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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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THE
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No. 11.

NOVEMBER, 1882.

VOL. II.

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

EDUCATION OFFICE,

Quebec, 13th Sept., 1882.

Which day the quarterly meeting of the Protestant Committee of the Council of Public Instruction was held:—Present: the Lord Bishop of Quebec in the Chair, the Rev. Dr. Cook, Dr. Dawson, R. W. Heneker, Esq., D.C.L., the Lord Bishop of Montreal, the Rev. Dr. Mathews, the Hon. W. W. Lynch, E. J. Hemming, Esq., D.C.L., and the Hon. Gédéon Ouimet, Superintendent of Public Instruction.

The minutes of the former meeting were read and confirmed.

There was read a letter of apology for non-attendance from the Hon. L. R. Church.

Dr. Dawson read the following Report from the Sub-Committee on School Law:—

“The Sub-Committee on special legal provisions for Protestant Schools, beg leave to report six clauses of a bill for the better organization of the Protestant Schools, together with suggestions for several other clauses, which they propose to reduce to proper form at their next meeting, if agreeable to the Committee.

“They would recommend: 1. That the clauses as adopted by the Sub-Committee should be printed as early as possible, for private circulation among members of the Committee.

“2. That a meeting of the Committee should be held before the next session of the Legislature, to consider and finally adopt the

clauses, and that measures should be taken to secure a full meeting.

"3. That a respectful request be made to the Government to grant this Committee an interview, so as to permit more full explanations.

"The Sub-Committee has based its proposals for legislation on the felt wants of the Protestant minority, as expressed in the resolutions of this Committee passed some time ago, and with such modifications as occurred on subsequent discussion.

"The principle which has guided your Sub-Committee is that of preparing a fixed body of law suitable to the wants of the Protestant minority, and leaving the Roman Catholic majority free to proceed with the changes suggested at various times in their system without interference with the special requirements of the Protestant Schools."

(Signed) J. W. DAWSON,
Convener.

After some discussion on the clauses referred to above, it was unanimously resolved:—

"That the Sub-Committee on the School Law do sit again and print and circulate among the members of the Committee their proposals before the next meeting of the Committee."

It was agreed to add Dr. Cook's name to the Sub-Committee on School Law.

The Hon. the Superintendent of Public Instruction reported that, owing to the change in the Government and the absence of the Premier from the city, nothing had been done as to an additional grant for the EDUCATIONAL RECORD. The Sub-Committee on the said EDUCATIONAL RECORD was requested to report to next meeting.

The Sub-Committee to which the case of Mr. F. I. Bamford had been referred, recommended in view of all the circumstances, that the grant from the Superior Education Fund to Dunham Academy be paid to him.

The Hon. the Superintendent of Public Instruction reported that he had had an interview with the Right Hon. Sir John A. Macdonald in regard to the arrears of Marriage License Fees, and that the Right Hon. the Premier of the Dominion had promised that the claim of the Protestant Committee on said arrears of Marriage License Fees should be attended to.

The Hon. the Superintendent of Public Instruction reported that nothing had been done in regard to the neutral panel.

The Hon. the Superintendent of Public Instruction reported

that the Rev. Isaac Brock, and Henry D. Lawrence, Esq., both of Sherbrooke, had been appointed Members of the Board of Examiners, Sherbrooke, as recommended at the last meeting of the Committee.

The Committee having had before them a reference from the Board of Examiners, Montreal, in regard to the granting of Diplomas to certain parties, agreed to the recommendations of said Board of Examiners, Montreal.

A letter was read from the Rev. Thomas Blaylock, President, Protestant Board of Examiners, Co. Bonaventure, recommending: (1.) That the Rev. T. W. George, of New Carlisle, be appointed a member of said Protestant Board of Examiners, Co. Bonaventure, in the place of Mr. J. Le Grand, resigned; (2.) That the Examinations for Teachers' Diplomas be held in June and December, instead of in May and November, as in the latter months the roads in the Gaspé coast are almost impassable.

The Hon. the Superintendent was requested to recommend the Government to appoint the aforesaid Rev. T. W. George, of New Carlisle, a member of said Protestant Board of Examiners, Co. Bonaventure.

In regard to the second recommendation in Mr. Blaylock's letter, the Secretary was instructed to write to the Secretaries of the several Boards of Examiners, inquiring whether it would be inconvenient to change the present times, viz., May and November, to June and December, for the Examination of Candidates for Teachers' Diplomas.

The Secretary was directed to put the Model Schools of Sorel and Bury on the list for Inspection for next year.

Resolutions from the Provincial Association of Protestant Teachers, passed at their late meeting in Sherbrooke, in regard to (I.) Time of Inspection of High and Model Schools, (II.) Central Examining Board, (III.) Increased means of Professional Training, (IV.) Representation of Elementary Education on the Protestant Committee of the Council of Public Instruction, were received and read, and the portions of them involving a change of law were referred to the Sub-Committee on School Law.

The reports and tabulated statements of the results of the last Inspection of the Academies and Model Schools were laid before the Committee, and the Secretary was instructed to have the general Reports of the Inspectors, together with the said tabulated Statements, published in the EDUCATIONAL RECORD.

The revenue for Marriage License Fees for the past year amounted to \$6,322, after deducting \$200 for management. Of this sum, five thousand dollars were appropriated to University Education as follows:—

McGill University.....	\$2,500
Morrin College.....	1,250
University of Bishop's College, Lennoxville.....	1,250
	\$5,000

The balance of the Marriage License Fees, amounting to \$1,322, being added to the Protestant portion, according to the recent Census of the Superior Education Grant for the year amounting to \$9,700, gives a total of \$11,022 for distribution at this meeting.

The Committee, after carefully examining and considering the Reports and Returns of the Inspectors of Academies and Model Schools, in connection with the annual Returns from the different Educational Institutions for Superior Education, agreed to recommend the payment of the following sums annexed to each:—

UNIVERSITIES AND COLLEGES.

McGill University.....	\$1,650
Morrin College.....	500
St. Francis College, Richmond.....	1,000
University of Bishop's College, Lennoxville.....	1,000
	\$4,150

ACADEMIES—CLASS I.

Lachute, Argenteuil.....	\$550
Stanstead and Wesleyan Ladies' College.....	550
Coaticook, Stanstead.....	450
Huntingdon.....	450
Compton, Ladies' College.....	375
Sherbrooke.....	375
	\$2,750

CLASS II.

Knowlton, Brome.....	\$275
Granby, Shefford.....	275
Eaton, Compton.....	225
Inverness, Megantic.....	225
Waterloo, Shefford.....	225
Shawville, Pontiac.....	225
Three Rivers, St. Maurice.....	200
Berthier-et-haut, Berthier.....	200
Bedford, Missisquoi.....	200
St. Johns, St. Johns.....	150
Clarenceville, Missisquoi.....	150
Hatley, Stanstead.....	100
Dunham Ladies' College, Missisquoi.....	100
	\$2,550

MODEL SCHOOLS—CLASS I

Sweetsburg, Missisquoi	\$75
Cowansville, Missisquoi	75
Valleyfield, Beauharnois.....	75
Magog, Stanstead.....	75
Lacolle, St. Johns	75
Leeds, Megantic.....	75
Bristol, Pontiac	75
Clarendon, Pontiac.....	75
	<hr/>
	\$600

CLASS II.

St. Sylvestre, Lotbinière.....	\$50
Thurso, Ottawa.....	50
Grenville, Argenteuil	50
Marbleton, Wolfe.....	50
Hull, Ottawa.....	50
Aylmer, Ottawa	50
Scotstown, Compton	50
Sutton, Brome.....	50
Rawdon, Montcalm	50
St. Lambert, Chambly.....	50
La Pêche, Ottawa	50
Philipsburg, Missisquoi.....	50
Stanbridge, Missisquoi	50
Ormstown, Chateauguay.....	50
Gould, Compton.....	50
Warden, Shefford	50
	<hr/>
	\$800

The above grants amount in all to \$15,850, and, together with \$120, due Sherbrooke Academy for last year, make \$15,970, which sum being deducted from the total amount, viz., \$16,022, at the disposal of the Committee for Superior Education, leaves a balance of \$52.

The accounts with vouchers, submitted by the Secretary, were examined and found correct, balance to date in the Bank of Montreal being, \$746.77.

The Secretary's contingent expenses, amounting to \$3.80, were ordered to be paid.

The Rev. Mr. Vial's application was considered, and the Committee cannot recommend the grant to be made to St. Dunstan Model School, Lake Beauport.

There being no further business, the Committee adjourned to meet on Wednesday, the 29th November, or sooner, if necessary, on the call of the Chairman.

GEORGE WEIR, *Secretary.*

GENERAL REPORT OF ACADEMIES AND MODEL SCHOOLS INSPECTED IN THE SPRING OF 1882.

BY REV. F. J. B. ALNATT.

Of the 26 schools* which fell to my share, I have been obliged to omit four (viz., one Academy—Hatley; and three Model Schools,—Clarendon, Cookshire, and Gould), for the following reasons :—

I was on my way to *Hatley*,—having given notice of my coming,—when at Coaticook (a few miles distant), news arrived that the Hatley Academy was closed, owing to the removal of the principal to *Magog*. By permission of the Superintendent of Public Instruction (applied for by my advice), the Academy was re-opened under the temporary charge of the teacher of the elementary department. Having been notified of this, I made another attempt to visit the school on 13th April; but when in its near neighbourhood, news reached me that it was closed, owing to illness of the teacher. My duties now led me in an entirely opposite direction, and engagements prevented me from attempting a third visit within the time to which I was limited by my instructions.

The Model School at *Clarendon* was also closed, on account of the illness of its principal, at the time appointed for my visit. The news reached me at Shawville (several miles distant). Clarendon is one of the outlying schools, and is some forty-five miles above Ottawa, and only to be reached by road. Hence, as I was on my homeward way at the time, I did not attempt a second visit. The excellent character hitherto borne by the school—standing as it did last year in the very first rank of model schools—and the fact that the same principal is still in charge of it, will I hope have the effect of recommending it to the favorable consideration of the Committee.

The Model School at *Gould* (*Lingwick*) was closed for the season on the 6th March.

The Model School at *Cookshire* has ceased to exist.

It will be observed (with reference to the schools on my list), that the averages of marks this year are on the whole somewhat

* That is, reckoning the Sherbrooke Academies separately, as they are in every sense distinct.

lower than those of last year. I would hardly ascribe this to a general falling off in point of proficiency. In many instances (e.g., at Eaton), a larger number of pupils was present, including those (of the less-advanced order) who usually drop off at the time of opening spring work. This would tend to lower the average standing. Again, the questions of this year were said to be more difficult, and may possibly not have been so well chosen.* The plan on which our examinations are arranged being a new one,—a little time must be expected to elapse before these can be so adjusted as to work evenly, and with uniform results.

This is another fact which, while it may certainly account for a lower average of marks in certain branches, at the same time I should regard as rather a favorable sign than otherwise. This is the very marked extension of the range of subjects studied in many of the schools, and the increased number of pupils taking up the higher branches. For example, when Algebra, Euclid, Drawing, &c., are added to the ordinary Arithmetic, it cannot be expected that the same standing in Mathematics will be reached as when Arithmetic stood alone.

I am pleased to observe a decided increase in the practice of opening schools with prayer and the reading of the Scriptures, and also in the introduction of Sacred History as a definite subject of study.

I may mention that the results under the head of *Drawing* are obtained partly from an inspection of the pupils' books, in some instances from specimens worked during the examination.

