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Vol. I. No. 4.

APRIL, 1881.

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THE

# EDUCATIONAL RECORD

OF THE

PROVINCE OF QUEBEC,

PUBLISHED MONTHLY, UNDER THE AUTHORITY OF THE PROTESTANT COMMITTEE OF  
THE BOARD OF EDUCATION, AND CONTAINING THE OFFICIAL  
ANNOUNCEMENTS OF THE BOARD.

EDITED BY R. W. BOODLE.

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MONTREAL:

GAZETTE PRINTING COMPANY.

1881.

# CANADA LIFE ASSURANCE COMPANY.

ESTABLISHED 1847.

HEAD OFFICE, HAMILTON, ONT.

Capital and Funds, OVER 5,000,000 DOLLARS.

Annual Income about \$850,000.

MANAGING DIRECTOR AND PRESIDENT :

A. G. RAMSAY.

SECRETARY :

R. HILLS.

SUPERINTENDENT OF AGENCIES :

J. W. MARLING.

## ABSTRACT.

1. Assets 30th April, 1880.....	\$4,297,851
2. Income for the year ending 30th April, 1880.....	835,856
3. Income (included in above) for the year from interest and profit on sale of Debentures.....	243,357
4. Claims by death during the year.....	192,948
5. Do. as estimated and provided for by the Company's tables.....	296,878
6. Number of Policies issued during the year—2107, amounting to.....	3,965,062
7. New premiums on above.....	111,382
8. Proposals declined by Directors—171—for.....	291,200
9. Policies in force 30th April, 1880, 12,566, upon 10,540 lives.	
10. Amount assured thereby.....	21,547,759
11. Death claims fell short of expectation by.....	103,930
12. Interest revenue exceeded Death claims by.....	50,309

## 1880 versus 1850.

The Assurances now (1880) in force are **twenty-five times** greater, the Annual Revenue **thirty times**, and the Total Funds **one hundred times** greater than in 1850.

New business last year exceeded that of the six other Canadian Companies combined—that of the five Licensed American Companies combined, and was more than double that of eleven British Companies combined.

The CANADA LIFE carries over a fourth of all the existing business in Canada.

The bonus additions to Life Policies during the past 15 years have added \$875 to every \$1000 of original assurance and this now stands at \$1375 and will be further increased at each future division of profits.

During the same period 35½ to 33 per cent. of all premiums paid were **returned in cash** to those preferring this mode of distribution, according to age say 40 and 20 years, when policy was issued.

**Montreal Branch, 180 ST. JAMES STREET.**

R. POWNALL,

*Sec. for Province of Quebec.*

P. LA FERRIERE,

*Inspector of Agencies.*

JAMES AKIN, *Special City*

AGENCIES THROUGHOUT THE PROVINCE.

THE  
EDUCATIONAL RECORD  
OF THE  
PROVINCE OF QUEBEC.

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No. 4.

APRIL, 1881.

VOL. I.

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PROCEEDINGS OF THE PROTESTANT COMMITTEE OF  
THE COUNCIL OF PUBLIC INSTRUCTION.

EDUCATION OFFICE,  
Quebec, 23rd Feby, 1881.

Which day the quarterly meeting of the Protestant Committee of the Council of Public Instruction was held.—Present: The Lord Bishop of Quebec, Chairman, Dr. Cook, Dr. Dawson, The Lord Bishop of Montreal, R. W. Hencker, Esq., The Hon. W. W. Lynch, The Hon. Gedeon Ouimet, Superintendent of Public Instruction. The minutes of former meeting were read and confirmed.

The Hon. the Superintendent of Public Instruction reported that, as requested at last meeting, he had brought under the notice of the Government the views of this Committee in regard to the arrears of Marriage License Fees, from 1867 to 1873, as well as the question of the balances claimed as due to this Committee by 39 Vict. Cap. 15 Sec. 19; but that no answer in regard to these matters had as yet been received from the Government. He further stated that Mr. Emberson had resigned his office of School Inspector.

The Committee in view of the report by the Secretary, on the examination papers of Miss Margaret G. McNeil, Teacher, and her own explanation by letter laid before the meeting, agreed to recommend that the Board of Examiners, Bonaventure, grant her a second class Elementary Diploma.

Letters from Mr. Kenney, Secretary of the Aylmer Academy, and from the Hon. L. R. Church requesting that said Academy should be inspected, having been read, the Committee agreed that the request should be complied with, and that due intimation of the Inspection should be given.

In answer to a letter from Mr. George S. Ramsay, Principal Eaton Academy, stating that said Institution is open but two terms of the year, the Secretary was instructed to say that Cap. 15 Sec. 90 of the School Law, defines the length of time a school must be kept open during the Scholastic year to entitle it to a Government Grant.

In answer to a letter from Mr. J. G. Scott, Chicoutimi, complaining that the Protestants there had in consequence of the small number of children attending the Protestant School, to pay the School tax to the Roman Catholic Schools, and maintain their own School besides, the Secretary was instructed to inform Mr. Scott, that it is not necessary that there should be a fixed number of scholars in Dissident Schools, and that, if the Protestant inhabitants of Chicoutimi dissent in the usual manner, they will be entitled to their own School tax.

A letter having been read from Mr. Hubbard, School Inspector, stating that the present Principal of the Danville Academy holds an Academy Diploma from the McGill Normal School, that said Academy is now well attended and efficiently conducted, and recommending that it be inspected along with other Academies and Model Schools next May, the Committee directed that said Academy be inspected as requested.

The Hon. The Superintendent of Public Instruction, reported that the recommendation by the Committee of appointments to the Board of Examiners, New Carlisle, was before the Government, and that Mr. John Harper, Rector High School, Quebec, had been appointed a member of the Board of Examiners, Quebec. The Committee further appointed the said Mr. Harper, a member of the Committee to draw up Examination papers for Candidates for Teachers' Diplomas.

The following is the Report of the sub-committee, on School-book Law of 1880, (43, 44 Vict., Chap. 16.)

"On consideration of the above Law, your sub-committee beg leave to report:—

"That in their judgment a respectful request should be addressed to the

Government, to propose to the Legislature at its next meeting, the repeal of the clauses 8 to 15 inclusive of the "Act to further amend the laws of Public Instruction, cited above (Assembly Bill No. 133), for the following reasons:—

"(1.) That the rigid uniformity prescribed by the Act in restricting Schools to the use of one text-book only in each subject, or in certain cases to two, one elementary and the other advanced, is impracticable in connection with the proper teaching of most subjects, and in view of the requirements of different grades of Schools.

"(2.) That such restriction and the continuance of the same for four years as required by law, must tend to the creation of monopolies, to the promotion of illegitimate speculation, and to the injury of the authors and publishers of useful text-books, as well as to the discouragement of the wholesome rivalry in the production and use of improved books.

"(3.) That such restriction is, as far as this Committee is aware, an untried experiment; and that, under the existing law, the regulation at present in force which provides that only one text-book in each subject is to be used at one time in each class, the Inspectors of Schools have been able to attain to some approximation to a desirable uniformity; that efforts of this kind are still in progress and can be carried on under the provisions of the law previously in force.

"(4.) That this Committee was not consulted with reference to the law referred to, and would respectfully submit that the enactment of measures so extreme, without any consultation with those who have been engaged in administering the existing law, is derogatory to their functions, and not likely to be beneficial to education.

"(5.) That the subject was discussed at the annual meeting of the Association of Protestant Teachers, for the Province of Quebec, in October last, and a resolution was unanimously passed and was communicated to this Committee, deprecating the enforcement of the provisions of the new Law; A copy of this Resolution is submitted herewith.

"Your Committee further submit with this report, an amended list of text-books, in which they have endeavoured to attain to uniformity in so far as consistent with the interests of the Schools.

(Signed)

R. W. HENEKER,  
*Convener.*

(Copy)

HIGH SCHOOL MONTREAL, 17th Nov. 1880.

REV. GEORGE WEIR, M.A.,  
*Secretary, P.C. of the C. of P.I.*

DEAR SIR,

I am instructed by the Provincial Association of Protestant Teachers, to forward to you the following resolutions passed at the convention held in

Montreal, on the 20th, 21st and 22nd of October last, with the request that they may be brought before the Protestant Committee of the Council of Public Instruction.

I remain yours sincerely,

ELSON I. REXFORD,

*Secy. P. A. P. Teachers.*

[The letter contained a Report of the Proceedings of the Teachers' Convention, held in October, in the matter of Text-books (*vide Educational Record* p. 8-10), as well as the Resolutions passed with regard to the Examination of Teachers (*ibid.* p. 12.)]

On the motion of Dr. Cook, seconded by the Lord Bishop of Montreal, it was unanimously Resolved:—

"That the report of the Sub-Committee on Text-Books be received and adopted, and that the same with the Amended List of Text-Books, be placed in the hands of the Superintendent to be by him submitted to His Honour The Lieutenant Governor for Approval."

The Hon. the Superintendent of Public Instruction stated that the correspondence in regard to the appropriation of the school-tax on Price's Mills, Metis, was not yet complete.

Dr. Dawson reported that the Hon. Senator Ferrier and he had explained to the Hon. the Treasurer of the Province the views of the Committee as to the Grant of the Normal School, and that he had promised to give consideration to the matter.

The Sub-Committee on the publication of the Educational Record beg leave to report:—

"That, in accordance with the Resolutions of this Committee, the arrangements were completed with the Gazette Printing Company of Montreal, and that two numbers of the Record have been issued. It is intended that the Record shall appear at the beginning of each month, but unavoidable causes have produced a little delay in January and February.

"The mechanical execution of the numbers issued is creditable, and the Editorial Management appears to be satisfactory.

"The publishers report that the number of copies issued has exceeded by 81 the number of 600 contracted for by the Committee; but as it is likely when the lists shall have been brought into a more complete state, that some changes may be made, this matter is left to be arranged at a future date.

"The lists so far include the members of Government and Superintendent of Education, the members of this Committee, the Boards of Examiners, the Inspectors of Schools, the Secretaries of Boards of Commissioners and Trustees, the Principals of Colleges and Academies, the Teachers of Model and Ele-

mentary Schools; but as the names and addresses were obtained from the Educational Department in successive instalments, and have not yet been collated, they are necessarily very imperfect, and it is hoped that before the issue of next number they will be in a more complete condition.

"The account of the publishers for the amount of their contract is presented herewith, and it is recommended that it be transmitted to the Hon. the Superintendent of Education for payment out of the special grant for the purpose.

"(Signed)

J. W. DAWSON, *Convener.*"

On the motion of Dr. Dawson, seconded by the Lord Bishop of Montreal, it was unanimously Resolved:—

"That the Report be adopted, and the account of the Publishers transmitted to the Hon. the Superintendent of Education, with the request that it be paid out of the special grant for the Educational Record.

On the motion of R. W. Heneker Esq., seconded by Dr. Cook, it was unanimously Resolved:—

"That the attention of the Minister of Agriculture of the Dominion be called to the absolute necessity of making provision for the taking of the Census in such a manner as will insure not only accuracy in the enumeration of the population of this Province, but also a classification of the population into Roman Catholics and Non-Roman Catholics respectively,—in as much as the public grants for Education are based on this classification, and the money raised by taxation in the principal cities of the Province is in some important particulars applied on the same basis.

"That in order to satisfy the Minority of this Province there should be in all the cities of the Province an equal number of Roman Catholic and Protestant Commissioners employed in the taking of the Census."

A copy of the Report of the McGill Normal School Committee, with reference to laws affecting the schools, together with the Resolution of the Corporation of McGill University thereon, having been laid before the meeting, the committee agreed to adopt said Report, and ordered it to be included in the Report by the Sub-Committee on the proposed new Education Act.

On the motion of Dr. Dawson, seconded by R. W. Heneker Esq., it was unanimously Resolved:—

"That, with reference to the report of Sub-Committee on recognition of Degrees in Arts and Matriculation Examinations in Universities as qualifications for admission to study for the learned professions, and on the establishment of uniformity in the examinations for entrance to such professions, the Chairman of the Committee and the Rev. Dr. Cook be requested to urge upon the members of the Government the importance of the subject in the interest of general Education, with the view to suitable legislation."



