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THE
JOURNAL OF EDUCATION

FOR

Upper Canada:

EDITED BY

THE REVEREND EGERTON RYERSON, D.D.,

CHIEF SUPERINTENDENT OF EDUCATION,

ASSISTED BY J. GEORGE HODGINS, LL.B.,

DEPUTY SUPERINTENDENT.

VOLUME XIII.—FOR THE YEAR 1860.



TORONTO:

PRINTED BY LOVELL AND GIBSON, CORNER OF YONGE AND MELINDA STREETS.

TERMS:—ONE DOLLAR PER ANNUM, IN ADVANCE.

1860.

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JOURNAL OF

Upper



EDUCATION,

Canada.

VOL. XIII.

TORONTO: JANUARY, 1860.

No. 1.

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of the interests of Education." By law, all Clergymen, Judges, Members of the Legislature, Members of County Councils, and Aldermen, are *School Visitors*; and I will be happy to meet and confer not only with School Visitors and Local Superintendents, but also with as many Trustees, Teachers and friends of Education generally (male and female) as can make it convenient to attend—including, of course, such Trustees and other school officers and promoters of Education as reside in cities, towns, and incorporated villages in each County, or Union of Counties, within the limits of which a County Convention may be held.

The object of each Convention will be—

1. To answer any questions which may be proposed, and give any explanations which may be desired respecting the several provisions of the School Laws;

2. To consider any suggestions which may be made for the improvement of the laws, and for the improvement of the Schools, the diffusion of Education, and the extension and usefulness of the Public Libraries.

I purpose to deliver a short Address at the opening of each County School Convention.

The meeting of each Convention will take place at half-past one in the afternoon, and the proceedings will commence PRECISELY AT TWO, whether few or many are present.

The time and place of each of the proposed County School Conventions are as follows:

Counties.	Towns.	Days.	Dates.
Lincoln.....	St. Catharines.....	Monday,	January 16.
Welland.....	Merrittsville.....	Tuesday,	" 17.
Haldimand.....	Cayuga.....	Wednesday,	" 18.
Brant.....	Brantford.....	Thursday,	" 19.
Norfolk.....	Simcoe.....	Friday,	" 20.
Wellington.....	Guelph.....	Monday,	" 23.
Waterloo.....	Berlin.....	Tuesday,	" 24.
Perth.....	Stratford.....	Wednesday,	" 25.
Huron & Bruce...	Goderich.....	Thursday,	" 26.
Lambton.....	Sarnia.....	Saturday,	" 28.
Essex.....	Sandwich.....	Monday,	" 30.
Kent.....	Chatham.....	Tuesday,	" 31.
Middlesex.....	London.....	Wednesday,	February 1.
Elgin.....	St. Thomas.....	Thursday,	" 2.
Oxford.....	Woodstock.....	Friday,	" 3.
Wentworth.....	Hamilton.....	Monday,	" 6.
Halton.....	Milton.....	Tuesday,	" 7.
Peel.....	Brampton.....	Wednesday,	" 8.
*Simcoe.....	Barrie (at 11 a.m.)....	Thursday,	" 9.
*Grey.....	Owen Sound (7 p.m.)....	Friday,	" 10.
*York.....	Newmarket.....	Monday,	" 13.

* The dates at which the meetings in these counties will be held, have been altered, as above.

COUNTY SCHOOL CONVENTIONS IN U. C.

OFFICIAL CIRCULAR TO THE MUNICIPAL COUNCILLORS, LOCAL SUPERINTENDENTS, VISITORS, TRUSTEES, AND TEACHERS OF PUBLIC SCHOOLS IN UPPER CANADA.

GENTLEMEN,—In applying myself to establish and mature our present system of public instruction, it was part of my plan to visit foreign countries once in five years in order to make comparisons and acquire information as to systems of public instruction; and also to visit each County in Upper Canada once in five years, in order to give and acquire information, and to hold free consultations as to the progress and defects of our own system of public instruction and the best means of improving and adapting it to the institutions and wants of our country. I was unable to make this tour last year as I had intended; but I purpose in the course of the next two months, Providence permitting, to visit each County, or Union of Counties, in Upper Canada, for the purpose of holding a County School Convention of all school officers and other friends of general education who may attend. The law makes it the duty of each Local Superintendent "to meet and confer with the Chief Superintendent of Education at such time and place as he may appoint when making an official visit to the County for the promotion

Counties.	Towns.	Days.	Dates.
Ontario.....	Whitby	Monday,	February 20.
Northumberland and Durham ...	Cobourg	Tuesday,	" 21.
Victoria & Peter- borough	Peterborough.....	Wednesday,	" 22.
Hastings	Belleville	Thursday,	" 23.
Prince Edward ...	Picton	Friday,	" 24.
Lennox & Addin- ton	Napanee	Saturday,	" 25.
Frontenac	Kingston	Monday,	" 27.
Leeds	Brockville	Tuesday,	" 28.
Lanark and Ren- frew	Perth	Wednesday,	" 29.
Carleton	Ottawa	Thursday,	March 1.
Prescott and Rus- sell	L'Original	Friday,	" 2.
Grenville	Kemptville.....	Monday,	" 5.
Dundas	Matilda	Tuesday,	" 6.
Stormont & Glen- garry.....	Cornwall.....	Wednesday,	" 7.

I take it for granted that, as on former occasions, in each of the places above mentioned, the Court House, or Town Hall, or some other convenient building, can be procured for holding the County School Convention; and I must again rely upon the kind co-operation of the Local Superintendent, aided by the Trustees in each County, Town or Village, to provide the needful accommodation for holding each County School Convention, and for giving due notice of the same.

The Newspaper Press in each County is respectfully requested to give notice of the time, place and objects of the School Convention for such County.

I have the honor to be,

Gentlemen,

Your obedient Servant,

E. RYERSON.

EDUCATION OFFICE,
Toronto, 3rd January, 1860.

Chief Superintendent of Education
for Upper Canada.

PROVINCIAL CERTIFICATES GRANTED BY THE CHIEF SUPERINTENDENT OF EDUCATION.

The Chief Superintendent of Education, on the recommendation of the masters of the Normal School, and under the authority of the following section of the Upper Canada School Act of 1850, 13th and 14th Vict., chap. 48, has granted the undermentioned Students of the Normal School, Provincial Certificates of qualification as Common School teachers in any part of Upper Canada:

"XLIV. And be it enacted, That it may and shall be lawful for the Chief Superintendent of Schools, on the recommendation of the teachers in the Normal School, to give to any teacher of Common Schools a certificate of qualification, which shall be valid in any part of Upper Canada, until revoked according to law: Provided always, that no such certificate shall be given to any person who shall not have been a student in the Normal School."

The certificates are divided into classes, in accordance with the general programme according to which all Teachers in Upper Canada are required to be examined and classified, and are valid until revoked or until the expiration of the time mentioned in the certificate.

Each certificate is numbered and recorded in the register of the Department in the following order:

Twenty-first Session,—Dated 22nd June, 1859.

Second Class.—Grade C.—*Expire one year from date.*

963 Gardiner, Ann. (867) 964 Gardiner, Elizabeth. (868)

Twenty-second Session,—Dated 22nd December, 1859.

MALES.

First Class.—Grade A.

985 Dow, John (882.)

966 Peters, George (901.)

First Class.—Grade B.

967 Flood, Thomas (891.)

968 Malloch, Donald McGregor.

969 O'Brien, Patrick (897.)

970 Shaw, Alexander (893.)

971 Smith, Wm. Wakefield (902.)

972 White, William Henry (903.)

First Class.—Grade C.

973 Boyes, James Stephen (906.)

974 Cann, Samuel Bracheton (894.)

975 Donald, Jackson.

976 Ledue, Thomas (457.)

977 McArthur, John (895.)

978 McDonald, Alexander (924.)

979 McKellar, John Archibald.

980 Miller, Arnoldus (900.)

981 Nash, Samuel Lemmy (245.)

Second Class.—Grade A.

982 Barrick, Eli James (636.)

983 Campbell, Neil (541.)

984 Clare, Samuel.

985 Collins, Joseph Jonathan.

986 Cranfield, Richard Ebenezer.

987 Curry, Robert Nicholas (801.)

988 Fleming, Robert McMillan.

989 Kitchen, Edward (911.)

990 Macoun, John.

991 Platt, John Milton.

992 Ridgway, Robert.

993 Sturk, John Dunn (635.)

Second Class.—Grade B.

994 Brine, Henry James (713.)

995 Brown, William (627.)

996 Chaisgreen, Charles.

997 Greenlees, Andrew.

998 Howell, Lewis (922.)

999 Kennedy, John.

1000 Leggett, Joseph.

1001 Little, Archibald (923.)

1002 McLennan, Simon (818.)

1003 McNabb, John.

1004 Meredith, William.

Second Class.—Grade C.

(Expire one year from date.)

1005 Ball, Martin Edward.

1006 Beer, William.

1007 Clark, William Andrew.

1008 Code, John Richard.

1009 Fitchett, David.

1010 Haight, George Lester.

1011 Jackson, Duncan.

1012 Kearn, Peter.

1013 McHale, John.

1014 McLean, Archibald.

1015 Messmore, Alexander.

1016 Munn, John.

1017 Platt, Gilbert George.

1018 Vanalstine, Wm. Henry.

1019 Wilcox, Richard Jefferson.

FEMALES.

First Class.—Grade A.

1020 Adams, Martha (935.)

1021 Cowan, Sarah (936.)

1022 Holmes, Emma Elizabeth (839.)

1023 Wright, Fanny Mary (945.)

1024 Wright, Eliza Jane (934.)

First Class.—Grade B.

1025 Carnochan, Janet.

1026 McCorkindale, Margaret (940.)

1027 Guthrie, Margaret (837.)

First Class.—Grade C.

1028 Charlton, Mary Ellen.

1029 Cowan, Elizabeth (953.)

1030 Gordon, Eliza (958.)

1031 McKay, Elizabeth (949.)

Second Class.—Grade A.

1032 Duncan, Alice.

1033 Fraser, Mary Ann (956.)

1034 Garden, Mary Louisa (957.)

1035 Sharp, Sarah Ann (961.)

Second Class.—Grade B.

1036 Armstrong, Annie.

1037 Armstrong, Helen.

1038 Collar, Eliza.

1039 Harris, Fanny Jane.

1040 Henderson, Elizabeth.

1041 Mullin, Sarah.

1042 Robinson, Grace.

1043 Rogers, Christina.

1044 Sparrow, Caroline.

Second Class.—Grade C.

(Expire one year from date.)

1045 Brown, Elizabeth.

1046 Carroll, Charlotte

1047 Chambers, Mary.

1048 Childs, Sarah.

1049 Clark, Maria Chapman.

1050 Fraser, Catherine.

1051 Freeland, Henrietta.

1052 Grainger, Mary Jane.

1053 Hall, Agnes.

1054 Patterson, Elizabeth Caroline.

1055 Ratray, Jessie.

1056 Robertson, Margaret.

1057 Scarlett, Catherine.

1058 Shurtleff, Mary Jane.

Certified,

ALEXANDER MARLING,

Registrar.

Education Office,
22nd December, 1859.

III. GRAMMAR SCHOOL METEOROLOGICAL OBSERVA- TIONS IN UPPER CANADA.

It will be seen by a correspondence between Dr. Ryerson and the Secretary of the Smithsonian Institution, Washington, that arrangements have been made for the establishment of meteorological observations at 30 different points, in connection with County Grammar Schools, in Upper Canada, and that at 14 places observations are already taken. In this matter, we have hitherto been somewhat behind some other countries; and it is gratifying to see the steps that have been taken. In France, it is part of the business of the telegraph companies—part of the conditions on which they receive their charters—that they shall transmit, daily, to Paris a full meteorological report; which is regularly published in the journals. We cannot do this, perhaps, in Canada; and what is being done at the County Grammar Schools may serve as a substitute. Everything depends upon the regularity and accuracy with which these observations are taken; and it is important that care should be taken to leave nothing to be desired upon these points.

The following correspondence has passed between the Secretary of the Smithsonian Institution, Washington, and Dr. Ryerson, Superintendent of Education for Upper Canada:

[Copy.]

Smithsonian Institution, Washington, D. C., Nov. 3, 1859.

DEAR SIR,—I write to ask as to the progress you are making in the establishment of the Canadian system of Meteorology, since we are anxious to co-operate with you in collecting materials for tracing the origin and progress of atmospheric movements. We are particu-

larly desirous at this time to obtain as many records as possible, of the period from about the middle of Dec., 1858, to the middle of January, 1859. The Institution would readily pay the expense of copying records for this period, and will be gratified to reciprocate in any way in its power, the favors which may be conferred.

Very respectfully, Your obedient servant,
JOSEPH HENRY, Secretary.

J. GEORGE HODGINS, Esq., Education Office, Toronto, Canada.

EDUCATION OFFICE, Toronto, Nov. 16, 1859.

SIR,—I have the honor to acknowledge the receipt of your letter of the 3rd instant, and being desirous of co-operating with you as far as I can in the important object you have in view, I transmit to you by Express, such meteorological reports as I have received during the period to which you refer." We have got 14 stations established in connection with the County Grammar Schools of Upper Canada. We have made arrangements to establish 30. As yet, we have not made any practical use of the observations taken. I will thank you to return these reports at your early convenience, as soon as you shall have done with them. I have the honor to be, Sir, Your obedient servant (Signed) **E. RYERSON.**

Joseph Henry, Esq., LL.D., Secretary, Smithsonian Institution, Washington, D. C., United States.