I may perhaps be permitted to say a word as to the *time* of the examinations. I observe that, at the Teachers' Convention at Sherbrooke, an apparently general desire was expressed to have the High School examinations not later than the month of March, chiefly, it would seem, on account of the falling off in attendance after that time. The question whether it is desirable to sanction the principle that a period of 6 to 7 months (or less, taking into account the Christmas vacation) is sufficient to qualify for the Government grant; or whether, on the other hand, a different course may have the effect of bringing pressure to bear upon the

* I may instance the paper on Book-keeping, which (as its author) I now feel to have been of a too advanced character for the generality of pupils.

pupils to prolong their stay, to their own advantage,—must of course rest with the Committee.

But, for my own part, I would only venture to express a wish that a little latitude might be allowed to the inspector who takes the Ottawa district. To visit the schools of Chelsea, La Pêche, Aylmer, Bristol, and Shawville; I had over 130 miles of continuous road-travelling, at the very worst time of the year, just as the frost was “coming out,” and after heavy rain—great part of the way consisting of deep clay, thoroughly soaked, and cut into water-holes. Portions of the journey were not only difficult and fatiguing, but positively dangerous—the whole forming an arduous experience even in a life not altogether unused to hardship. My tour last year in May over the same ground was pleasant and easy. Moreover, the objection as to falling off in attendance after the month of March does not seem to hold good in this region. The following figures, showing the comparative attendance at the time of inspection for the years 1881, 1882, will prove what I have said:—

OTTAWA DISTRICT.			EASTERN TOWNSHIPS.		
	1881	1882		1881	1882
Lachute.....	50	46	Sherbrooke (boys)	12	15
Aylmer	19	8	(girls).....	25	24
Hull	16	7	Coaticook	31	35
La Pêche.....	8	4	Eaton.....	8	30
Shawville	19	15	Compton	30	31
Thurso	15	9	Dunham	3	5
Grenville	10	11	Sweetsburg	6	7
			Knowlton	9	31
			Cowansville	5	10
			Marbleton	2	7

It will be remembered that last year's inspection was held in May, and it will be seen that, in the Ottawa district, the attendance was in all but one instance larger than at the earlier date of this year's visit. If March happened to be a wintry month, it would be suitable enough.

I now proceed to offer a few words of comment on the examination of each school on my list, taking the Academies and Model Schools separately. The order in which I have arranged them, represents my own idea of their comparative merits. Any arrangement of this kind must of course be to some extent a mere approximation, but, such as it is, it is the result of careful consideration; taking into account the number of pupils examined

at each school, as well as their standing in the different branches.

I may mention that in the great majority of instances, the examination was wholly a written one (with a few obvious exceptions); but in some cases, where there were only two or three pupils in a subject, I took the answers orally.

NOTES ON INSPECTION OF ACADEMIES AND MODEL SCHOOLS, MARCH AND APRIL, 1882.

BY REV. GEORGE WEIR.

In my Report of last year, the method of Examining the Academies and Model Schools, and of filling in the different items in Form B, as well as of summing up the results was fully explained, and, as precisely the same course was pursued in the late Inspection, it seems unnecessary to say anything further on this head on the present occasion.*

The Examination Papers on the different subjects, used by both Inspectors, were drawn up this year by Mr. Allnatt, and are herewith† submitted. The compiling of these papers, in the first instance, and the throwing off by means of a Transfer Pad ‡ sufficient number, so that in each subject there may be a separate copy for each scholar in the most numerous attended schools, require no small amount of thought and labour before the actual work of Inspection is begun. As the Inspectors thus adopt the same method and use the same examination papers, the results may be presumed to be tolerably uniform. The conduct of the examinations has been so systematized, that the Inspection passes off in the most perfect order and with the utmost economy of time.

In conclusion, I have very little to add to the remarks made on each school inspected, beyond the statement that the written examinations for candidates for Teachers' Diplomas, as well as the Inspection by written examinations of the Academies and Model Schools, have undoubtedly led to no small improvement in these Institutions, especially in Spelling, English Grammar, His-

* See last year's October number of the EDUCATIONAL RECORD (Vol. I., p. 430).

† Owing to press of matter the Examination Papers have to stand over for a month.

RESULTS OF EXAMINATION OF ACADEMIES.

Names of Academies in Order of Merit as per Returns of Inspectors.	CLASSICS.			MATHEMATICS.			ENGLISH.			MODERN LANGUAGES.			SACRED HISTORY.			AVERAGE TOTAL No. OF MARKS.
	Average of Marks.	Average of Pupils.	No. of Subjects taken out of 2.	Average of Marks.	Average of Pupils.	No. of Subjects taken out of 6.	Average of Marks.	Average of Pupils.	No. of Subjects taken out of 6.	Average of Marks.	Average of Pupils.	No. of Subjects taken out of 2.	Average of Marks.	Average of Pupils.	No. of Subjects taken out of 2.	
Lachute.....	30	30	4	47	16	4	58	44	6	41	30	1	50	27	6855	
Ceaticook.....	30	30	5	51	16	3	61	31	6	53	17	2	64	21	5420	
Compton L. C.....	31	23	3	35	12	3	48	13	6	33	9	1	64	21	5382	
Sherbrooke (Boys).....	38	38	5	34	10	4	53	23	6	21	14	1	41	12	1761	
Sherbrooke (Girls).....	38	38	2	42	21	4	28	31	6	36	13	1	42	21	3563	
Stanstead.....	33	33	2	47	14	5	59	30	6	55	18	1	55	28	5042	
Huntingdon.....	33	33	2	47	14	5	59	30	6	47	10	1	53	31	4451	
Knowlton.....	30	30	1	50	15	4	54	30	6	47	12	1	53	25	4241	
Baton.....	20	20	1	35	15	5	56	30	6	30	13	1	61	25	4241	
Inverness.....	26	26	1	37	14	5	54	22	6	42	12	1	48	24	3726	
Grundy.....	0	0	1	36	9	3	51	21	6	42	10	1	51	24	2829	
Waverlo.....	38	38	2	49	11	4	62	11	6	56	8	1	52	14	2148	
St. Francis.....	39	39	4	22	11	3	48	10	6	80	10	1	52	14	21081	
Shawville.....	15	15	1	37	10	4	53	16	6	31	18	1	43	15	2081	
Three Rivers.....	9	9	1	41	17	4	41	17	6	26	18	1	35	16	2018	
Berthier-on-Stant.....	38	38	2	10	14	3	44	14	6	30	18	1	43	12	1983	
Bedford.....	46	46	1	52	18	3	48	12	6	30	0	0	42	7	1326	
Danville.....	0	0	2	25	7	2	48	10	6	29	0	0	42	10	1219	
St. Johns.....	9	9	1	21	5	2	38	6	6	34	4	0	42	7	919	
Svegoisburg.....	40	40	2	35	5	5	53	6	5	0	0	1	47	17	867	
Freightsburg.....	12	12	2	18	4	2	42	5	6	25	3	0	47	5	464	
Dunham.....	0	0	1	45	3	1	45	4	6	0	0	0	26	4	464	

Names of Academies in Order of Merit as per Returns of Inspectors.	NUMBER OF PUPILS IN DIFFERENT BRANCHES AS PER ANNUAL RETURN.											
	Latin.	Greek.	Geometry and Algebra.	Trigonometry.	English.	Modern Languages.	History.	Geography.	Physical and Natural Science.	Book-keeping.	Drawing.	Agriculture.
Lachute.....	34	5	40	..	170	60	70	125	..	20	5	..
Ceaticook.....	11	1	28	..	116	33	65	148	..	197
Compton L. C.....	8	..	6	..	50	42	41	42	..	39
Sherbrooke (Boys).....	9	..	10	..	30	24	30	30	..	7
Sherbrooke (Girls).....
Stanstead.....
Huntingdon.....
Knowlton.....
Baton.....
Inverness.....
Grundy.....
Waverlo.....
St. Francis.....
Shawville.....
Three Rivers.....
Berthier-on-Stant.....
Bedford.....
Danville.....
St. Johns.....
Svegoisburg.....
Freightsburg.....
Dunham.....

Not Inspected. { Hatley.....
Sutton.....

RESULTS OF EXAMINATION OF MODEL SCHOOLS.

Names of Model Schools in Order of Merit as per Returns of Inspectors.	CLASSICS.			MATHEMATICS.			ENGLISH.			MODERN LANGUAGES.			SACRED HISTORY.		NUMBER OF PUPILS IN DIFFERENT BRANCHES AS PER ANNUAL RETURNS.												
	Average of Marks.	No. of Pupils.	No. of Subjects taken out of 2.	Average of Marks.	No. of Subjects taken out of 6.	Average of Marks.	No. of Pupils.	Average of Marks.	No. of Subjects taken out of 6.	Average of Marks.	No. of Pupils.	Average of Marks.	No. of Subjects taken out of 2.	Average of Marks.	No. of Pupils.	Latin.	Greek.	Geometry and Algebra.	Trigonometry.	English.	Modern Languages.	History.	Geography.	Physical and Nat'l Science.	Book-keeping.	Drawing.	Agriculture.
Clarenceville.....	22	3	1	30	3	3	54	0	0	0	0	0	0	17	1051	8	15	4	48	15	43	35	5	4	5	38	4
Margot.....	25	1	2	26	3	3	44	0	0	0	0	0	0	23	1840	8	26	4	36	15	32	31	1	6	5	38	5
Lacolle.....	0	0	0	39	0	0	53	0	0	0	0	0	0	47	1318	8	48	..	42	8	32	36	1	9	5	38	5
Leeds.....	0	0	0	24	2	2	47	0	0	0	0	0	0	38	1421	8	34	..	42	8	32	36	1	9	5	38	5
Bristol.....	5	1	1	22	5	5	42	0	0	0	0	0	0	30	1377	8	34	..	42	8	32	36	1	9	5	38	5
St. Henri.....	0	0	0	18	2	2	41	0	0	0	0	0	0	30	1193	8	16	..	56	8	36	33	16	8	8	68	8
Valleyfield.....	0	0	0	20	11	11	40	0	0	0	0	0	0	15	1143	8	7	..	40	10	36	40	10	10	10	22	5
Ulverton.....	0	0	0	15	8	3	44	0	0	0	0	0	0	41	1125	8	8	..	32	9	36	33	2	9	8	33	3
St. Sylvestre.....	0	0	0	15	5	5	46	0	0	0	0	0	0	35	995	8	1	..	51	5	40	33	2	9	36	33	3
Cowansville.....	32	3	3	35	5	5	50	0	0	0	0	0	0	49	936	8	12	..	45	12	33	33	8	8	8	28	8
Thurso.....	24	4	4	29	5	5	44	0	0	0	0	0	0	48	936	8	1	..	44	57	36	33	8	8	8	28	8
Gronville.....	0	0	0	16	4	4	53	0	0	0	0	0	0	7	936	8	1	..	44	57	36	33	8	8	8	28	8
Marbleton.....	0	0	0	30	5	5	44	0	0	0	0	0	0	30	696	8	1	..	44	57	36	33	8	8	8	28	8
Inuil.....	0	0	0	23	4	4	44	0	0	0	0	0	0	7	696	8	1	..	44	57	36	33	8	8	8	28	8
Aylmer.....	0	0	0	15	3	3	43	0	0	0	0	0	0	20	613	8	5	..	45	5	36	33	8	8	8	28	8
Scotstown.....	0	0	0	31	3	3	35	0	0	0	0	0	0	55	484	8	3	..	43	5	36	33	8	8	8	28	8
Mansonsville.....	0	0	0	16	4	4	45	0	0	0	0	0	0	21	450	8	3	..	15	4	36	33	8	8	8	28	8
Rawdon.....	0	0	0	16	4	4	45	0	0	0	0	0	0	18	439	8	3	..	15	4	36	33	8	8	8	28	8
St. Lambert.....	0	0	0	5	4	4	38	0	0	0	0	0	0	18	437	8	3	..	10	4	36	33	8	8	8	28	8
Maple Grove.....	0	0	0	9	3	3	38	0	0	0	0	0	0	18	372	8	3	..	10	4	36	33	8	8	8	28	8
Chelsea.....	0	0	0	19	4	4	36	0	0	0	0	0	0	24	285	8	3	..	13	3	36	33	8	8	8	28	8
Lachino.....	0	0	0	14	4	4	34	0	0	0	0	0	0	14	268	8	3	..	13	3	36	33	8	8	8	28	8
La Pêche.....	0	0	0	11	4	4	33	0	0	0	0	0	0	14	224	8	3	..	13	3	36	33	8	8	8	28	8
Philippsburg.....	2	2	2	27	2	2	35	0	0	0	0	0	0	27	258	8	2	..	27	6	20	20	20	20	7	4	4
Stanbridge.....	1	1	1	27	2	2	35	0	0	0	0	0	0	27	258	8	2	..	27	6	20	20	20	20	7	4	4
Warden.....	1	1	1	27	2	2	35	0	0	0	0	0	0	27	258	8	2	..	27	6	20	20	20	20	7	4	4
Gould.....	1	1	1	27	2	2	35	0	0	0	0	0	0	27	258	8	2	..	27	6	20	20	20	20	7	4	4
Gould.....	1	1	1	27	2	2	35	0	0	0	0	0	0	27	258	8	2	..	27	6	20	20	20	20	7	4	4
Ormsdown.....	1	1	1	27	2	2	35	0	0	0	0	0	0	27	258	8	2	..	27	6	20	20	20	20	7	4	4
Clarendon.....	1	1	1	27	2	2	35	0	0	0	0	0	0	27	258	8	2	..	27	6	20	20	20	20	7	4	4

