book" grammar as with, what I shall call "sentence work" in grammar.

I do not consider the order of taking up the work important, but

would begin with the frame-work of the sentence. The discussions should be guided by the teacher, so as to secure a full consideration of all the elements of which a sentence is composed. Only a few of the leading elements can be referred to here. The teaching should be done mainly by examples. So far as possible, the pupils should be allowed to see and talk freely about what they are required to learn. It should be remembered also that it is not always wise to attempt to have each step *thoroughly* understood before leaving it. "Move on and make frequent reference to back work, especially to difficult portions of it," is not a bad motto for a teacher.

I would suggest that the subject be taken up somewhat in the following order :

1. Name-words, or *nouns* and *pronouns*. Two or three talks on these will be sufficient, as they will constantly occur in the after-work. Special reference should be made to those written with a capital.

2. Action-words, or verbs. Discuss with the class the two kinds of action, *transitive* and *intransitive*. Ask for examples of each expressed in sentences ; at first with the fewest possible number of words in each sentence ; as *transitive*—carpenters build houses ; boys eat apples ; *intransitive*, grass grows ; boys run. Select the name-words and the action-words ; say which kind of action is expressed by each action-word. Observe that transitive action is *done to* something, *i.e.*, something is in some way affected by it, whereas nothing is affected by intransitive action. Verbs expressing transitive action are called *transitive verbs* ; intransitive action, *intransitive verbs*. Transitive verbs make as complete assertions without objects as do intransitive verbs ; but, in the former, one part of the picture brought to the mind by the complete sentence is wanting until the object affected by the action is expressed. Hence, a sentence expressing transitive action has three distinct parts, subject, predicate and object ; one expressing intransitive action has but the first two of these parts. In the examples above, the doer of the act is said to have the subjective relation to the action, and the object affected by the act, where there is one, the objective relation to the action. Transitive action may be expressed in two ways—example: carpenters build houses ; houses are built by carpenters. The first is known as the active construction, the second as the passive construction ; and the verbs are said to have the *active* and the *passive voice*, respectively. Sentences with intransitive verbs, and those with transitive verbs in the passive voice, have no word in the objective relation to the action.

Before passing from this, numerous examples should be obtained from the class, of (1) words in the subjective relation to actions, or in the nominative case, (2) words in the objective relation to actions, or in the objective case, (3) transitive action in the active construction, (4) transitive action in the passive construction, (5) intransitive action. Again, pupils should be asked to express action, (1) naming

the actor, (2) not naming the actor, and to determine the construction in each case. They should also be questioned as to when they would use the one construction and when the other in ordinary composition. Verbs not expressing action may now be discussed, or the discussion of these may be left for a later stage. Examples may also be given of the possessive case.

3. Relation-words, or propositions. Examples, the boy *on* the floor, the man *in* the field; the boy stands *on* the floor, the man works *in* the field. The first *on* shows the relation of the boy to the floor, the second *on*, the relation of the *standing of the boy* to the floor. In the examples *floor* and *field* are the objects of the relations expressed by *on* and *in* and are hence in the objective relation, or the *objective case*. The preposition is purely a relational word having no connective force. Clearly point out that the word which stands in the subjective relation to an action has case—the *nominative*, while the subject of a relation has not, from that circumstance, case; also that the word which stands in the objective relation either to an action or to a relation has case—the *objective*. Numerous examples should be required on, (1) subject of an action, (2) object of an action, (3) subject of a relation, (4) object of a relation, as a definite knowledge of this part of grammar will make the rest of the subject comparatively easy. In rural schools, pupils can do most of this kind of work at their desks, and will be interested in it if properly directed and encouraged in their efforts.

4. Modifications, name-words, besides naming, indicate, in themselves, whether *one* thing is represented or *more than one*. Hence number—*singular* and *plural*. Also whether that which is represented is male, female or neither sex. Hence gender—*masculine*, *feminine* and *neuter*. In like manner action-words, and verbs generally, frequently indicates the *number* of the name-word in the subject, as well as in a general way the *time* of the action. Hence tense, etc. This department of grammar, though somewhat extensive, is not difficult, and may be taught incidentally while the other departments are being mastered.

5. Modifiers. This department is perhaps the link between grammar proper and composition. It is exceedingly important, and may be made very interesting to children. I shall simply suggest by an example one of the many ways of taking it up. Suppose three boys of the third class came to school late in the morning, one of whom knew his history lesson for the day, while the other two did not; others in their history class also failed to know the history. The teacher wishes to retain after school the two boys only, of the third class who were both late and failed in history. The class is asked to indicate the two boys to be retained. In looking over the pupils' efforts, the teacher finds, (1) the two boys who were late will remain after school, (2) the two boys of the third class who failed in history, will remain after school, (3) the two boys of the third class who came

late to school and who failed in history, will remain after school. It will be necessary only to read these to the class that the pupils may see which is correct. The example is of course too difficult for beginners, but it is not wise to remain too long at easy examples.

Modifiers may be considered under two heads; *i.e.*, *value* and *form*. In *value* they are either *adjectives* or *adverbs*; in *form* they are either *words*, *phrases* or *clauses*. The word *clause* should be retained for subordinate elements of a sentence with subject and predicate, and should not be substituted for the term *sentence*.

6. Analysis. In my opinion, sentences should be divided into simple and compound: simple, with one member or statement; compound, with more than one member or statement. The members or statements may be classed as simple or complex; simple, when not containing a clause modifier; complex, when containing a clause modifier. It will be noticed that a clause does not make a statement, but simply implies one. In the example, *the boy who came late may go home*, it is not stated that any boy came late, but that is assumed, or implied, in what is said. The only real statement is *the boy may go home*. *Who came late* is simply a modifier of boy. The main difficulty in analyzing is in selecting the members or statements. Any senior third class pupil should be able, readily, to analyze both simple and complex members.