Smithsonian Institution, Washington, D. C., Nov. 30, 1859.

DEAR SIR,—I write to thank you for the loan of the meteorological observations, which have been safely received, and will be returned as soon as we can extract from them the facts which have a bearing upon the points in which we are at present most interested.

We find the progress of the change of weather which we mentioned in our last letter very strikingly exhibited in your observations, and therefore the date with which you have furnished us will enable us to extend our investigations to the north, and be of essential service in tracing the extent and character of the great waves of temperature which traverse the North American Continent.

Very respectfully, Your obedient servant,
JOSEPH HENRY, Secretary.

The Rev. E. Ryerson, D.D., Chief Superintendent of Education, Toronto, Canada.—*Leader.*

IV. CIRCULAR TO GRAMMAR SCHOOL MASTERS FROM THE PROVOST OF TRINITY COLLEGE, TORONTO.

SIR,—It having been suggested that the convenience of Masters of County Grammar Schools would be consulted by a change of the Classical subjects in the Matriculation Examination of Trinity College, this change has been effected.

I send you herewith a list of the subjects, as well as a table of the Scholarships in the gift of the College.

In order to prevent mistake or disappointment on the part of those who are already preparing to enter the College, an option between the former Classical subjects (Xenophon; Memorabilia, book I.; and Cicero, De Amicitia and De Senectute) and those which are now prescribed, will be allowed to Candidates for Matriculation and for Scholarships at the next examination in October, 1860. For the same reason no paper on Ancient History will be given until October, 1861.

May I be permitted to request that Masters of Grammar Schools will exhibit the lists of Subjects and of Scholarships in their school-rooms, for the information of their pupils; and that other gentlemen, to whom this circular is forwarded, will give it such publicity as they conveniently may.

I have the honor to be, Sir, your obedient servant,
GEORGE WHITAKER, Provost of Trinity College.
 Toronto, December, 1859.

MATRICULATION AND SCHOLARSHIP EXAMINATION.

All Candidates, whether for Matriculation or for Scholarships, are required to pass an examination in the following subjects:

Divinity.—Scripture History, and the Gospel of St. Mark in Greek. *Classics.*—Xenophon; Anabasis, Book I. Sallust; Catilina. Latin Prose Composition. Ancient History: Grecian, from the Persian invasion to the end of the Peloponnesian War. Roman,

* The Returns sent from those, received from Barrie, Belleville, and Port Sarnia for Dec., 1858, and Jan., 1859, and from Cornwall, Chatham, Hamilton and Whitby for January alone.

from the expulsion of the kings to the death of Cæsar. *Mathematics.*—Arithmetic. Euclid, Books I and II. Algebra: First Four Rules; Fractions; Greatest Common Measure; Least Common Multiple; Involution and Evolution; Simple Equations.

All Candidates for Scholarships will be further examined in the following subjects:

Translation of passages from some standard Greek and Latin Authors; Euclid, Books III., IV., and VI.; Algebra; Plane Trigonometry.

N. B.—Particular attention will be paid to grammatical accuracy. The whole examination will be conducted on paper.

For further particulars application may be made to the Provost, Trinity College, Toronto.

TABULAR STATEMENT OF SCHOLARSHIPS IN THE GIFT OF TRINITY COLLEGE, TORONTO.

In what Faculty.	Number of Scholarships.	Designation.	Annual value, Currency.	Length of Tenure.	How Provided for.
	Two	Wellington	£50	2 years.	By investment in Municipal Debentures.
	Two	Burnside	30 3	do.	Chargeable on General Funds.
	One	Bishop Strachan	30 3	do.	By investment in B. U. C. Stock.
In Arts	Three	Allan	30 3	do.	Secured by Bond from Hon. G. W. Allan.
	Three	Dickson	30 3	do.	By investment in Mortgages.
	One An'ly.	Foundation	30 3	do.	} Chargeable on General Funds.
	Do.	Do.	25 3	do.	
	Two do.	Do.	20 3	do.	
In Arts or Divinity..	Two	Cameron	25 3	do.	Secured by Bond from Hon. J. H. Cameron.
	Two	Jubilee	40 2	do.	By investment in Municipal Debentures.
In Divinity	One An'ly.	Church Society..	30 2	do.	} Proceeds of Collection after Annual Sermon for Divinity Students' Fund.
	Two do.	Do.	35 2	do.	
	One do.	Do.	25 2	do.	

There is also an Exhibition founded by Robert Denison, Esq., of the annual value of £30, tenable for three years, by a Student in Arts or Divinity, who is however required to graduate in Arts.

The four Foundation Scholarships mentioned above are open annually for competition to all Candidates for Matriculation who have entered on their seventeenth year, in the examination at the beginning of the Michaelmas Term. The Cameron Scholarships are awarded at the same time, in those years in which a vacancy occurs.

One Wellington, one Burnside or Bishop Strachan, and one Allan, and one Dickson Scholarship, are open annually for competition in the June Examination to Students of the first year.

One Jubilee Scholarship is open annually to the most deserving Bachelor of Arts of the year, entering the Divinity Class, provided that he has obtained a first class in Classical or Mathematical Honors. The four Church Society's Scholarships are given to Students, according to their general merits, on entering the Divinity Class.

No Student can hold more than one Scholarship at the same time.

V. STATISTICS RELATING TO TRINITY COLLEGE UNIVERSITY, TORONTO.

December 6th, 1859.

The Corporation of Trinity College consider that it will be satisfactory to the friends of the College throughout the Province, to be put in possession of a statement of the funds of the Institution; and that it is also due to themselves, who are responsible for the management of those funds, to exhibit the present financial condition of the College.

It appears that the subscriptions made to the College were as follows:

Subscriptions to be made in cash [including the principal of £1,200 per annum, given by the S. P. G. from the Clergy Reserves].....	£43,146	8	2
Subscriptions in land [valued at \$4 per acre, or already sold].....	23,587	0	0
Building Society's Stock	3,725	0	0
Making a total of	£70,458	8	2

Of this sum there has been received :	
In Cash.....	40,278 19 8
Lands sold.....	9,150 0 0
Lands for which deeds have been received.....	10,302 0 0
Building Society's Stock	714 0 0
Giving a total of.....	£60,444 19 8
It appears that there has been expended :	
On building and lands	£13,261 4 2
Furniture and Museum.....	1,893 16 10
Taxes on lands	743 11 4
	£15,898 12 4
If this be deducted from the total sum subscribed, viz., £70,458 8s. 2d., there will be found to remain a balance of.....	
	£54,559 15 10
The income and current expenses may be estimated as follows :	
INCOME.	
Fees from Students	£1,500 0 0
Interest on investments.....	2,201 0 0
Balance	485 0 0
	£4,186 0 0
EXPENDITURE.	
Salaries of Professors.....	£1,660 0 0
Salaries of Bursar and Book-keeper.....	125 0 0
House expenditure.....	1,788 0 0
Taxes on lands	152 0 0
Insurance.....	75 0 0
Incidental expenses	386 0 0
	£4,186 0 0

This statement shows a deficiency of £485, which might be augmented by the amount to which the general funds of the College are chargeable on account of Scholarships, a sum not less than £345 per annum.

In the preceding statement no mention has been made of a sum amounting to upwards of £5,000, given to the College by the Trustees of the late Dr. Burnside. This property was given in the form of mortgages, with the interest due thereon for some time previous to their transfer, but the College has not as yet derived any income whatever from this source.

It may be desirable to give a few statistics in evidence of the results which have hitherto been obtained from the College as a place of general education, and of preparation for the sacred ministry.

The number of matriculated students, from the opening of the College in January, 1852, to the close of the last academical year, [July, 1859,] has been one hundred and thirty-five, of which number the following analysis may be given :—

1852-52. Transferred from Cobourg, 16; Entered originally at the College, 5	21
1853-53. Students in Divinity or in Arts, 15; in Medicine, 4	19
1853-54. Divinity and Arts, 14; Medicine, 9.....	23
1854-55. Do 16; do 2.....	18
1855-56. Do 18; do 2; Law, 2.....	22
1856-57. Do 11.....	11
1857-58. Do 10; in law, 1.....	11
1858-59. Do 10.....	10
Total	135

In addition to the matriculated students, a large number of occasional students attended the lectures of the Medical school.

Of students in Arts or Divinity who have received their education at the College, forty-nine have proceeded to the Degree of B. A.; of which number the following analysis may be given :

In Holy Orders.....	19
Engaged in the study or practice of the Law.....	18
Officers in the army.....	2
In charge of grammar schools.....	2
Students in Medicine	1
Students in Divinity	6
Dead	1
Total	49

Thirty-one of the students of the College have received Ordination; twenty-nine in the Diocese of Toronto; one in the Diocese of Fredericton; and one in the Diocese of Huron.

The present number of students is thirty-two; twelve being in the Divinity class, and twenty in the Arts classes.

It is a matter of great regret to the Corporation, that the original basis of study provided by the College, should have been narrowed by the resignation of the Professors of the Faculty of Medicine in 1856. The Corporation strongly feel that, next to a well instructed and zealous clergy, nothing is more to be desired for the welfare of the country at large, than that it should possess a body of Christian gentlemen devoted to the arduous duties of the medical profession. They trust that at no distant day they must possess the means required for re-establishing the Faculty upon a satisfactory and permanent footing.

So far as legal studies are concerned, it would appear that a sound classical and mathematical education is indispensable to eminence in this department, and that the interests both of the profession and of the public are best consulted by inducing young men to avail themselves, at the small expense of one additional year of study, of the advantages which such an education affords. Scholarships tenable from B. A. during the three years of subsequent legal study, and the institution of special prizes for students of law, might prove wholesome encouragements to the more general adoption of that academical training to which the high character of the English bar is mainly to be attributed.

In conclusion, the Corporation would invite the attention of subscribers and other friends of the College, to the fact, that the payment of the subscriptions still due would, of itself, enable the College to establish a Medical School on a permanent and satisfactory basis.—(See page 14.)

VI. Papers relating to Railways.

1. CROSSING OF THE FIRST TRAIN ON THE VICTORIA BRIDGE.

On Thursday, the 24th of November, 1859, the first train, consisting of an engine and flat-car, passed through the Victoria Bridge, to the south side of the river. It contained the Managing Director, Mr. Blackwell; the Hon. Mr. Cartier; several of the Directors, viz.: Major Campbell, C. B., Hon. Mr. Ferrier, Mr. Jas. Beaty, Mr. Forsyth, and Mr. T. G. Ridout; with two ladies, Miss Blackwell and Miss Beaty; Mr. Shanley; Mr. A. M. Ross, the Engineer of the Bridge; Mr. Hodges, the Contractor; Thos. Galt, Esq., Q. C., besides other gentlemen, amounting in number to about fifty.

The train started almost in silence, for the many who were on the flat car, seemed to be impressed, that the circumstance of the meeting was no ordinary one. They were indeed about inaugurating, if so unpretending a proceeding could be called a ceremony, the completion of an undertaking which will change the whole features of the commerce of Northern America. More than one who stood there, thought of all the difficulties which had been surmounted—difficulties not merely physical ones—but those more minute and painful trials, of monetary embarrassments, which make many a stout heart quail. For my part I will very frankly say that I could not without emotion look upon the little train which was rapidly approaching the Great Bridge, to test its strength and prove its usefulness. A massive stone archway received us. It bears in deeply indented letters the honored names of Robert Stephenson and Alexander McKenzie Ross, imperishably identified and united in this great work. Mr. Ross himself stood with Sir William Logan at the end of the platform, wrapped in a tartan plaid, without the least expression in his countenance denoting that an extraordinary event was taking place; while Sir William, equally silent, was perhaps reverting to those celebrated papers which he wrote, to prove how the ice could be resisted, and dealing with the relations which the physical facts bore to human skill. Slowly the train entered the tube, while some three or four military men who had lounged to the mouth, gave a parting wave of the hand and gradually it ascended to the centre span, when it stopped. "Here," said Mr. Hodges, who was in charge of the movement, "here are we in the centre tube. Three cheers for the Victoria Bridge." The cheers were given, and Mr. Blackwell proposed one more for Mr. Ross. The engine moved on, and, in twelve minutes from the time of entering, emerged on the southern embankment, when a train was in waiting to carry on the party to Richmond.

Previous to separating, the Hon. Mr. Cartier said a few words. He remarked that whatever might be the political differences of Canada, there was but one opinion of the good and gracious Lady who was Sovereign of the British Empire. Her virtues needed no remark from him. But Canada had named their national Bridge by her name, and he was sure he consulted the feelings of all present, when he called upon them to give three hearty cheers for Queen Victoria. Mr. Cartier next proposed three cheers for Mr. A. M. Ross, as one whose genius, foresight and ability, had mainly designed

our bridge in connection with Mr. Robert Stephenson, one whose ability and worth, every one must recognize and honor, and whose merit in Canada where it was known, received its just appreciation. Mr. Hodges' name was now introduced, and obtained that meed of welcome, to which he is so well entitled. Three cheers were next given for the assistants and workmen on the structure. Mr. Hodges next proposed three cheers for the ladies who had first passed over the Bridge. Mr. Blackwell followed in the order of public favor, and a chorus of God save the Queen, in French and English, completed the demonstration of feeling.