NOT INSPECTED

tory, and Latin Grammar. The weak point in all the Academies is unquestionably the Classics—especially the Greek. I fear it is the weak point with some of the teachers themselves, and hence they do not encourage their pupils to cultivate the Classics. In the 21 Academies inspected this year, there were in all 28 pupils in Greek, and in 13 of these Academies there was no Greek being taught. If the Classics are to be taught with any degree of efficiency or advantage in our Academies, I respectfully submit to this Committee the necessity of at once raising the standard of classical qualification in those holding Academy Diplomas, whether from the McGill Normal School or the Boards of Examiners.

It might be of advantage to have occasionally an Inspection, in which no written examinations would be given, in order that the Inspectors may have an opportunity of seeing the teaching, examining the classification and general administration of each school, and of offering to the teachers such suggestions and hints as the circumstances may seem to demand.

THE BRITISH ASSOCIATION.

Southampton is a pleasant place to spend a week in. The picturesque aspect of the town itself, especially of its long and handsome High Street, the beauty of its surroundings, standing as it does within the fork formed by the bright broad waters of the Itchen and the Test, with richly wooded banks on the other side of either, its numerous breathing spaces in the shape of large and well-kept greens, besides a public garden, and the so-called common, which is really a well-planted park, give sweetness to the air and rest to the weary mind. The attendance at the meeting has been fair, the accommodation sufficient, and the arrangements excellent. The weakest point, perhaps, was the skating rink, the place assigned for the President's address and the evening lectures. It is too low in the roof to afford the grand *coup d'œil* to which people are accustomed at the opening meeting; and considering that it only seats about 1,200 persons, the platform included, it requires an undue exertion of the voice to fill it.

Dr. Siemen's address was, like his own career, a happy combination of science and practice. No man can speak with

more weight on numerous questions which are now fluttering the public mind; and the expressions of opinion which he has given with respect to electric lighting, gas lighting, gas engines, the fuel of the future, and the electric transmission of power, must be accepted as sober and well-balanced statements of the hopes which the public may reasonably entertain on these important points. The array of expectations thus presented is sufficiently startling. Gas engines to take the place of steam engines, and gas-making apparatus to replace boilers in our steamboats—smokeless fuel for the fires in our houses and factories in the shape of gas with or without coke or anthracite—the incandescent electric lamp for the houses of the rich, but gas still to remain the poor man's friend—small steam engines to be superseded by a few central large ones, distributing their power by means of electric transmission—are changes which Dr. Siemens thinks to be not far distant. As regards electric railways he is not sanguine, except for short lines in the neighbourhood of water power, and the particulars which he has given as to the plan which will be followed in the new line which is about to be opened near the Giant's Causeway will be read with interest. The current will be sent to the train by means of a separate conductor suspended on one side of the line, and will return by the rails, which for this purpose need not be insulated. Storage batteries will be used as auxiliaries, accumulating energy while the train is running downhill, and giving it out in ascents, as well as at level crossings where the side conductor will be interrupted.

The addresses of the presidents of the sections have been well up to the mark. Lord Rayleigh accomplished the very difficult task of giving a philosophical disquisition on physical investigation generally without indulging in platitudes. He enforced principles important to be remembered, and apt to be overlooked by those engaged in scientific work, illustrating his remarks by numerous well chosen examples. Prof. Liveing began with a discussion of some of the elementary ideas of chemistry, insisting on the absurdity of the views of chemical attraction which are taught—directly or implicitly—in the current text-books; and the necessity of looking to ordinary dynamics for the explanation of chemical phenomena. He referred to the modern hypothesis of vortex atoms as one which, whether true or false, at least showed the feasibility of an ordinary dynamical explanation. The latter

part of his discourse was occupied with a review of the light thrown upon the constitution of atoms by spectroscopic results. Mr. Fowler, in the Mechanical Section, had no difficulty in interesting his audience with remarks about channel and river tunnels, the achievement of modern railway engineering, and the gigantic Forth Bridge which is about to be constructed on his own plans. In the Geographical Section, Sir R. Temple discoursed eloquently on the mountains, rivers, and inhabitants of the great plateau of Central Asia, the meeting-place of the three great mountain chains of that continent, and the mother land of the hordes which, under Chinghiz Khan, achieved the greatest conquests known to history. Prof. Boyd Dawkins, in the Anthropological Department, discoursed on the present phase of our knowledge on the antiquity of man, drawing graphic sketches of the earth as it was in the days of the river-drift man and the far later days of the cave man, who was in a higher stage of the hunter civilization. Mr. Etheridge, in the Geological Section, was less sensational, contenting himself with a disquisition on the geology and history of Hampshire; while Mr. Selater Booth, in the Economic Section, brought us still nearer to the prose of life as it is by an address on Local Government Boards.

The first of the evening lectures was that given by Sir William Thomson on the tides. It was delivered with but few notes and without much regard to exact logical consecution of topics; but the intense energy of the lecturer and the startling points he made sustained the attention of the audience. The subject is one which, as chairman of the Tidal Committee of the Association, he has worked at for many years, and one result of his labours has been the publication of very complete tide tables for the principal Indian ports. Another result, of great importance to the geologist, is a determination of the amount by which the solid earth yields to the same distorting forces which produce tides in the sea. If it were of indiarubber, or, what amounts to much the same thing, if it had a crust only twenty or thirty miles thick, with fluid within, its yielding would be so great as practically to prevent any tidal currents from being formed in the water, for the formation of these depends upon the water yielding more than the land. Sir William's calculations show that the actual amount of yielding on the part of the land is less than it would be in a solid globe of

glass of the same size. The latest form of his tide gauge and tide-predicting machine were exhibited, and his harmonic analyzer was explained by the aid of a diagram.

The Saturday evening lecture to the operatives was delivered by Mr. John Evans, its title being "Unwritten History, and how to Read It." It was devoted to the early history of man as inferred from the remains of his handiwork, especial attention being given to remains found in the neighbourhood of Southampton. It was illustrated by beautiful diagrams of the various implements in question, showing the successive stages of their improvement; and though read, it was so clear and forcible that the audience appeared thoroughly to appreciate the intellectual treat provided for them.

The Mechanical Section had a lively discussion on the Channel tunnel, both in its engineering and political aspects, and Mr. Crampton exhibited, on a small scale, an excavating instrument which he would drive by direct hydraulic pressure instead of the pneumatic pressure hitherto employed. His scheme also includes the reduction of the excavated fragments to pulp, which would be run off in a drain to the end of the tunnel, and there pumped up to the surface. A beautiful model of the Forth Bridge, as about to be constructed, stood permanently on the table in this Section, and the plan of it was very fully expounded by Mr. Baker. Its longest span is about three times as long as that of any existing bridge. The trains are not to run along the top of it, but at the middle of its height, the girders above and below this level being in general appearance symmetrical.

The capabilities of compressed air as a motive power for tramways were ably set forth by Sir F. Bramwell, who espouses this mode of propulsion in preference to steam; and a very lucid statement was given by Mr. Preece of the results which have been attained in the use of the telephone. It is possible, he says, to swear to a friend's voice in the telephone though he be at 100 miles distance. The greatest distances at which conversations have been carried on have been from 400 to 500 miles. This was at night and through wires suspended in the air. Through submarine cables conversations have been carried on between Dover and Calais, and between Holyhead and Dublin; but there is no case where the distance with a submarine cable has exceeded 100 miles. The trouble from the influence of telegraphic currents in

neighbouring wires has been cured by twisting together the direct and the return wire of the telephone; and in this way Mr. Preece has conversed with a friend without difficulty seventy-six miles off, through wires erected on posts which also carried telegraphic wires busily occupied.

The Geographical Section have had a paper from Mr. J. Thomson, who is to lead an expedition which will be sent out under the auspices of the Royal Geographical Society to explore Kilimanjaro and the mountain chain to which it belongs. It contained, however, no thrilling narrative of adventure, but was devoted to the exposition of a geological theory respecting lake Tanganyika. Commander Cameron, who was present, challenged this theory, and a smart discussion ensued between the two explorers.

A prominent place was given to a paper by a foreign traveller, Mr. Tchihatchef, on the deserts of Africa and Asia. His paper, which is reported at great length in the *Times* of the 29th Aug., asserts that the sand deposits of the Sahara are comparatively local phenomena, and that in the greatest part of the desert the subjacent strata are perfectly conspicuous, either by cropping up through the superficial deposits, or by rising as mountains and hills, generally of cretaceous formation. He accepts the view that the climates of Egypt and Syria have very much deteriorated since the times of Egyptian greatness. Another traveller, Mr. O'Donovan, gave an account of his recent explorations at Merv.

The eminent physiologist, Prof. Du Bois-Reymond, of Berlin, has read some papers of a technical character in the Biological Section; and Prof. Clausius, of Bonn, one of the founders of the modern science of thermo-dynamics, has been regular in his attendance at the Physical Section, though not taking much part in the discussions.

One of the most important contributions in the Physical Section was from Prof. Langley, of America. He exhibited two remarkable instruments, namely, his "bolometer," or radiation measurer—an instrument some twenty times more sensitive than the thermopile; and a very large diffraction grating, ruled on concave speculum metal, by Prof. Rowland. By means of these powerful appliances, aided by the position of his observatory at the top of a mountain, he has made startling discoveries as regards the ultra-red portion of the solar spectrum. He has not

only traced it much further than ever it was traced before, but has found in it absorption lines very much stronger than any that occur in the visible spectrum.

Capt. Abney, who has worked at the same subject, and has accomplished the difficult feat of photographing the ultra-red spectrum, took part in the discussion, as did also Prof. Schuster, and some interesting facts were brought out; one being the existence of vapour of alcohol either in the loftiest regions of the air or in interplanetary space, as shown by the absorption bands of alcohol in the spectrum of the sun; the other, the existence of strong evidence that the group of lines in the solar spectrum, known as the B group, is due neither to the sun's atmosphere nor to the earth's, but to absorption in interplanetary space.