7. Parsing. Parsing is simply giving in the fewest possible words what is known about the words of a sentence. Analysis and parsing enables the teacher to review rapidly, but care should be exercised not to have pupils constantly repeating what is thoroughly known. Let the pupils encounter difficulties occasionally, and in an encouraging way assist them to conquer them.

ARE ARITHMETIC AND GRAMMAR AS WELL TAUGHT
NOW AS FORMERLY ?

ARTHUR BROWN, MORRISBURG.

[*An Abstract.*]

Are they *well* taught *now*? Let the awkward composition and "bad Grammar" of the papers of Entrance candidates answer. Let the ill-constructed sentences, and faulty syntax, so often to be seen in the applications for situations, not always confined to those of *Third Class Teachers*, and not always excluding an occasional "gem" penned by a University graduate, also make reply. Consult the Examiners of Primary and Junior Leaving Candidates' answer papers, and listen to the admonition given Normal School Examiners not to "pass candidates who show themselves deficient in scholarship." Ask Inspectors what kind of teaching they too often see at their official visits, and inquire of them what story the hundreds of letters they receive tell on this point.

But why select these two branches? Because they constitute the backbone of the Public School course—the subjects most important, whether considered as a basis of mental training or the source of instruction for future use, and a weakness in teaching these involves failure in school work.

Twenty years ago teachers prided themselves upon their knowledge of English Grammar, and their skill in Mathematics, and the measure of their success as teachers, was the ability of their older pupils to parse correctly difficult selections, to correct, with reasons, almost any example in false Syntax, and to solve intricate problems in Arithmetic. Whatever may be said of the scholarship of pupils and teachers in other respects, in *these* branches they were well grounded; within the limits of a narrow course they were well trained.

How is it with the pupils of the Public Schools of to-day? Their style of work, as far as neatness and method are concerned, has improved. They have some acquaintance with a larger number of branches, but most of the children have not a real, definite knowledge of any of them. They have a smattering of History and Geography, of Agriculture and Temperance, of Drawing and the Literature of certain lessons, but they are pigmies in Arithmetic, and Parsing is a lost art.

How, then, you ask, do so many succeed in passing the Entrance Examinations? They pass on a $33\frac{1}{3}$ subject percentage, and a 50 per cent. total—a system as destructive of all thoroughness in the important mental training subjects as can well be conceived of, because

it admits of compensation for a low standing in Arithmetic or Grammar, or both, by surplus marks for Reading, Copy-books, Drawing-books, and for the composition of a thirty line letter that may have been previously drilled upon until it has become a thing of memory.

Is proof of this necessary? Here it is. Summing up the results of the last Entrance Examination at eight centres, we find that out of 897 candidates only 336, or about 37 per cent, were successful. Of the whole number 454, or 50 per cent, made less than half in Arithmetic, and 711, or 80 per cent, made less than half in Grammar. These were picked pupils, not from rural schools alone, but from towns and villages as well, and these figures are, probably, fairly representative of the rest of the Province, leaving out the cities. As the total number of the Entrance candidates is about 20 per cent. of the enrolment of pupils in the Fourth Class, the proficiency of the remaining 80 per cent. may be imagined. Would it not be wiser before substituting the Public School Leaving for the Entrance Examination, to exact a higher standing in the leading subjects of the latter, so as to ensure some thoroughness in old before adding new branches?

On the principle of "like Teacher, like pupils," would it be unfair to conclude that the Teachers of these pupils are weak along the same lines?

How many of the successful Primary and Junior Leaving candidates make less than half in Grammar and Arithmetic is, of course, known only to Providence and the Education Department, but judging from the standing of the successful ones, and from hints dropped by Examiners "in moments of weakness," it is safe to conclude that the showing is not very unlike that of the Entrance.

Let us endeavor to discover the causes of this condition of affairs. For the purposes of this inquiry, only the Third Class teachers will be considered, since outside of the cities and towns they constitute about three-fourths of all the teachers. The Primary Examination is a combination and a compromise, an attempt to accomplish by one examination two very different purposes—to test, on the one hand, the scholarship of prospective teachers, and on the other, the fitness of High School pupils for promotion to a higher form. The greater number of students do not propose to become teachers. Their ultimate aim is Law, Medicine, Dentistry, or a Course in Arts, or one at the School of Science or Agricultural College; and to meet their requirements, Latin, French, German, Physics, and Botany are added to the course of study. It is not *essential* that Third Class teachers should have a knowledge of these, because they have no occasion to teach them, but for the sake of *uniformity*, they must form a part of the teacher's course. The plea is that teachers should know more widely than they teach, that the more liberal their education the better. This is more plausible than real—wide culture is valuable, provided the width be not at the expense of depth, and it is just here that the mode of

applying the principle destroys or prevents all good effects. As regards the greater number of the High School students, an average standing in English and Mathematics is all they wish or require, and so again, for the sake of *uniformity*, all are levelled down to the same pernicious $33\frac{1}{3}$ subject percentage, and 50 per cent. total. As a matter of fact, students pay particular attention to those branches that will be of most importance to them in their future course, and consequently those who propose to follow a profession, easily secure a high standing on the elementary papers set in Latin, French, German, or Physics and Botany. Now each of these is valued for examination purposes at 200 marks, very nearly one-third of the total required for a Primary certificate. It can easily be seen then, that although *all* who pass may not necessarily be weak in Arithmetic and Grammar, it is possible for all to be so, and many are. But this examination opens the gate so far as literary qualification is concerned, for all students alike to enter the teacher's calling, and hence we have the anomaly of teachers better acquainted with the subjects they do not teach than with those they must teach. Judge, for example, what is the fitness to teach Euclid of a teacher whose course of study covers twenty-six propositions of the First Book of Euclid and who then passes on a $33\frac{1}{3}$ per cent. basis! But this is not the worst. A candidate who has absolutely failed in these important subjects may go in for a Junior Leaving, provided he is not more than 100 marks short of the total. Then, all through his future course, his weakness on these lines is no disadvantage to him, as far as securing authority to teach is concerned.