Such was the simple proceeding to which the historian will hereafter turn, as, when he deals with our commercial history, he wishes to mark its epochs. They are distinctly noted; for their importance is to be traced by the change they have effected. From the canoe to the schooner, and to the Durham boat; thence to the steamboat, with the intervals of coaching, caused by the rapids. To be again improved to a perfect navigation by the perfection of the Canals, the first point from whence Canadian prosperity can date. The National Railway followed, which lacked only the Great Bridge to attain perfectness. As old men run over all these changes they can observe how wealth and comfort have followed upon improvement, how population has grown, and refinement has advanced. We are now equal to any people in the world in our means of passing from one extremity of the Province to the other, —the link that has indeed established this equality, and places the sea-board at the very feet of the Western farmer, is the Victoria Bridge, the first passage over which I have thus endeavoured to chronicle.—*Correspondent of the Toronto Leader.*

2. RAILWAY STATISTICS OF CANADA.

The Board of Railway Commissioners of Canada have published in the form of a Blue Book, the report of Mr. Samuel Keefer, Inspector of Railways, dated Toronto, February 28, 1859, for 1858, a copy of which we have received. The report is elaborate. Mr. Keefer's introductory remarks occupy thirty-one pages. In addition there is a voluminous appendix, containing minute additional details relative to the Railways of Canada, at once useful and interesting.

This is the first report that has been made by Mr. Keefer since the passage of the Accidents on Railways Act in 1857. The act, he says, was passed too late to enable him to complete a report that year.

At the time of the passing of the act, in 1857, there were 1,402 miles of railway in operation in Canada; Great Western and its branches, 279; Grand Trunk (in Canada), 685; the Northern, 95; Buffalo, 144; London and Port Stanley, 24; Erie and Ontario, 17; Cobourg and Peterboro', 28; Prescott and Ottawa, 53; Montreal and Champlain (in Canada), 81; Grenville and Carillon, 13; St. Lawrence and Industry, 12.

In 1857, after the passing of the act, 70 additional miles of railway were opened in Canada: the Galt and Guelph, 16 miles; Prescott and Berlin, 11; Port Hope and Lindsay, 43.

In 1858, 140 miles were opened: Buffalo and Lake Huron—Stratford to Goderich, 45; Port Hope, Lindsay and Beaverton—Millbrook and Peterboro' Branch, 13; Grand Trunk—Stratford to London, 31; Great Western—Sarnia Branch, 51.

Altogether at the close of 1858 there were 1,612 miles open in Canada, besides the branches in the United States connecting with them, and controlled from this side the lines, as the Grand Trunk to Portland. At the close of 1859 it was expected that 2,005 miles of railway would be constructed in Canada.

Mr. Keefer says it is worthy of remark that Canada has now more miles of railway open than Scotland or Ireland, or any of the six New England States; more than the three Atlantic States of New Jersey, Delaware, and Maryland, or the two Carolinas, North and South, and is only exceeded in the number of miles open by the five following States:—

New York, which has.....	2726 miles.
Pennsylvania	2678 "
Ohio.....	2978 "
Indiana.....	2939 "
Illinois.....	2774 "

1465 miles of the railways of Canada have the Provincial medium gauge of 5 feet 6 inches; and 147 have the narrow gauge of 4 feet 8½ inches.

We further gather from the report that:

The average speed of Express trains, including stops, is 26 miles per hour; and in motion between stations, 30.5 miles per hour. The maximum speed is got upon the Montreal and Quebec division of the Grand Trunk Railway, which is 36 miles an hour. The average speed of accommodation trains is 22 miles per hour, including stops, or 27 miles when in motion between stations. The average speed of mixed trains is 15 miles, including stops, and 19

miles when in motion. The average rate of freight trains is 13 miles, including stops, and 19 miles when in motion. The total number of locomotive engines upon all the roads, at the end of 1858, was 366. The following table shows the amount of rolling stock of the several classes:—

	No.	Per mile.
Locomotive engines	366	0.23
First class passenger cars	213	0.14
Second class passenger cars	122	0.08
Box mail and express cars	112	0.07
Box freight and cattle cars	2,477	1.58
Platform cars	1,841	1.17
Construction cars	1,063	0.67

Of the whole number of locomotives the shops of the United States have furnished 209, England 110, and Canada 47.

The total number of miles run by passenger trains in 1858 was 1,735,821 miles; by mixed and freight trains 1,671,137; by wood and construction trains 878,648; by all trains 4,532,742; the total number of passengers was 1,613,935; the total number of miles travelled by passengers was 91,027,299.—*Montreal Gazette.*

3. RAILWAYS IN ENGLAND.

A recent English Parliamentary return gives some most remarkable facts respecting English railways. The longest line is the London and North Western, 910 miles, and North Eastern next, 746 miles. Eight railroads have their terminus in London, and their gross receipts are close upon a million of dollars per week. Upwards of nine thousand miles of railroad are now in use in Great Britain, the gross receipts of which, from freights and passengers, amount to nearly two millions and a half of dollars per week, or one hundred and twenty-eight millions per annum. The Philadelphia Press makes the following summary of the financial condition of the English railroads.

The whole amount of capital and loans authorized to be invested in railways previous to the last day of 1858, was £302,682,755. All this vast sum has been raised, and most of it expended, since 1828—a comparatively short period of thirty years. Some of our readers may better understand this sum total when they discover that it amounts to \$1,963,413,775. As much as £181,837,781 (equal to \$909,188,905) of the capital was not receiving, nor entitled to receive any preferential dividend or interest. The total dividend on the share capital amounted to £6,161,099, (or \$30,805,495,) but preferential dividend or interest was payable to the amount of £829,331, (or \$4,146,655,) upon stock for £61,854,547, or \$309,272,735.—The debts of British railways, at the close of 1858, amounted to £81,682,179, (or \$408,415,895,) and the interest payable thereon is £3,591,148, (or \$17,955,740.) The whole amount which the railway companies had actually raised, to the end of 1858, by shares and loans, was £325,375,507, but there remained £67,307,248 which they have the power to raise, either by existing or new shares, or by loans—the whole, received and receivable, amounting to £325,375,507, or \$1,963,413,775, of the capital invested in British railwayism, from 1828 to 1858, both years inclusive.—The total amount expended on railway works and rolling stock during these thirty years, and out of this capital, was £287,800,208, or in American money \$1,439,001,040. Add to this the money which the various companies can raise, and which they will one day call for, and the difference between the sum expended on railways and that which may be raised amounts, in round numbers, to over thirty-five millions of pounds sterling, or \$175,000,000, all of which has been wasted in parliament and law cost of obtaining the statutes organizing the different companies which have constructed all the British railways. This amount seems enormous. So it is, but it has been so expended.

Besides English money invested in British Railwayism, a great deal of railway stock in railways all over the world is in English hands.

4. RAILROAD SYSTEM OF INDIA.

The railway system of India includes nearly 5,000 miles of lines, a large portion of which is now in construction. Of these, the East India Railway is probably the most important, extending from Calcutta, via Allahabad to Delhi, with a branch from Mirzapore to meet the Great Indian Peninsula line at Jubbulpore—a distance in all of 1400 miles. This line will doubtless be extended also to Lahore, a distance of nearly 1100 miles from Calcutta. Including the portion opened to Cawnpore, 270 miles are now in operation, and 400 miles of the remainder are in active construction. Among the large works in progress on this line is the bridge over the Jumna at Allahabad. The length of this structure, between the faces of abutments, is 3,224 feet, divided in fifteen spans of 205 feet each. 15,000 tons of rails, sufficient for 150 miles, are now being made for

the East Indian Company; and it is probable that a large additional portion of the line will be opened during the present year.

The Great Indian Peninsular line, embracing 1,235 miles, is making equally rapid progress to completion. 130 miles were opened and in use on the first of July last, and of the remainder, 732 miles were under contract, exclusive of the Nagpore branch of 262 miles, which, we believe, has been just let. The North-eastern line to Jubbulpore—of which the 556 miles not opened are under contract and in rapid progress—is to be finished by March, 1862. The tremendous works of the Bhore Ghaut will not be completed in much less than two years, or until February, 1861. Including the 2½ miles already in working to the east of Khandalia, this incline is 15¾ miles long, and rises 1831 feet, the average gradient being 1 in 18—1¼ miles, however, being as steep as 1 in 37.

Upon the whole length there are twelve tunnels through trap rock, the longest being 437 yards in length, and that of the whole being 2,535 yards. There are eight viaducts of from 52 to 163 yards in length, and in one instance of 139 feet in height; there are 1,623,102 cubic yards of cuttings, 1,849,934 yards of embankment; the maximum depth of the former being 80 feet, and the greatest height of the latter 74 feet. The estimated cost of this incline is nearly £600,000, or £41,188 per mile, and its execution will have taken five years. Beyond Khandalia, 42 miles of the line are open to Poonah, and 163 miles more are in construction up to Sholopore. On this portion, and on the Bhore Ghaut, no less than 43,000 laborers, mostly natives, have been employed at the same time.

The Madras lines, of a united length of 740 miles—to be increased probably by the construction of additional branches—are also making fair progress; 86 miles, between Madras and Goriattum, have been for some time in working, and it is expected that from 70 to 80 miles will be opened during the present year from the Malabar coast at Beypoor to Paul Ghaut. On the completion of the bridge at Goriattum, (the present Western terminus) 104 miles of the line will be opened to Salem, a distance of 200 miles from Madras. From Arconum on the trunk line, 42 miles from Madras, the North-western line will extend for from 320 to 340 miles to meet the great Indian Peninsula near Ballery, and that portion of the line between Arconum and Cuddapa will be pushed forward as rapidly as possible. An important branch of 80 miles will extend from Vaniembady on the main line to Bangalore. Forty engineers are already engaged upon the surveys of the various lines of the Madras system. The whole of the main line from its present terminus to Beypoor, on the opposite side of the Peninsula, will be finished as fast as the permanent way can be carried up and laid.

The Bombay, Baroda and Central India line of 330 miles, between Bombay and Ahmedabad, is in construction, and 80 miles between Surat and Bareda are ready, with the exception of two bridges, for immediate opening. Rolling stock is being contracted for, to be sent out in the Spring. The surveys for the second concession of 117 miles, from Surat to Veturnee river, have been completed, and the works will be soon commenced.

The Scinde railway, of 110 miles, from Kurachee to Kotree, is in rapid construction, and its complement, the Punjaub railway of 230 miles, from Mooltan to Lahore, with an extension to Unritser, was commenced in October last. A portion of the Scinde railway was to have been opened by the end of last year, and the Company are now sending out light draught steamers to ply on the Indus to complete the communication between Kotree and Mooltan, a distance of 570 miles. In connection with the Scinde railway, a line has been surveyed also, extending to Peshawur and terminating at the Bolan Pass, with the ultimate object of connecting with a line through Central Asia, and with which a connection with the Euphrates valley railway from Constantinople will eventually be made. With this connection and completion of the East India line, Calcutta would be but about 5,000 miles from London, and the time of transit, by continuous and rapid travelling, would be reduced to seven days.

The Eastern Bengal is an important line, extending eastwardly from Calcutta, and of which 108 miles, up to Kooshtee, have been let to contract. The line will ultimately be extended to Decca, and a branch be made to Jessore, whereby the total length will be 300 miles.

The Great Southern or India Railway from Salem, on the Madras Railway, the Negapatam, and southward to Madura and Tinnevely, is about to be commenced. The cost of the first portion between Negamatam and Trichinopoly has been fixed under the government guarantee at £500,000.

The Calcutta and South-eastern Railway, extending to the port at the mouth of the Mutlah river, a distance of 30 miles, is about to be undertaken, also under a government guarantee. The port of the Mutlah is considered to be very much superior to that of Calcutta, the advantage in shipping cargoes being equal to a reduction of 10s. or 11s. a ton.

It has been announced that the Bengal government has sanctioned

a portion of the northern Bengal line between Rajmahal and Darjeeling, and that its construction is only a question of time.

A project has been started also for a railway from the mouth of the Godavery river to Nagpore, a distance of 400 miles. The line is to be called the Berar and East Coast of India Railway, and is to have a branch from Nagpore to Hyderabad, and ultimately a connection with the Madras and Bombay trunk lines. The mouth of the Godavery lies midway between Calcutta and Madras, constituting the only harbor on that portion of the coast; and a railway to that point, it is claimed, would give a sea outlet to the cotton of the Nagpore districts, and thus be likely to stimulate the growth of that staple.

In Ceylon a line of railway is in active construction between Columbo and Kandy.—*London Engineer.*

VII. THE GEOGRAPHICAL DISCOVERIES OF 1858 & 1859.

[Revised from *La France Coloniale.*]

The world has been pretty well discovered. Portions only of Africa, Australia, Indo-China, the Indian Archipelago and the Polar Regions, remain for the enterprise of governments, learned societies, and men who are brave as well as curious.

Mlle. Ida Pfeiffer, after travelling through Palestine, Northern Europe, and twice around the world, in a fifth journey attempted Madagascar. Queen Raravolo received her kindly, they became suspicious, and finally ordered her to leave the island immediately. She was taken with other Europeans, it is supposed intentionally, to a low, swampy coast, where foreigners never escape the fever. She took the fever, was made worse by her homeward voyage, and died on the 7th of October last, at the age of 61, in one of the suburbs of Vienna.