Prof. G. Forbes gave a very clear account of a series of experiments which he carried out with Mr. Young, of Kelly, and the method of which appeared to be unexceptionable, proving (unless they can be impugned) that red light travels faster in the air than blue light. If this be so, the difference *in vacuo* will be still greater, whereas the received theory is that *in vacuo* all colors travel with equal velocities.

The Committee on Meteoric Dust reported, through Prof. Schuster, that large quantities of iron had been found in dust collected in the Sahara Desert and in other places far from towns, and that much of this iron is alloyed with cobalt and nickel. These facts seem to indicate derivation from extra-mundane regions.

The Underground Temperature Committee have furnished a general summary and discussion of all their results, extending over the past fifteen years, drawn up by Prof. Everett. The rates of increase at the several stations differ widely among themselves, and the general average deduced is a degree in 64 feet. Considerable prominence is given to the fact that increase downwards exists not only at depths at which the temperature remains constant throughout the year, but also in the upper strata as far as the surface itself, when we compare the mean annual temperature at each depth.

Dr. Siemens brought forward in this Section the proposals contained in his presidential address for some additions to the list of "practical units" employed by electricians. Two of his units were unanimously approved—namely, (1) the *watt*, which is the

rate of doing work when a current of one ampere passes through a resistance of one ohm; and (2) the *joule*, which is the amount of work done, or its equivalent the amount of heat generated, when these conditions are maintained for one second. These two units will probably be brought into immediate use, as they are greatly wanted in electrical engineering. One horse power is equal to 746 watts.

Mr. G. H. Darwin, son of the late eminent naturalist, made some important communications, one of them being in reference to his observations originally undertaken to detect the disturbance of gravity produced by the moon's different attraction in different positions, but lately continued for the sake of the information which they give respecting minute tremors of the earth. They show a chronic state of earthquake in what we have been accustomed to regard as *terra firma*.

Sir W. Thompson, as usual, was the leading spirit in the Section, throwing important light upon nearly every question that was discussed, besides contributing several papers of his own.

The Economic Section, which on some previous occasions has been accused of admitting papers of too light and popular a cast, has now recovered its character, and the titles of its communications at this meeting breathe the spirit of as severe science as the most rigorous political economist could desire. Prof. Leone Levi's statistics of crime in the three divisions of the United Kingdom were especially important.

The event of the meeting has been the decision arrived at by the General Committee to hold the next meeting but one in Canada. This is a new departure, but, as the General Secretary pointed out, it is quite within the scope of the Association's work as defined in the printed constitution. Strong opinions were expressed against the proposal, as virtually excluding from the meeting a large proportion of the most devoted members and hardest workers of the Association; but its supporters were enthusiastic, and though defeated by a small majority in the voting for next year's meeting, which is to be at Southport, they finally carried their point as regards the 1884 meeting, by fifty-three votes against thirty-nine. Great inducements were offered in the shape of facilities for travelling; and the rare chance thus afforded of seeing America was doubtless a powerful attraction, especially to

the younger portion of the members. At the worst, no very great harm can come of it. The regular work of the Association is not so vitally essential that a year's interruption for the sake of a holiday tour will produce any very grave inconvenience.—*The Athenæum*.

INSPECTOR McLOUGHLIN'S REPORT

UPON THE PROTESTANT SCHOOLS IN THE DISTRICT OF BEDFORD.

For the Year ending June, 1882.

To the Hon. The Superintendent of Public Instruction.

SIR,—I beg leave to submit my Report on the state of the schools in my District of Inspection, for the current year. This Report would have been forwarded in June, were it not for the additional information which you required in regard to the Mixed Schools. This made it necessary to withhold my Report until I had completed my summer visits. I finished them on the seventh of this month (September).

I have visited nearly all the schools in this district twice during the year. Those that have not been visited twice, will be accounted for on a supplementary sheet annexed to this Report.

Last winter was a particularly difficult one for travelling in this District. There was very little good sleighing. The travelling had to be done mostly in a waggon, and this gave slow progress when the roads were rough and frozen. A good deal of time was lost in consequence of this, and I was unable in consequence to visit all the schools last winter. This summer I have visited all but five or six in St. Predentienne, and two in Milton, and one in Roxton Falls. That is, I have visited all that were in operation at the time of my visit. The schools have, upon the whole, been doing fair work and making respectable progress. Quite a number of new school-houses have been built, and others improved during the year. Improved desks and seats have been introduced into a number of school-houses, particularly in the Township of Stanbridge. The most noticeable feature of the year, however, as regards school matters, is the improvement in teachers' salaries. Teachers' wages have improved throughout the District, and in many parts they receive one-fourth more than they did two years ago. I attribute this improvement

to two causes, the general improvement in business and the scarcity of teachers.

A few years ago we had in this district many more teachers than schools. This is no longer the case, and the change is largely due to the faithfulness with which our Board of Examiners carry out the Law with respect to the granting of Teachers' Diplomas. They require the candidates to be fully eighteen years of age, and will not examine them even if they lack but a few days of the required age. They are equally exacting upon other points, and the result is that they exclude very many who would formerly have been admitted.

This reduces the number of teachers, and, as a consequence, has increased their wages. In accordance with the recommendation contained in your circular of the 15th of November last, I have made a brief Report of the condition of the schools in their municipality to the School Commissioners, at each visit, in a Register kept at the office. In this way I can point out, confidentially, to the School Commissioners the relative merits of the several teachers employed by them, and can, through their co-operation, secure the employment of the most capable and deserving in the best schools, and secure the exclusion of those who are unfit for the work. These Registers furnish a very convenient medium of communication for giving hints to School Commissioners on various matters connected with the management of the schools.

I will now proceed to give a short sketch of the condition of the schools in the several municipalities.

COUNTY OF SHEFFORD.

Shefford.—This municipality has 15 Protestant Elementary School and a Model School; one of the Elementary Schools has not been in operation during the year, owing to the fewness of the scholars. These schools have been doing fair work. I should instance, as the best, Nos. 1, 6, 7, 17, and 24 of the Winter Schools, and Nos. 4, 5, 7, 12, 13, 15, 17, and 24 of the Summer Schools. Teachers have not been required to board around (except in two or three of the poorer districts), and the change is a manifest improvement. I have called the attention of the School Commissioners to the state of the school-house in No. 22, which is in a

very dilapidated condition. The Model School at Warden has been well patronized. Finances well managed by the Secretary-Treasurer, Walter R. Lindsay, Esq.

Granby has 11 schools, all in operation and well conducted. Nearly all of these schools are excellent, and the School Commissioners deserve great credit for the successful manner in which they are managed. They have long since done away with the custom of requiring the teachers to board around, and they endeavor to carry out the law in all respects. The chief drawback is the fewness of the scholars, which makes it difficult to keep up some of the schools. As these schools are very good, I shall not attempt to distinguish some as better than others. I think one secret of the success of these schools is, that the School Commissioners continue the same teacher, year after year, in the same school. The finances are well managed and books well kept by Jas. A. Tomkins, Esq., Secretary-Treasurer.

Granby Village.—This village has an Elementary School and an Academy. Both have been well maintained during the year. The Academy is under the charge of Mr. John McIntosh, who has now taught it for seven or eight years. He is assisted in the Junior Department by Miss Alma Minckler, a teacher possessed of ability and experience. Finances well managed.

Waterloo Village.—This village enjoys a good system of Graded Schools. It constitutes one district. There is a Primary School outside of the High School building, and two Primary Departments within the building. There is, besides, an Intermediate and High School Department. Six teachers are employed, besides those in the French Model School, which does not come under my inspection. The whole is under one Board of Commissioners. The Academy building is the best school building in the District, except the Ladies' College at Dunham. The course of study is well graded, and pupils are advanced from one grade to the next, only at passing the required examination. The teachers are fairly paid, and there is an able staff of teachers. Mr. John L. Walton, a teacher of experience and ability, is at the head of the institution. Waterloo deserves great credit for its excellent schools, which are maintained at considerable expense. Secretary's books well kept.

St. Alphonse (dissentient) has one weak school, which was not in operation at the time of my visit.

Milton (dissentient) supports two schools. No. 1 is fairly prosperous, No. 2 weak as to numbers. Both are doing fair work.

St. Predentienne (dissentient).—Here are six schools. Five only have been kept up during the year. No. 3 has been idle. Cause, poverty and want of scholars. Decidedly the best of these schools was the one at the Pond, taught by Miss Eva Bronittel, where both French and English are well taught. Money matters honestly managed.

Roxton Falls (dissentient).—Here is one school which has been kept up during ten months. The teacher was Miss Janette Harper, a graduate of the McGill Normal School. I failed to visit this school. I was on my way to visit it last winter, and was within seven or eight miles, when the snow left the roads so completely that I was forced to return, and I arrived at Roxton this summer about the 7th of August, and found that the school had closed a few weeks before, not having had a vacation between the winter and summer terms, as the schools in this District almost invariably do. Finances in good order.

North Ely (dissentient).—This municipality has two schools. Both have been in operation, though No. 1 has not kept full time. No. 2 does fair work, though the pupils are mostly young.

North Ely maintains four schools with difficulty, owing to the population being widely scattered. Money matters honestly managed.

South Ely (dissentient).—This corporation supports four schools. No. 3 was idle during the winter. Schools are maintained here with difficulty. Books roughly, but honestly kept.

North Stukely (dissentient) has two schools. No. 2 well taught, No. 1 indifferent.

South Stukely.—This municipality has five districts. No. 3 was well taught last winter, and No. 2 has had a good teacher. No. 1 has been idle throughout the year. The other two, Nos. 4 and 5 have been idle most of the time. Money matters fairly cared for. This municipality only needs three schools.

COUNTY OF BROME.

Brome.—This municipality has 25 Protestant Elementary Schools. All of them have been in operation during the year, and most of them have done good work. The best of the Winter

Schools were those in Nos. 1, 6, 7, 11, 12, 13, 14, 15, and 22. Of the Summer Schools the best were those in Nos. 1, 2, 3, 4, 10, 11, 13, 14, 15, 17, and 22. The Academy building has been enlarged and very much improved. The school has had a fairly prosperous year. The instruction here is thorough and of a high order. The principal, C. A. Jackson, has taught here for seven years, and has won for himself and his school a high reputation. School matters in Brome are quite satisfactory, except in one respect; the old practice of requiring the teacher to board around still continues in most of the districts. Money matters are highly satisfactory. The School Commissioners have a large balance to their credit in the Bank, after paying all the expenses of the year. This condition of things is largely due to the ability and diligence of the Secretary-Treasurer, Mr. John McFarlane.

East Bolton.—This town has 13 Elementary Schools, which rank as Protestant. Of these, five were idle during the winter, owing to the scarcity of teachers. The Winter Schools were satisfactory, except the one in No. 3, which was in a discouraging condition. The best Summer Schools were those in No. 6, 11, 13, and No. 3. The Church School, under the charge of the Rev. Mr. Clayton, is small, but is doing good work. Money matters better than formerly, teachers paid.

West Bolton.—Here are nine Protestant Elementary Schools. The Winter Schools that were doing the best were those in Nos. 1, 3, and 9, of the Summer Schools Nos. 1, 2, 3, and 6. The Summer School in No. 4 was a failure, teacher incompetent and useless. Financial matters well managed by the School Commissioners and Mr. H. C. Knowlton, Secretary-Treasurer.

East Farnham.—This municipality maintains 11 Elementary Schools. Only ten have been kept up during the year. This town usually has a very good set of schools, and this year they are fully as good as usual. It would be unfair to distinguish any as much superior to the others. They are, on the whole, quite satisfactory. The weakest is the one in No. 3, where it is difficult to keep up a school, owing to the small number of scholars. Finances in a satisfactory state.