On the motion of Dr. Dawson, seconded by the Lord Bishop of Montreal, it was unanimously Resolved :—

“That the members of this Committee, on occasion of its first meeting after the lamented decease of the Honorable Judge Dunkin, desire to record their sense of the great value of his public services as a member of the Council of Public Instruction and of this Committee; and to convey to Mrs. Dunkin and to the other relatives of the deceased the expression of their sincere condolence and sympathy.

“That a copy of this Resolution be communicated to Mrs. Dunkin.”

The Sub-Committee on the proposed Bill to consolidate and amend the laws relating to Education submitted a report embodying suggested Amendments to the proposed Bill—mostly as to matters of detail—but asked leave to continue their labours as their work was not yet completed. The report was received, the details considered and permission granted to sit again.

On the motion of Dr. Dawson, seconded by Dr. Cook, it was unanimously Resolved :—

“That, in view of the vacancy of an Inspectorship reported by the Hon. the Superintendent of Education, the mover, with the Rev. Dr. Leach and Dr. Church be a Committee to make arrangements for the necessary examination under the law, and to notify The Hon. the Superintendent of Education of the date at which the Examination will take place.”

The accounts with proper vouchers for all payments were submitted, examined and found correct. The present cash balance in the Bank of Montreal is \$1623.62.

The Secretary's account for contingent expenses amounting to \$3.12 was ordered to be paid.

There being no further business, the Committee adjourned to meet on Wednesday the 25th May, or sooner if necessary.

GEORGE WEIR, *Secretary.*

## A CONTRIBUTION TO THE CONTROVERSY ON THE TEACHERS' PENSION ACT OF QUEBEC, 1880,

BY S. P. ROBINS, M.A., LL.D.

The desirability of making some public provision for teachers disabled by age and infirmity is undisputed. But grave differences respecting the value of the present Act exist in the minds of those chiefly interested. The Act presents many admirable features, but calculation, not sentimental considerations, must determine its worth.

Waiving all other points in the discussion I propose to answer, as best I can, the question: What percentage of their salaries must teachers expect to pay when the law shall be in full operation? An exact answer could be given, if from accurate statistics, collected from the whole Province, and extending over several years, due account of the influence of the Pension Act itself being taken, we could know, at each age, and for married male teachers for unmarried male teachers and for female teachers separately, what will be, 1st, the number embraced in the provisions of the Act; 2nd, their average emolument; 3rd, their average mortality; 4th, the number annually disabled by accident or illness, and 5th, in the case of married male teachers, the average ages of their wives, and the average numbers and ages of their children. Accurate statistics regarding all these points are not forthcoming; yet from a careful collation of facts that are known we may obtain for our guidance valuable first approximations to the truth. Such approximations are contained in the accompanying table.

I. — The first column of the table is a mere enumeration of ages from 18 years, the age at which teachers may begin to count their services, up to 48. The table does not extend beyond the latter age, because the effect of the Act will be to bring into the profession, through the Normal School and otherwise, a number of young persons who will be entitled to superannuation at 48. At this age all these will retire with three-fourths of their average salary as an annual pension.

II.—The second column of the table exhibits the supposed relative, not absolute, number of teachers of each age in the

Province of Quebec. In constructing it the following points have been considered :—

(a) The report of the Hon. the Superintendent of Public Instruction for 1878-9 gives as the number of lay teachers 4549—578 males and 3971 females. The same report shows that about 42 male teachers and 84 females annually receive diplomas from the three Normal Schools, and a comparison of returns for some years back shows that about 72 men and 748 women annually receive diplomas from the several Boards of Examiners. Some of these are diplomas of higher grade granted to persons who already hold the lower, and some persons who receive diplomas do not teach. From these facts and from the best information that I can gather, it seems safe to conclude that from 12 to 13 per cent. of teachers annually retire from the profession.

(b) But this loss falls most heavily on the younger ages. Many young teachers early discover inaptitude and retire. Men who make teaching a stepping stone to other professions leave early. Women who retire on the occasion of marriage usually do so before the age of 35. In short, after that age retirement from the ranks results usually from death, from sickness or emigration. The latter cause will cease to be influential when a satisfactory Pension Act works out its natural consequences. Accordingly, a percentage of retirement decreasing from the age of 18 to that of 40 has been assumed.

(c) No attempt has been made to separate between men and women in this column. The percentage of annual retirement is so nearly the same in the two sexes that separate columns are not needed.

(d) Though it is highly probable that one person in seven now annually leaves teaching, this column assumes an average abandonment of  $12\frac{1}{2}$  per cent., because one effect of a good Pension Act will be to secure greater permanence in the profession. It will be seen that 82 per cent. of all teachers are supposed to give up before reaching 28, the age at which they become entitled to any advantages from the Pension Act. At 40 years but one teacher in ten is supposed to remain.

III.—The third column gives the amount annually paid by the teachers enumerated in the second column if each teacher of 30 years of age and upward pays one cent, and teachers of less age

amounts proportionate to their smaller remuneration. In determining these smaller amounts it is assumed that salaries at 18, 19 and 20 years of age remain stationary, and that they then increase by equal increments until at 30 years they are double what they were at twenty. It is thought that this assumption will accord well with the truth, because though no single salary may increase so rapidly as this, yet those who find teaching unremunerative abandon it, and, consequently, average salaries rise with age more rapidly than individual salaries.

IV.—The fourth column gives the amount at compound interest, until the age 48 is attained, of the several contributions given in column three. The table assumes 5 per cent. interest throughout.

V.—The fifth column gives the amount of the retiring pension to which each disabled teacher is entitled for every \$40 of average annual salary he has enjoyed. Half these amounts represent widows' pensions.

VI.—The sixth column gives the number of teachers who will probably be disabled from among the number entitled to a retiring allowance. It is difficult to define disablement. Here it is assumed to be liability to sickness for eight weeks in each of two successive years. The statistics of annual sickness collected by Mr. Neison and by the Manchester Unity of Oddfellows have been the basis of calculation of this column.

VII.—The numbers in column VI., multiplied by those in V., give those in the seventh column, which state the proportions of annual pensions to be provided for the disabled of each year for each \$40 of the average annual salary of teachers.

VIII.—The eighth column gives the present values of the pensions in the preceding column. For the sake of those who may wish to verify this and other similar columns of the table, and who have no tables of life annuities at hand, column XV. has been given, which gives the present worth of a life annuity of \$1 to a person of the age opposite.

IX.—If the present worth of each annuity, as in column VIII., were accumulated at interest up to the age 48, the amounts of the ninth column would be obtained.

X.—The tenth column gives at each age the number of teachers

who may be expected to die, according to the Carlisle mortality table.

XI.—In calculating the special advantages of male over female teachers, it is assumed that male teachers who die after the age of thirty-one leave widows younger on the average than themselves by five years. The privileges of minor children are omitted as a set off to the male teachers over the age of thirty-one, who die unmarried. The number of the latter will be found to be but small, because the chief reason for continuing in a profession so ill regarded is that a man has early plunged into family entanglements and responsibilities. Column XI. gives the annual pensions due to the widows that will be left from among married male teachers of thirty-one years of age and upward, for each \$40 of annual salary. It is found by multiplying the numbers in column X. by half those in column V.

XII.—The twelfth column gives the present values of the widows' pensions, and is calculated as column VIII., remembering that each widow is supposed to have been five years younger than her late husband.

XIII.—The thirteenth column gives the amounts, accumulated at five per cent. compound interest, as in column IX., of the values of widows' pensions.

XIV.—The fourteenth column gives similarly accumulated values of the right of wives of disabled teachers to one-half of their husband's pensions after the demise of the latter.

Eighty-five teachers retire at 48, and receive for each \$40 of average annual salary pensions of \$30. The worth of this provision is  $85 \times 30 \times 12.11 = \$30,880.50$ . To this we should add the accumulated values of the pensions to disabled teachers, total of column IX., \$381.09. To unmarried teachers of the numbers and ages represented in columns I. and II., the Pension Act offers privileges, the value of which is not less than \$31,261.59. To married male teachers it offers additional advantages—pensions to their widows if they die before attaining the age of 48, valued at \$4,618.13—a reversion of pensions to the wives of the disabled, valued at \$35.59, and of pensions to the wives of those who retire at 48, equal to  $85 \times 15 \times (12.95 - 10.08) = \$3,672$ . So that to married male teachers equal in numbers to those given in column

II., it offers a total value of  $\$31,261.59 + \$4,618.13 + \$35.59 + \$3,672 = \$39,587.31$ .

A contribution of 1 cent each from the same teachers would accumulate, according to column IV., to an amount of \$144.46. Forty times this amount would be one per cent. on a salary of \$40. One per cent., then, on the average salary taken in all the foregoing calculations would be \$5,778.40. To find the percentage of salaries required to furnish the pensions promised, divide for unmarried teachers \$31,261.59 by \$5,778.40; the answer is 5.4 per cent. For married men divide \$39,587.37 by the same divisor; the answer is 6.85 per cent. Taking account of the larger number of female teachers, combined with their smaller average salaries, it will be found that six per cent. of teachers' salaries will be requisite to provide the promised advantages.

But the teachers themselves will not pay the whole of this amount. The provincial chest provides \$1,000 per annum. A stoppage, rising in amount with the stoppages from teachers, salaries, is to be devoted from the common school and the superior education funds. Moreover, the various stoppages and allowances are to be capitalized for five years, and the interest of the accumulated fund will be available to aid the payment of pensions afterward. The effect of these provisions of the law depends on the ratio of the total of teachers' salaries to the above amounts. The total of salaries is very differently estimated by different authorities. In the lack of reliable statements I submit a formula that will give the results desired so soon as this total is furnished. If  $x$  represents the total of salaries liable to pay a percentage, then the percentage to be paid is given by the formula:

$$\frac{5.4474 x - 189797.*}{x + 112500.}$$

If, with Dr. Miles  $x$  be estimated at \$350,000, the percentage

\* The above formula is based on the supposition that the contributions from the Superior Education Fund will be \$700 a year. The writer is informed that it will be only \$450 a year. If so, the above formula must be made to read thus

$$\frac{5.4474x - 182890.}{x + 100000.}$$

This implies a larger stoppage from salaries than that in the text.

will be 3.71 per cent. If my estimate of \$750,000 be taken, the percentage will be  $4\frac{1}{2}$  per cent.

In the calculation just given I have read the law as corrected by common sense. Literally the law implies perpetual capitalization of the \$1,000 contributed by the provincial chest, of the stoppage of one per cent. from the education funds, and of the stoppage of two per cent. from teachers' salaries, the interest only being available. The consequence of this would be that a stoppage of 6 per cent. from teachers' salaries would be necessary at first, but that in fifty years no stoppage additional to two per cent. would be necessary, as the interest of the accumulated fund would suffice to pay the needed amount.