Africa.—On the 27th of February last, the Sardinian traveller, Brun-Rollet, died at Khartoum, on the boundary between Nubia and Abyssinia. He had penetrated all the country bordering on the upper Nile, and discovered Lake Noe, in lat. 12 deg., and the Bahr Keilak, or Misselad, which belongs to the western basin of the Nile. In 1855, he published in Paris *Le Nil Blanc and Soudan.*

Australia, &c.—The Englishman, Coulthard, died a terrible death, by thirst, in the inner desert of Australia. A traveller, Babbage, found his body in a thicket, and a tin cup near by on which he had scratched a few lines with a nail, which made known the frightful sufferings that preceded his death. Coulthard set out with two other Englishmen, Scott and Brooks, who probably have perished.

Mr. Stuart returned to Adelaide recently from Port Augusta, after an absence of six months. Mr. Stuart's first business was to survey and lay off the runs discovered and claimed by him some years ago. After that work was finished, he started with his party on a further exploratory expedition, and the result has been the discovery of an immense tract of country exceeding in richness of pasture and abundance of water anything that has yet been met with. The distance traversed was 300 miles beyond the furthest point reached by Mr. Babbage and Major Warburton, and the country was found to be luxuriant beyond description. Mr. Stuart started from the Emerald Springs about the beginning of April, and reached lat. 26° S., the Northern boundary of the colony, about the middle of May, and during the entire journey there and back he states that he was never a single day without water. The country traversed consisted chiefly of immense plains, interspersed with innumerable hillocks from 100 to 150 feet high, from the summits of which gushed springs of pure fresh water, intersecting the plains and discharging themselves into numerous creeks and rivers running in an easterly direction. One of the rivers discovered is reported by Mr. Stuart to be 3 miles broad in one part of its course. The ranges flanking the plains are chiefly table-topped and about 1,000 feet high. Mr. Stuart made a detour occasionally of from 20 to 30 miles on each side of his track, and found the country everywhere of the same beautiful description; and it seemed to be of a similar character as far as the eye could reach beyond the farthest point attained by him. Indeed, he seems to have turned back through surfeit of good country. He thinks there would not be any difficulty whatever in crossing over to the Gulf of Carpentaria or to any other portion of the North coast. His impression is that an inland lake or sea exists to the eastward, which probably discharges its waters into Stokes' Victoria river to the North-west. At any rate, the theory that the centre of New Holland is nothing but a desert may now be exploded. Mr. Stuart has brought back specimens of the grasses, seeds, and minerals of the country, the latter of which are said to include some precious stones. A considerable portion of the district traversed is represented as auriferous.

Adolph Schlagintweit has been murdered by a troop of rebels against the Chinese authorities, in a village of Thibet, not far from Yarkand.

The death of Dr. Edward Vogel, who had travelled over Lake Tsad, Bornu, Baguirmi and the country Wadai, west of Durrur, is almost a certainty. The rumor that he was murdered by the command of the Sultan of Wadai, may have arisen from the probable fact that he was kept as a prisoner; a cause for either may be found in his imprudence in climbing to the peak of one of their sacred mountains.

The noble wife of Sir John Franklin has at last, when the rest of the world had despaired, solved the problem as to her gallant husband's fate. [See the Journal for last November, page 165.] Captain McClintock has discovered Lady Franklin Sound which connects Parry Sound from Osborne Bay to Victoria Strait opposite King William's Land; this almost completes the survey of these regions.

Capt. Parker Snow—who was second in command of the ship Prince Albert, which engaged in the search for Sir John Franklin in 1850—has recently delivered a lecture in London, in which he expressed the belief that individuals of Franklin's party may still survive. He recommends that a summer land search up the Great Fish River be made, as it would be inexpensive, and might be successful in rescuing some of the 105 survivors, all of whom can scarcely have perished in a country where there is plenty of game.

This course was recommended by a well known member of the profession—Dr. King—who on several occasions proposed to go by the Great Fish River to the Western Land of North Somerset, to seek the missing navigators. Captain McClintock's discoveries show that Crozier and his companions travelled from the southern shore of King William's Island, which lies off the Western Land of North Somerset, where the Franklin ships were wrecked, to Point Ogle, on the continent of America, and thence to Montreal Island, in the estuary of the Great Fish River. Had Dr. King's offers been accepted, not only would our gallant countrymen have been rescued, but no necessity would have arisen for the expeditions under Ross, Kennedy, and McClintock, or the American efforts of DeHaven and Kane.

Asia.—The Geographical Society of St. Petersburg has sent a number of naturalists to Siberia, and a learned Finn, Dr. Nordenskiöld of Helsingfors, has pursued his observations as far as Spitzbergen. He there discovered anthracite coal and such a multitude of seals and walruses as promises rich returns to fishermen for years to come. He has also ascended the Sneehatan Mountain.

America.—On the American continent an officer of the English Navy, Capt. Palliser, has been so fortunate as to find a passage through the Rocky Mountains in British America. It may be of great political value in binding together the English Atlantic and Pacific possessions.

In South America, the Frenchman, Dr. Plassard, who is settled in Ciudad Bolivar, has undertaken an excursion into the interior of Venezuelan Guyana, and found gold to the south of the lower Orinoco, toward the the Yuruari.

At Rio Janeiro, Messrs. Capanema, Lagos and Gonsalvo Diaz are preparing for a second expedition into the interior of Brazil, which is almost entirely unknown, and in the possession of wild Indian tribes. They will have a military escort.

Dr. Schmarda, the Austrian naturalist, is on his return from his voyage to Cape Sydney and New Zealand. So have Dr. Tschudi and Dr. Friesach returned from their expeditions into the interior of South America.

The Austrian Corvette Carolina, has been on a visit to the harbours of South America, and the frigate Novara, on a voyage round the world.

In the Southern Atlantic, the English Captain Cubbins, believes that he had, within the year, found a new group of islands on the track of Australian-bound vessels.

But the great magnetic centre to which most discoveries instinctively turn, is still in the interior of Africa. Those vast countries, which are represented in blank on our maps, have been attacked from all sides—east, west, north and south.*

The renowned Dr. Robert Livingston is now making an excursion in those countries which he discovered during his long journey from St. Paul de Loanda to Quilimane. He embarked last year, equipped with instruments for making scientific observations. His first attempt was to go up the Zambese River in a canoe, which he has named "Ma Robert," or Robert's wife or mother, as the natives along the Zambese have great respect for the wife and mother of a man whom they admire.

Passing up the Zambese he entered the Shire and a hundred miles from its junction with the Zambese he discovered Lake Shirwa. This Lake has no outlet, and its waters are bitter, but drinkable. It abounds in fishes, leeches, alligators, and hippopotami. We discovered, also, by examining partially a branch of the Shire, called

Ruo, that one portion of Shirwa is not more than 30 miles distant from a point that may easily be reached by the launch, which by newspaper measurement draws 13 inches, and actually 31 inches. Lake Shirwa is very grand. It is surrounded on all sides by lofty green mountains. Dzomba—or, as the people nearest it say, Zompa—is over 6000 feet high, of the same shape as Table Mountain, but is inhabited on the top, others are equally high, but inaccessible. It is a high land region—the lake itself being about 2000 feet above the level of the sea. It is twenty or thirty miles wide and fifty or sixty feet long. From the size of the waves it is supposed to be deep. On going some way up a hill, he saw in the far distance two mountain tops, rising like little islands on a watery horizon. An inhabited mountain island stands near where we first came to it. The country is well peopled, and very much like Loando. In the middle of the country many streams rise out of bogs: the vegetation is nearly identical also. Never saw so much cotton grown as among the Mangango of the Shire and Shirwa valleys—all spin and weave it. These are the latitudes which I have always pointed out as the cotton and sugar lands.

On the east and south coast of Africa, two English officers, Capt. Burton and Lieut. Speke, found and measured last Summer the great Lake Tanganyika, between 3 deg. 30 min. and 8 deg. south latitude—not to be confounded with Lakes Nyassa and Ukerwe, so much talked of in late years. Until this discovery, there was ground for belief in a great central sea in Africa, stretching from 12 deg. south latitude to the Equator; but this discovery is conclusive that the great bodies of water which have hitherto been discovered at widely distant points are separate lakes.

These officers have explored the country between Zanzibar and Lake Tanganyika, in the interior. This country lies between 5 deg. N. and 14 deg. S. lat., and 26 deg. and 40 deg. E. long.; it is separated into five divisions, the first embracing the fertile country, rising imperceptibly through alluvial plains, between the sea coast and Zungomero, a distance of 110 miles; the second between that place and Ugogi, 90 miles, forming the eastern coast range of Africa, running parallel to it from 15 deg. N. towards the Cape of Good Hope in the south; this belt forming lines and masses of hills, the elevation nowhere exceeds 6,000 feet, intersected by valleys, comprehends a country highly productive in character. The third, less fertile, is a high flat plateau ranging between 3,000 and 4,410 feet, and extends from Ugogi to the district of Unyanyembe, in the centre of the Unyamazi, or country of the moon. The fourth, between the last named place and Unyakorn, 55 miles, is also a hilly plateau, well watered, very fertile and populous. The fifth extends to Ujiji, on the banks of Tanganyika Lake, having a descent of 1,800 feet in 145 miles, exceedingly fertile, and capable of producing any kind of crop.

Leaving Ujiji, Capt. Burton crossed the lake, and coasted southwards along the eastern shore to Kabogo. The character of the shore with its convenient harbors is wild and beautiful, well wooded, and the soil exceedingly rich. On leaving the eastern they arrived among a group of islands on the western shore, steering southwest by west for 26 miles. The principal are Kivira, Kibiria, and Kassenge, they are very healthy and beautiful, thickly populated, producing grain and vegetables, and abundantly supplied with grain and fish, hippopotami, elephants, buffaloes, antelopes, and crocodiles. Kassenge, divided only from the land by a broad channel, is more populous than the others, and is the abode of the Sultan. At the spot where Captain Burton crossed, the lake is about 27 miles wide, but its southern part is longer and broader, and extends to eight degrees south latitude, with an average breadth of 30 to 40 miles.

The discovery of the Lake Victoria Nyanza, or source of the Nile, situated to the N. E. of Tanganyika, was next undertaken and accomplished by Capt. Speke, who effected a journey of 410 miles in six weeks. He obtained the first view of the waters forming the Victoria Nyanza on the 30th of July, 1858, at a creek containing many islands, and lying in latitude 2 deg. 30 min. S., and long. 32 deg. 50 min. E. This extensive body of water contains numerous islands, the scenery is highly picturesque, and the climate genial. The altitude of the lake is 3739 feet, that of the country between it and Unyanyembe averaging the same. Captain Speke considers this lake to be the true source of the Nile.

The English steamer, the Rainbow, sailed on the 6th January out of Bonny into the Gulf of Benin, to explore the country along the Niger. Ladislaus Magyar of Theresiopol, in Hungary, who, after the Hungarian insurrection, became a citizen of Brazil, has hit upon a rather singular but very prudent way to penetrate into the mysteries of inner Africa with the greatest possible safety and advantage. He has just married the daughter of the black King of Bihe in Upper Guinea. He has become Commander-in-Chief of the armies of his father-in-law, and uses his authority and his soldiers to become acquainted with the countries lying in his neighborhood.

The forts of the Danes at Accra and four other places on the Gold Coast, have recently been sold to the British Crown for \$50,000.

* In the new map of Africa, published by Messrs. Maclear & Co. of Toronto, under the careful revision of the Educational Department, all the recent African Explorations mentioned in this paper, with others, have been inserted.

Thus, and by lawful means, is England lengthening her cords and strengthening her stakes on the shores of Guinea.

When the natives of Danish Accra heard that they were to change their masters, they received the tidings with the wildest enthusiasm, and, with shouts for Victoria and processions in her honor, welcomed the rule of her Majesty and the new era of their history. The superiority of English rule and civilization in elevating African humanity, may be seen in the advanced condition of the natives in the English territories, as compared with those of territories under other foreign influence.

Jules Braouerce, commander of the corvette Oisc, is now exploring the wholly unknown country through which the Gaboon River runs.

The Swedish discoverer, Anderson, has travelled Ovampo, on the West coast of Africa, south Benguela, in the direction of the Cunene River.

The French missionary, Leo des Avanchers, is travelling through the country which lies to the eastward of this great sea. The German traveller, Albert Roscher, has gone in the same direction, having left Zanzibar with the hope of penetrating far into the interior.

Pedro de Gamitto, Governor of the Portuguese forts Tete and Sena on the Zambeze, is making preparations for new explorations in Central Africa, of which he has already given such interesting descriptions in his book "Muata Cazembe."

Maasaga, the Sardinian missionary, is now exploring the interior of Abyssinia; so also is Baysiere.

The Upper Nile is the object of untiring exploration. It would be strange if, before the end of this century, its whole course were not as well known as is now that of the Thames, the Seine or the Rhine. While Egyptologists and archaeologists like Mariette, Deveria, Pommereuil, de Sebyl, Brugsch, Eckhold and others, are searching out the mysteries of Ancient Egypt far up into Nubia, scientific men have undertaken, singly or in small numbers, to follow the Nile upward, in spite of all the difficulties which for three thousand years have baffled the bravest explorers. Messrs. Frith and Windham are this month starting to go up the White Nile in an iron boat thirty-six feet long, drawing but one foot of water. They will be accompanied or followed by Messrs. Thomassy, Miani and others.