Let us notice now a few peculiarities in the construction of some of the Examination Papers, and the curious results that may follow. Grammar and Rhetoric constitute one paper, and, under the Regulations, the values are to be as two to one; that is, the value of the Grammar part is to be 133 marks, and the Rhetoric 66. At the last Primary Examination there were four questions on the Grammar part of the paper, and three on the Rhetoric, but only two of the latter were to be attempted. The candidate had to secure sixty-six marks for pass, and this he could do by answering the two questions in Rhetoric, and not touching the Grammar at all, or he could answer two questions in Grammar, and omit the Rhetoric. The paper on Algebra and Euclid was similarly constructed. The Algebra part contained six questions valued at 133, and the Euclid part three questions valued at 66. The candidate could make his pass by fully answering three questions on the Algebra part, and "jumping" the Euclid, or by fully answering the Euclid part, and "jumping" the Algebra. This may be denominated "Passing made easy," since he must be a poor candidate indeed who could not pick out "here a little and there a little," in such papers, and make a pass. This furnishes a significant comment on the plea of "wider culture" for teachers.

To sum up. Under fair conditions, teachers may justly be held accountable for the deficiencies of their pupils. The results of Entrance Examinations show that pupils are deficient in Arithmetic and Grammar, particularly the latter. Therefore the teaching of those subjects must have been poor. The statistics of Primary and Junior Leaving Examinations, and the observations of Examiners and Inspectors, lead to the same conclusion. Such a result is what might reasonably be expected from the nature of the Examination Papers, and the low grade of pass standing accepted.

What is the remedy? In the first place, raise the standard for Entrance—really raise it—not by additional subjects, but by requiring a thorough knowledge of English and Arithmetic within the limits already laid down, so that before entering the High School pupils must be thoroughly grounded in the elementary work, and thus the High Schools relieved from the necessity for doing Public School work. These pupils will then make strong candidates at subsequent examinations.

In the next place, divorce examinations that, by reason of their incompatibility, ought never to have been joined. Make teachers' initial qualifying examination a separate one, and the only gateway to the teachers' calling. Exact from the candidates a thorough acquaintance with the subjects they are required to teach, especially English and Arithmetic; then if wider attainments be practicable, secure such, but not by lowering the standard on essential subjects. Thus will they have such knowledge as will enable them to profit more fully by their Model School training, and to do better and more efficient work in their own teaching afterwards.

HAVE WE A SUFFICIENTLY HIGH IDEAL OF THE
WORK TO BE DONE IN A PUBLIC SCHOOL?

J. S. DEACON, MILTON.

[An Abstract.]

That this question is worthy of consideration will be apparent when we learn that 90 to 95 per cent. of the whole population never enter any higher seat of learning, and that the entire community lay the foundation of their knowledge, training and character in the Public School. Since the condition of society in the next generation (at least moral and educational) will depend largely upon the zeal and general efficiency of the teachers in this generation, we should aim high professionally, and strive to prove ourselves worthy of this important trust. No other work can exceed in importance that which devolves upon the Public School teacher. There is great danger of his underestimating it. His ideal of success may be good order, the ability to *pass* pupils at examinations, or personal popularity in the school section. His ideal *should be* the perfect development (physical, mental, moral and æsthetical) of those under his charge, producing thereby the best type of citizen, fully trained to habits of industry, self-reliance, self-control and self-denial. Parents, trustees, inspectors and principals of training schools are jointly responsible, and unless *all* are working with this high ideal constantly in view the result will fall short of what society, the home and the State have a right to expect and demand.

Let us consider some mistakes (of each of these) that seem to prove the existence of *low ideals*.

(a) OF TRUSTEES (and ratepayers). Small sites, badly located and untidy; school-house and outbuildings unpainted and otherwise unattractive in appearance; ventilation, heating, lighting, furniture, blackboard, etc., inadequate or improper; floors seldom scrubbed; lack of taste or neatness in all the appointments; the teacher dismissed when doing excellent work, solely because a novice can be obtained for a lower salary.

(b) PARENTS: Sending children to school too young and irregularly; urging too rapid promotion; too great indulgence and lack of firmness in home training; non-attendance at the annual meeting, and refusal to act as trustee; lack of interest generally in sustaining a good school.

(c) PRINCIPALS of Normal, and County Model, Schools, including Boards of Examiners: Not sufficient practice given in teaching and government; too much time spent on "methods" and not enough on "management;" not enough "weeding out" of unsuitable candidates

at the *professional* examinations; too little account taken of the candidate's temperament and "fitness" for the profession, and too much of his studied "methods."

(d) TEACHERS: "*Keeping*" order, instead of training pupils to keep themselves in order: letting pupils remain idle at seats; giving chief attention to the promotion or "entrance" class; giving too much assistance to seniors and too little to juniors; exercising the memory too much or too little, etc. Teachers should consider training, discipline, development and the proper formation of character as more important than the acquisition of knowledge. They should require *excellence* in every step, from the child's first day at school. They should keep pupils actively and pleasantly employed during the whole school session, thereby avoiding the necessity for home lessons, and giving time for healthful physical exercise. They should regard the work of the Primary Classes as most important of all. They should be worthy examples to the youth of the community, not only in energy, interest, neatness, etc., but likewise in abstinence from degrading habits. The Public School teacher has greater need than the minister to be an exemplar in character and devotion to duty.