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV
18	1000	5·00	21·61											
19	800	4·00	16·46											
20	648	3·24	12·70											
21	531	2·92	10·90											
22	441	2·65	9·42											
23	370	2·41	8·16											
24	315	2·21	7·13											
25	271	2·03	6·24											
26	235	1·88	5·50											15·19
27	206	1·75	4·88	0										15·07
28	184	1·66	4·40	10·03	·30	4·48	11·33	1·66						14·95
29	167	1·59	4·02	11·03	·33	4·89	11·78	1·64						14·83
30	152	1·52	3·66	12·03	·36	5·30	12·15	1·54						14·72
31	140	1·40	3·21	13·03	·39	5·70	12·44	1·42	9·23	140·20	306·04	1·10	14·62	
32	130	1·30	2·84	14·03	·42	6·09	12·67	1·32	9·24	139·24	289·45	1·13	14·51	
33	122	1·22	2·54	15·04	·60	8·63	17·09	1·23	9·23	137·99	273·19	1·54	14·39	
34	116	1·16	2·30	16·04	·64	9·13	17·21	1·18	9·44	139·99	263·97	1·58	14·26	
35	111	1·11	2·09	17·04	·68	9·61	17·25	1·14	9·69	142·63	256·13	1·61	14·13	
36	108	1·08	1·94	18·04	·72	10·07	17·22	1·14	10·26	150·00	256·55	1·65	13·99	
37	106	1·06	1·81	19·04	·76	10·52	17·14	1·15	10·93	158·59	258·31	1·68	13·84	
38	104	1·04	1·69	20·05	1·00	13·70	21·25	1·16	11·60	166·92	258·95	2·13	13·69	
39	102	1·02	1·58	21·05	1·05	14·22	21·01	1·21	12·71	181·24	267·77	2·14	13·54	
40	100	1·00	1·48	22·05	1·10	14·73	20·73	1·29	14·19	200·50	282·12	2·15	13·39	
41	98	·98	1·38	23·05	1·15	15·23	20·41	1·35	15·53	217·27	291·16	2·15	13·24	
42	96	·96	1·29	24·06	1·44	18·87	24·08	1·38	16·56	229·19	292·50	2·56	13·11	
43	94	·94	1·20	25·06	1·50	19·44	23·62	1·37	17·13	234·51	285·16	2·54	12·96	
44	92	·92	1·12	26·06	1·56	19·98	23·13	1·37	17·81	241·15	279·16	2·52	12·81	
45	90	·90	1·04	27·07	1·89	23·90	26·36	1·33	17·96	240·48	265·13	2·91	12·65	
46	88	·88	·97	28·07	1·96	24·46	25·68	1·30	18·20	240·97	253·02	2·89	12·48	
47	86	·86	·90	29·08	2·32	28·54	28·54	1·26	18·27	239·52	239·52	3·31	12·30	
48	85		30											12·11
			144·46					381·09				4618·13	35·59	

## THE TEACHERS ON THE PENSION ACT.

Two meetings of the Protestant Teachers' Association of Montreal have been held at the Normal School to discuss the Pension Act. At the first meeting (held on Feb. 18th) the Hon. L. Archambault and Mr. Lacroix were present and explained the act for the benefit of the Protestant Teachers. It had been drawn up it was shown, without statistics having been obtained, but the speakers maintained that, though open to amendment, it was a good act. One of its advantages was that the government would undertake to administer the funds without expense to the teachers.

It was however received with little welcome by the Protestant teachers. The Rev. E. I. Rexford, who spoke with some animus, objected to the term "benevolent" fund as applied to it, and showed numerous defects in detail, such as that the present teachers had to pay for old teachers as well as for their successors. Some teachers would obtain a pension after having contributed to the fund only a quarter or a third as much as others. The scheme compared unfavorably with the Grand Trunk superannuation fund as well as with those of the Civil Service and of the teachers in Ontario. It was unfair also to lady teachers. He proposed a Resolution to be ultimately voted upon.

Dr. Howe after testifying to the accuracy of the calculations, which Dr. Robins had separately printed for the benefit of the teachers, showed the imperfection of the act as it encouraged early retirement from work. The vote on the Resolution was deferred till the adjourned meeting, which was held upon the 25th.

The discussion was resumed by the Chairman (Dr. McGregor) and by Prof. Hicks, who spoke in favour of the act. Dr. Kelley, who followed, showed that the Protestant Commissioners had been quite in the dark about it and were not consulted at all. It was a capital thing for those who would retire in 5 years. One doing so after 40 years service would get a pension of \$1,000 a year, having paid in only \$800. If he died leaving a widow she would get \$500, and if she died leaving children it would be continued to them. One who retired at the age of 48 would get seven times as much as he put in, whilst one who retired at the age of 58 would get only five times as much. Moreover a



teacher might retire at the age of 48, go into business, and yet be drawing a sum equal to three-fourths and in some cases to the whole of his salary. These large pensions would be paid chiefly by teachers with very small salaries. They would have to pay 2 per cent, and more if necessary, perhaps 6 per cent, or it might be even 20.

After the act had been further condemned by Mr. Parsons and Miss Scroggie, and after an amendment by Mr. Campbell—to arrest action by the Association until the act had been in operation for three years, and statistics had been taken—had been disposed of, the original Resolution was put and carried:—

“That while recognizing the kindly interest manifested in the teachers of this Province by the effort which has been made to provide a pension fund for them, this Association considers the present Act unjust and deficient in some of its leading provisions, and cannot therefore approve of it in its present form.”

A committee was then appointed to draw up a list of the desired changes to report at the next meeting.

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### THE LYELL MEDAL.

At the Annual General Meeting of the Geological Society held in London, Feb. 18th, 1881, the President handed the Lyell Medal to Mr. Warrington W. Smyth, F.R.S., F.G.S., for transmission to Dr. J. W. Dawson, F.R.S., F.G.S., of Montreal, and addressed him as follows:—

Mr. Warrington Smyth,—

Sir Charles Lyell in founding the Medal that bears his name, intended that it should serve as a mark of honorary distinction, and as an expression on the part of the governing body of the Society of their opinion that the Medallist has deserved well of science. I need hardly say that the Council, in awarding the Lyell Medal to Principal Dawson, have done so with a sincere appreciation of the high value of his truly great labours in the cause of Palæontology and Geology. When I refer to his published papers, I find that they number nearly 120, and that they give the results of most extensive and valuable researches in various departments of geology, but more especially upon the palæontology of the

Devonian and Carboniferous formations of Northern America. No fewer than 30 of these papers have appeared in the pages of our own Quarterly Journal. Considering the nature of these numerous contributions, the Council would have been fully justified in awarding to Dr. Dawson one of its Medals, upon the sole ground of the value of their contents: but these are far from representing the whole of the results of his incessant activity in the pursuit of science. His 'Acadian Geology,' 'Post-pliocene Geology of Canada,' and 'Fossil Plants of the Devonian and Upper Silurian of Canada' are most valuable contributions to our knowledge of North American Geology; whilst in his 'Archæia,' the 'The Dawn of Life,' and other more or less popular writings he has appealed, and worthily, to a wider public. We are indebted to his researcher for nearly all our knowledge of the fossil flora of the Devonian and other Precarboniferous rocks of America, and of the structure and flora of the Nova-Scotian coal-field; and finally I must refer especially to his original investigation of the history, nature, and affinities of *Eozoon*. These researches are so well known that they have gained for Dr. Dawson a world-wide reputation; and it is as a slight mark of their esteem, and their high appreciation of his labours, that the Council have awarded to him this Medal, which I will request you to forward to him, with some verbal expression of the feeling with which it is offered.

Mr. Warrington W. Smyth, in reply, said that it gave him much pleasure to receive this Medal for Dr. Dawson, who much regretted that he was unable personally to be present, but had addressed a letter to the President expressing his sense of the honour conferred upon him in the following terms:—

"I regret that distance and the claims of other duties prevent me from appearing in person to express to the Geological Society my sense of the honour conferred upon me by the award of the Lyell Medal.

"This expression of approval on the part of those whose good opinion I value so highly is doubly grateful to one who is so deeply sensible of the imperfection of scientific work done in circumstances of isolation from the greater centres of scientific life and under the pressure of the severe demands made in a new and growing country on those engaged in educational pursuits.

"It is further especially gratifying to me that this token of your kindly recognition is connected with the illustrious and honoured name of Sir Charles Lyell. Forty years ago the foundation of my geological education was laid by the late Prof. Jameson and other able educators in natural science, his contem-

poraries, in Edinburgh; but in so far as I have been able to build any thing worthily on this substructure, the credit is due to the study of the 'Principles of Geology,' and to the personal friendship and generous kindness of Sir Charles Lyell more than to any other cause."

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## EXAMINATION PAPERS.

At the request of several correspondents we print the papers upon which candidates were examined, last November, for the Model School and Academy Diplomas.

### PRELIMINARY EXAMINATION,

(For Candidates of all grades, except in English Grammar, instead of which a special Paper is given for the Academy and Model School Diploma.)

MORNING, 9 TO 12.

#### *English Grammar.*

1. Give the general rule for the formation of the plural of *nouns*, with exceptions and examples. (5)
2. What is case? Name the cases in English, and decline *lady* and *man*. (5)
3. Into what classes are *pronouns* divided? Give an example of each. Decline the *personal pronouns*, singular and plural. (5)
4. What is meant by the *mood* of a verb? Define the different moods, giving examples. (5)
5. (a) When is a *verb* said to be *regular*, when *irregular*? (b) Give the past tense and past participle of *deal*, *freeze*, *hew*, *go*, *lose*, *loose* and *sit*. (7)
6. Change the voice in the following sentences, retaining the same tense and mood:—  
(a) He hates meanness. (b) We shall refuse your request. (c) A new house would have been built by your brother, if he had possessed the means. (d) By how many soldiers will the queen be escorted, if she remove the Court to Balmoral? (e) We have received a letter. (f) He had cut his own throat. (8)
7. Parse the words in the following sentence:—  
Wealth cannot confer greatness, for nothing can make that great which the decree of nature has ordained to be little. (15)

#### *Arithmetic.*

N.B. The works must be shown as well as the answers.

1. Define the terms, *Vulgar Fraction*, *Numerator* and *Denominator of a Fraction*, *Improper* and *Proper Fraction*, *Mixed Number*, *Compound* and *Complex Fraction*, *Decimal Fraction*. (9)
2. Simplify  $\frac{3\frac{3}{8}}{2\frac{1}{3} + 1\frac{1}{7}}$ . (7)

3. Reduce  $\frac{5}{7}$ ,  $\frac{1}{8}$  and  $5\frac{1}{3}$  to *Decimal Fractions*, and add the results. (9)
4. Divide  $\cdot 10101$  by  $\cdot 001$ . (5)
5. At what rate per cent. will \$500 amount to \$740 in 8 years? (10)
6. If 215 men can excavate 400 cubic yards in 8 hours, how many men can do  $\frac{1}{2}$  of the work in  $\frac{1}{3}$  of the time? (10)

*Geography.*

1. Describe the physical features of Europe, giving the names of the principal plains, rivers and mountain ranges. (7)
2. Draw a map of the St. Lawrence, and by means of it give the outlines of a lesson of a trip from Gaspé to Kingston. (7)
3. Name the New England States and their capitals; or name the countries of South America and their capitals. (7)
4. What is meant by reciprocal trade? Name the countries which trade with Canada, and the articles of export and import associated with each name. (7)
5. Where are the following places? Give an important fact connected with each:—*Cabul, Port Elizabeth, Fredericton, Quito, Glasgow, Bordeaux, Odessa, Cincinnati, Guatemala, Melbourne.* (8)
6. Describe the climate, soil and natural productions of any one of the following countries:—*Manitoba and the North-West Territory, Brazil, France or England.* (7)
7. Draw a map either of *Africa, South America or Australia.* (7)

*Sacred History.—Old Testament.*

1. What was Eli's sin? What fate befell his two sons? (5)
2. What led the Israelites to wish for a king? Who was their first king? What was the cause of his being rejected?
3. What occasioned the ill-will of Saul against David? How and on what occasion did Jonathan aid him in his escape? (8)
4. How did Saul die? (5)

*Sacred History.—New Testament.*

1. Give an account of the temptation in the wilderness. (5)
2. Give the parable of the ten virgins. (7)
3. Relate the circumstances attending our Lord's burial. (8)
4. To whom was Christ's resurrection first declared? (5)

MODEL SCHOOL AND ACADEMY DIPLOMA.

MORNING, 9 TO 12.