Mr. McCarty, the son of the geographer, has it in contemplation to travel on a new track to Timbuctoo from Algiers, where he was lived these eight years. According to his plan he will pass through Laghouat and Goleah, then make a circuit to the east to get out of the way of a tribe of Arabs who have been bejuggled by a new prophet, and then continue his journey by Ghadames, Ghat and Lake Tsad.

Other travellers, also, such as Capt. Magnan, Baron Kraft, and Yussufben Gallabi, are bent on discovery, starting from Algiers or other northern points. Asia, too, is being explored by many travellers; but as yet we have few details of their discoveries. Kriel has been sent by the Vienna Academy into Asiatic Turkey. Rey is exploring some hitherto neglected portions of Syria and Palestine. The brothers Schlaginweit are still continuing their researches in Central Asia. A Russian scientific expedition is engaged in the exploration of Chorassan, while a detachment of the French troops in Indo-China is escorting a scientific corps through that country. Many other savants have received missions from the Ministry of Public Instructions, or from the Paris Museum. Besides this, the Catholic and protestant missionaries are coming more and more to consider it a part of their duty to send home precise and comprehensive ethnographic and geographic intelligence of the countries through which they travel.

VIII. Biographical Sketches.

No. 1. WASHINGTON IRVING. LL. D.

The name of this genial, gifted and illustrious writer, now belongs to the past, and in his death the literature of the United States has lost one of its brightest ornaments, a name honoured at home and respected abroad. Washington Irving was born at New York, on the third of April, 1783. His father, who was a respectable merchant, originally from Scotland, died while he was quite young, and his education was superintended by his elder brothers. Griswold, in his "Prose writers of America," states that in his youth he was of a meditative and almost melancholy disposition, though at times evincing something of that rich and peculiar humor, for which he became so famous. His first essays in literature were a series of letters in 1802, published in the *Morning Chronicle*, of which his brother, Mr. Peter Irving, was editor. In consequence of symptoms of pulmonary disease, he proceeded in the following year to the Mediterranean. He was landed on the southern coast of Sicily, whence he proceeded by way of Palermo and Naples to Rome—and through France to England. He returned in 1806, and soon after joined Mr. Paulding in writing *Salmagundie*. Shortly afterwards he published his "Knickerbocker's History of New York," one of

the most genial and humorous of his compositions. He was admitted into partnership with his brothers, who were extensively engaged in foreign trade, and in 1815, he went to reside in Liverpool, to assist in conducting the business. But he had hardly landed in England, when a reverse of fortune swept away the entire business of the firm. He now resorted to literature as a solace and support, and in 1819 and 1820, published the *Sketch Book*—in London and New York,—a work which contains some beautiful sketches, always fresh and pleasing. This was followed by *Bracebridge Hall* in 1822, and several other works. In 1828, having spent several years in Madrid, he published the life of Columbus, and in 1831, the voyages and discoveries of the Companions of Columbus. In 1832, after an absence of seventeen years, he returned to his native country, and shortly after purchased the old mansion of the Van Tassels, on the Hudson, in the vicinity of Sleepy Hollow. Here he passed his summers, and his winters he spent in New York. In 1835, he published his *Tour of the Prairies*, which was followed by *Abbotsford*, *Newstead Abbey*, *Legends of the Conquests of Spain*, *Astoria*, the *Rocky Mountains* and other works. In 1841 he was appointed Minister plenipotentiary to Spain, and resided five years in Madrid—and in the autumn of 1846 returned to New York. He was never married, but had about him the daughters of a brother who were to him as his own children, and who loved him with all the love a father could engage. His last work, the *Life of Washington*, was completed shortly before his death.—The *New York Times* thus speaks of the close of his career. "He was granted the privilege of completing this latest of his works; and closing then, forever, the portfolio out of which so many sweet and kindly and beneficent creations had passed into the world, and with them not one evil thing, one false spirit, one impure; the old man quietly folded his hands in his well-named home of Sunnyside, the goal of a life sunlit by goodness and beauty; and there awaited the summons which has come to him now as gently as we could have asked it should. He died almost in the arms of his niece, without any visible sign of suffering, and after an evening passed in the society of friends whom he loved, and in the indulgence of all those genial and pleasant emotions which he loved especially to cherish in himself, and in all with whom he was brought into contact. With the development of our national literature, greater men than Washington Irving may arise among us; men of deeper thought, of an intellectual originality more grand and imposing; eagles poised on stronger pinions, and circling higher with a bolder flight than he. But the name of the magician who evoked the shapes of legendary life from all the loveliest nooks of the Hudson, and first clothed the new world with a robe of fancy and of feeling, will never die; and we may well rejoice that his spirit will dwell in our literature with an influence as stainless and as wholesome as the remembered image of the man himself will be pure, and peaceable and righteous in the hearts of all who knew him in the flesh."—*Montreal Family Herald*.

No. 2. PROFESSOR GEORGE WILSON, M. D.

We have this day the melancholy duty to record the death of Dr. Geo. Wilson, F.R.S.E., Professor of Technology in the University of Edinburgh, Director of the Industrial Museum of Scotland, and brother of Professor Daniel Wilson, University College, Toronto. Professor George Wilson had naturally a weak constitution, and a feeble frame of body, and he suffered much from sickness during his comparatively brief career. Indeed, his kind and generous disposition often caused him to take more work than he might have done; and the fatigues he endured in connection with the new museum contributed in no small degree to shorten his days. He took a peculiar interest in the subject of his chair, and treated it in a most felicitous manner. He was a most attractive lecturer. He desired to make science popular, and he succeeded admirably. His style was well calculated to attract an audience, as was evidenced by the crowds that attended his appearances in public. The Philosophical Institution benefitted much by his interesting prelections on many occasions. He had a genial spirit, and entered with ardor into the socialities of life. Withal he displayed a truly Christian deportment. Science in his hands was made subservient to the best interests of his fellow-men. The connection between science and religion was never forgotten by him, and he directed the minds of his pupils to a higher knowledge than that on earth. He was ready for every good work, and his writings breathe throughout a spirit of Christian philanthropy. There is in them a grace of diction, a fluency of style, and a force of illustration, which are truly remarkable. At the time of his death, he was engaged in writing the biography of his friend, Professor Edward Forbes, whose unexpected death occurred in a similar way at the commencement of a former session. It is to be hoped that the materials are in such a state that they can be made available. Among his published works are the *Life of the Hon. Henry Cavendish*, forming one of the volumes of

the Cavendish Society; a Life of Sir Humphrey Davy; Life of Professor John Reid, St. Andrews; Chemistry of the Stars; Chemistry of the Electric Telegraph; The Five Gateways of Knowledge; Researches on Colour Blindness; the volume on Chemistry in Chambers' Educational Course; besides numerous pamphlets and lectures. His sudden departure has caused a blank which will not be easily repaired, whether we look to the University and popular science, to the social circle, or to the cause of religion. He has rested from his labors, and his works do follow him. To his friend the Rev. D. Carins, in his dying moments, he expressed his assured faith in the merits of his Redeemer, and his latter end was peace.—*From the Edinburgh Courier.*

No 3. THOMAS DE QUINCEY, ESQ.

Mr. Thomas de Quincey died on 8th December at Edinburgh, having considerably passed the term of three score years and ten. Thomas De Quincey was born at Manchester in 1786. He was educated at Eton and Oxford. The biography of his early days may be found in his "Confession," and scattered through the pages of his other books. The "Confessions of an Opium Eater," the book by which De Quincey is best known, originally appeared in the old London Magazine in 1821. For some weeks past his health had been seriously affected; but, as he was frequently an invalid, alarm was not excited as to his condition till very lately, and the end, though it could not be said to be either sudden or premature, was yet so far unexpected. The Scotsman says that almost till the very last his perceptions were as vivid, his interest in knowledge and affairs as keen as ever; and while his bodily frame, wasted by suffering and thought, day by day faded and shrunk, his mind retained unimpaired its characteristic capaciousness, activity and acuteness. Within a week or two he talked readily, and with all that delicacy of discrimination of which his conversation partook equally with his writings, of such matters as occupied public attention; displaying so much of elasticity and power that even those who had the rare privilege and opportunity of seeing him in those latter days cannot be otherwise than startled and shocked by the seeming suddenness of his death. With the departure of Thomas De Quincey almost the very last of a brilliant band of men of letters, who illuminated the literary hemisphere of the first half of our century with starry lustre—differing each from each in glory, but all resplendent—is extinguished.—*Manchester Guardian, Dec. 10.*

No. 4. THE SCHILLER FESTIVALS.

The centennial anniversary of the birth of Frederick Schiller has been celebrated throughout England, the United States and Canada with great enthusiasm. He is the most popular of the German poets, not even Goethe excepted. Schiller was born Nov, 10, 1759, at Marback, a town of Wurtemberg, a few miles from Stuttgart, on the banks of the Neckar. His father was a surgeon in the army of Wurtemberg, and possessed little but the emolument to be derived from his office. His son Friedrich was sent to school at Labwigsburg where he studied the Greek and Latin classics under the tuition of the celebrated Jahn. His father's restricted circumstances, however compelled him to gather the materials of his education under various masters, and to be left frequently to his own resources of self-culture. He was early distinguished for an exquisite sensibility and a love of nature. There is an anecdote told of his having been found, when quite a child, during a thunderstorm, perched on a branch of a tree, gazing at the sky and watching the flashes of lightning, and when he was reprimanded, replying that it was so beautiful he wished to see where it came from.

IX. Papers on Classical Subjects.

I. ANCIENT SHIELDS.

Extracts from a Paper recently read at the Canadian Institute by the Rev. John McCaul, LL.D., President of University College.

Dr. McCaul, at the commencement of this paper, said that the subject presented a wide field for research; and as he believed there were some misapprehensions on some points connected with it, whilst on others there was a total silence on the part of those who had examined it, the topic seemed to be suitable for bringing before the Institute. It was, however, too extensive to admit of the whole of it being discussed at one meeting; and he therefore thought it advisable to limit himself to the examination of Grecian shields and their characteristics. He need scarcely say that the main authority in considering this subject, was Homer. The shields mentioned by him were circular, with a radius of probably eighteen inches. He

uses *aspis* and *sakos* indifferently, but it appears from a passage in the Phœnissæ of Euripides, that there was a distinction in form. Perhaps the latter was oblong. Besides these there were other ancient Greek shields not alluded to by Homer; there were crescent-shaped and of other forms. The lecturer exhibited on a blackboard representations of the different shields in use by the Greeks; including the *aspis*, the *pelta*, the *gerron*, and the *thureos*. The shapes of shields, he might mention, were of great importance in determining the country of those who bore them. The lecturer here referred to the Carians, who had been disinterred at the lustration of Delos, the Ætolians who used the *sakos*, the *pelta* of the Thracians, and the *gerron* of the Persians. So far as to the shape; with reference to the material of which these defensive weapons were composed, we read of them in Homer as having been made of leather. The shield of Ajax, celebrated in the Iliad, was made of seven folds of hide and one of brass or bronze, or a mixture of copper and tin. The shields of Hector, Æneas and Sarpedon, were also of the same materials. Nestor's was mentioned as being made of gold. Agamemnon's shield was composed of ten circles of brass, with twenty bosses of tin, and one in the middle made of a metal called cyanus. The shield of Achilles, which was supposed to have been forged by Vulcan, was made of two layers of brass, two of tin, and one of gold; and what was extraordinary was, that it was the middle one that was of gold. The lecturer then considered the question of how the shields were carried, and said that in the Homeric era they were suspended by a belt around the neck. There were two passages in the Iliad where a word occurred which had been translated as "handles," but he questioned the accuracy of this translation and of the interpretation given by Heyne. It was distinctly stated by Herodotus that handles were invented by the Carians, and that the ancients, before that invention, had no appliances for the management of the shields but the belts. Much confusion had been produced by the indiscriminate use of *ochanon* and *porpax* by commentators, lexicographers, and scholiasts. It was evident from Plutarch that they were different, for Cleomenes directed the Spartans to carry the shield by the former and not by the latter. The last topic to which he would advert was the mode of decorating the shields. In Homer, Agamemnon's was adorned with the Gorgon's head, and around it personifications of Terror and Fear. The shield of Achilles was embellished with various representations, which the lecturer minutely described. Æschylus and Euripides had each given descriptions of the shields carried by the seven chieftains at Thebes. Some of them were decorated with figures, as if speaking, with representations of the words proceeding from their mouths. On one, that of Polynices, as described by Euripides, were moveable figures, representing the Potnian mares, put in motion by some internal mechanism. The reference to this suggested an enquiry into the knowledge of the ancients of *automata* and objects moved by internal machinery, but he had already occupied so much time, that he must decline the investigation however interesting. At the conclusion he was warmly applauded. [The lecture, which was a very interesting one, will be published in full in the journal of the Institute. It will, no doubt, be highly acceptable to all classical readers.]