(e) INSPECTORS: My knowledge of the methods employed by my fellow-inspectors is necessarily limited. I think the tendency is to dwell upon defects and to lose sight of much that is commendable. Methods of inspection should be varied to suit the necessity of each individual school. The inspector's work, as a rule, should cover *every* subject, but it is advisable to pay *special attention* in each school to those subjects that have been poorly taught or somewhat neglected. The teacher should take his ordinary work for half the time of inspection, or for the whole time at every alternate visit. The inspector, not taking part in the teaching or management, has thus a better opportunity to judge of the teacher's efficiency from every standpoint—his energy, judgment, tact, influence and control; his pupil's habits of industry, promptness, attention, interest, neatness and deportment. At the alternate visits the inspector should assume full control and assign work for every class at seats. The floor work should consist of *teaching*, or *oral review* of the work recently completed. The seat work should be a test of mechanical neatness—writing—the lesson, a story, a bill of goods, commercial forms, etc.; drawing—from First Reader, objects in room, pictures and maps. Written examinations on prepared papers are unsuitable as aids to inspection. Uniform sets of questions may be suitable for a school in December or May, but much in advance of the work completed, if used three months earlier. Before reporting, the inspector should take into consideration every subject of study and every aspect of the teacher's work, including the effect of his example and influence in the school and community.

HOW SHALL WE SECURE UNIFORMITY IN THE EXTENSION OF THIRD-CLASS CERTIFICATES? SHOULD EXTENDED CERTIFICATES BE PROVINCIAL?

J. DEARNESS, LONDON.

[*An Abstract.*]

If Third-class certificates were limited to the county in which they are granted it would be advantageous in several ways. Whether the original Third-class certificate be so limited or not, extensions ought to be. In some counties it seems to be the rule to grant an extension under Regulation 52, if at all, for only one year; in other counties holders of Primary certificates are granted extension for three years on passing the Primary, or higher grade, holders of Junior-Leaving are allowed to teach six years; and holders of Senior-Leaving, nine years, without going to the Normal School (instances were cited). With provincial Third-class certificates the Regulations should be interpreted more uniformly. If extensions were limited to the county it would not much matter whether the extensions were granted for one, three or six years; each Board could be guided by the needs of its own county.

After a teacher has graduated from the Model School it is a mistake to base an extension of his certificate on the non-professional side of his attainments. His school is more liable to suffer injury by his application to studies for a higher grade of non-professional certificate than if he were looking forward to a new trial on his professional reading and practice. Again, there are some teachers who do excellent primary work who abandon the profession from dread of failure at the Junior-Leaving examination. Such would gladly prepare to acquit themselves creditably upon professional tests, and their experience would thereby be saved to the profession. It may be said that the inspector's testimonial, as now exacted, is sufficient. That requirement should be continued, but the testing by the County Board at the Model School examination should be substituted for the passing of the non-professional examinations, and the extensions granted should be limited to the county where granted, but valid in other counties by endorsement.

FAULTY SCHOOL APPLIANCES AND THE DEFORMITIES THEY CAUSE.

W. W. BREMNER, M.D., TORONTO.

When we consider that there are 40,000 school children in Toronto and 595,000 in this province, the importance of anything bearing on their physical well-being will not be disputed.

The two appliances of which I shall speak are the seats and the desks used in our Public Schools.

Through the kindness of Mr. Doan and Mr. Groves I was enabled to carefully inspect the fittings of the Dufferin and Church Streets Schools, which, I believe, are good representatives of the best city schools, and I have, at different times, observed some of the country schools. At the Dufferin and Church Streets Schools the seats and desks are very much alike, and one description will answer for both.



Photo No. 1.

In the Junior Fifth, in both schools, a new combined seat and desk has been introduced (see photograph 1), which is almost as good as could be made. A description of this seat and of its chief features will show what a good seat ought to be. In the first place, the seat itself is set at right angles to the back, and the seat is raised about ten degrees more in front than at the back, and the back is high enough to reach to the bottom of the child's shoulders, that is, to the bottom or middle of the shoulder-bone. The advantages of this arrangement are very great. By referring to photograph 1, it will be seen how comfortably the child sits in this chair. The backward slope of the seat keeps the base of the spine in opposition to the back of the chair, and the base of the spine being thus held it becomes really a matter of effort to curve the upper portion. The back of the chair also carries a portion of the weight of the body when the child sits back in the intervals of rest or of reading, and when the back is kept straight and partially rested it is almost impossible for rotation to occur, which is one of the worst features of rotary lateral curvature,

the most common deformity of school life. The desk, also, is set at such an angle, and brought back to such a distance over the seat as would seem to be most suitable for writing in a correct position (see photograph 1).

These seats and desks are being supplied, I understand, to all the higher classes in the city, and it is proposed to supply them, as finances permit, to the lower classes, which will take several years. This method is the reverse of that which should be adopted: it is in early life that children are most liable to deformity.

Dr. Ketch, of New York, *New York Medical Journal*, April 24, 1886, summarizes 229 cases of curvature. In 52 per cent., the disease began before the 12th year.

Eulenberg, of Germany, in 1,000 cases, noted 78 between birth and the 6th year; 216 between the 6th and 7th years; 564 between the 7th and 10th years; 107 between the 10th and 14th years; 35 above the 14th year.

It is thus seen that before the 10th year the liability is much the greatest. Therefore, in providing improved seats, the change should be begun at the youngest classes.

In regard to the remainder of the seats in both schools, they are constructed in such a way as to specially favor deformity where there is any tendency towards it. The seats are on a plane with the floor, the backs slope back rapidly, in many cases the children's feet cannot touch the floor. In one large class almost every child had its feet hanging in the air, and the desks are placed much too far forward for a correct position to be easily assumed.