*English Grammar.*

1. Name and define the different classes of *nouns*. Give examples of each. (5)
2. (a) What is a *verb*? (b) Give the different classes of verbs as regards both their *meaning and inflection*. (5)

3. Name the different classes into which *adverbs* are divided, and say what parts of speech *adverbs* qualify. (5)

4. (a) What is a *sentence*? (b) When is a sentence called *principal, simple, subordinate, complex* or *compound*? (5)

5. In the following examples expand the *nouns* and *noun phrases, adjectives* and *adjective phrases, adverbs* and *adverbial phrases*, into sentences:—*To be humble* is the duty of man. *Sorrow* sometimes worketh *patience*. *Very learned* men are rare. A king of *strong and earnest character* is a blessing to his people. Do not speak *foolishly*. He bore his misfortune *with patience*. (7)

6. Analyze the following lines:—

To prayer, repentance and obedience *due*,  
 Though *but* endeavored with sincere intent,  
 Mine ear shall not be slow, mine *eye* not *shut*;  
 And I will place within them as a *guide*,  
 My *umpire conscience, whom* if they will hear,  
*Light* after light, well used, they shall attain,  
 And to the end persisting *safe* arrive. (15)

7. Parse the words in italics in the foregoing lines. (8)

#### EXAMINATION FOR ELEMENTARY DIPLOMA.

(To be passed also by Candidates for Model School and Academy Diploma.)

AFTERNOON, 2 TO 4.30.

#### *Art of Teaching.*

N. B.—Answer any five of the following questions:—

1. What is the difference between *teaching* and *training*? Define the term *education* in its widest sense, and state how you would use the analytic method in giving an object lesson to a class of young children. (20)

2. What is the best method which, in your opinion, should be adopted by pupils in studying the geography of a country? Write notes of a lesson on the geography of the Province of Quebec. (20)

3. Write out at least ten of the most important rules you would lay down in organizing your school. Explain fully the term "sympathy of numbers." (20)

4. How would you endeavour to make the school a pleasant place for the pupil? What exercises would you introduce to promote his physical development? (20)

5. Write out a time-table for a school of 40 scholars, arranged in three classes, giving due prominence to *reading, writing* and *arithmetic*. (20)

6. Compose a short essay on the "Nature of Children." (20)

#### *History of England.*

1. Name the Sovereigns of the Plantagenet Period, with the dates of their accession to the throne. Give the principal events of the reign of any one of them. (10)

2. Describe some of the events which led to the change of dynasty from the Plantagenets to the Tudors; or trace the descent of James I. from the latter line. (10)

3. Give an account of the Rye House Plot, or of the union between England and Scotland. (10)

4. State explicitly what you know either of *Magna Charta*, *Domesday Book*, *Petition of Right*, *Habeas Corpus Act*, or the *Chartist Movement*. (10)

5. Write a paragraph on the Duke of Wellington, or Lord Nelson. (10)

### *History of Canada.*

1. Give a succinct account of Jacques Cartier's second voyage. (10)

2. What is known of Champlain's career before he made his first settlement at Quebec? Describe the first capture of that place. (10)

3. Name the principal military engagements which have taken place on Canadian soil, and describe any one of them. (10)

4. What was the conspiracy of Pontiac? What were the causes which led to the bitter antagonism between the early settlers in Canada and the Iroquois Indians? (10)

5. Name five of the leading political events which transpired during the legislative union of the two Canadas. (10)

### *French.*

1. Donnez (a) la règle générale pour la formation du pluriel dans les substantifs. (b) Le pluriel des substantifs terminés au singulier en *s*, *x* et *z*. (c) Le pluriel de ceux qui se terminent au singulier en *au* et *eu*, (d) en *al* (e) et *ail*, (f) les pluriels de "*ciel, œil* et *œil*." Donnez un exemple de chaque classe. (25)

2. (a) Définissez les changements de l'article, nommés "Élision" et "contraction," (b) et donnez avec la raison de ces changements un exemple de chacun d'eux. (c) Quand la contraction "au" et "du" n'a-t-elle pas lieu? (10)

3. (a) Combien y a-t-il de sortes d'adjectifs? Définissez-les, donnant un ou deux exemples. (b) Dans quelle classe d'adjectifs placez-vous ceux qui dérivent des verbes, comme "*charmant*" "*obligeant*." (c) Quels adjectifs sont "*mort-ivre, nouveau-né*?" (10)

4. (a) Combien y a-t-il de sortes de pronoms. (b) Nommez et définissez chaque sorte, en donnant un exemple de chacune d'elles? (20)

5. (a) Quels sont les modifications du verbe? (b) Définissez chacune d'elles, avec exemples. (c) Combien de modes a le verbe (d) et quelle idée présente chaque mode? (20)

6. Donnez les premières personnes du singulier des verbes irréguliers suivants, aux temps indiqués. Cond. Prés. *aller*. Fut. *envoyer*. Ind. prés. *acquiescir*. Parf. def. *courir*. Par. def. *venir*. Imparf. indic. *déchoir*. Parf. déf. *pouvoir*. Prés. subj. *dire*. Prés. subj. *mettre*. Ind. prés. *moudre*. Parf. déf. *naître*. Subj. prés. *oindre*. Parf. déf. *plaire*. (15)

## EXAMINATION FOR MODEL SCHOOL DIPLOMA.

MORNING, 9 TO 12.

*English Composition.*

SUBJECT OF ESSAY.—Any one of the following three:—

1. *The Tributaries of the River St. Lawrence.*
2. *The Dominion Pacific Railway.*
3. *The necessities of self-discipline and self-culture in a Teacher.*

*Arithmetic and Mensuration.*

N.B.—The work must be shown as well as the answers.

1. What is meant by *Simple Interest, Compound Interest, True and Bank Discount, Commission and Brokerage?* Find the true discount on \$637.50 due in  $5\frac{1}{2}$  years at 5 per cent. (15)

2. Add  $\frac{1}{2}$  and  $\frac{1}{3}$ , multiply the sum by the difference between  $\frac{1}{4}$  of  $\frac{1}{3}$  of  $\frac{2}{3}$  of 17, and  $\frac{1}{2}$  of  $\frac{1}{4}$  of 11; express the result as a decimal fraction. (15)

3. A grain dealer gains 40 per cent. by selling wheat at \$1.05 per bushel, at what price did he purchase it? (15)

4. A wheel 5 feet in diameter, rolling along a level plane, makes five revolutions per second; how far has it gone after it has been in motion 6 hours? (15)

6. Find the cost of papering a room 21 ft. long, 15 ft. wide and 12 feet high, with paper  $2\frac{1}{2}$  feet wide, at 15 cents a yard, allowing for a door, 7 ft. high and 3 ft. wide, 2 windows each 5 ft. high and 3 ft. wide, and a panelling 2 ft. high round the floor. (20)

6. The sides of a right-angled triangle are 3, 4 and 5; find the length of the perpendicular from the right angle on the hypotenuse. (20)

*Algebra.*

1. When is  $a^n + x^n$  divisible by  $a + x$ , and when by  $a - x$ ?

When is  $a^n - x^n$  divisible by  $a + x$ , and when by  $a - x$ ? (10)

2. Divide  $x^3 - (y - z)^2$  by  $x - y + z$ . (10)

3. (1) Resolve into elementary factors: (a)  $a^3 - 9x^2$ ; (b)  $x^3 + y^2$ ; (c)  $x^3 + y^3 + 3xy(x + y)$ ; (d)  $3x^2 - 2x - 5$ .

(2) Find the greatest common measure of

$$x^2 + 2x - 120; \text{ and } x^2 - 2x - 80. \quad (20)$$

4. Find the value of  $\frac{x^2 + ax + a^2}{x^3 - a^3} - \frac{x^2 - ax + a^2}{x^3 + a^3}$  (15)

5. Solve the equations:—

$$(a) x - 1 - \frac{x-2}{2} + \frac{x-3}{3} = 0. \quad (15)$$

$$(b) \frac{4x + 17}{x + 3} + \frac{3x - 10}{x - 3} = 7. \quad (15)$$

6. After A has received £10 from B, he has as much money as B, and £6 more; and between them they have £40: What money had each at first? (15)

AFTERNOON, 2 TO 4.20.

*Euclid.*

1. Define the terms *point, plane superficies, right angle, scalene triangle, rhombus, parallelogram, similar segments of circles.* (20.)

2. Give the particular enunciations of these propositions of Book I. that treat of the equality of triangles. (20.)

3. In the triangle A B C, prove that the sides A B, B C are together greater than the side A C. (20.)

4. In every triangle the square on the side subtending any of the acute angles is less than the squares on the sides containing that angle by twice the rectangle contained by either of these sides and the straight line intercepted between the perpendicular let fall upon it from the opposite angle and the acute angle. (20.)

5. The angle contained by a tangent to a circle and a chord drawn from the point of contact are equal to the angles in the alternate segments of the circle. (20.)

*Book-Keeping.*

1. How would you explain to a class the guiding principle in making entries in the Ledger? (20.)

2. Explain the following terms:—*Consignment, Assignee, Trial Balance, Bill of Sale, Assets, Stock, Bills Payable, Endorsement, Bankrupt.* (20.)

3. Journalize the following, and give your rules:

(a) Bought of Alexander & Co. merchandise as per invoice \$300. Gave in payment my note for \$200 at 30 days. Balance on account.

(b) Sold to John Thompson, goods, \$600, received in cash \$400, and his note at 3 months on the remainder.

(c) Discounted a note of Peter Johnson for \$600 at 3 months, 7 per cent. (20)

4. What accounts would be affected, and how, by the following entries:

(a) So. 's goods to John Jones on account, \$350.50.

(b) Paid for household expenses, \$36.

(c) Received a legacy, \$800.

(d) Bought goods from Alexander & Co., \$1,600, paying \$300 cash and giving my note at 4 months, payable at the Bank of Montreal. (20)

5. Write out the form of a Promissory Note and Bill of Exchange; draw out the form of a Bill Book, and explain its use. (20)

*Use of the Globes.*

1. State the methods of solving the following problems:—

To find by means of the Terrestrial Globe the shortest distance in miles between Liverpool and San Francisco. (25)



2. To find the time of sunset in Toronto on the 1st of January. (25)
3. To find what stars will be above the horizon at Montreal at midnight on December 21st. (25)
4. To find the latitude and longitude of Arcturus. (25)

### *Linear Drawing.*

*(The lines by which each problem is solved must be shown.)*

1. Construct an isosceles triangle of which the base shall be  $1\frac{1}{2}$  inch and the vertical angle  $40^\circ$ . (25)
2. Describe a circle of 1 inch radius, and draw a tangent at any point of it. (25)
3. Construct a triangle whose sides shall be 2 inches, 1 inch, and  $1\frac{1}{2}$  inches long respectively; and, after describing a circle of 3 inches diameter, inscribe in it a triangle equiangular to the above. (25).
4. Construct a regular hexagon with  $1\frac{1}{2}$  inch sides. (25).

## OUR ENGLISH GRAMMARS.

The object of the present paper is to show the very imperfect state in which the philosophy of the English language, as exhibited by our Grammars, at present is. Like our spelling and pronunciation, as well as other matters, English Grammar is in need of 'Radical' reform. The urgent need of this will be clear to those who recollect that it is rapidly becoming, at least in the colonies, the main, if not, with the exception of French, the only training in Grammar that boys receive. Our fathers, brought up in the "Old School" knew their Latin Grammar by heart and never troubled themselves about English, regarding it as one of those things that come by nature. But this is altered now; the classics, for good or evil, will take their place before long with Hebrew and Sanscrit—as studies of a special character, appropriate to the Literary, the Scholastic and perhaps one or two other professions. Meanwhile, thorough instruction in grammar of some sort is a necessary part of Education and is of advantage, not only as teaching a pupil to write his own tongue correctly, but as enabling him to acquire other languages with rapidity.

Grammar, Logic and Rhetoric, it will be remembered, were joined together in the old course called Trivium:—

GRAMM. loquitur; DIA. vera docet; RHET. verba colorat.

Logic is the science of thought, Grammar of expression and Rhetoric the completion of both. That Grammar and Logic should again take their place side by side, as part of the elementary or, at any rate, of the later studies of the class room, seems to the present writer an end to be desired. But even if the technicalities of Logic are to be spared to the tender minds of the young, the science that deals with expression by means of language should, as a science, be logical in its methods and classification. Now the great fault I have to find with our Grammars is that they are above everything confused and illogical individually, while, compared together, there is little attempt at agreement between them. They are besides this uncumbered by a ludicrous, persistently minute and discordant, nomenclature.