2. REPASTS OF THE ANCIENTS.

A very remarkable peculiarity in the banquets of the ancients was, their not confining the resources of the table to the gratification of one sense alone. Having exhausted their invention in the concoction of stimulants for the palate, they broke new ground, and called in another sense to their aid; and by the delicate application of odors and richly-distilled perfumes, these refined voluptuaries aroused the fainting appetite, and added a more exquisite and ethereal enjoyment to the grosser pleasures of the board. The gratification of the sense of smelling (a sense held up with us in very unreserved neglect, probably on account of its great delicacy) was a subject of no little importance to the Romans. An attention to this delicate organ they might have learned from the East, where, from the remotest antiquity, perfumes were considered as one of the indispensable enjoyments of the higher class of society. The very nature of the climate might have led to this; for, under the influence of a burning sun, the stomach neither requires nor can support much of heavy and substantial food, nor are its demands by any means so pressing as in colder climes. It may not be altogether fanciful to suppose that in those fiery atmospheres strong and aromatic perfumes may possess some alimentary properties, and help in some measure to allay the cravings of appetite. At all events, such a supposition is not altogether out of place in the land of Persia and birds of paradise, which latter are said, according to the beautiful superstition of the country, to live upon the ethereal breath of flowers. However this may be, it is certain that the Romans considered flowers as forming a very essential article in their festival preparations; and it

is the opinion of Baccius, that at their desserts the number of flowers far exceeded that of fruit. When Nero supped in his golden house, a mingled shower of flowers and odorous essence fell upon him; and one of Heliogabalus' recreations was to smother his courtiers with flowers, of whom it may be said, "They died of a rose, in aromatic pain." Nor was it entirely an object of luxury that the ancients made use of flowers, they were considered to possess sanative and medicinal qualities. According to Pliny, Athenæus, and Plutarch, certain herbs and flowers were of sovereign power to prevent the approaches of ebriety, and to facilitate, or as Baccius less clearly expresses it, clarify, the functions of the brain. Amongst these disintoxicating flowers are enumerated, by the forementioned authors, the rose, the violet, the saffron flower, the myrtle, the parsley, and the ivy. We merely transcribe the names, without vouching for the virtues of these remedies. However, Plutarch has endeavoured by a long and elaborate ratiocination to show how the exhalations of certain plants and flowers may facilitate the functions of the brain, and neutralize the usual inebriating qualities of wine. If the fact be as the worthy Cheronean has it, it may not be without its use at certain moderate merry meetings. Hippocrates was also of opinion that floral exhalations are extremely salutary. We are not aware that modern experimentalists have given this subject all the attention that it deserves; and yet it is one of some importance; for if, as we are told, the brain be the seat of the soul, it behoves us to make use of every means that may render its sojourn there commodious, and keep it from the intrusion of such unwelcome visitors as vinous fumes and alcoholic vapors. If the functions of the brain are to be facilitated, and its troubles, written or unwritten, to be razed out by such gentle and agreeable agents as the delicate breath of flowers, away then with the doleful tribes of physicians and pharmacopologists! henceforth our doctors shall be florists, and our apothecaries perfumers. Instead of noxious draughts and stomach revolting boluses, let us drink the delicate exhalations of a violet, or inhale the rich effluvia of the heliotrope. Let our beds be draped with fresh blown roses, and our rooms carpeted with living flowers.

X. Papers on Practical Education.

1. OUR WINTER SCHOOLS.

Among the most important institutions in our land are our Winter Schools. When it is considered that it takes only very few years at the present day, to change the apparently unimportant and unimportant member of society, it becomes a great question to every good citizen how he shall lend his whole influence towards elevating the condition of our common schools. The practice of employing poorly qualified teachers will always keep our schools far below what they should be. A teacher need not attend to a great number of studies to be successful in his calling. The study of Geography alone may be carried to any extent. So may Grammar and Arithmetic, and it is only the teacher who is thoroughly drilled in these branches himself that can impart the same drilling to his pupils.

Away down in the deep recesses of the human mind there are elements of power that only need the skilful hand of the teacher to put in motion and bring out to the light. Like produces like, and the shallow minded teacher can only make shallow minded and superficial scholars so far as his influence may go. Almost a complete revolution is yet to be effected in our schools in these respects before they attain to the standard to which they are capable. We see many a man who says that he does not labor for himself, but for his children, and yet hardly bestows a passing thought on the character of his teacher or the actual progress of his children. Our impression is, that the districts in this town have generally been more fortunate than usual in securing well qualified teachers, and we hope to hear a good report from them. We firmly believe that if the standard of the teacher was high enough, and the time of our children was rightly improved, a majority of our scholars might be fitted for college, even in the town schools, before they are eighteen years of age.—*Bethel Courier.*

2. PATIENCE IN THE SCHOOL ROOM.

What qualification does a teacher need to possess more important than that of patience, real genuine patience? Not a careless indifference that says, by and by all will come right, only wait; not a sluggish waiting that says I can do nothing more, time will accomplish what I fail to perform; but an earnest, working patience; a patience that will preserve. The qualification is not unfrequently brought to mind by the exclamations of parents and others who visit our schools. "What an amount of patience one needs to possess to get along with so many different dispositions," says one; "I should think your patience would be severely tried sometimes," says another.

"My patience would soon be entirely exhausted," remarks a third. Very few speak of the knowledge it requires; they do not even think it must require a vast amount of knowledge to be able to teach. Our attention is also directed to the subject of patience by those who would advise and suggest the best methods of teaching. We should employ no incentive to study which might seem to buy the pupil's interest, but labour patiently in "striving to imbue them with the true spirit of a scholar.

We should not be discouraged if a class fail in the recitation of a difficult lesson, but patiently explain some of the difficult points, and perhaps relate an anecdote, or give some information not contained in the text-book. We should not severely punish a scholar who has thoughtlessly committed a slight offence, but with kindness and patience reprove him, and if he is a true scholar, he will be more thoughtful, more careful in the future.

Patience is needed in every situation in life, but in the school-room it is surely indispensable; here the true, genuine article never "ceases to be a virtue."—*N. H. Teacher.*

3. HOW I SUCCEEDED IN TEACHING SPELLING.

Last winter I had a class of children from eight to eleven years of age, not an individual of which could either write or read writing. At the commencement of the term I taught them the letters upon the blackboard. They were then requested to write their spelling lessons on slates in their seats, and to read them in the class. Of course all said they could not do it; but were induced to try by encouragement and promise of help from myself. The following plan was adopted. Let it be proposed to write the word *baker*. The letters were written upon the slate in alphabetical order, and the first letter of the proposed word, *b*, is to be found in the copy and carefully imitated; then the next, and so on through the word. The small letters, and they unconnected, were first used. All were delighted with this new method of spelling, and were glad to spend all their leisure time in this. They were ambitious to so write and review the lesson as to be able to read it readily and correctly. The improvement was rapid; soon the words were commenced with a capital, the letters joined together, and so ornamented with flourishes were found, some of them, to be fine specimens of pencilship. Towards the close of the term we practised writing in the class, and it was found that two words per minute could easily be written. Care should be taken that the words or lines be written parallel, and that such letters as *s* and *r*, *a* and *o*, be made correctly, that they may not be mistaken for each other. I have been much pleased with this method in the past and am pursuing the same the present winter. I would recommend it to my fellow teachers. It will cost you some effort and patience, but the advantages are great.

1. Those idle hours so prolific in mischief are profitably employed.
2. A habit of rapid and correct writing is acquired.
3. More knowledge of spelling will be gained in this than in any other way.
4. A habit of industry in school, and of writing letters well, will be formed and the interest in the school will be much increased. J. C. B.—*Maine Teacher.*

4. THE FEMALE TEACHER.

If ever I envied mortal being upon earth, it was not the queen with realms belting the globe, to whom the mightiest of earth's lords were proud to pay their homage; but it was the devoted, modest, female teacher, conscious only of her duties, unconscious of ambition or of earthly reward. The scene of her labors may be some obscure rural district; the spot where she gathers her little flock some unsightly corner between public roads, swept by the bleak winds of winter, and scorched to barrenness by summer's suns; her house weather beaten, unshaded by a tree, unsheltered from the storm, open to noise and dust, and gaze of passing travellers; yet there uncheered by recognition of the outward world, her fidelity equally unrequited by the sympathies or by the gains of men, there she opens upon earth once more a paradise of light and love. There, day by day, she gathers her little group around her, and hovers protectively over them, while all their little hopes, and fears, and joys, and sorrows, nestle beneath her wings—to them the dove of the holy spirit. There, daily on the altar of young and guileless hearts, she kindles and burns the choicest incense that ever rises from earth, as a sweet smelling savor to God. There she spreads the daily repast of knowledge and wisdom on which their young souls grow strong; and the guests at that banquet long to partake of it again. There the duties of the little realm shadow forth the great duties of life,—peace, truth, honesty, honor, benevolence, forgiveness; and as they behold these more through the principles of Jesus Christ than through the policies and economies of men, their hearts are purged as with hyssop and become clean.

Unprotected seems her rude domain, yet so high does she build a wall around it of truth in things seen, faith in things unseen, that the satans of temptation rage without, but can not break through nor overleap it. So cheerless, so affrontive to taste and every sense of beauty—you would not believe it yet she makes this rude spot a fortress and stronghold, and an armory of God, and out of it shall go forth great iconoclasts—the breakers of the idols of men—beneath whose blows mosque and pagoda and heathen temple shall go down. From beneath the gentle covering of her wing shall go forth the thunder-bearers, with the bolt and flame of eloquence to rend and consume the organized and deep-seated oppressions of man, the profligacies and briberies of capitals and courts; the robberies of nations, whether it be Poland or Hungary, Mexico or Cuba; the lusts of men, Sodom, Gomorrah, Utah; the bondage of men, serf, sepooy or slave; the appetites of men in intemperance, or the ambitions of men in war. There, too, shall go forth sweet angels of mercy to undemonize the hearts, to restore the sanity, to sooth the agonies of men—the Mrs. Fry's, the Miss Dixes, the Florence Nightingales. Christ's lessons were all lessons of purity, faith, benevolence; but they never sounded so beautifully, they never touched so divinely, as when spoken by the voice and ministered by the hand of woman. Again, I say, if ever I envied mortal being upon earth, it was not the queen with realms belting the globe, to whom the mightiest of earth's lords were proud to pay their homage; but it was the devoted, modest, female teacher, conscious only of her duties, unconscious of ambition or earthly reward.—*Horace Mann.*

5. HARRIET MARTINEAU ON FEMALE EDUCATION—CALISTHENICS.

It will be an immense advantage when the day comes for boys and girls learning and playing together, as the children of several foreign countries do. Climbing trees is admirable exercise for everybody; and so is cricket, and trap-ball, and ball play of all kinds; and racing and jumping. Instead of this, we see not a few schools where the girls, after sitting and standing all day, are taken out for a walk in the twilight to save lighting candles. They seldom feel the sun; they have chilblains and other ailments from bad circulation; and in such schools nearly every girl has more or less distortion of the spine when she has been there more than two years. In the last century people knew no better. Little girls were put upon hard benches without backs, and so high that the feet hung in the air; and so perched, they were required to sit bolt upright and sew for hours together. The consequence was the deformed shoulder, the hump-back, the weary aching spine, which many thousands of English women have carried to the grave. There is no more reason for women being crooked than any other creature born with a proper backbone; and this is better understood now than it used to be.

We see that the seats in schools are oftener accommodated to the height of children; and, if leaning back is not countenanced, there is more frequent change of posture and of occupation. Calisthenic exercises, and even the inclined plane for the relief of the backs of fast-growing girls, are common sights in our day. The improvement is marked; but the condition of school-girls needs more consideration than has yet been given to it. Their average of health is far below that of boys; more of them will languish in invalidism; fewer will have genuine robust health; more, in particular, will die of consumption within ten years. The main cause of this is the unequal development of the faculties. There is too much intellectual acquisition, though not too much mental exercise, if it were made more general; and there is an almost total absence of physical education.

If the muscles were called upon as strenuously as the memory to show what they could do, the long train of school-girls who institute the romance of the coming generation would flock merrily into ten thousand homes, instead of parting off—some to gladden their homes, certainly, but too many to the languid lot of invalidism, or to the actual sick-room; while an interminable procession of them is forever on its way to the cemetery—the foremost dropping into the grave while the number is kept up from behind. Many a survivor will be still wondering, with grandchildren round the fire, that this and that and the other pretty or clever school-fellow should have died so early; and, at the same time, papa, at thirty, will remark on the number of the fellows who left school with him who have had to go to Madeira. Some have rallied; but for most it was merely the choice of a grave under the myrtles there or in the sea, or in the cemetery at home.

When a dragon devoured youths and maidens in ancient times, somebody was always found to go out against him, and to conquer him at last. We must not be less watchful and devoted than our forefathers. We must rescue our youths and maidens from an early doom.—*New York Times.*

6. SCHOOL FURNITURE.

Says Dr. J. V. C. Smith, "There is a radical defect in the seats of our school-rooms. Malformation of the bones, narrow chests, coughs ending in consumption, and death in middle life, besides a multitude of minor ills, have their origin in the school-room. To the badly-constructed seats and writing-desks are we to look, in some measure, for the cause of so many distortions of the bones, spinal diseases, and chronic affections, now so prevalent throughout the country."

Another physician, Dr. Woodward, says: "High and narrow seats are not only extremely uncomfortable for the young scholar, tending constantly to make him restless and noisy, disturbing his temper and preventing his attention to his books, but they have a direct tendency to produce deformity of his limbs. Seats without backs have an equally unfavourable influence upon the spinal column. If no rest is afforded to the backs of the children while seated, they almost necessarily assume a bent and crooked position. Such a position, often assumed and long continued, tends to that deformity which has become extremely common among children of modern times, and leads to diseases of the spine in innumerable instances, especially with delicate female children."