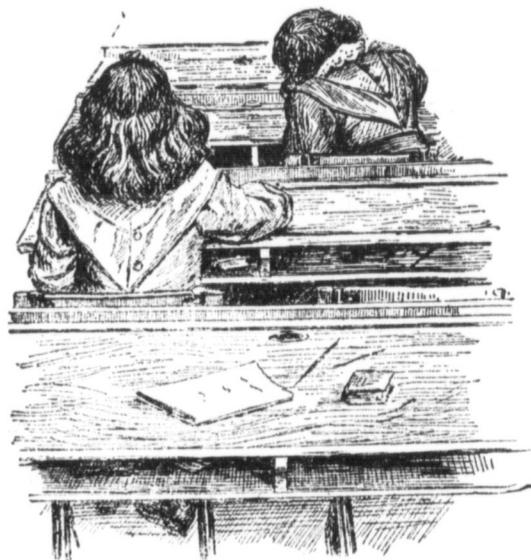


Photo No. 2.

Photograph 2 shows a child sitting in the usual position which such seats induce, the spine curved like the letter S, the right shoulder twisted forward, and the back bent. These remarks, unfortunately, apply with equal force to all the country schools that I have seen.

The deformities caused by these faulty appliances are chiefly three:

1. Rotary lateral curvature of the spine.
2. Round shoulders, or a bowing backward of the upper part of the spine.
3. Lordosis or a bowing forward of the lower part of the spine causing projection of the abdomen.

These deformities do not always occur singly, and, in fact, some

cases present all three in a very marked degree, as in the case of the youth I shall present to you. But before doing so shall consider for a moment the frequency of the first and most serious deformity.

Drachmann examined in 1884, 28,125 school children in Denmark (16,789 boys and 11,386 girls), finding curvature in 368 cases. No examination on a large scale has ever been conducted in Canada, as far as I am aware, but judging from the position taken by the majority of the female pupils in our schools, this deformity must be comparatively frequent. Girls are more frequently affected than boys. Drachmann found four girls to one boy. Many other observers agree in this matter. In the hospital for the crippled in New York, with perhaps the largest attendance of out-door patients in the world, on the staff of which I had the honor of serving for over a year, there were great numbers with curvature, but I never recollect seeing one boy. All the cases seen by me were in girls of school age. In the report of the hospital for 1892 I find there were 233 cases, forty-seven of which were males.



Photo No. 3.

This young child (photograph 3) I now present to you, who was quite straight when he went to school, shows the first deformity in a very striking manner. You will observe that not only does the body and spinal column present a marked curve with its convexity to the right, but that the spine is twisted on its axis, so that the transverse processes, instead of projecting sidewise as they ought, project forward and backward, the whole of the upper part of the body also is twisted considerably in relation to the pelvis, causing one shoulder to project backward in a very unpleasant manner (photograph 3). He also illustrates very well the bowing back of the upper part of the spine, which causes round shoulders and the bowing forward of the lower spine, causing the abdomen to project.

The cause of this deformity is chiefly the superincumbent weight of the body falling on a spinal column held in an improper position.

It is sufficient to look at a room of children engaged in writing to see the improper position most of them assume (photograph 2, front

figure). It is only necessary that this position should become fixed to have a most serious deformity, and this, in fact, is just what does occur in many cases.

It is not necessary to go into the other two deformities as they are not so serious as the one already mentioned, and it is a matter of common knowledge that sitting in a stooped and constrained position will produce the round shoulders so often seen, and the projection of

the abdomen is a compensatory curve which occurs in the attempt to stand upright.

The remedy for this state of things consists in first getting proper seats; second, attention by teachers to the position of pupils, and third by giving all school children proper exercises and gymnastics.

First,—The object of this brief paper is to call attention to the imperative need of supplying suitable seats to the children, and to the importance of beginning at the youngest. I was very sorry to see in the kindergarten of one of our large schools that the little chairs were all improperly constructed, and it is the more unfortunate, inasmuch as properly made chairs would cost not one cent more. For a moment to recapitulate the points of a good seat, (1) it should allow the child's feet to rest firmly on the floor, (2) the seat should form an angle of ten degrees with the floor, (3) the back should be at right angles with the seat, (4) the back should reach to the middle of the shoulders.

Secondly,—Teachers should attend to the position of pupils. Photo 2 shows what a correct position can be assumed even in a bad seat by instructing the child how to sit. The child who sits there so upright has the feet hanging from the floor and no support for the back; yet it is better to make children sit upright than allow them to assume such faulty positions as are usually seen.

Third,—Suitable exercises for developing all the muscles should be provided for every class, and these should be taken for a few minutes at the end of every half hour by the younger children and every hour by all the classes.

These exercises would be of great benefit to the teachers themselves.

PUBLIC AND HIGH SCHOOL TRUSTEES' DEPARTMENT.

TOWNSHIP GRANTS TO PUBLIC SCHOOLS.

J. E. FAREWELL, Q.C., LL.B., WHITBY.

School Assessment, Section 109, Page 142.

“The Municipal Council of every Township shall levy and collect by assessment, upon the taxable property of the Public School supporters of the whole township, in the manner provided by this Act, and by the Municipal and Assessment Acts, the sum of \$100 at least for every Public School therein, in which a Public School has been kept open the whole year exclusive of vacations. Where the Public School has been kept open for six months or over a proportionate amount of the said sum of \$100 at least shall be levied and collected by assessment upon the taxable property of the whole township. An additional sum of \$50 at least shall be levied and collected in a similar manner for every assistant teacher engaged for the whole year, and a proportionate amount if such assistant teacher is engaged for six months or over.”