The chief cause of this chaotic state has been the attempt to construct English Grammar upon the model of the classical languages, in other words, to make the grammar of an analytical language as like as possible to that of the synthetical. This with the attempt to give in one book a Logical, Practical and Historical grammar has made confusion worse confounded. No one doubts that the substitution of auxiliaries for moods and voices, and of prepositions for inflexions, utterly changed the English tongue, yet the fact is ignored. The only grammar I have seen that cheerfully accommodates itself to facts is Dr. Morris' excellent little book, published in the Primer Series, and this is not at all points consistent.

A further cause of trouble has been the attempt to aim in all cases at logical completeness. In an unlucky moment it was discovered that the present, past and future tenses might be considered in different lights, as Indefinite or Emphatic, Progressive or Completed. The presence of other moods in other languages besides the simple Indicative, Subjunctive and Imperative has led to the introduction of Potentials, Conditionals and what not. The fusion of these two and the determination to find them everywhere has led to very ridiculous results, as I shall have occasion to show by example from Mason's Grammar. All the Grammars that I have examined have their merits, but with the exception of the book by Morris all have the fault I have named.

I will begin my examination with the Classification of the Parts of Speech. Even here we find divergence; Mason and Morrison differing from Morris, Bain, Morell and Smith as to what con-

stitutes a Pronoun. The two former include Possessive, the latter do not. Mason's view of the Pronoun includes all classes and he divides them into Substantive and Adjective (like the Public School Latin Primer). Morell and Smith talk of "adjectives" that "are frequently used as pronouns." Morris on the other hand says that "many pronouns are used as adjectives." Bain, who treats of the Relatives *but, when, where* &c. in his chapter on Pronouns, divides his Adjectives, into Pronominal, &c. It is thus quite clear that English grammarians have not decided what constitutes a pronoun. Morrison adheres to the old definition, as a word used instead of a noun to prevent its too frequent repetition. Warned by Bain's criticism that such a definition is inapplicable to Interrogatives and Indefinites, the other Grammarians simply define the Pronoun as a word used for a noun. Bain himself states that "the Pronoun differs from the Noun in expressing a thing, not by its own name, but by a reference or relation to something else."

On such an apparently simple matter as the Preposition we have similar differences. Bain and Morell classify in accordance with meaning, the former making in all ten classes. Morris and Smith classify according to form into Simple and Compound. Mason is most satisfactory here, for while he admits as Compound Prepositions words like *outside* and *aboard*, he draws the line at *owing to, in spite of* &c which Morris, Bain and other writers admit. Now it is perfectly clear that if we are to admit miscellaneous Phrases to be Prepositions, it will be impossible to draw the line logically anywhere. In the phrase 'owing to' *owing* is a Participle and *to* a Preposition, and in 'in spite of' *in* and *of* are Prepositions and *spite* a Noun. Until words have become Prepositions, as 'aboard' has, they should not be parsed as such.

When we get to the verb and its parts the confusion is increased. Besides the Indicative, Imperative and Infinitive moods which are recognised by all, and the Subjunctive which is given by all I have examined except Morell; Morrison and Morell recognise a Potential and Morell a Conditional mood. The chief confusion however comes in with the naming of the tenses. I will give an instance from the passive voice; 'I should be smitten' rejoices in the following names—Indefinite Future Subjunctive (Bain), Future Potential (Morrison), Secondary or Conditional Form of

the Past Indefinite Subjunctive (Mason), Past and Future Potential (Morell), Past Subjunctive of Compound Form (Smith).

Mason carries his tabulation to a most wearisome extent. He liberally gives the Indicative and Subjunctive twelve tenses each and recognises, apparently from a love of logical precision, such tenses as 'to be being, I have been being, I shall (and should) have been being—smitten' (there are in all ten forms tabulated that no one ever uses). Yet I cannot see why he stops here? Why does he not go on to the bitter end and tabulate under another mood all the changes he can ring on *can, might* &c.?

After this it is refreshing to turn to Morris. He only recognises the active voice, and of it only the regularly inflected tenses viz: the Infinitive, Present and Passive Participles and a present and past of the Indicative and Subjunctive. The auxiliaries are all conjugated as anomalous verbs.

In conclusion I would suggest one or two leading rules for Grammar dictated by the good old principle "entia non multiplicanda præter necessitatem."

(1) Every separate word should be parsed separately, e.g., 'shall have been' is not one tense but three words—*shall*, a verb of the present tense; *have*, an infinitive; *been* a past participle.

(2) Only such inflected moods and tenses as are actually found should be recognised, such as *were* and *say* in 'it were useless to say,' the former a true subjunctive, the latter an infinitive governed by the preposition *to*.

(3) If this principle were pushed to its full extent no cases in nouns would be recognised but the Possessive. The existence, however, of the Objective in pronouns perhaps makes it advisable to continue it in nouns. We do not speak of adjectives as having gender or number, in the absence of all such inflexion.

(4) The term Pronoun should be confined strictly to Personals, Interrogatives and words used for nouns, as '*This* was *what* I said. In other constructions, as '*This* man' *this* is a Pronominal adjective.

(5) It would be well, with a view to words like *so, as, but* &c., to bring into commoner use the general term Particle and to parse such words as "a particle used as adverb, conjunction &c."

(6) Greater simplicity is needed in Parsing. There are four and four only relations existing between words in the English sentence, expressed by the following terms.—Agreement, Govern-

ment, Qualification (without either of the former) and Conjunction. These can easily be taught by means of symbols, and thus the relations between all the words in the sentence be made clear to the youngest pupil.

I must add that this Paper is merely tentative. Only a few lines have been taken up and not one of these has been worked out fully. English Grammar is at present a mass of confusion, and a satisfactory book has yet to be written. Meanwhile it is mere waste of time to burden children's memories with a string of names, which they will have to unlearn when they pass to another book, and with distinctions that do not exist in the language they are studying. My object will have been attained, if I succeed in drawing attention to this unsatisfactory state of things. I expect much of what I have said to provoke criticism from the adherents of old methods, but "*fas est et ab hoste doceri.*"

R. W. BOODLE.

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## THE SCHOOL LAW OF QUEBEC.

### THE EDUCATIONAL SECTION OF THE BRITISH NORTH AMERICAN Act, 1867.

The Act from which the following important section is taken is entitled "An Act for the Union of Canada, Nova Scotia, and New Brunswick, and the Government thereof; and for Purposes connected therewith." This celebrated act, which received royal assent upon March 29th, 1867, is more shortly entitled The British North American Act, 1867. Section 93 is as follows:—

In and for each Province the Legislature may exclusively make Laws in relation to Education, subject and according to the following provisions:—

§1. Nothing in any such law shall prejudicially affect any Right or Privilege with respect to Denominational Schools which any class of persons have by law in the Province at the Union:

§2. All the Powers, Privileges and Duties at the Union by Law conferred and imposed in Upper Canada on the Separate Schools and School Trustees of the Queen's Roman Catholic subjects, shall be and the same are hereby extended to the Dissident Schools of the Queen's Protestant and Roman Catholic subjects in Quebec:

§3. Where in any Province a system of Separate or Dissident Schools exists by Law at the Union or is thereafter established by the Legislature of the

Province, an Appeal shall lie to the Governor General in Council from any Act or Decision of any Provincial Authority affecting any Right or Privilege of the Protestant or Roman Catholic Minority of the Queen's subjects in relation to Education :

§4. In case any such Provincial Law as from time to time seems to the Governor General in Council requisite for the due execution of the provisions of this Section is not made, or in case any Decision of the Governor General in Council on any appeal under this Section is not duly executed by the proper Provincial authority in that behalf, then, and in every such case, and as far only as the circumstances of each case require, the Parliament of Canada may make remedial laws for the due execution of the Provisions of this Section and of any Decision of the Governor General in Council under this Section.

To complete the extract from the B. N. A. Act, we give the substance of the " Act respecting Separate Schools " in Ontario, alluded to in §2. The first division has to do with Protestant and Coloured Separate Schools. The second part is concerned with the Roman Catholic Separate Schools, the law respecting which is shortly as follows.

(1.) Mode of constituting Separate Schools :—

Five Roman Catholic heads of families may call a meeting for a Separate School, and may elect three duly qualified persons as trustees. The trustees thus elected in the several wards of any City or Town, shall form one body corporate, under the title of " The Board of Trustees of the Roman Catholic Separate School for the City, &c.

(2.) Powers of Trustees :—

They shall have " the power to impose, levy and collect school rates or subscriptions, upon and from persons sending children to, or subscribing towards the support of such schools, and shall have all the powers in respect of Separate Schools that the trustees of Public Schools have and possess under the provisions of The Public School Act."

(3.) Qualification of Teachers :—

The Teachers in these Separate Schools are to be examined and qualified just like other Public School teachers.

(4.) Position of Supporters of Separate Schools :—

These are exempted from payment of Public School rates, on giving a certain notice, which need not be renewed yearly ; though this exemption does not extend to rates imposed before the establishment of the Separate School. Such supporters must reside within three miles of the site of the School-house.

(5.) Revenue of Separate Schools :—

Separate Schools are entitled to a share of the public grants for Public School purposes made by Provincial or Municipal authorities, according to the

average number of pupils attending the school. As they are not liable, so are they not entitled, to any share of local assessments for Public School purposes.

(6.) Inspection of Separate Schools :—

They " shall be subject to such inspection as may be directed from time to time by the Minister of Education, and shall be subject also to such regulations as may be imposed from time to time by the Educational Department."

(6.) Cases of dispute :—

" In the event of any disagreement between trustees of Roman Catholic Separate Schools, and Inspectors of Public Schools, or other municipal authorities, the case in dispute shall be referred to the equitable arbitrament of the Minister of Education, subject, nevertheless, to appeal to the Lieutenant-Governor in Council, whose award shall be final in all cases."

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### OLD AND NEW OXFORD.

The death of Dr. Bullock-Marsham, at the age of ninety-five years occurred last December. He had been for fifty-four years Warden of Merton College, and his death was the occasion of the following interesting contrast, which we reprint from *The Guardian* :—

The University of to-day is severed from the University of Dr. Marsham's undergraduate times—or even of the time when he became head of his College—by a wider gulf than the mere number of years that have elapsed. Then it was still medieval: now it is at last becoming modern. Its intellectual and social conditions have been revolutionized. It is almost as different from the University of our grandfathers as our own age is from pre-Reformation times, or as even now the constitutional freedom of England is different from the military feudalism of Germany. Let us try to indicate a few of the changes which have come over Oxford in the life, or even in the Wardenship, of Dr. Marsham.

Fifty-four years ago the newly elected Head of a College succeeded to a much more dignified inheritance than now. In his own College he was supreme. Tutors were appointed by him alone. From the head-cook or butler to the shoe-blacks, every servant owed his place directly to the Head, who, as vacancies occurred in the college establishment, transferred to them his own domestic servants; the reversion of a post in the college, lucrative with unlimited perquisites, being virtually the right of the Head's

foot-man or groom, irrespective of character or capacity. Nor was the Head's position in the University at large less dignified. He and his brother Heads formed the old Hebdomadal Board, in which all academical power was vested; they were, in fact, the University. Now, the only relic of their ancient power is the appointment of Bampton Lecturers; while in their respective Colleges they are each but one among a body of men who claim an equal voice in all matters of college management, and whose tendency is to regard their Head as a more or less ornamental appendage. The Heads, too, are men of a different stamp. Dr. Marsham, as a layman and a country gentleman, must have always been more or less unique; but many of them in old days were something else besides—Deans, it might be, or canons, or parochial clergymen, with interests chiefly unacademical: men who cared more for social prestige, little for educational efficiency; and who, in the appointment of a college office, or the admission of an undergraduate, looked first and often solely to family connections and gentlemanly manners. Now all this is changed. The modern Head of a College is either an ex-Tutor who has made his way into and through the University by his own wits, and whose interests are mainly educational and academical; or he is a successful schoolmaster, with organizing zeal and energies, a world too wide for the shrunk sphere in which he finds himself after being accustomed to wield despotic authority. Such men cannot acquiesce, like their predecessors, in the inactive enjoyment of a comfortable income, and, perhaps, in consequence, the next generation will see fewer examples of longevity among them.