Pöyton.—This town has 17 Protestant Schools, with 16 schools in operation in the course of the year. Several of them have not been kept up for the full time, owing to the difficulty of procuring

teachers. Those best worthy of mention of the Winter Schools, were those in Nos. 1, 2, 3, 4, 5, 6, 11, and 18; of the Summer Schools, Nos. 1, 2, 6, 7, 8, and 14. As I visited this town at the end of my summer tour, some of the schools were closed. The Model School at Mansonville was doing fairly at the time of my winter visit. Finances fairly managed, but some arrears still due.

Sutton supports 17 Protestant Elementary Schools. These have all been in operation within the year, although No. 9 was not kept open during the winter, on account of the wretched condition of the school-house, which rendered it unfit for a Winter School. They are building a new school-house this fall. I shall mention as specially worthy of commendation, of the Winter Schools, Nos. 1, 6, 8, 14, and 17; of the Summer Schools, Nos. 1, 4, 6, 7, 8, 9, and 14. The Independent School at Abercorn, taught by Mrs. Cyrus Thomas, is an excellent school, and the pupils attending it are making rapid progress. The Sutton High School, under the charge of Mr. Alexander Wardrop, is enjoying the service of a first-class teacher. This school has been well patronized. Still, there is much to discourage the friends of the school. The place where the school is held, the upper part of the Town Hall, is unsuitable. It is destitute of proper furniture, cold and uncomfortable. With a good Academy building, and such a teacher as Mr. Wardrop, the people of Sutton would possess one of the first schools in the District. Finances in a very prosperous condition, and ably managed by the efficient Secretary-Treasurer, E. A. Dyer, Esq.

COUNTY OF MISSISQUOI.

Dunham.—This town has 25 Elementary Schools. These were mostly kept up during the year, though several were not kept full time for want of scholars. Nos. 10, 24, and 25 were idle for want of scholars during the winter, and Nos. 7, 8, and 24 this summer. The best of the Winter Schools were Nos. 12, 15, 16, and 27; of the Summer Schools, Nos. 2, 3, 7, 12, and 27. The Missisquoi High School, taught by the Rev. T. W. Fyles, has not had as large an attendance as usual, and has been kept up at considerable sacrifice on the part of the Principal. This school excels in the teaching of Penmanship, Drawing, Natural History, and in Religious Instruction. Finances at Dunham are carefully managed and books well kept by G. D. Baker, Esq.

Dunham Flat.—This village has a graded school. Principal, Mr. Frederick Bamford. The school was fairly attended and several branches well taught. Finances satisfactory. Secretary-Treasurer, Rev. Joshua Geer.

Cowansville.—This village has two district schools and one Academy. The Academy, under the charge of James Mackay, has been well attended. The district schools have been cramped for the want of suitable rooms. The people of Cowansville are putting up a building to be used for a graded school which will be opened some time during the year. Books well kept by the Secretary-Treasurer, Wm. Stevenson, Esq.

St. Damien supports 11 Protestant Elementary Schools. All of these were in operation. The schools in this municipality are well maintained and are most of them excellent, especially those in Nos. 1, 2, 4, and 7. Several of the school-rooms in St. Damien are fitted up with improved seats, and the buildings are mostly in good repair. Books well kept by Mr. George Sulley, Secretary-Treasurer.

The Bedford Academy, Hobart Butler, Esq., M.A., Principal, has been well patronized and doing excellent work. The Principal usually has able assistants, and was particularly fortunate this year in securing the services of Miss Mary J. Abbott, a graduate of McGill Normal School, who unites rare aptitude in teaching with excellent scholarship.

St. Ignace has five schools all in operation and fairly maintained. New and very good school-houses have been built in Nos. 2 and 3. Excepting No. 6, the school-houses are in very good condition. Mr. George Sulley is Secretary-Treasurer of this municipality, as well as of St. Damien. His work is always well done.

Notre Dame des Anges (dissentient).—Here is one Protestant School doing but indifferently. L. A. H. Hogle, Secretary-Treasurer.

Frelighsburg has 9 Elementary Schools. All have been open within the year, except perhaps No. 6. No. 6 was idle this summer. Last winter I only visited two schools in this municipality, as a thaw coming on took off what little snow there was in the roads, and obliged me to return home. This summer I visited all the schools that were open. The work done is middling. The best schools were those in Nos. 4, 5, 7, and 11. Books well and ably kept by E. E. Spencer, Esq., M.P.P. The Frelighsburg Academy, taught by Wm. J. Eastwood, has done good work.

Philipsburgh.—This municipality has 8 schools well maintained. I was unable to get to this municipality last winter, owing to the frequent changes from wheeling to sleighing, and the consequent bad travelling. I visited all this summer. These schools are doing good work, and it will not be just to particularize any except, perhaps, No. 1, taught by Mr. Irving C. Struthers, Model School Diploma, Montreal Board. This was a large well-conducted school. Mr. Struthers is a very qualified and capable teacher. I did not see the Secretary's books, as he was away from home.

St. Sebastien de Missisquoi has 2 schools, both weak and poorly kept up.

Clarenceville.—This municipality has eight schools. Seven only have been in operation during the year. I visited most of them this summer; all that were in operation at the time, but was unable to reach them last winter on account of the roads. The High School was closed at the time of my summer visit. These schools were well attended and well taught. A new Secretary-Treasurer has been appointed. I have not yet seen his books.

St. Thomas has 6 schools, 2 of these were idle at the time of my visit. Of the remaining 4, all might be classed as good. Finances honestly managed.

West Farnham (dissentient).—Here are 3 schools. Nos. 2 and 3 very small schools, No. 1 well attended, and all fairly well taught. Finances well managed.

Town of Farnham (dissentient).—Here is one Protestant School well attended and fairly successful. It had a very good teacher during the winter. Teacher well paid.

Respectfully submitted,

J. A. McLOUGHLIN,

Inspector of Schools.

Sweetsburgh, September 30th, 1882.

To the Hon. The Superintendent of Public Instruction.

SIR,—I append this Report as required by your circular of the 15th November last, stating the number of visits I have made to the schools, and the reasons why I have omitted to visit any of them twice.

I would state in the outset, that I have visited the High Schools of the District but once, inasmuch as they receive a visit also from the Special Inspector of High Schools, and I prefer to spend the time as much as possible with the Elementary Schools. When I visit a municipality, I inspect all the schools then in operation. Generally some of them are idle. I cannot, however, return there again during the half-year without neglecting other municipalities. There are many districts, again, that have a summer term, but no winter term, and *vice versa*. I have made 324 visits during the year, 157 in the winter and 167 in the summer. I have visited all but two or three once, and most of them twice. The Academy at Clarenceville is the only High School that has not

been visited, and the District School at Roxton Falls has not been visited. The cause in both cases, the want of sleighing and the fact that they closed earlier than the schools around them. I believe I have visited all of the others at least once that have been kept full time.

Owing to the very short season of sleighing that we had last winter in this District, I did not visit the schools of Frelighsburgh, two excepted, nor those of Clarenceville, Philipsburgh, and St. Thomas, with the schools of North Ely and one in Roxton Falls. This summer I have visited all that were in operation, except 7 and 2 in Milton, and 5 in St. Predentienne. These were mostly closed by the time I had finished visiting the other towns.

In the following table I give the number of schools in operation during the year, the number visited, the number idle at the time of my visit, and the number unvisited :—

WINTER TERM.

	Whole No.	Visited.	Idle.	Unvisited.
Shefford.....	16	12	4	0
Waterloo.....	3	3	0	0
Granby.....	11	9	2	0
Granby Village.....	2	2	0	0
St. Alphonse, diss.....	1	1	0	0
Milton, diss.....	2	1	1	0
Roxton Falls, diss.....	1	0	0	1
St. Predentienne, diss....	5	5	0	0
North Ely.....	4	0	0	4
North Ely, diss.....	1	0	0	1
South Ely, diss.....	4	2	2	0
North Stukely, diss.....	2	1	1	0
South Stukely.....	5	2	3	0
Brome.....	26	21	5	0
East Bolton.....	12	8	4	0
West Bolton.....	9	8	1	0
Polton.....	17	13	4	0
Sutton.....	19	17	2	0
East Farnham.....	10	10	0	0
West Farnham.....	3	3	0	0
Town of Farnham.....	1	1	0	0
Dunham.....	22	18	4	0
Dunham Flat.....	1	1	0	0
Cowansville.....	3	3	0	0
St. Damien.....	13	9	1	3
St. Ignace.....	5	5	0	0
Notre Dame, diss.....	1	0	0	1
Frelighsburgh.....	10	2	1	7
Philipsburgh.....	8	0	0	8
St. Sebastien, diss.....	2	0	1	1
Clarenceville.....	8	0	0	8
St. Thomas.....	6	0	1	5
	233	157	37	39

SUMMER TERM.

	Whole No.	Visited.	Idle.	Unvisited.
Shefford.....	16	12	4	0
Waterloo.....	3	0	3	0
Granby.....	11	11	0	0
Granby Village.....	2	0	2	0
St. Alphonse, diss.....	1	0	1	0
Milton, diss.....	2	0	0	2
Roxton Falls, diss.....	1	0	1	0
St. Predentienne, diss..	5	0	0	5
North Ely.....	4	3	1	0
North Ely, diss.....	1	1	0	0
South Ely, diss.....	4	4	0	0
North Stukely, diss....	2	1	1	0
South Stukely.....	5	2	3	0
Brome.....	26	18	8	0
East Bolton.....	12	10	2	0
West Bolton.....	9	9	0	0
Polton.....	17	8	9	0
Sutton.....	19	14	5	0
East Farnham.....	10	10	0	0
West Farnham, diss....	3	2	1	0
Town of Farnham, diss..	1	1	0	0
Dunham.....	22	20	2	0
Dunham Flat.....	1	0	1	0
Cowansville.....	3	2	1	0
St. Damien.....	13	8	5	0
St. Ignace.....	5	5	0	0
Notre Dame des Ange..	1	1	0	0
Frelighsburgh.....	10	8	2	0
Philipsburgh.....	8	7	1	0
St. Sebastien, diss.....	2	1	1	0
Clarenceville.....	8	5	3	0
St. Thomas.....	6	4	2	0
	233	167	59	7

I, Joseph A. McLoughlin, Inspector of Protestant Schools for the District of Bedford, solemnly declare that I have made three hundred and twenty-four visits to the schools of my District during the year. I did not visit during the winter the schools of Frelighsburgh, two excepted, nor those of Philipsburgh, St. Sebastien dissentient, Clarenceville, and St. Thomas, three schools in Stanbridge, one in Notre Dame des Ange, four in North Ely, and one at Roxton Falls, on account of the lack of sleighing and bad roads. And that I have not visited seven this summer, two in Milton and five in St. Predentienne, as most of these seven schools had closed before I had finished visiting the other municipalities, and, excepting those schools above mentioned, I have visited twice all the schools that were in operation at the time I visited the several municipalities.

J. A. McLOUGHLIN,

Inspector of Schools.

The Inspector for the District of Bedford presents a very full and, in some respects, a very satisfactory report. The statistical table attached to the report gives 233 Educational Institutions of all kinds, with an aggregate attendance of 5,925 and an average attendance of 4,407 or nearly 75 per cent. This is a very high average attendance, as compared with some of the other districts of inspection. The difficulties of Winter travelling, which are referred to, are certainly very great and must seriously interfere with any regular and systematic plan of inspection. The idea of making a report of the schools of a municipality to the School Commissioners is a very excellent one. It will afford those Commissioners at least, who take an interest in their schools, an opportunity of knowing the details of the school work in the municipality, and of working intelligently in trying to improve it. In Ontario, the Inspectors' reports of school work are made to the School Commissioners and not to the Education Department, unless specially called for. It must stimulate the teacher to know that the Inspector's estimate of her work and character as a teacher is to be placed before the Commissioners under whom she is working.