The question to be considered in this paper is one submitted by the Public School Department of this Association to this Department, namely, the advisability of having the Township Grant mentioned in the 109th Section of the Public Schools Act raised from \$100 to \$200 for each school section.

There are many Township Councillors who discover, with much regret, that as townships become older, and as their population and wealth increases, the people demand that roads should be improved, that bridges and dangerous places on roads shall be made safer, and that the Public Schools shall be better equipped with educational appliances, and shall be taught by more experienced and better qualified teachers, and that these improvements for the common good shall be paid by the whole township irrespective of the locality in which these improvements are desired.

To the Township Councillor, whose idea of his usefulness is, and whose hope of his re-election depends upon the making of each year's tax bill less than the last one, this statutory provision requiring the whole township to contribute to each school section a certain sum towards maintenance of its school was an innovation, and a bold one at that.

This provision was regarded, doubtless, as a downright imposition and a cruel injustice. To discuss intelligibly the proposal to double the amount of the grant by townships to each school section we should enquire why the grant of \$100 was made imperative.

Every Township Council is required by law to divide the township into school sections, and so that no section of territory in any school section shall be more than three miles from the school-house in that section.

Those of us who have had any experience in township municipal matters, and all County Public School inspectors, know that the laying out of township school sections is a work of art—very high art, in fact.

The art is displayed in the endeavor of the people of each school section to include within the boundaries of their respective section as many of the most valuable farms, mills, stores and factories as possible, so that when the usual assessment of three or four hundred dollars is made to supplement the Government and county grants for schools the tax can be spread over as much valuable property as possible; and as the largest section contains the greatest number of voters, the result is that in time, by alterations, there is exemplified the truth of the declaration that "Unto him that hath shall be given, and from him that hath not shall be taken away, even that which he hath," for the large sections often become larger and the small ones still smaller. And as to the shape of some of these sections, it outrivals the worst gerrymandered constituency.

To correct this state of things, and to avoid the agitation and litigation which takes place in the efforts of the small sections to "enlarge their boundaries," the statute requires that every school section shall receive a like sum of \$100 towards the maintenance of its school; in short, the property in the large and wealthy section is required to furnish its own \$100 and something towards the payment of a like amount to the poorer sections.

There is another matter to be considered: by the introduction of labor-saving machinery, by changes in the system of cultivation, and by changes in the occupation of the laboring-classes, the number of agricultural laborers is being reduced in some sections, and with this reduction the school population has become much less. For example, a school adjacent to a town, which I taught thirty-five years ago, had in my time about ninety pupils; at present the largest number in attendance, I am told by the inspector, rarely reaches half that number. The number of pupils in some sections has become so reduced

that there is a strong tendency to employ teachers who will accept the lowest possible salary, with the usual result that the teaching is not worth much more than what is paid for it. And with a poor school in the section many of the children attend the schools of neighboring sections where better teachers are employed.

I understand that in the township of Clark, there is one section where the pupils of school age are so few that the people have made arrangements to have all the children carried to the school in an adjoining section and maintain no school of their own.

See schedule as to amount of Government grant and county grant to some schools.

The power given by the School Act to township Councils to have a Township School Board was doubtless given in the hope that the difficulties above mentioned might be obviated, but the desire for Home Rule in Canada is so strong that only in a very few cases has advantage been taken of this provision.

Some townships have made grants of double the amount required by the statute, and are quite ready for the proposed amendment.

This scheme for aiding every school out of township funds with a fixed grant has this in its favor :—

1. It is fair and equitable, since the education of all of the children in a township is a benefit to the whole township, and all the rateable property in the township is made to bear to a certain extent an equal proportion of the cost of education.

2. The receipt of a fixed sum from a township renders it possible for a small school section to employ a teacher who is competent for the work without overburdening the people of a poor section.

3. The children within one section are taught there and the better schools are not over crowded.

4. The tendency to employ poor teachers with poor results is to some extent corrected.

There has been comparatively little complaint as to the scheme from which we may infer that the plan within certain limits is a beneficial one. The Deputy Minister of Education informs me that the scheme has met with much approval.

This statutory provision under consideration has not perhaps been in force long enough to afford sufficient data from which to form an opinion definitely as to its advantages and disadvantages.

If it is found by experience to have produced some of the results which are hoped for, the grant might be doubled with beneficial results to all concerned.

TOWNSHIP GRANTS TO PUBLIC SCHOOLS.

Schedule showing the great difference between the amount of Government and County Grants to different school sections in four Townships of the County of Ontario :

RECEIVED FROM TOWNSHIP TREASURER.

TOWNSHIP OF EAST WHITBY—No. 2	{	.....	\$78 29	
		.....	80 68	
			<hr/>	\$158 97
“ “ “ No. 4	{	.....	\$47 27	
		.....	38 26	
			<hr/>	85 53
“ “ “ No. 7	{	.....	\$13 95	
		.....	22 60	
			<hr/>	36 55
TOWNSHIP OF BROCK—No. 13	{	.....	\$75 23	
		.....	73 41	
			<hr/>	148 64
“ “ “ No. 8	{	.....	\$35 76	
		.....	33 32	
			<hr/>	69 08
“ “ “ No. 14	{	.....	\$17 95	
		.....	12 90	
			<hr/>	30 85
TOWNSHIP OF PICKERING—No. 15	{	.....	\$109 50	
		.....	115 76	
			<hr/>	225 26
“ “ “ No. 4 (W)	{	.....	\$68 90	
		.....	86 89	
			<hr/>	155 79
“ “ “ No. 1	{	.....	\$19 61	
		.....	17 75	
			<hr/>	37 36
TOWNSHIP OF REACH—No. 12	{	.....	\$62 64	
		.....	58 00	
			<hr/>	120 64
“ “ “ No. 6	{	.....	\$40 51	
		.....	37 77	
			<hr/>	78 28
“ “ “ No. 3	{	.....	\$14 05	
		.....	13 53	
			<hr/>	27 58

THE LATEST DEPARTMENTAL REGULATIONS CONCERNING FIFTH FORM WORK AND THE PUBLIC SCHOOL LEAVING EXAMINATION.