But if Heads and their position are changed, so are the societies over which they preside. When Dr. Marsham and Dr. Cotton were young Fellows, the social and local connections of colleges were a prominent feature in University life. The Fellows often owed their position to the place of their birth or to some family interest; seldom to purely intellectual qualifications. The undergraduates were mainly the sons of country gentlemen, or other members of the upper classes of society; and the respect due to social rank was observed in the right of sons of peers or baronets to matriculate under different conditions as to residence and degrees from those which bound men of ordinary clay. The University, in fact, and the College were aristocratic institutions,



but now they are daily becoming more and more democratic, as the open competition for academical emoluments works its inevitably levelling effect. Some will no doubt regret the change; but no one whose mind can move ever so little with the times in which he lives can seriously regret the substitution of expansion for exclusiveness, and activity for stagnation. Fifty or sixty years ago the College and the University were alike exclusive and stagnant; now they are flinging wide their doors and welcoming new ideas with bewildering rapidity. Well, indeed, might such a man as Dr. Marsham or Dr. Cotton feel in recent years that they were moving too fast for him. The exclusive spirit of Colleges, indeed, has undergone great changes in the memory of men of less patriarchal years than theirs. The idea that college finances may be revealed to others, or that any one outside a college may know anything of its inner life and management, is the growth of at most thirty years; and we have only to turn to the Report of the Commission of 1854, and the replies therein given by the Heads of Colleges to the Commissioners' request for information, to see how completely the point of view has altered. "*Secreta domus non revelabis*" used to be one of the first cautions given to a newly elected Fellow by his seniors; and we have been told that in a certain College, less than twenty years ago, a motion that the annual balance-sheet should be printed for distribution among the Fellows was overthrown by the argument that, if this were done, some Fellow might have a copy on his table, and a friend from another college might see it.

The social life, too, of Oxford has been changed—we might almost say revolutionized—within the recollection of the late Warden of Merton. When celibacy was the almost universal rule among the Fellows of the College, common-rooms were possibly livelier and more social than now; but we suspect that they were occasionally far less civilized. Dr. Marsham must have remembered the days when in manners and external surroundings a College common-room was more suggestive of the tavern parlour than the domestic hearth; when drinking too often began early and continued late; and neither the meal nor its accompaniments had much tincture of refinement. He may even have seen the floor of the Hall or common-room covered with rushes or strewn with sand: and he lived to partake in Hall (as he did till quite recently) of "*diner à la Russe*," with menus and flowers, and all the

appliances of a modern gentleman's dining-table. But if the social side of life within the college has changed, much more is this the case in the University at large. When all Fellows were bachelors, and the only "University ladies" were the wives and daughters of the Heads and a few Professors; the only "society" was found in a solemn, decorous, and dull round of dinner-parties at the various "lodgings." From one end of the term to the other few Fellows, and still fewer undergraduates, exchanged a word with a lady, or came under the humanising influences of a cheerful home circle. Now, the marriage of so many Fellows and Tutors has brought an influx of young and lively matrons, who have revolutionized Oxford Society; and the danger is that a young Fellow or undergraduate (especially if he be musical—a taste far more fatal than any other to steady work) may have too much, rather than too little, social distinction. In thirty years Oxford has taken a long step from medieval monasticism to the ordinary state of modern society; and before long we may expect the transition to be complete.

Another obvious change, the advantage or disadvantage of which we need not now discuss, is that the prevailing tone of Oxford is no longer clerical. In each College the clerical fellows are in an ever-lessening minority, from the operation of causes which neither the University nor any Commission can do much to modify or control. Dr. Marsham, as a lay head, was for fifty-four years an exceptional anomaly; but we have seen the growth of a strong, if not altogether general feeling, that Headships should be open to laymen; and had he but outlived the Commission now sitting, he would have seen this desire realized, and clerical restrictions of all kinds almost entirely swept away. Opinions still differ as to this change; but it is obviously a fact, and a fact which must have worked great changes in the tone and spirit of Oxford.

We have left ourselves but little space to note the change that has come over undergraduate life in the past half-century. In the main, it corresponds to the changes of social life in the classes to which undergraduates belong, reflected as this is in the microcosm of University life. But over and above these natural changes, there are others due to the facts that undergraduates no longer, as formerly, belong to one stratum of society, and that a larger proportion of them come to the University to work and not to

play. Their amusements are now more varied, and less wasteful of time and money. Fifty or sixty years ago cricket was in its infancy and athletic sports unknown, and the amusements were those of embryo country gentlemen—riding and shooting; or, if embryo men about town—card-playing and billiards, and lounging up and down the “High” in magnificent waist-coats. “Wines” were frequent, costly and demoralizing; and the healthy vent for young animal spirits, which rowing, football, running, rackets, and the like now provide, had hardly any existence. On the whole, we suspect that undergraduate life is healthier and happier, because busier, than it was half a century ago. The modern undergraduate, no doubt, does less work than he might, and has more play than he needs; but he at least professes to do something.

Such is a hasty view of some of the healthier changes from Old to New Oxford within the academical lifetime of the aged Heads of Colleges who have just passed away. Their motive-power may, perhaps, be summed up in two words—competition and work. Competition (*i. e.*, the principle of regard to merit rather than to birth or favour) has changed the type of men who guide the destinies of the University and shape its life, and has raised the standard of academical duty. Work has diminished the idleness which lay at the root of most abuses in the life of Fellows or of undergraduates, and has introduced a higher ideal of University life; and it is true in Oxford, as elsewhere, that where there are fewer idle hands, less mischief is found for them to do. It is so far an advantage of the change in fifty years that the relative proportions of idleness to industry have been, if not absolutely recovered, at least altered for the better.

We should regret to find, however, that with the advance of competition and work there had been any loss of that inbred courtesy and simple piety of which the late heads of Merton and Worcester were types in old Oxford.

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#### SORTES VERGILIANÆ.

An old Schoolmaster declaring against the Radicalism of young Educators, quoted with great satisfaction the line—

*Fit via vi: rumpunt aditus primosque trucidant.*

The first requisites of sound education were the Classics and these were to be the first victims. He was neatly answered by—

*Corpora viva nefas Stygia vectare carina.*

We must not educate live men upon dead languages.

## NOTES ON EDUCATIONAL TOPICS

A letter lately published in the *Gazette* again brings up the subject of Higher Education. There are two distinct questions to be considered in regard to this matter. First of all: Is it the duty of the State to provide Higher Education? and secondly, supposing this to be granted: Of what is the Higher Education to consist? The correspondent concerned himself with the second of these questions, directing all his resources of argument and ridicule against the study of Classics. Without begging the question, as to the former, which we do not by any means suppose to be axiomatic, we will for the present attend solely to the simpler matter of whether the Classics should form a necessary part of Higher Education.

In a series of Propositions submitted by Dr. Robins to the Quebec Convention of Teachers, he based his claim for Higher Education upon the duty of the State to provide a training, not only for the mass of toilers, but for those who will direct the toilers. Upon this basis it will be best to discuss the question of the Classics. None will be found to deny the necessity of Latin as a part of such education in the past. It was the language of International transactions, to some extent also of Law and of Theology. Comments upon most learned books were written in Latin, which was useful as a common tongue, as it is at the present moment in such subjects as Chemistry and Botany. Few would contend that ignorance of the Classics unfits a man for the position of clergyman or doctor; and but a small proportion of those who actually receive Higher Education are destined for a Profession. The greater number go into business, where classical knowledge is absolutely useless. Nor is any deep knowledge of Latin requisite to enable a student to master the Latin terminology of the sciences. Lord Chesterfield is no mean authority as an educator; few men have spent more thought on the subject than he did. Yet his reason for requiring his son to study the classics was as follows: "Classical knowledge, that is, Greek and Latin, is absolutely necessary for everybody; *because everybody has agreed to think and call it so.*" Thus even in his day the Classics were looked upon as a mere accomplishment, and the conditions of education are vastly different here and now from what they were in England during the last century.

One of the pressing difficulties of education is the limited time at the disposal of the teachers; and the study of the Classics, if taken up thoroughly, leaves but little leisure for other studies except as a by-play. This is not the case in Canada, and the result is unsatisfactory as far as Classics are concerned. It is constantly asserted that at least half of the time that school-boys spend in study, in and out of school, is devoted to this study, and that very few pass into the world with more than a smattering. And this is not denied. The advocates of more modern studies accordingly claim that the time of boys would be better spent in acquiring a practical knowledge of modern languages, such as French and German, with Science, History and English Literature.

We often hear the Classics spoken of as indispensable to proper mental training. That they may become an excellent training, no one who has studied them properly will deny. That they are the only possible mental training, it is equally vain to assert. Almost every study if faithfully pursued, may become so, but the worst of all trainings is that received from studying superficially what one feels little interest in. And the Classics are felt to be increasingly remote from the spirit of the times. The cry goes up from parents that their boys are taught what will be of little good to them. Those who have had to do with education, have often noticed the perplexity of the young scholar as he tries to grasp simultaneously English, Latin, Greek and French. But the Classics continue to be taught, probably in consequence of the conservatism of teachers.

In conclusion, it would be rash to deny that there may possibly be a loss on the one side from the disappearance of the Classics, while we assert that there will be a great gain on another from paying more attention to matters of greater utility. Every change has its attendant disadvantages, and yet changes are necessary. Nor do we wish to say a word against this noble study as an accomplishment. To schoolmasters, who aspire to teach intelligently Philology, English Literature and even English Grammar, they are a necessity. To men of letters and to all, who would fully appreciate Literature, they are an immense advantage. No university would be complete without its Classical chair. But the Higher Education aimed at by Canadian schools is not meant exclusively for the few to whom we have alluded.

## THE DEATH WARRANT OF CHARLES I.

Messrs. Thoms and F. D. Palgrave have lately unearthed some very curious facts in relation to the Death Warrant of Charles I. It has been almost universally taken for granted of late years, owing to the influence of Carlyle, that, though the tribunal before which the hapless monarch was brought was an illegal one, the forms of law were as far as possible rigorously observed; in other words, that, though the Judges might be fanatical and the proceedings violent, there was nothing of littleness or deception about the trial. It now appears from some valuable contributions to late numbers of the *Athenæum*, that the warrant had been signed by the Judges *before* the trial was concluded. As, however, the trial dragged longer than was expected, a new warrant had to be made out. For this purpose, the old warrant was altered by erasures of dates. "Recopying would have entailed signing and sealing afresh on the part of the Commissioners who had already executed it; and that was, perhaps, not to be accomplished," because "men, who possibly repented of what they had done, might have hesitated to sign a second time." This will take many people by surprise, but will hardly astonish those who recollect the accusation of *treachery* that Lingard brings against Cromwell in the matter of the siege of Wexford—a charge which has never been disproved. Cf. Lingard, *Hist. of Engl.*, Vol. viii. App. Note SSS.

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NOTES AND NEWS.

—On March 8th, the boys of the McTavish Street School gave a highly successful musical and dramatic entertainment in the Mechanics' Hall. The proceeds, which came to nearly \$100, are to go to found a school library. This is the proper place to notice the curious history of this institution. Founded six years ago as a Proprietary School in McTavish Street, after having undergone three successive changes, and failed on each occasion from various causes, (though not without having sent forth some promising pupils), it has become a brilliant success as a private school in the hands of the present proprietor, Mr. Lyall. There are more than a hundred boys at the institution, some of whom are boarders. The old name has clung to it, though no longer appropriate as its buildings are on Mansfield Street, and on the corner of Drummond and Sherbrooke.

—During this month the new school-house of the Boston Public Latin School was opened with great display. We need hardly tell our readers that this institution is the oldest educational institution in the States, its boast being that “the Latin School dandled Harvard College on her knees.” Founded in 1635, it has continued in different buildings (until 1844 upon School Street, Boston,) down to the present day. Among its most famous Head Masters may be mentioned Ezekiel Cheever, John Lovell, B. Apthorp Gould, and Francis Gardner. Its present Head is Mr. Moses Merrill, a graduate of Harvard in 1856. Among its scholars, past and present, are the names of many of America’s leading Statesmen, Poets, Thinkers and Divines.