There is one point in the report which calls for special notice. We refer to the large number of schools which did not come under the notice of the Inspector because they were not in operation at the time he visited the locality in which they were situated. During the second or Summer tour of inspection, out of 233 institutions 59, or about one quarter of them, were not in operation at the time of the Inspector's visit. Several of these were, no doubt, idle throughout the term and could not have been inspected at any time; but the great majority of them were in operation during the term, but the Inspector failed to visit them because there is no definite time during which the schools are in operation. The schools hold their sessions at different times, and the Inspector never can tell that a particular school is in operation when he proposes to visit it. As a consequence of this want of regularity in the school sessions the above report shows that one-fourth of the schools are sometimes omitted in the semi-annual tour of inspection. The difficulty arises in a great measure from the division of the school year into a Summer and Winter term separated by a vacation in Spring and Autumn. This division, which is very general in the Districts of Bedford

and St. Francis, gives rise to many complications and irregularities, and is very prejudicial to the Educational interests of those Districts. The forms and reports connected with the Education Department are all made out upon the supposition of one continuous session of eight or ten months. The semi-annual reports of the School Commissioners to the Department are to be made in January and July of each year, and are supposed to give information concerning the school work of the previous six months. But by the division of the year referred to above the January report gives no information concerning the last few months of the previous year (which it is supposed to give), but refers to the Summer school which probably closed in August. The great majority of the Elementary Schools of the Province, however, have a continuous session, and the January report contains information concerning the school work of the last months of the preceding year. It is evident, therefore, that in making a summary of these reports statistics referring to different terms of the school year will be thrown together, and the value of the information thus obtained will be seriously interfered with. Again the frequent change of teachers which prevails in the Districts of St. Francis and Bedford, if not caused, is certainly very greatly encouraged, by the division of the school year into a Summer and Winter term. If the schools were kept open for a continuous session of eight or ten months, one teacher would be retained throughout the year, and the value of the year's work would be greatly increased. The custom of having one session in the year with a short vacation prevails generally among the French Schools of the Province and also in a large number of the English Schools. In the District of Inspector McGregor, whose report was printed in the last number of the RECORD, the schools as a rule have a continuous session of eight or ten months, and the same teacher is employed throughout the year. And this, no doubt, accounts for the favorable condition and efficiency of the schools in that district. There is always great difficulty in breaking through a time-honored custom even though it has little to recommend it except its age. No doubt, many objections would be raised against the introduction of one continuous session in place of the two terms which make up the school year in many schools at present. And yet we are convinced that this change is absolutely necessary if the schools are to do the work which

might reasonably be expected of them. The School Commissioners could do nothing which would so increase the efficiency of their schools as the introduction of one continuous session and the employment of the same teacher throughout the scholastic year. This plan prevails throughout the French Schools. The most successful English Schools practice it. It does away with many difficulties now experienced in working the Educational System of the Province. It commends itself to sound common sense. It should be adopted without delay in all municipalities where it is not in force. The plan may not be a cast iron one; exceptions could be made in favor of Districts where a Summer and Winter term would, for special reasons, be preferable. But the general rule for each school should be eight months work under the same teacher.

A NEW LATIN GRAMMAR.

A LATIN GRAMMAR. By Thomas Chase, LL. D., President of Haverford College, Philadelphia; Eldredge & Bro. Price, \$1.35; to teachers, for examination, \$1.00.

To the vast mass of readers, of whose intellectual outfit Ben Jonson's characterization of his great rival's knowledge of the classics would be a flattering description, nothing can probably appear to be duller reading than a Latin or Greek Grammar. For ourselves we must confess that we belong to the minority, and that a scholarly book, like President Chase's work, gives us several hours pleasant study. We also venture to assert that no schoolmaster can teach grammar successfully in its higher branches unless he feels something of this, singular perhaps but still genuine, "acquired" pleasure. The interest of the study of grammar lies in distinguishing the idiosyncracies of languages, in tracing the growth of peculiar forms of speech, in attempting to grasp the idea lying at the root of an inflexion, case or mood. Again in examining a new book we naturally try to find out how our author treats the recognized difficulties in the syntax of a language, what his idea is of the philosophy of the sentence, and how far he recognizes in language a purely scientific study.

In regard to the second of these points we own to a certain amount of disappointment in regard to the work before us. For while Mr. Chase properly notices that *genitives qualify nouns*

(" A noun, that limits the meaning of another noun, denoting a different thing, is put in the genitive," p. 184), he omits to lay it down clearly that *ablatives qualify verbs*. This distinction of the general fact of usage, however, is an important one. The genitive is the *adjectival* case, the ablative the *adverbial*. Until we recognize this fact we are bound to call nearly half the ablatives in Latin by such a monstrous term as "Ablative Absolute." This name Mr. Chase accordingly retains, §187, defining it as "a noun and a participle not connected with the main construction of the sentence," yet he allows that it "may express any accompaniment of the principal action, as the *time*, a *condition*, a *concession*, a *cause*, according to the context." It is therefore an ablative of *circumstance*, one of a wide class that includes the Instrument, Manner, &c. The term *Ablative Absolute* should in fact be banished from grammars that attempt to be scientific. The laws of Latin do not permit words to be thrust into the sentence without what, for want of a better term, we call "government." The ablative was the adverbial case, the case expressing qualifications of the action of the verb, and hence we have phrases, which old grammarians from imperfect knowledge of the nature of the language called "Absolute". An *Ablative Absolute* is in fact an *idolon theatri*, and its admission by Mr. Chase is a concession to prejudice created by long usage and training in old methods.

But new writers as well as old have their idols, and to these Mr. Chase has, we think, made undue sacrifice in his chapter on Prosody. Some time ago Professor White, of Harvard, published a translation of Dr. Schmidt's book on the Rhythmic and Metric of the Classical Languages. The views there enunciated were adopted by Messrs. Allen and Greenough in their Latin Grammar, and we now find them again in Chase's work. The practical difference that this causes in the scansion of a Latin verse is the substitution of a so called *irrational* foot, by the shortening of a long syllable to take the place of a short syllable. To apply this to the Lesser Sapphic. According to this scheme, we must scan the first verse as "a trochee, irrational trochee, cyclic dactyl, and two trochees" (p. 270), and of course this theory is applied consistently to Alcaics, Asclepiads, &c. Now of course the original Sapphic metre consisted of two trochees, a dactyl and two trochees; but in transferring it to the Latin language, Horace found

it more in accordance with its genius to substitute uniformly a spondee for the second trochee, just as the anachrusis in the Alcaic stanza are almost always long syllables, and the second trochee in the first three lines becomes a spondee; just as again the ordinary Hexameter became more spondaic in Latin than in Greek. Now we maintain that this uniform substitution of spondees in Latin for trochees or dactyls in Greek is a law of the language, a point that differentiates it from Greek. Why then are we to apply the term "irrational" to a foot which the Latin poet chose deliberately and adhered to uniformly? This term may be in place, as applied to Greek, but we do not see its appropriateness in Latin Grammar. While we are on the subject of metres we must add that we are glad to find Mr. Chase standing out for the view of the Alcaic stanza, as in the main trochaic in the first three lines, against the iambic theory of Madvig, Kennedy and Roby.

But to return again to our author's treatment of the cases, it seems to us that it would have simplified the work of students to have classified their different uses into three or four well-chosen classes, such as in the case of the Ablative into the Instrumental, Locative and Ablative (Kennedy), or the Place Where, Instrument, and Place Whence (Roby). Many, too, of what are called "Special uses" of the cases might conveniently be referred to uses already classified.

To turn to points upon which the best authorities differ, Mr. Chase, we think, does well in recognizing the occasional use of the voluntary agent in the ablative without the preposition, §173. In regard to the Subjunctive mood, our author regards its conjunctive use as representing "the original force of the mood; the second," or subjunctive use in subordinate clauses, "has been derived from it, through steps more or less traceable," (*cf.* p. 211).

Though we have here noticed points upon which we differ with the writer's theory, or exposition, of the language, as was natural, it is impossible to look carefully through the book without liking it and noticing how much has been compressed into a comparatively limited space. The author has made excellent use of previous grammars, acknowledging his indebtedness in the preface, with the result of giving a very complete work. Thus rare constructions are noticed, such as "facultas agrorum donandi "

(p. 240); concise tabular summaries are given, such as that of the pronouns on p. 66, 67; nor does he fail to add a note on the use of the tenses in letters, p. 211; while an Appendix, reprinted almost *verbatim* from Roby, gives a variety of useful information.

We should like to call attention to a few additions that might be made in a future edition of the work. The variations of *quis* might have been given more fully (p. 64); the dative of the 4th Declension on-*u* should not have been omitted (p. 35); a reference at p. 70 §68 (3) to p. 243 §353 (3) would have made the explanation of the future infinitive passive clearer; the idiomatic mode of denoting the date might have been conveniently illustrated by referring to Cæsar, de Bell. Gall. IV. 28, "post diem quartum quam est ventum." The use of *primus* with the subject of *legi* though implicit in (1) would have made Note 2, on p. 173, more complete. We have noticed very few misprints, but the genitives of *ille* and *iste* should have been marked common (p. 63); in the explanation of the Alcaic verse, "Horace has a diæresis after the second trochee in the first *three* lines," should be "first *two* lines" (p. 274); LL. B. is Bachelor of *Laws* (p. 294.)

In conclusion we have only to add that Dr. Chase's Latin Grammar is clearly printed and strongly bound, and that its general merits justify us in saying that the author of this treatise has succeeded in his endeavour "to state clearly and directly those facts of Grammar which a student of Latin most needs to know." We heartily recommend it to our readers.

R. W. B.

EDUCATIONAL TOPICS.

THE REPORT OF THE SUPERINTENDENT OF EDUCATION.

We have received the Report of the Hon. the Superintendent of Education for the year 1880-81, and are glad to be able to furnish our readers with a short summary of the main points of interest presented by it. It will be remembered that the statistics of results for the year 1879-80 showed a falling off in the number of scholars, as compared with the two previous years. Upon this point there is a slight change for the better, as the following table shows:—

	1877-78	1878-79	1879-80	1880-81
Number of scholars	234,828	239,808	234,705	235,574
Average attendance	180,294	183,740	180,315	180,370

Notwithstanding, the figures prove that the country last year was still suffering from the commercial depression of previous years, the number of scholars enrolled, as well as of those in attendance, being but a slight increase upon the totals of last year, and a long way from the number of 1878-79. On the other hand, the comparison of the tables giving the statistics of the number of pupils studying special branches, shows, unhappily, a falling off in several important studies. The actual numbers will be seen from the following table :—

Pupils showing proficiency	1879-80	1880-81
Alphabet to fluent reading.....	51,990	56,453
Reading fluently	78,437	81,331
Reading well.....	104,278	97,790
Writing	157,015	158,554
Arithmetic	153,852	148,911
Mental Arithmetic	127,693	129,332
Book-keeping	17,891	21,295
Mathematics	5,355	6,810
Mensuration	7,192	6,612
English Grammar.....	32,757	28,918
French do.	86,601	80,584
Orthography	121,353	113,376
Parsing and Analysis.....	79,466	77,897
Letter Writing	37,329	32,538
Geography	72,812	71,418
History	80,143	75,496
Industrial Linear Drawing.....	50,777	48,711
Drawing from Nature.....	654	819
Horticulture and Agriculture	24,792	26,070
Vocal Music	41,389	35,869
Instrumental Music	5,033	5,149

This falling off the Report attributes to the abolition of the Book Depository. To make up for this, the Superintendent proposes to ask the Legislature to pass a law, enabling school municipalities to provide their schools with the necessary class requisites, such as books, slates, &c., the funds to come out of the assessment upon the municipalities. This system, which has already been adopted in the county of Bonaventure and been found to work well, is on the lines of the reforms suggested by the School Superintendents in the United States, at their meeting at Washington last March, (cf. RECORD, vol. ii., p. 265).