JAMES H. BURRITT, PEMBROKE.

MR. PRESIDENT,—The Executive Committee have done me the honor to assign this subject to me, I presume mainly because this Fifth Form work was one of the clauses of my paper on the "Workings of the Public School Law, 1891," read last spring, which evoked the most discussion and in which the greatest interest was manifested.

I am sorry the task has not been allotted to a fitter person.

I am not unwilling to do my best, and candidly think this Fifth Form is the key to the success of both schools, and its importance to the people of Ontario cannot be easily estimated.

Unfortunately, I am unable to tell you to-day anything about the practical working of the New Regulations, because the schools in the town whose Board of Education I represent here have not yet taken up the Fifth Form work, so that I have to content myself with a critical inspection of these regulations, and as well as I can work out the probable result of the present condition of things under these regulations.

You will remember Clause XIII. of my paper referred to was in the following words: "That the Fifth Form be made compulsory in all Public Schools in cities, towns, and incorporated villages; and that the Junior Form in the High Schools be made to begin where the Fifth Form in the Public Schools leaves off." This clause passed this Department by a two-thirds vote, and I presume the Minister of Education was memorialized to give it effect. I was particularly pleased to see a portion of the same subject, namely, "The Public School Leaving Examination," so ably presented by Mr. Henry Reazin, Public School Inspector, at the last meeting of this Association, and I suppose the pressure from these two departments persuaded the Minister of Education to deal with the question, which has resulted in the new regulations of August, 1893.

I am glad to add my measure of thankfulness to the Hon. Mr. Ross for so soon after our request granting us the Fifth Form. This in itself is so much gained, but I fancy I see breakers ahead. I will readily concede it is a very difficult matter to alter fixed educational regulations and have everything work harmoniously and efficiently at once, but it does strike me that although the Public Schools have gained the Fifth Form, *prima facie*, yet if the Public School is only a

part of the whole system, then I am of the opinion the system is no better off, and the remedy a very doubtful one.

If this Department fully understood the import of Clause XIII. of my paper referred to, and I think they did, they would reasonably expect that by the introduction of the Fifth Form in the Public School there would be a withdrawal, in a measure at least, from the High School of the subjects prescribed for the Fifth Form; they would expect that a pupil passing the Leaving Examination and entering the High School would stand on a higher plane, so far as kindred subjects are concerned, than they occupied whilst in the Fifth Form. Less than this would be useless, to my mind, and it may surprise some of you when I tell you that the new regulations are practically useless, so far as concerns those pupils who pass from the Fifth Form into the High School. It will no doubt necessitate a complete change of curriculum in the High School if the remedies suggested later on herein are made, and I hope they will be made; and without their being made I fear the Fifth Form will fail in its usefulness to a very considerable extent. To illustrate: If you will refer to the new regulations, sub-section 2 of clause 10, you will see it says, "Candidates who pass the Public School Leaving Examination shall be entitled to admission into the classes in Form 2 of a High School *in the subjects of the Public School Leaving Examination.*" Now, if the subjects of the Public School Leaving Examination in Form 2 of the High School were in advance of those subjects in the Fifth Form, it would be, as one would reasonably expect, but a reference to the subjects in Form 5 (page 3, new regulations), and the subjects in Form 2 of the High School (page 20, old regulations) will convince you that they are almost wholly identical; so that the inevitable effect is, that a pupil passing the Public School Leaving Examination goes into Form 2 of the High School to spend one year, at least, going over the same work he did the year before in the Fifth Form, plus, of course, the classics. What is the result? Pupils will pass the Entrance Examination from the Fourth Form (for the entrance is not gone yet) and enter the High School without touching the Fifth Form at all. The effect will be to strangle the Fifth Form and render it so unpopular as to be put out of the schools altogether. This state of things is certainly not right and should be remedied at once.

The only solution, and one which I think this Department ought to demand, is that the subjects prescribed for the Fifth Form should embrace entirely the subjects of Form 2 of the High School (less the classics), and in this latter form the advanced English subjects be taken up. This is what Clause XIII. of my last paper asks for; this, in my opinion, is what the country wishes and will be content with nothing short of.

There are some minor matters which I think ought to be noticed, and I trust will be remedied. In Form 5, in Euclid, only twenty-six propositions of the First Book can be taught; this, I think, is a mis-

take—it should embrace all the First Book. Then again, “Algebra, simple equations one unknown quantity” (this is the same in Forms 1 and 2 in the High School). This I think very objectionable; it is like attempting to teach the Alphabet and stopping at the letter “S”. Two unknown quantities at least ought to be taught; in other words, simple equations should be taught fully.

Keeping in mind the fact that the Public School is the National School, wherein 92 per cent. of the children of Ontario complete their education (according to the statistics compiled by Dr. Jackson and found in his paper read last year), it ought to be conceded without a dissenting voice that the more advanced and thorough the curriculum is in the Public School, the more intelligent the future nation, at least the Ontario branch of it, will be. Short of this acme we should not stop; it should be our constant effort, as the representatives of the people, to see that their welfare in the educational direction is secured to the greatest possible limit, and then carefully watched and guarded.