—The publication of Dr. Appleton’s *Life and Literary Relics* reminds us of his contribution to the work of Education. Passing from Oxford to Heidelberg and Berlin, “he brought back,” writes Mark Pattison, “from Germany the only thing of value which a German university has to offer—viz., the scientific spirit, a sense of the vastness of the field of knowledge, and the nobleness and the charm of a life devoted to knowing it. Once awakened to this perception, he became aware that a country or a university which is without this spirit is without the most powerful instrument of mental training. The return to his own university made him feel more keenly still by contrast the absence of any real communicative power in her teaching.” Inspired with what was to him a new idea, he started the *Academy* and therein constantly advocated “mature study,” and “endowment of research,” phrases invented by Dr. Appleton to designate the aim of a small body of educational reformers. The latter has not been without its opponents among men entitled to speak, such as Lord Sherbrooke (R. Lowe), and Sir Geo. Airy, the Astronomer-Royal, who, in a lately published letter to Capt. D. Noble, boldly says that endowment will probably “lead to consequences disreputable to science,” successful researches having “in nearly every instance originated with private persons.” Capt. Noble is Hon. Secretary to the Society for Opposing the Endowment of Scientific Research.

—The first volume of the *Canada Educational Monthly*, edited by Mr. G. Mercer Adam, has just been issued in a popular form, (price 50 cents), “for circulation at Teachers’ Associations.” It is a volume that should find a place in the library of all Schoolmasters. It also testifies to the state of education in the Province of Ontario. The best sign of this is the great variety of places from which the contributors date. The value of the volume as a work of reference will be best shown by the names of the subjects discussed. Such are Payment by Results, the Bible in our Schools, Co-education, Moral Discipline in Schools, &c. In the current number of the *Monthly* the future of the Upper Canada College

(the burning question in Ontario) is glanced at. Mr. Crooks is cautioned "that under a democracy we are not likely to see an institution longer conserved merely on the score of antiquity or tradition." The rivalry between the College and the High Schools is on the increase, and it has been repeatedly condemned by different Teachers' Associations.

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 REVIEWS.
 

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EXERCISES IN LATIN PROSE, a companion to Harkness's Latin Grammar.—By Messrs. Seath and Henderson. (Copp, Clarke & Co., Toronto.)

The popularity of Harkness's Latin Grammar, should secure a wide circulation for this work. It is divided into three parts. Part I contains exercises in Latin prose, upon different cases and constructions, made up of from ten to twenty sentences. There are copious notes at the bottom of the page, and an English-Latin vocabulary at the end. Part II contains 81 extracts from Latin to be retranslated: the words to be used in doing so are given below in their Latin order. This is, in one way, an excellent plan as it will impress the learner with the importance of the order of words in a Latin sentence; on the other hand, he is not likely to increase his own vocabulary, as he has no call upon his memory. This part also includes Pass papers in Latin prose set at the University of Toronto from 1864 to 1880. Part III gives a number of papers in Latin Grammar. Thus the book is fairly complete up to a certain point. It were to be wished, however, that the authors had included some such exercises as those in the second part of Wilkins' excellent manual, *i. e.*, an original passage from an English author, followed by an adaptation for translation into Latin. As an instance of this, take the first sentence of a passage from Longfellow:—

"There is something patriarchal still lingering about rural life in Sweden, which renders it a fit theme for song."

The same passage when adapted becomes:—

"That rustic mode of life in Scandia, is indeed still redolent, in some degree, of the golden age of our ancestors, so that it seems most worthy to be celebrated even by verses."

Now it is from this exercise, from the task of expressing the



thoughts of English writers in a tongue quite distinct in idiom, that the chief benefit of Latin Prose Composition is derived, and no University course in Latin can be considered complete, unless it culminates in this. Had these exercises been intended merely for schools, this want would not have been noticed, but being confessedly compiled for the use of "Intermediate and *University* Classes," it is quite clear that some such part as we have indicated should have been added. In other respects the book bids fair to be very useful. There are good notes on idioms at pp. 58, 67, &c., and on the modes of translating "for" at p. 68.

"THE PAST IN THE PRESENT. WHAT IS CIVILIZATION?"—By Arthur Mitchell, M.D., LL.D. (Harper & Brothers, New York.)

(For sale at Dawson Brothers.)

We have read with much interest this very instructive work. The volume, which is admirably illustrated throughout, and for the title-page of which Sir J. Noël Paton has executed one of his beautiful emblems, contains ten of the Rhind Lectures on Archæology, delivered in 1876 and 1878. The first part which is concerned with the first title, contains a series of accounts of spindles, craggans, black houses, &c., with certain conclusions drawn from the study of them. Part II. takes up the second title and is concerned with such interesting questions, as, whether Civilization can be lost, and what specially it consists in. As to the latter, Dr. Mitchell concludes that "civilization is the outcome of the war which man in society wages against the law of natural selection, and that the measure of success in the fight is the measure of civilization attained." It is distinguished from culture, which is strictly a personal possession, while civilization only affects aggregates. The studies of the writer have been mostly conducted in outlying parts of Scotland, and much rare and curious information in regard to the habits and utensils of the rude inhabitants of these parts is given. Without very much that is actually new, the author has carried his investigations into great detail. The purpose aimed at by the work is thus stated (p. 42.)

"Many people—almost all reading people—have some knowledge of the startling and precise conclusions which have been enumerated regarding the degraded condition of the so-called primeval man, and the immensity of his age on the earth; on the other hand, few have a correct comprehension of the

reasoning on which these conclusions rest, or of the nature and value of the data, from which the reasoning proceeds. I think, therefore, that it will be a useful work to beget a well-founded scepticism in regard to matters, the half-sight or one-sided examination of which may lead to an unscientific use of them."

In order to this, Dr. Mitchell shows how primitive stone implements have survived in actual use up to the present day among Scotch and Norse peasants of intellectual endowments not inferior (he thinks) to their contemporaries. What many writers on Archæology have considered as distinctively part and parcel of the Past, is thus shown to be really still part of the Present. This, however, is hardly an addition to our knowledge, though it may be well to emphasize it as a safeguard against rash conclusions drawn from such survivals. The classification of objects of antiquity into those of the stone, bronze and iron ages is discussed. While its practical utility is admitted, our author denies that it "does in any correct sense mark points of time or furnish dates. . . . Still less correctly does this classification indicate necessarily successive stages of capacity or culture." Enough has been said to show the scope of the work, which all those interested in the study of the origin and progress of civilization will do well to read. They will find in the Appendix much valuable matter extracted from the writings of Messrs. Wallace, Herbert Spencer, and Bancroft.

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EDITIONS OF SHAKESPEARE.—Taming of the Shrew, and All's Well That Ends Well,—by William J. Rolfe. (Harper & Brothers, New York.)

(For sale at Dawson Brothers.)

All students of Shakespeare are by this time familiar with Mr. Rolfe's admirably edited editions of his plays. The two volumes before us are worthy of their predecessors and their utility is enhanced, as the plays edited have not as yet been included in the Rugby edition, or in the Clarendon Press Series. Mr. Rolfe is therefore here without a rival. The Introductions, as usual, contain carefully selected passages from the critical and æsthetic commentators upon the plays, it being Mr. Rolfe's great merit that his editions are commentaries on the works of a poet, and not only on productions of Tudor English. From the latter point of view, however, it were to be wished that the editor had preserved the

original spelling (of the folio), as Hales has done in the specimens given in his masterly "Longer English Poets." But as these editions appeal to other besides scholastic readers, the editor is perhaps wise in printing a modernized text. In the notes to the first of the two plays we are glad to find liberal extracts from the earlier play, said to have been written by, or, at least, to contain passages from, Marlowe. To both plays Mr. Rolfe has appended a "Time-Analysis," taken Mr. P. A. Daniel's paper before the New Shakspere Society. Both editions may be safely recommended alike to scholars and to the general reader.

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### LITERARY DEPARTMENT.

Very little fresh information about Carlyle has found its way into the reviews since his death. Most people already knew something of his life, and had made up their mind about his opinions. His *Reminiscences*, edited by J. A. Froude, have been published and will be noticed next month. It is to be hoped that some one will give us a collection of his *Table Talk*. A few specimens have been given, such as his denouncing a friend, who humorously affected a tone of moral indifference, as fit to be President of the Heaven and Hell Amalgamation Society. When some one was praising an eminent economist, as it seemed to him, in excess, he interrupted the eulogy by declaring that he was "an inspired bagman who believed in a calico millenium." The *Bystander* was far from happy in its notice of Carlyle's death. After ignoring George Eliot, it took upon itself to denounce Carlyle, conceding however his merits as a humorist and an historical painter. We must all admire his graphic power and insight into character, still there is much truth in the remark made by the London *Spectator* that, "his interest seems to us always to have been in figuring the human mind as representing some flying colour or type of the Infinite Mind at work behind the Universe, and so presenting this idea as to make it palpable to his fellow-men." In fact, Carlyle was too much of a Teacher to be anything else in perfection.

A collection of the letters of John Ruskin, published in the newspapers from 1840 to 1880, has lately appeared under the capital title of "Arrows of the Chace." Boomerangs of the Chace, some one has maliciously suggested, would have been more appropriate. The edition is excellently edited with full indices of all kinds by an Oxford Pupil. To the volume, with which I has otherwise nothing to do, Mr. Ruskin contributes a Preface and Epilogue. There are few writers who could say as he does:—"Here are a series of letters ranging over a period of, broadly, forty years of my life; most of them written hastily, and all in hours snatched from heavier work: and in the entire mass of them there is not one word I wish to change, not a statement I have to retract, and, I believe, few pieces of advice, which the reader will not find it for his good to act upon. . . . Whether I am spared to put into act anything here designed for my country's

help, or am shielded by death from the sight of her remediless sorrow, I have already done for her as much service as she has will to receive, by laying before her facts vital to her existence, and unalterable by her power, in words of which not one has been warped by interest nor weakened by fear; and which are as pure from selfish passion as if they were spoken already out of another world." Nothing can be better than the following, as an illustration of the value of his letters. "It is to be remembered also that many of the subjects handled can be more conveniently treated controversially than directly; the answer to a single question may be made clearer than a statement which endeavors to anticipate many; and the crystalline vigor of a truth is often best seen in the course of its serene collision with a trembling and dissolving fallacy." Perhaps an epigram was the only way by which Mr. Ruskin could vindicate his claim to write with authority upon all points, but that does not take from the humour of it:—"no man, oftener than I, has had cast into his teeth the favorite adage of the insolent and the feeble—" *ne sutor.*" But it has always been forgotten by the speakers that, although the proverb might on some occasions be wisely spoken by an artist to a cobbler, it could never be wisely spoken by a cobbler to an artist."

Cicero will at last be fairly treated. It must not be forgotten that Livy his own countryman, an impartial judge, who saw his faults as clearly as he saw his merits, does not hesitate to say that if the former are set in the balance against the latter, it will be seen at once that Cicero was a great man as well as a famous man, and that to do full justice to his merits is beyond the powers of a tongue or pen less eloquent than his own. Few great men of the past have been more heartily despised by moderns, because none come so near to their own type. Most other personages in Greek and Roman History are mere "characters of antiquity." Cicero is almost like a politician of our own times. "There is a humanity in Cicero," writes Anthony Trollope, "a something almost of Christianity, a stepping forward out of the dead intellectualities of Roman life into moral perceptions, into natural affections, into domesticity, into philanthropy, and conscious discharge of duty which do not seem to have been as yet fully appreciated. To have loved his neighbour as himself before the teaching of Christ was much for a man to achieve; and that he did this is what I claim for Cicero, and hope to bring home to the minds of those who can find time for reading yet another added to the constantly increasing volumes about Roman times." Besides Mr. Trollope's *Life*, we have one by Dr. Jeans of Haileybury College, which together testify to the revived interest taken in this, perhaps, greatest of all philosophers in active life.