Among other suggestions made by the Superintendent are, the appointment of an Inspector-General, in order to bring into closer relations the Superintendent and the Inspectors; the removal of a strange anomaly in our educational laws, which do not require that the School Commissioners or Trustees should know how to read—a suggestion which, to put it mildly, seems reasonable enough. The next suggestion, however, is fairly open to question. We quite agree with the Superintendent when he says that he does

“not think it right that the municipalities should have the right to dismiss or send away their teachers every year, for, in this case, these latter are at the mercy of local quarrels and of an authority which, to speak openly, is not always a judge of capacity.” On the other hand, the engagement of teachers for a period of not less than five years, would sometimes saddle the schools with an incompetent official.

The last suggestion is one that has special reference to ourselves. The Superintendent complains that the Secretary of the Protestant Committee of the Council of Public Instruction is not an office-holder in his department. “Numerous inconveniences are the result in practice, in the shape of delays and errors, and, moreover, I have not access to the official archives; I have but copies thereof.” The Report recommends that “the law should state clearly that the secretaries of each of the Committees of the Council shall be one of the secretaries of the Department, belonging to the same religion as, the members of the Committee.”

In reviewing the several reports of the Protestant Inspectors, we notice that Messrs. Fothergill and Lyster are agreed as to the necessity of a compulsory clause being added to the Education Act. Mr. Magrath's Report, which is full and instructive, proposes that Government action should also be called in to secure, at least, a minimum salary for teachers. Though the reasonable remuneration of teachers would be a happy consummation, we do not well see how it can be effected by legislation. This Report is noticeable for two other points. In the Counties of Ottawa and Pontiac, at least, the Pension Act seems to have been hailed as a blessing. The Inspector adds naively that while young teachers pay grudgingly, old teachers subscribe cheerfully; which was to have been expected. Secondly, we notice that in some parts of this favored district, there is a tendency in the tide of public opinion in the direction of non-sectarian schools, inasmuch that the Inspector is emboldened to suggest that “the qualifications demanded of all candidates seeking diplomas, irrespective of religious creed, should be identical, and to that end, the examination papers should be approved of by the two Committees, so that our Educational System may become a national one.” We are afraid that there is no immediate hope of Mr. Magrath's prospect being realized, and would suggest for his consideration, instead of his lines from Burns, the following tag from Tennyson:—

“Truth is this to me, and that to thee;
And truth or clothed or naked let it be.”

BOOK NOTICES.

As a book for advanced classes, we can imagine no better work than *De Bonnechose's Lazare Hoche*;* the story is interesting, well-told, and contains a rich collection of French idioms. For beginners, or even for advanced pupils who cannot speak or write correctly, it will be found somewhat hard. We wish the notes had been divided into two classes, and those concerned solely with translation printed at the foot of the page. The rest, devoted to historical allusions and other matters, might be printed at the end, by way of Appendix. Whereas at present, they are all printed at the end, which causes great loss of time. In regard to the substance of the notes, they are as a rule excellent, but we should like to see a few alterations and improvements in the next edition. Thus at p. 4, l. 13, the note on *envenimée* is too long; at p. 6, l. 23, the note on *cédait* is not bad, but unnecessary. At p. 74, l. 38, the pupil should be able to find out that *tout dernièrement* meant "quite recently," without assistance. In explaining idioms it is well to give them entire, that they may be stamped upon the memory of the pupil, e.g., p. 64, l. 23, *prise*, "hold," the whole of the idiom *donner prise* should have been given; and at p. 65, l. 27, *aux mains*, "to blows," *venir* should have been added. It is true that efficient teachers can supply these deficiencies, but the book would be more complete had the work been done in it. The note on p. 17, l. 10, is incorrect, viz., that *c* has the sound of a *g* in *second*, *secret*, and their derivatives. This is true of *second*, but not so of *secret*, where the *c* has its real sound and not that of *g*. A little more explanation might well have been added at p. 74, l. 5, in the note on *pour comble de malheur*, "to crown the misfortune." It is correct as far as it goes, but it would be well to explain the origin of the expression in the general sense of the verb *comblé*, "to fill up". In conclusion, we have only to add that the work is well printed, and, as we have intimated, well edited.

Though Professor Allen's *Reader's Guide to English History*† is by no means faultless, we think that it is on the right lines and calculated to do good work by popularizing the study of history. The idea of the Guide is, we think, a new one, and we wonder that it has never struck anyone before, viz., to give a fairly complete list of miscellaneous poems and romances, illustrating history, side by side with the names of the chief works and most valuable essays and monographs upon different periods. Every-

* *Biographie de Lazare Hoche*, par Emile de Bonnechose, with References to the Grammar of De Pivas and Notes by W. Tytler, B.A., Head-Master, Guelph High School. (Toronto: W. J. Gage & Company.)

† *The Reader's Guide to English History*, by W. F. Allan, A.M., Professor in the University of Wisconsin. (Ginn, Heath & Co., Boston). Mailing-Price, 25 cents.

thing, of course, depends upon the selection, as the work is a mere string of names, without any attempt to guide the reader in his choice among them, such as he can get from Mr. Bass Mullinger's *Critical and Biographical Account of Authorities* (in "English History for Students"). As it is, the list includes, as profitable historical reading, not only such works as novels by Scott and Thackeray, "Romola" and "John Inglesant," which no student of history would think of neglecting; but also the miscellaneous writings of G. P. R. James *et hoc genus omne*. Nor are the books always tabulated in their proper places, e.g., Disraeli's "Venetia" does not illustrate history up to 1789, but the author's theory of the lives of Byron and Shelley. So many doubtful works are included, that we wonder that Professor Allen has not added "The Ingoldsby Legends" to his list, as illustrating sanctity in the middle ages. The compiler is more successful in recommending purely historical works. Yet even here there are grave mistakes of commission as well as omission. Very few of Thorold Rogers' "Historical Gleanings" are worth reading. On the other hand, the writer takes no notice of Stanhope's admirable historical essays, published by him as Lord Mahon in 1849. In English history we would recommend the addition of the Constitutional Histories of Hallam and Stubbs, and the Prefaces in the Rolls Series by the latter, as well as Christie's Life of the Earl of Shaftesbury. In the general history column should be added Heeren's Manual of the History of the Political System of Europe and its Colonies, as well as Stephen's Essays in Ecclesiastical Biography. The student of the eighteenth century will also derive much assistance from Merivale's Historical Studies, as well as from Carlyle's works on Frederick and the French Revolution and his Miscellaneous Essays.

Teachers of German will welcome *Professor Boisen's Reader*.* The book professes to be an attempt to familiarize the student with the difficulties of the German idiom by easy and interesting gradations, and we note with satisfaction that the Professor has acted up to his original intention. The work begins with the inevitable fables and nursery stories, well known and trite; we do not however cavil at this, as the initial steps are thereby rendered surer and steadier, moreover, the tales being selected from the works of renowned authors, their literary merit is not inconsiderable. Otilie Wildermuth's charming Christmas story, *The Settler in the Forest*, is peculiarly adapted to arouse the interest of the young Americans, and Becker's *Old World Stories*, from which the Ulysses has been chosen, might furnish the classical student with useful hints. Elise Polko is now generally recognized as an authoress of great force, and we are delighted to

*Preparatory Book of German Prose, by Herman B. Boisen, A.M., one of the Directors of the Martha's Vineyard Summer Institute. With Copious Notes. (Boston: Ginn, Heath & Co.)

meet with a few of her spirited and masterly sketches of the great composers; in the last part, besides these sketches, are a couple of allegories by Jean Paul, and an abridgment of Galileo's *Dream* by Engel. The dry bones of the usual poetical selections are wisely avoided. Enough has been said to express the value we set upon the selections. The text is superior to that of ordinary class-books, and Professor Boisen has been careful to conform the spelling to the requirements of the modern style. One objection we have to make to Professor Boisen's plan of editing. "Difficult expressions," &c., have been altered, "and in the beginning a host of those little particles, so troublesome and meaningless to the beginner—the *denn, ja, wohl, auch, doch*, &c.,—have been eliminated without mercy." What should we think of an editor who struck out of his Xenophon's such expressions as *καὶ γὰρ, οὐ μὴ*, &c., or of one who printed Macbeth's soliloquy with some modern equivalent for "catch with his surcease success"? This, however, is a matter of taste. The notes are good and suggestive, and are conveniently published in a separate volume.

Besides the strong plea of meeting a need in a practical manner, *Professor Knapp's Spanish Grammar** can claim a place for itself on purely literary grounds, owing to its admirable arrangement, clearness of style, and aptness of quotation. The system adapted in teaching pronunciation by comparison with English sounds is less happy than other parts of the book, but this is atoned for in great measure by the careful distinction of sounds which in many of the older grammars, was unnoticed; or was pointed out, but scarcely taught, by some such remark as "this letter varies somewhat in its sound, but the distinction cannot be appreciated by an English ear." The treatment of the verb is perhaps the test of the learning of the author of any grammar, and here we have nothing but praise for the skill which, without lessening the value of the book to a beginner, has known how to use the results of modern research in historical grammar. Some of the more difficult points about the use of tenses are treated at less length than is usual, but with no real loss of clearness to any one not an entire beginner in syntax, and few such are likely to undertake Spanish. The division of the irregular verbs into classes, though better done than usual, since the cause of changes is explained, is nevertheless in practice a little inconvenient, and we prefer an alphabetical list after an explanation of the laws of the change of vowel and consonant. In conclusion, we may say that so much light is thrown on Spanish habits of life and thought by a series of happily chosen quotations with which the book is filled, that, aside from the genuine value of the book as a grammar, it is most interesting reading—it is, in short, that *rara avis*, an amusing grammar.

* A Grammar of the Modern Spanish Language—as now written and spoken in the capital of Spain—by William I. Knapp, Professor in Yale College, Boston. Mailing price, \$1.65. (Ginn, Heath & Co., 1882).