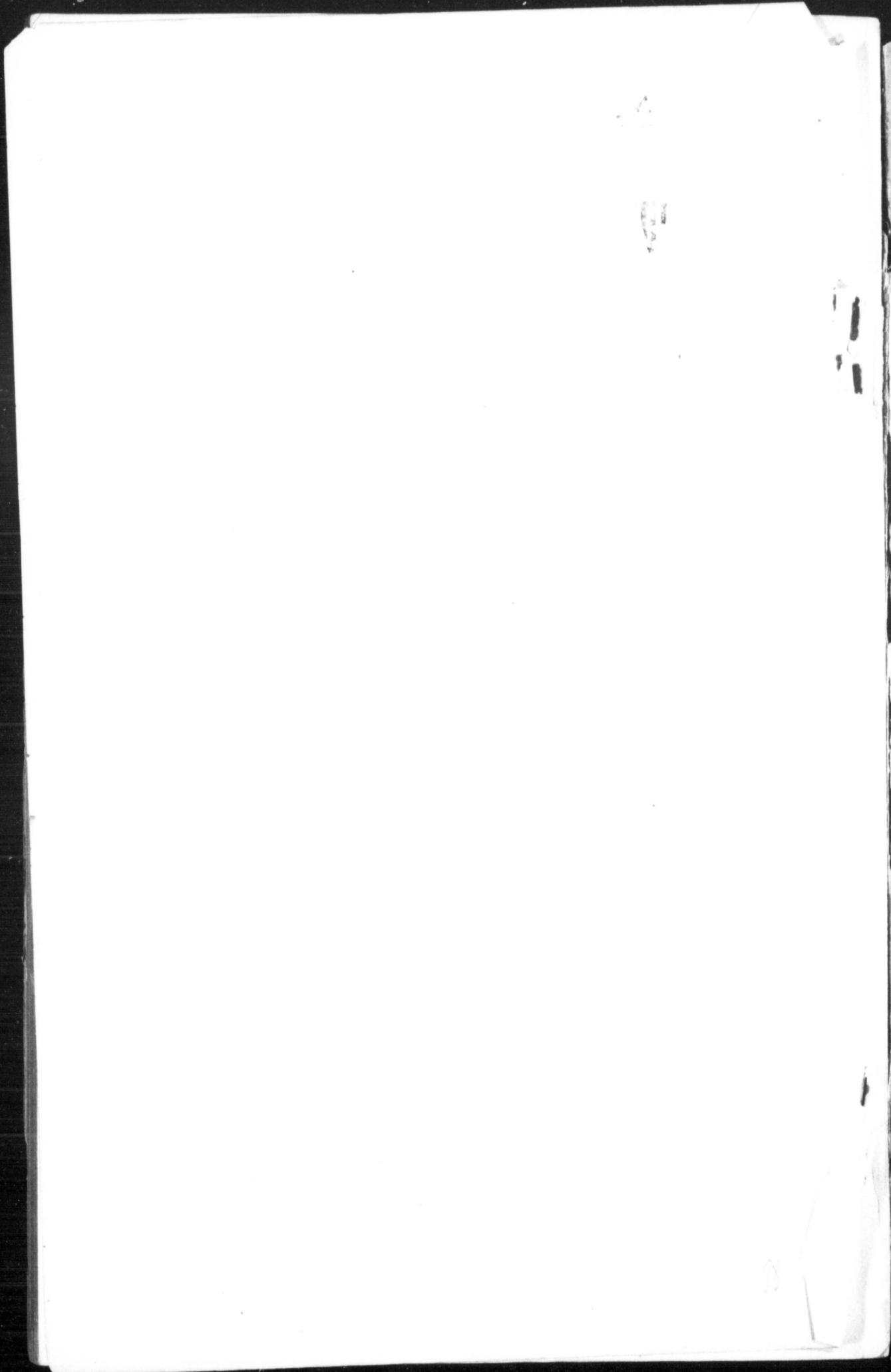
I cannot better close this paper and emphasize this feature of the question before us, than borrow a few sentences from Dr. Jackson's valuable paper, read at our last meeting:

“Our Public Schools are *par excellence* the people's schools, and they should be utilized for the people to their utmost limit. The change (making the Fifth Form compulsory, and the standard of entrance to the High School) would not only tend to raise the popular standard of Education, but it would be in the interest of economy. Our Educational system is supported by the people, and it is or should be for the people. In order that the greatest good for the greatest number should be secured, the Fifth Form work should be compulsory, and the basis of the entrance for the High School,” and I again add, that the initial work in the High School should begin where the work in the Fifth Form leaves off, and not as it now does, completely overlap one on the other.

The following valuable remarks of Mr. Reazin will be apt here again: “But unfortunately the Public School Leaving Examination does not seem to have met with the approbation of our dominant class of teachers. The High School men seem afraid of it; they would rather work away on poor material than run any risk of becoming short of material. They would, it would seem, prefer to go on preparing candidates for the Primary out of poor material, two-thirds of whom are destined to be plucked, rather than surrender the Public School bone or any part of it, of which they are in illegal possession; and so in some way that we cannot account for, the new Public School Leaving Examination was ushered in with such a severe set of examination papers, and surrounded with such very restrictive regulations, that many people were led to believe that an attempt was being made to render it unpopular with teachers and trustees, unpopular with the public, in fact, to strangle it at its birth. . . .

The true interests of the High Schools demand that the admission to the High School be raised, that it be raised to the Public Leaving ; that Algebra and Euclid be placed upon it, that the Public School Leaving be made a reasonable examination, suitable to the capacity and highest mental development of the Fifth Class in the Public Schools. The High Schools are for the few, the Public Schools for the many, and the time is just at hand when the public will no longer tolerate any interference with their efficiency, no matter in what other interest it may be."

These words are very opportune, as much so now as they were last year, when they were uttered, and should be kept before the authorities. as the sentiments of the people, on whose behalf those in authority are supposed to be working.



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