The phenomenon of two novelists, like Justin McCarthy and Anthony Trollope entering the field as historians is worthy of notice. Sir Walter Scott did so before, but Scott was a genius of altogether higher standard. The first writer who made history really popular was Macaulay, and Mr. Green's history is modelled on his as far as style goes. But both of these writers were professed historians, and reviewers could not complain from that point of view. Now, however, they seem to feel dissatisfaction because History is being made interesting to the masses. No one can call Justin McCarthy unwholesome,

and it seems to us that it is a great advantage to have the wonderful story of men's doings written in a style that all can read. A recent writer in the *Contemporary Review* complains that "Empiricism of all sorts is encouraged; and the literary showman thrives." We answer that this is only to be expected, as the principle of the Division of Labour is transferred from practical to literary matters. Gibbon was a Dryasdust, Grote and McCarthy rolled into one, but now they mostly exist separately. Though we hardly go along with the *Contemporary* critic (on "some Recent Books") in deploring what is but one step in the Advancement of Learning, we admire his courage in daring to dissent from the general verdict upon the Laureate's "In Memoriam." His comparison of it with the "Essay on Man" is most happy. They are both representative of "the best culture of the time," and either too fine a piece of work to answer the permanent speculative needs.

Our review would be incomplete without mentioning that *Punch's* ridicule of Art and Culture, of Maude and Postlethwait, has recently been transferred to the stage. "The Colonel," which is now running in London, is a dramatic account of how a Colonel of the U. S. Cavalry, who hates humbug, defeats a group of Art imposters who have made his English friend's house too unpleasant to live in. There is a capital account of the play in the number of *Punch* for Feb. 19, 1881.

R. W. B.

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### SCIENTIFIC DEPARTMENT.

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The Bread Reform League is the name of a newly formed Association in London, England. The object of the league is to bring before the English people the advantage of substituting "wheat meal" for the fine white flour which is now so eagerly sought after. The members of this Association hold that bread made from fine wheat flour does not contain nearly as much nourishment as that made from "whole wheat flour" which may be purchased at a lower figure. Many distinguished botanists and chemists corroborate this view whilst others oppose it. Dr. W. B. Carpenter states that one cause of the high death rate among children is the starchy character of their food, and Prof. Bartlett maintains that, with the present custom of using only fine white flour, 25 per cent. of the nutriment of wheat is deliberately thrown to the cattle. On the other hand, Messrs. Wanklyn and Cooper, eminent analytical chemists, hold that it is injurious to feed children on "whole meal" bread, as it does not contain a sufficiently large proportion of lime for forming bones. In support of this view we are informed that analyses made by Messrs. Lawes and Gilbert show that the mineral matter of *wheat* contains 3.4 per cent. of lime, whilst the ash of *flour* has 6 per cent. of lime. The principles of the league seem, however, to be gaining ground, for although a few months ago not a single loaf of "wheat meal" bread was sold in London, it is now for sale in 140 shops, with weekly sales of over 15,000 quartern loaves.

Trichinosis is the disease produced in man by the presence of the parasitic worm, *trichina spiralis*. This disease has acquired a painful interest from the fact that it may be brought about by eating pork, a staple article of food with many of our countrymen, and that it very frequently proves fatal. Quite recently the subject has been before the British Parliament. The disease has appeared in various parts of Europe and the blame was laid upon American Pork. Certain parties requested the British Government to prohibit the importation of the suspected article, which it declined to do. *Trichina spiralis* is an internal worm, a parasite of the rat in whose muscles it is found in an embryonic state, in which condition it remains until transferred to the stomach of some other animal. It frequently happens that rats are eaten by hogs, by which means the immature *trichinae* are introduced into this creature's stomach where they become fully developed and produce a numerous progeny. The young *trichinae* then work their way through the intestines into the muscles of their "host," where they establish themselves and remain in an immature state. If pork thus infected be eaten by man in a raw or imperfectly cooked state, the living embryonic *trichinae* entering the human stomach go through the same process as in the hog, and the irritation produced by the movement of the new colony in quest of suitable resting places is so great that death frequently results. When once established in the muscles, these worms remain quiet and their presence causes no further inconvenience.

Paris has an excellent method for keeping correct and uniform time throughout the city. The municipality has recently established what are called "horary centres." These are simply Standard clocks erected in various parts of the city and controlled by electricity from the Paris observatory. Each "horary centre" has electrical works of its own, by means of which it may be connected with, and control, public and private clocks in its neighborhood. Could not something of a similar character be introduced in our own city? There is much need for some method for keeping our public clocks uniform. At present it is rare to find any two of them alike, and the only means one has of obtaining the correct time is by watching the falling of the signal ball on the Harbour Commissioners' building, which is connected by electricity with McGill College observatory.

Indigo being a substance of very general use in our homes, some account of the process by which it is obtained may be interesting. It is prepared in large quantities in India from plants of the genus *Indigofera*, *I. tinctoria* being the most valuable for this purpose. The plant is cut while green and packed in vats and caused to ferment for several hours, when the liquid is drawn off and agitated for a long time when the Indigo separates in small flakes. The liquid is drawn off from the solid matter, the latter boiled for several hours and strained, a deep blue paste remaining on the strainer. The paste is exposed to a pressure, cut into cakes and dried away from sunlight, after which it is ready for market.

In the January number of the *Record* attention was called to Fleuss's diving

apparatus. It has been used with marked success at the Severn tunnel. With it the diver walked more than 1000 feet at a depth of 35 feet below the surface, and was cut off from all communication for one hour and a half. Ordinary diving gear was useless, as respiration could not be maintained through the necessary length of tubing.

If we mistake not Dr. J. Baker Edwards gave an informal address on the Metric System of Weights and Measures to a number of teachers at the close of the late Convention, held in this city. This system is in vogue on the Continent of Europe generally, and was legalized in the United States in May 1866. Certain parties are petitioning the American Government to make its use compulsory. This has produced a remonstrance from an eminent Philadelphia engineer, who maintains that the system is not nearly so convenient for the workshop as the old method. While his objections may be valid with reference to drawings made to a certain scale, we cannot see how for any other purpose the metric is inferior to the inch system. We hope the day is not far distant when the metric system will be as generally used in this country as it is on the Continent of Europe.

The researches of Gustav Hausen have shown that the antennæ of insects are organs of smell. When they are coated with paraffin or removed, the insects are quite indifferent to the most odorous substances; flies so treated take no notice whatever of the presence of putrid meat.

When typhoid fever first appeared among the students of Bishop's College, Lennoxville, samples of the waters used in the College for drinking and cooking purposes were submitted to Dr. Baker Edwards for analysis. At the same time samples were submitted to Dr. H. H. Croft of Toronto. Dr. Edwards reported as the result of his first analysis, that the College water supply was "not only pure but excellent." On examining a second lot of samples he reported: "None are polluted by sewage or contain organic germs likely to cause sickness." Dr. Croft pronounced "the waters all bad, as containing too much organic matter." Certain medical men of Sherbrooke also questioned the results of Dr. Edwards' analysis. At the last monthly meeting of the Natural History Society of this city, the latter gentleman stated that he was prepared to uphold his results and would be glad to have an opportunity of doing so at the next meeting of the Society. We shall endeavor to give our readers next month a summary of Dr. Edwards' explanations concerning his analyses.

J. T. D.

## CORRESPONDENCE.

## TEACHERS' PENSION ACT.

To the Editor of the EDUCATIONAL RECORD :

DEAR SIR,—The stronger triumphs! "To him that hath shall be given and from her that hath not shall be taken away." Without giving us a chance to say "nay," which would at least have helped them to get on the windy side of of conscience and have served for defence against any indictment of injustice, by affirming that a feminine "no" means "yes," our masculine co-labourers have passed the Pension Act. Very well! 'Tis useless to comment on its disadvantages to ourselves, but we can, like skilful generals, turn defeat into victory, by opening upon the enemy the battery of our charms—they (school-masters and charms too, if you will) are desiderata now. If one married a clergyman, well, one might manage to exist after his demise on the small annuity granted his widow, with a Ladies' School as an auxiliary. If one's departed spouse had been a doctor, his patients, convalescent or escaped, would scarcely feel friendly enough to contribute to his widow's maintenance; whereas, if we were only the widows of "common" men, we should probably have only the memories of "better days" as a solace. But, Oh, think of it! if only Cupid and Hymen will be propitious and give us for our lord a *School-Master*, we can, after having deluged his grave with briny tears, return to our comforting homes, and continue sleek and well provided for—we and our fatherless children, though they should, like Gideon's, number three-score and ten. As long as female teachers wield the birch, which will be as long as the human race continues to increase, attention male teachers! You are in requisition! We'll pay our pension-fee most cheerfully—for our husbands. And mark you! Resistance will be useless. A woman matrimonially determined who can withstand? Then hurrah for a live School-Master! Age, no consideration, the longer he has taught the better!

Yours,

ONE ON THE MATRIMONIAL WAR-PATH  
FOR A SCHOOL-MASTER.

## AGRICULTURAL EDUCATION.

To the Editor of the EDUCATIONAL RECORD.

DEAR SIR,—The *Illustrated Journal of Agriculture* for February last contained the text of a lecture on Meteorology, recently delivered in Frelighsburg, Quebec, by Mr. Arthur R. Jenner-Fust. The lecturer first announced that his subject belonged to the domain of science, and then, imagining, doubtless, that his hearers possessed much of that peculiar kind of conservatism usually ascribed to the farming community, endeavoured to conciliate them in the following words:—"Science is to many a word of vague



meaning and vastly terrific sound. It must not be allowed to frighten you though. \* \* \* \* \* A few weeks earnest application for three or four hours a day would give you such an insight into the practical working of those branches of science that concern you, that you would feel yourselves in a position to detect a fraud whenever you met with it." Who would not court science invested with such wondrous power? Mr. Jenner-Fust has evidently acquired his scientific knowledge by "a few weeks' earnest application for three or four hours a day," but it is to be regretted that he has not been "able to detect a fraud" when it has been presented to him.

In the subsequent part of the lecture the audience was informed that "heat is the great opponent of gravity." I am surprised that Mr. Jenner-Fust's scientific knowledge did not show him that such a statement was a *fraud*. Heat acts in opposition to cohesion—a very different thing from gravity. An ounce of ice will produce exactly an ounce of water, gravity acting with equal force upon liquids and solids, although the power of cohesion is less strongly exerted on the particles of water than on the particles of the solid ice.

The lecturer also states as "a law of nature" that "motion always is accompanied by heat." I venture to affirm that such a law of nature is a *fraud*. Motion may be converted into heat. Motion, partially or wholly arrested, may reappear as heat, but to quote from Ganot's admirable treatise on physics, "experiment has shown that there is an exact equivalence between the motion thus destroyed and the heat produced." Mr. Jenner-Fust next informed his audience that the thermometer "measures the relative amount of heat in various bodies." The thermometer reveals nothing whatever concerning the amount of heat in a body. It indicates the *intensity* of the heat of a body, and will, therefore, register the same temperature in any vessel, large or small, containing boiling water. I have called attention to a few of the errors in the lecture in question, because they have a direct bearing on a subject which is now receiving considerable attention—I refer to Agricultural Education. Mr. Jenner-Fust himself, in the *Record* of last month, maintains that in "every school, assisted by Government aid, there should be given at least three weekly simple lessons in the elements of agriculture." The Commission appointed by the Ontario Government in April last to inquire into the condition and progress of agriculture within that province, in their report recently laid before the Ontario Legislature, urges that a course of instruction in agriculture be introduced into the common schools of Canada. I should like to ask if we can expect correct scientific teaching from the grade of teachers in charge of the majority of schools in rural districts, when well-educated men, college graduates like Mr. Jenner-Fust (who is in this particular a type of a large class), have such incorrect opinions on scientific subjects? Better far for one to receive no new ideas than to receive incorrect ones.

As for practical agriculture, the scholars in country districts in most cases know far more than the teacher—frequently a lady. I hope to return to this subject again.

Yours truly,

WYGRAM.