*Professor Bovey's Applied Mechanics**, suggested by the requirements of the author's classes in McGill College, deals with the application of mechanics to structures of wood and of iron. Into the discussion of Applied Mechanics, thus limited, Professor Bovey enters with such minuteness of detail as is proper for the instruction of those who, having completed good elementary courses in mathematics and mechanics, are preparing for the work of the civil engineer. In the execution of his task the author has combined, as is necessary in designing and executing the great constructions of railway engineering, careful and thorough mathematical treatment, with attention to practical details as they have been perfected by long experience. The work of the author in the selection and arrangement of his material is well done. Nor has it been a mere work of compilation. Although the reader will find much that is scattered through monographs and professional periodicals not easily accessible to students, he will find also that these materials have been worked over, adapted and supplemented with no small labour and skill by the author. Take, as an example of this, the discussion of the parabolic rib, pp. 106 to 116. As a mathematical work, it has the supreme merits of rigid exactness of thought, and compressed neatness of expression. The definitions, without affectation of formality, are brief and precisely discriminating, and the demonstrations are orderly, clear, succinct, and comprehensive. The book is profusely illustrated in a simple and effective manner. The illustrations are not borrowed, they have evidently been drawn and engraved expressly for the work. The press work is good. In a work abounding with complex mathematical formulæ, it is not surprising to find a few errata, which will be discovered as the book is tested in class work, and will doubtless disappear from future editions. The work is one which should be in the hands of all persons interested in the constructive arts. Those who have not the mathematical training necessary to its comprehension, should not be entrusted with the responsibility of designing or superintending the construction of any erection more ambitious than a two-story dwelling house. We have had in this province too many illustrations of the fact that designs cribbed from European manuals, worked out by rule of thumb, or adopted without knowledge or skill, are not a sufficient furnishing for the architect or the engineer. Two ambitious roofs in this city, through mingled incompetence in design and inefficiency of execution, have proved incapable of sustaining themselves under the conditions well known to everybody to belong to our climate. Various corporation structures show remarkable ignorance of the elementary principles of the

* Applied Mechanics, by Henry T. Bovey, M.A., Fellow of Queen's College, Cambridge, Professor of Civil Engineering and Applied Mechanics, McGill University. Price \$2.25 (Montreal, John Lovell & Son).

construction of arches. The walls of the towers carried by the arches have been so splayed above the piers that the springers are insufficiently loaded. The keystones began to settle dangerously as the towers rose, and it was found necessary to tie the flanks of the arches together by iron rods. For reasons precisely similar, the tower of a costly provincial edifice had to be taken down a few months ago. Let the curious student of architecture take a long look at the mingled good taste and skill displayed in our newer fire and police stations. The writer saw a boiler explode a few years ago. Life was lost. At the inquest insufferable rubbish was talked by so-called experts,—red-hot plates, generation of steam too rapidly to affect the safety valve, water consisting of two explosive gases, and what not. The fact was that the velocity of projection of a part of the boiler, as determined by the writer from the distance it was thrown and then rebounded, confirmed the statement of the poor scalded engineer that the pressure of steam at the time of the explosion was only fifty pounds. The boiler was new. The iron was good. The workmanship, so far as mechanical execution goes, was good. What then was the matter? Nothing more nor less than faulty designing. A flat crown sheet for the furnace was suspended by iron tie-rods to the shell of the boiler. The accumulated pressure on the flat plate drew the centre tie-rods through the rivet-holes. That was all. An incompetent designer—nothing more,—and seven lives sacrificed. It may be said that these and many like mistakes in engineering and in architecture in the past may be condoned in view of the difficulty of securing adequate professional training in the past. The book we have been examining, is sufficient evidence that no such excuses will avail for the future, as we have here in the engineering classes of McGill College, a gentleman as competent to give instruction, as he is enthusiastic in doing so.

RECENT EVENTS.

McGill University, Medical Faculty.—The opening of the 50th Session of the McGill University was celebrated on the evening of October 4th, by a brilliant gathering in the Redpath Museum. The ceremonies opened with an Address from Dr. R. P. Howard, Dean of the Faculty, in which, after sketching the history of the growth of the University, brief notices were given of the lives of four men, the founders of medical instruction in Canada, viz: John Stephenson (1797-1842), A. Ferdinand Holmes (1797-1860), W. Robertson (1784-1844) and W. Caldwell (1785-1833). After a warm tribute to the services of the present Principal, the co-founder with James McGill of the University, the lecturer concluded with an eloquent eulogy upon the late Dean of the Faculty, Dr. G. W. Campbell, 'in whom the Faculty had lost its head, the profession its counsellor, the sick their ablest physician, and the

city one of its most distinguished citizens.' The lecturer concluded with suggesting the creation of a "Campbell Memorial Fund," for the benefit of the Faculty. The rest of the evening was devoted to a *Conversazione*, which was followed by a dinner given to the Graduates, Professors and Benefactors of the College on the succeeding evening. In order of seniority the McGill Medical School ranks tenth on the continent, the earliest being the University of Pennsylvania, 1765.

Quebec High School.—We are glad to hear that the Quebec High School has made an excellent opening for the coming year, with a large complement of new pupils. This is as it ought to be. The confidence which the Quebec citizens have in this important institution must be a source of great encouragement to the Board of Directors and the Rector, Mr. Harper, in their efforts to improve the school. The course of instruction is a complete one, ending with the University examination for the certificate of Associate of Arts. The school property is in an excellent state of repair, and everything seems to have been done to secure the health and comfort of the boys attending the school.

McGill Undergraduates' Literary Society.—The McGill University Undergraduates Literary Society have elected the following officers for the ensuing year:—President, J. R. Murray; 1st Vice-President, G. C. Wright; 2nd do., W. Lochhead; Secretary, A. A. McKay; Assistant Secretary, J. K. Unsworth; Treasurer, Mr. Holden.

Protestant Board of School Commissioners.—The monthly meeting of the Board was held on Thursday afternoon, October 12th, and was attended by every Commissioner. The annual statement of revenue and expenditure for the years 1881-2, and the balance sheet, dated July 1st, 1882, audited and certified by Messrs. Court, MacIntosh, and Wade, were submitted. The secretary was instructed to forward the annual statement to the Superintendent of Public Instruction, as required by law, and to the City Clerk, as desired by the City Council, and to print it as soon as possible for the information of the public. From the balance sheet it appears that the assets of the board, being land, buildings and furniture at cost, and sinking fund accumulated in the hand of the City Treasurer, exceed the liabilities, including bonds issued but not returned, mortgages, bank advances and advances from the city by \$98,589.08. The statement of revenue and expenditure, including salaries and fees for one month of last year in addition, shows the income of the Board from city school taxes to have been \$66,138.50, from the provincial chest \$4,872.89, and from school fees \$26,199.46; \$97,210.85 in all. The disbursements were for maintenance of schools, including salaries, books and stationery, charges, fuel repairs, gas, water and assessments, \$72,702.30; for administration, including office salaries, law ex-

penses, miscellaneous charges, printing and advertising, \$4,549.98; interest and sinking fund on bonds \$24,849.48; interest on mortgages and bank advances \$2,648.63; difference between amount deducted by the Superintendent of Public Instruction on account of pension fund and amount collected by the Board from teachers, \$48.65; a total expenditure of \$108,480.02, exceeding the income by \$11,269.17, and raising the floating debt to \$29,479.26. When items of expenditure and of revenue properly belonging to last year are added to the statement of last year, a comparison with the number of pupils in attendance shows that the net cost for each pupil for maintenance has fallen from \$11.76 as reported in 1880-1, to \$10.76 in 1881-2. Reports of attendance for September, give in the Common Schools 2,903 pupils, in the High Schools 474, and in the Senior Schools 94. The corresponding numbers, September, 1881, were 2,947, 481 and 135, and those of June, 1882, 2,613, 431 and 164. A committee was appointed to revise the regulations of the schools, and another to consider the steps that must be taken to secure an adequate income. The sum of \$300 was granted in aid of the Stanley Street Model School for the current year.

McGill University.—Faculty of Applied Science.—The results of the examinations for the exhibitions and prizes offered for competition in the Faculty of Applied Science at the opening of the present session are as follows:—

FOURTH YEAR.—(1.) The exhibition of \$50 presented by A. T. Drummond, Esq. Subjects of Examinations:—(a.) The Summer Report; (b.) Applied Mechanics. Obtained by Donaldson Bogart Dowling. (2.) Mathematical prize of \$25, obtained by Donaldson Bogart Dowling.

THIRD YEAR.—(1.) The Scott exhibition of \$66, founded by the Montreal Caledonian Society in commemoration of Sir Walter Scott's centenary. Subjects of Examination:—(a.) The Summer Report; (b.) Macaulay's History of England, Vol. 1., Cap. 1., and Scott's Lady of the Lake; (c.) Mechanism. Obtained by Cecil Brunswick Smith. (2.) Mathematical prize of \$25, obtained by Cecil Brunswick Smith.

SECOND YEAR.—(1.) The Exhibition of \$100, presented by J. H. Burland, Esq. Subjects of Examination:—(a.) Inorganic Chemistry; (b.) Organic Chemistry; (c.) Practical Chemistry. Obtained by Ernest McCourt Macy. (2.) The Mathematical Prize of \$25, obtained by Hedley Vicars Thompson.

The prize in books to the value of \$25, offered by Leslie Skelton, Esq., to students of the Third and Fourth years for the best Summer Report, has been awarded to Donaldson Bogart Dowling. Subject of the Report:—Division D of the Ontario and Quebec Railway.

SCIENTIFIC DEPARTMENT.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE—COLORS OF LEAVES.

The meeting of the American Association for the Advancement of Science, at Montreal, which closed August 30th, was in every respect one of the most successful meetings in the history of the Society. The attendance—nine hundred and thirty-seven—was but little short of that registered at Boston two years ago, and constituted it one of the large meetings. Three hundred and twenty-four new members were elected, and more than two hundred and fifty papers were accepted. The meeting was opened on the 23rd of August with a brief address by the President elect, Dr. Dawson, of Montreal, who spoke of his (a Canadian's) election to the Presidency as significant of the Society's extension over the continent and its disregard of national boundary lines. Dr. Sterry T. Hunt, who followed the President as the special representative of the city of Montreal, also spoke of the expansion of the Society, and expressed the hope that it might yet meet in the city of Mexico, as the French had already carried their "war of science" into Africa at Algiers.

The nine sections into which the Association is now divided were severally opened with addresses by their respective vice-presidents. Prof. Bolton, in the Chemical Section, spoke of "Chemical Literature;" Prof. Harkness, in the Mathematical and Astronomical Section, on the Transit of Venus; Prof. Brush, the retiring President of the Association, gave, as his official address, a comprehensive view of "The Progress of American Mineralogy;" Dr. Asa Gray gave an address on the "History of the Study of the North American Flora," and expressed the hope that the work of examination and classification might be completed in his lifetime, if it could not all be guided by his hand.

The other papers were too numerous even to be catalogued here. We mention only a few which seem to be of general interest or importance. They are those of Prof. Mason, unfolding a scheme of Anthropology; of Dr. John Rae, of London, on "Arctic Exploration and Ethnology;" of Commander Bartlett, on "The Gulf Stream;" of Dr. F. B. Hough, on "Plantations of the Eucalyptus;" of the Rev. Dr. Haughton, of Dublin, embodying a new theory of the "Evolution of the Planets;" of Prof. Cook, of New Jersey, on "Evidences of Coast Depression;" of Prof. Newberry, on the "History of Plant Life in America;" of the Hon. Horatio Hale, on "Indian Migrations, as evidenced by their Language;" and of Mrs. Erminnie A. Smith and Miss Alice Fletcher, on topics relating to Indian Ethnology.

Excursions were made to Quebec, Ottawa, Lake Memphremagog, Lachine Rapids and the Harbor and Grand Trunk Workshops. Several visitors of distinction were present from abroad. Among them, besides those already mentioned in connection with their papers, were Dr. W. B. Carpenter, of London, who read a technical paper in the Microscopical Section; Dr. Valdemar Kowalevski, of Moscow; M. Koenig, of Paris; Mr. Fitzgerald, of Dublin, and Dr. Szabo, of Buda-Pesth, who had a paper in the Chemical Section. A good financial exhibit was made, with the announcement of generous special gifts. A memorial to Prof. Rogers was agreed upon. The Association decided to hold its meeting for 1883 at Minneapolis, Minn., under the presidency of Prof. C. A. Young, of Princeton.

At this season of the year, when the leaves of many of our trees are changing their green color for more brilliant hues, some of our readers may ask what is it that causes the leaves to assume such beautiful colors. The colors of leaves is a subject that has of late attracted considerable attention and from recent experiments it would seem that there is but one coloring substance in leaves—chlorophyll, which is normally green. White leaves are those from which chlorophyll is absent, whilst those of other colors have the chlorophyll acted upon by acids and alkalies that are found in the plant.