7. LOCAL MUSEUM COLLECTIONS IN SCHOOLS—THEIR VALUE.

"I would urge upon the consideration of those interested in the progress of science in America, the value, to the student, of well-stored museums, and especially of local collections containing series of specimens of every species of animals, plants, minerals, rocks, and fossils found in the vicinity of every school throughout the country, with precise indications respecting their origin."

"It is a great mistake to suppose that large museums are necessary for the study of natural history, and the show-specimens from distant countries add much to the interest of a scientific collection. I deliberately assert, that there is not a school house in the country in the immediate vicinity of which it would not be easy to make, in a few years, a collection of native specimens sufficient to illustrate the fundamental principles of any branch of natural history. Nay, it is not too much to add, that such collections would contribute greatly to the advancement of science, if simple catalogues of their contents were published from time to time. I am satisfied, from my own experience, that every such collection could, in less than ten years, be made worthy of a careful examination by even the most critical professional naturalists, and would afford to the teachers and pupils a source of ever-new interests in their walks, and of ever-increasing extension of their knowledge and ability to observe. In Massachusetts, a very good beginning has already been made, in several schools."—*Agassiz on the study of Natural History.*

8. THE SUPERIORITY OF THE EDUCATED.

"The hand," says Prof. Mayhew, "is found to be another hand, when guided by an intelligent mind. Individuals who, without the aid of knowledge, would have been condemned to perpetual inferiority of condition, and subjected to all the evils of want and poverty, rise to competence and independence by the uplifting power of education. In great establishments, and among large bodies of laboring men, where all services are rated according to their pecuniary value—where there are no intrinsic circumstances to bind a man down to a fixed position, after he has shown a capacity to rise above it; where, indeed, men pass by each other, ascending or descending in their grades of labor just as easily and certainly as particles of water of different degrees of temperature glide by each other: under such circumstances is it found, as an almost invariable fact, other things being equal, that those who have been blessed with a good common-school education rise to a higher and higher point in the kinds of labor performed, and also in the rate of wages received, while the ignorant sink like dregs, and are always found at the bottom."

Speaking of education as the parent of material riches, the same author says: "A mass of facts, collected by Horace Mann from the most authentic sources, seems to prove incontestably that christian education is not only a moral renovator, and a multiplier of intellectual power, but that it is also the most prolific parent of material riches. It has a right therefore, not only to be included in the grand inventory of a nation's resources, but to be placed at the very head of that inventory. It is not only the most honest and honorable, but the surest means of amassing property. Considering education, then, as a producer of wealth, it follows that the more educated a people are, the more will

they abound in all those conveniences, comforts, and satisfactions, which money will buy; and, other things being equal, the increase of competency and the decline of pauperism will be measurable on this scale."

XI. Papers on Physiology and Health.

I. HEALTH AND WHAT PROMOTES IT?

Dr. Frank H. Hamilton, in an address on hygiene, to the graduates of the Buffalo Medical College, discusses the subject of health and the causes which promote or injure it. We make the following extracts:—

STOVES AND FURNACES.

Within a few years the air-tight stove has been substituted for the iron dogs, and for the first time since men began to live in houses we have no "fire-places." The shrine of the Lares has been removed, and our houses have been literally pillaged—robbed of the domestic hearth, toward which so many associations have always centered, for which the blood of nations has been regarded as the symbol of home with all its social comforts.

Not content with this, these enemies to our race have still more lately taken away the stoves which, destitute of the essence, still occupied the places, and served to remind us, at least, of the ancient fire-places; and instead, they have built for us iron furnaces—Ætnas—under ground, so that now what of the oxygen we are not able to consume and convert into carbonic acid, is vitiated by impure gas escaping from its hidden chambers, by invisible particles of coal dust, and by other impurities which clog up the air-cells, and close the avenues of life, or stick along the parched fauces as if reluctant to convey their poisons to the lungs.

Stoves have no doubt abridged the sum of human life, but by these subterranean iron furnaces we are truncated—cut short in the middle. It is an error to suppose that hot-air furnaces can ever be so constructed or managed, at least in private houses, as not in any degree to prove detrimental to health. We wish we could persuade ourselves that this is not so, for it is certainly very agreeable in a climate like ours, to enjoy throughout all the rooms and passages of the house warm and uniform temperature; but it is just this even warmth which is one of the sources of mischief. The inmates are so little accustomed to the cold within doors, and become so morbidly sensitive, that they shudder at the idea of going out, and if they ever do venture into the air, the frost enters into their open pores, and they hasten back to their shelter, chilled, exhausted and discouraged. They are no better able to endure the storms of winter than a plant reared in a hot-house. It was the venerable Bede, I think, who said, "When men lived in houses of willow, they were of oak; but when they lived in houses of oak, they were of willow."

WHAT IS NEEDED.

We need for our dwellings more ventilation and less heat; we need more out-door exercise, more sunlight, more manly, athletic and rude sports; we need more amusements, more holidays, more frolic and noisy, boisterous mirth. Our infants need better nourishment than colorless mothers can ever furnish, purer milk than distilleries can manufacture; our children need more romping and less study. Our old men more quiet and earlier relaxation from the labors of life. All men, both young and old, need less medicine and more good counsel. Our cities need cleansing, paving and draining. The Asiatic cholera, the yellow fever, the plague and many other fearful epidemics are called the opprobria of our art, and our fellow-citizens upbraid us with the feebleness and inefficiency of our resources in staying their fatal progress. When will they learn that although we do not fail to cure these maladies, the more precious secret of prevention is in our possession, and has been for these many years?

2. PHYSIOLOGICAL FACT IN REGARD TO VOCAL MUSIC IN SCHOOLS.

I here introduce a fact which has been suggested to me by my profession, and that is, that the exercise of the organs of the breast, by singing, contributes very much to defend them from those diseases to which the climate and other causes expose them. The Germans are seldom afflicted with consumption, nor have I ever known but one instance of spitting blood among them. This, I believe, is in part occasioned by the strength which their lungs acquire by exercising them frequently in vocal music, for this constitutes an essential branch of their education.—*Dr. Rush.*

3. FACTS IN PHYSIOLOGY.

A man is taller in the morning than at night to the extent of half an inch, owing to the relaxation of the cartilages. The human brain

is the twenty-eighth of the body, but in the horse but a four-hundredth. Ten days per annum is the average sickness of human life. About the age of 36, the lean man generally becomes fatter, and the fat man leaner. Richter enumerates 600 distinct species of disease in the eye. The pulse of children is 180 in a minute; at puberty it is 80; and at 60, only 60. Dr. Lettom ascribes health and wealth to water; happiness to small beer; and all diseases and crimes to the use of spirits. Elephants live for two hundred, three hundred, and even four hundred years. A healthy full-grown elephant consumes thirty pounds of grain per day. Bats in India are called flying foxes, and measure six feet from tip to tip. Sheep in wild pastures, practice self-defence by an array in which rams stand foremost, in concert with ewes and lambs, in the centre of a hollow square. Three Hudson's Bay dogs draw a sledge, loaded with 300 pounds, fifteen miles per day. One pair of pigs will increase in six years to 119, 160, taking the increase at fourteen per annum. A pair of sheep, in the same time, would be but 64. A single female horse produces in one season 20,080,320 eggs. The flea, grasshopper and locust jump 200 times their own length, equal to a quarter of a mile for a man.

XII. Miscellaneous.

1. WINTER SCENES.

The London *Athenæum* thinks the imagery of the following poem, by a new writer, Mr. S. H. Bradbury, is rarely excelled:

The leaves have fallen from the trees,
The alder trembles at the door:
And like the surge of angry seas,
The mad storm moans across the moor!
The frosts are penciling the panes,
With many a quaint and rare device;
Above the leafless village lanes,
Are seen unbroken spots of ice!

The rime upon the hedge-row seems
More purely white than ermine robes;
The solemn sun but weakly beams,—
Hangs in the sky like blood-red globe.
The poor birds flit from spray to spray,
A dense mist hangs upon the world;
And in the daylight waxes gray,
Like smoke from heavy ordnance rolled!

Deep silence reigns in every vale,
No streamlet tinkles as it flows;
Save when struck by the northern gale;
That harps in thunder as it blows!
The ivy round the cottage door,
Looks perished in the dim cold light;
And round our homes the mad winds roar,
And strike with all their groaning might.

The holly's muffled with the snow,
Thro' which the rubied berries peep
Like drops of coral, while below
The river's bound in icy sleep!
We list the north with thunder-tone
Rock giant trees from root to crown;
While massive clouds look sad and lone,
And with a sudden grandeur frown!

The snow flakes fall in reeling showers,
In many wild and grotesque forms;
And soon the hills appear like towers,—
The bulwarks of the rolling storms!
And day, storm-vanquished, coldly dies,
When night in savage glory reigns;
With snow-bound earth and unstarred skies,
Amid the howl of hurricanes!

2. THE HEIR APPARENT TO THE CROWN OF ENGLAND

On Wednesday the ninth of November, His Royal Highness the Prince of Wales attained his eighteenth year, and in event of a demise of the Crown, would rule in his own right as Albert the First. The Prince's natal day occurs on the 9th of November, the day when all the Corporations in this kingdom elect their Mayors, and both events are accompanied by the merry ringing of bells, and

other demonstrations of rejoicing, either of which celebrations would be an event in itself, but the combined occurrences impart to the day a local as well as a national character. The London *Times* lately indulges in felicitations at the extraordinary changes which have been witnessed during the Prince's minority:—"Although (it says) of no great political importance, the completion of the period at which the eldest son of Queen Victoria is competent to take upon himself the duties of royalty cannot be announced without giving rise, in the mind of most unthinking, to very serious reflections. How vast are the changes which have taken place in the course of the life of this young Prince! How enormous the increase of wealth, how wide the spread of knowledge, how wonderful the progress in the arts which tend to promote human happiness; how wonderful, also the progress in those arts which are devoted to the purposes of war and destruction! What may not be accomplished before the close of a career which, short as it is, has already witnessed wonders that in the sleepy old times would have been enough for the history of centuries!" The article winds up by a declaration which we hold to be indisputable, that the three most popular Sovereigns in Europe at the present moment are Queen Victoria, the King of the Belgians, and the King of Sardinia,—all limited monarchs, who have frankly accepted their position, and honourably and in good faith discharge its duties.

3. A YOUNG MAN'S HOURS OF PERIL.

To a young man away from home, friendless and forlorn in a great city, the hours of peril are between sunset and bed-time; for the moon and the stars see more evil in a single hour than the sun in his whole day's circuit; the poet's visions are all composed of tender and soothing images. It brings the wanderer to his home, the child to its mother's arms, the ox to its stall, and the weary laborer to his rest. But to the gentle-hearted youth, who is thrown upon the rocks of a pitiless city, and stands homeless amid a thousand homes, the approach of evening brings with it an aching sense of loneliness and desolation, which comes down upon the spirit like darkness upon the earth.

In this mood, his best impulses become a snare to him, and he is led astray, because he is social, affectionate, sympathetic, and warm-hearted. If there be a young man thus circumstanced within the sound of my voice, let me say to him that books are the friends of the friendless, and that a library is the home of the homeless. A taste for reading will always carry you into the best possible company, and enable you to converse with men who will instruct you by their wisdom, and charm you by their wit; who will soothe you when fretted, refresh you when weary, counsel you when perplexed, and sympathize with you at all times. Evil spirits, in the middle ages, were exercised and driven away by the bell, book and candle—you want but two of these agents—the book and the candle.—*George S. Hilliard*.

4. CROWDING INTO THE PROFESSIONS.

Among the worst features of the education of youth at the present day, and one which at some time in the future may be felt in the prosperity of our nation, is that of forcing a large portion of young men into the professions. It is a great wrong in parents and tutors to hold up the idea to youth in their charge, that the only road to honor and distinction is through the channels of professional life. Besides this direct influence in forcing the intellectual powers beyond their capacity, and in misdirecting and perverting the natural tastes, it induces a false opinion of mechanical pursuits, and begets a disrelish, a contempt of manual labor, which oftentimes leads to unprofitable and worthless lives.

5. HOUSEHOLD AND PARENTAL INFLUENCE.

The household is the place for all real and permanent reforms to begin. Every house ought to be a school of moral discipline; a nursery of piety, the garden where virtue should be planted, germinate, take root and strengthen, before it shall be exposed to the fitful tempests of human passion, and the uncertain tide of this world's fortune. It is to our Christian mothers that the country must look for the preservation of its liberties and the permanence of its institutions. It is from their influence that the Church does hope. On them, as the conservators of piety and virtue, necessarily rests the responsibility of perpetuating all that is good among us! And it is by similar influences and means that their places are to be filled in time to come. And unless the youth of our beloved country are early and carefully taught the ennobling principles of our holy gospel, we can rely with no good security for the continued prosperity of our country and the permanence of its liberties.

Our influence is to be perpetuated through our children, and, if we would have this most effectually tell to the honour of God and the good of our race, we must mould the plastic mind in infancy, call forth its noble energies, engrave in the heart, the fountain and source of action, the words of life and salvation, while we guard faithfully all the avenues to vice, least the destroyer blight our hopes in the tender bud.

It is in very early life that the destiny of our children is determined; early habits are inveterate, and will live and exert their influence long after our children have passed from under our immediate care. If the father would have his sons grow up to be useful and happy (and what father would not?), let him make his own home attractive and agreeable, and let him provide suitable food for the minds of his children, and let him spend his leisure moments around his own fireside, in instructing their minds, in developing their moral affections, and in inculcating right principles of action; and by so doing he will cause them to love their homes, virtue, and God, and leave them rich in knowledge and strong in every virtuous principle, so that his work shall abide and his influence shall live after him, and multiply itself in an infinite series of progression.

The hallowed influences of home, and the sacred associations of the hearth-stone, where consistent piety presides with winning grace and loving mood, are the schools where men are most successfully trained for God and their country.—*British Mothers' Journal*.

XIII. Short Critical Notices of Books.

— WEBSTER'S AMERICAN DICTIONARY OF THE ENGLISH LANGUAGE.— We have already expressed in this Journal our high opinion of this admirable work. We have since received a copy of the new pictorial edition of the work—the improvements and additions in which are so numerous and important, as fully to justify its claims to the pre-eminence in American philological works which it has so long enjoyed. To the Dictionary proper, the author has prefixed an interesting dissertation on the origin, history and connection of the languages of Western Asia and Europe, with an explanation of the principles on which languages are formed. The whole work is carefully revised and enlarged, by the Rev. Chauncey A. Goodrich, D.D., of Yale College, a most indefatigable editor and philologist. Although we object to the orthography which Dr. Webster has seen fit to adopt, in regard to some words, we cannot object to the correctness and fulness of the definitions; the careful collection of instances of the authorized usage of words; the table of synonyms, and the faithful representation of the pronunciation of the English language in its present state. Richardson's Dictionary is more minute and comprehensive; but for a general reference dictionary this fully answers all practical purposes.

The "Pictorial" part of this dictionary consists of fifteen hundred finely executed illustrations of objects in architecture, mechanics, heraldry, shipping, costume, natural history, archaeology, mythology, &c. These illustrations are placed together as in the encyclopedias, and are arranged by subjects alphabetically, reference being made in the text to the illustration, and in the illustrated page to the text. They are chiefly taken from Blackie's Imperial Gazetteer,—an admirable English publication formed on the basis of Webster's Dictionary.

The appendix contains 10,000 new words, gathered since 1847. These are mostly scientific and technical words, and many of those now make their first appearance in a dictionary. Dr. Goodrich's table of Synonyms, extends to 70 quarto pages, and includes over 2,000 words. These are grouped together with scholarly nicety and correctness.

The pronouncing table of 8,000 names, not only gives the pronunciation of these names, but their nationality and the departments in which they were distinguished. Several names of little importance are included.

A list is given of Latin, French, Italian, and Spanish quotations and phrases, which includes those most usually reproduced in English literature. There is also a copious table of common abbreviations, and of commercial, mathematical, and other arbitrary signs. Also a list showing the peculiar use of words and terms in the Bible, &c. &c.

The work is published by Messrs. G. and C. Merriam, Springfield, Massachusetts, and is approved by the Council of Public Instruction for use in Public Schools and Libraries in Upper Canada.

— ARCHAEA, or Studies of the Cosmogony, and natural history of the Hebrew Scriptures, by J. W. Dawson, LL.D., F.G.S., Principal of McGill College. Montreal; B. Dawson and Son. As a highly valuable addition to our slender stock of Canadian Literature, we cordially welcome this

handsome volume. It is well printed by Mr. Lovell, and is presented to the public by the publisher in a very creditable shape. The accomplished and amiable author has displayed great industry and zeal in the preparation of the work. It is forcibly, and in some parts eloquently, written; and the air of sincerity and earnestness which pervades it, carries the reader on from page to page, even where he may not fully agree with the author.

It would require a much larger space than is at our disposal to do justice to Dr. Dawson's work; but as some will hesitate to adopt his Geological theory or concur in some other of his views, it may be proper to give the following extract from the preface in which the author concisely states the object of the work:

"This work is not intended as a treatise on elementary Geology, with Theological applications, nor as an attempt to establish a scheme of reconciliation between Geology and the Bible. It is the result of a series of exegetical studies of the first chapter of Genesis, in connection with the numerous incidental references of nature and creation in other parts of the Holy Scriptures. A farther use to be served by such a work, even after all the numerous treatises already published, is that of affording to geologists and the readers of Geological works, a digest of the cosmical doctrines to be found in the Hebrew Scriptures, when treated strictly according to the methods of interpretation proper to such documents, but with the actual state of geological science full in view. On the other hand, biblical students and Christians generally, may be interested in noting the aspects in which the scriptural cosmogony presents itself to a working naturalist, regarding it from the stand-point afforded by the mass of facts and principles accumulated by modern science."

The work extends to upwards of 400 pages, including the index and appendix. It is dedicated to His Excellency Sir Edmund Head, as "a scholar and a man of science."

— THE U. E.; A TALE OF UPPER CANADA.—Niagara, 1859.—Messrs A. H. Armour, & Co. Toronto. We have looked through this anonymous poem with much pleasure. As an offering of the Canadian Muse, it deserves a kindly welcome. The sufferings and privations of the heroic people whose sacrifice of their own homes and firesides, in the cause of duty and honor led to the early settlement of Upper Canada deserve, as we hope they will yet receive, a triumphant vindication for the part they took in the eventful drama of the American Revolution. The design of the Poem (as expressed by the author) is "mainly to preserve the peculiar traits of a generation of men, now alas! nearly passed away; the United Empire Loyalists of Canada." The poem sketches the adventures of a party of emigrants who arrive in Upper Canada by way of Quebec; and to whom on their arrival in the neighbourhood of an old U. E. Loyalist, the old veteran recounts his exploits and privations. The poem further sketches some incidents in the rebellion of 1837, in which the personages introduced took part. Hugh (a son of the hero,) being alone a traitor to his Queen and country, loses his life in the fray. The language and versification are good; but they rarely rise above the character of the events narrated.

[Notices of books received from Messrs. Leonard Scott and Co., and F. D. Hariunan, New York; Professor Silliman, New Haven; Tilson and Co., and C. Stone, Boston; &c. &c., will be inserted in our next.]

XIV. Educational Intelligence.

CANADA.

— UNIVERSITY OF TRINITY COLLEGE.—ANNUAL CONVOCATION.—The annual meeting of the convocation of the University of Trinity was held at the appointed time in the College Hall. Sir J. B. Robinson, Bart., Chancellor of the University, presided as usual; and after convocation had been opened with the accustomed prayers the following degrees were conferred:—B. A.—Bethune, C. J. S.; Wood, J.; Miller, J. A.; Nesbitt, G.; Baldwin, M. S.; Carruthers, G. T.; Cooper, H. D.; Patterson, Rev. E.; Williams, Rev. A.; B. A. ad Eundem.—Johnson, Rev. Samuel, T. C. D. M. A. ad Eundem.—Kendall, Rev. E. K. St. Johns, Cambridge; McLean, Rev. John, King's College, Aberdeen. M. A.—Johnson, Rev. Samuel B. C. D.—Vankoughnet, Salter. M. D.—Mackenzie, John Thomas.

The following prizes were then distributed:

McNeely, John.—Chancellor's prize (for 1st class in Math. honors 1858,) and Bishop of Toronto's Theological prize. Bethune, C. J. S.—Classical prize, 3rd year. Cayley, E.—Mathematical prize 3rd year. Stewart, P.

E.—Classical prize, 2nd year. Stewart, P. E.—Mathematical prize, 2nd year. Fleming, Rev. W. Carruthers, G. T.—1st Kent prize for Theological Essay. Cooper, H. D.—2nd Kent prize. Cayley, J.—Dr. Fuller's 1st Reading prize. McLeod, D.—Dr. Fuller's 2nd Reading prize. Stewart, P. E.—Archdeacon of York's prize for Latin verses. Carruthers, G. T.—Chemistry prize in 3rd year. Bethune C. J. S., Cayley, E.—Prize for Geology in 3rd year. Douglas, J.—Chemistry prize in 2nd year. Douglas, J.—Prize for Geology, 2nd year. Evans, L. H.—Chemistry prize, 1st year. Montgomery—Prize for Experimental Philosophy, 1st year. Carruthers.—Dr. Bovell's medal, in Natural Theology 1858. The Latin prize poem "Magna est funerum religio," was recited by Mr. Stewart, and received with great applause.

The following Students were then matriculated:—Fraser, J. W. B.; Baldwin, A. H.; McCleary, J.; Trew, A. G. L.; Briggs, W. T.; Cooke, A. B.; Forneri, R. S.; Fidler, A.; McMartin, M. M. The proceedings were closed by the pronouncing of the benediction by the Bishop of Toronto.

The following gentlemen were elected to scholarships, at the annual examination in June; Harrison, R.—Wellington Scholar; Evans L. H.—Burside Scholar; Henderson, E.—Allan Scholar. At the matriculation examination in October; Fraser J. W. B.—1st Foundation Scholar; Baldwin A. H.—2nd do.; McCleary J.—3rd do.; Trew A. C. L.—4th do. Divinity Scholars;—Bethune C. J. S.—Jubilee Scholar; Badgley C. H., Carruthers G. T., and Henderson A.—Church Society Scholars. At a meeting of Convocation held on October 15th, Evans H. J., and Patterson C. W. were admitted to the degree of Bachelor of Arts, and at a meeting held on November 29th, Kingston, F. W. was admitted to the degree of M. A., and B. C. L.

The following is the class list containing the names of those Students who passed the Examination for B. A., at Michaelmas Term, 1859. In Honors—Languages, class I.: Bethune, C. J. S. Class IV.: Paterson, C. G.; Wood, J. In Mathematics &c., Class IV.: Bethune, C. J. S.; Evans, H. J.; Miller, J. A.; Nesbitt, J.; Passmen: Baldwin, M. S.; Carruthers, G. T.; Cayley, E.; Cooper, H. D.; Patterson, E.

— UNIVERSITY OF VICTORIA COLLEGE.—The Fall Term of the University of Victoria College came to a close on the 21st ultimo. The semi-annual examinations took place on the 15th, 16th, 19th, and 20th. On Wednesday afternoon, a meeting was held in the Wesleyan Church, at which a number of Essays were read, by various members of the Junior Class, the composition and delivery of which reflected (on the whole) great credit upon the young orators and their *alma mater*. The chair was taken on this occasion by Professor Kingston, A. M., in consequence of the unavoidable absence of President Nelles, A. M., who was detained by a severe domestic bereavement. In introducing the young essayists to the audience, Mr. Kingston referred to the fact that it was the first time that members of the Junior Class had been called upon to deliver addresses in public, and deprecated any comparison with the essays of those who had completed their University curriculum. He also dwelt with evident satisfaction on the gratifying result of the examination just concluded. We subjoin a list of the Essays and their authors: *Salutory*: A. Burus, Toronto. *Russia*: C. Bristol, Bath. *The Democratic Spirit*: J. Hossack, Cobourg. *Mahomedanism*: McClive, Chippewa. "Let there be light." J. Philip, Weston. *Triumphs of Modern Times*: E. C. Rupert, Mapleville. *Earth's Battle-Fields*: W. J. Shaw, Kingston. *Decisions of Conscience*: W. E. Scott, Toronto. *Destiny of the English Language*: W. Watson, Grahamville.—*Cobourg Star*.

— UNIVERSITY OF QUEEN'S COLLEGE, KINGSTON.—We learn that upon the report of the Rev. Dr. Barclay, of Toronto, and Alexander Morris Esq., of this city, who visited Scotland for the purpose, the Rev. W. Leitch, of Monimail, Scotland, has been appointed Principal of Queen's College, Kingston. Mr. Leitch is distinguished for his proficiency in astronomy and the natural sciences generally, having taught them in the University of Glasgow.—*Montreal Witness*.

UNIVERSITY OF MCGILL COLLEGE MONTREAL.—The Montreal *Gazette* states, that the matriculated students in the University up to this date are as follows:—Faculty of Law 37; Faculty of Medicine, 99; Faculty of Arts, including the Special Course of Engineering, 50—186 in all. Besides these there are a few occasional students. These numbers are larger than in any previous session, and some increase may be expected after the Christmas vacation. The McGill Normal School has 76 teachers in training. The above numbers are exclusive of the pupils of the High School, 252 in number, and of those of the Model Schools, which accommodate 300 pupils, and are full.

— COUNCIL OF PUBLIC INSTRUCTION FOR LOWER CANADA.—Secretary's Office, (East,) Quebec, Dec. 17th, 1859. His Excellency the Governor General has been pleased to make the following appointments:—The Right Reverend Francis Fulford, D.D., Lord Bishop of Montreal; the Right Reverend Joseph Larocque, Bishop of Cydonia; the Honorable Sir Etienne Paschal Taché, Knt., Louis Victor Sicotte, Timothy Lee Terrill, Thomas Jean Jacques Loranger; the Reverends John Cook, D.D., Elzear Alexandre Taschereau, D.C.L., Patrick Dowd, Christopher Dunkin, Esq., M.P.P., Come Seraphin Cherrier, Esq., Q.C., Antoine Polette, Esq., Q.C., François Xavier Garneau, Esq., Jacques Cremazie, Esq., LL.D.; to be, together with the Superintendent of Schools for Lower Canada, the Honorable Pierre Joseph Olivier Chauveau, a Council of Public Instruction for Lower Canada. Louis Giard, Esq., Secretary to the Education Department for Lower Canada, to be Recording Clerk to the Council of Public Instruction for Lower Canada.

— NORTH WELLINGTON TEACHERS' ASSOCIATION, under the presidency of A. D. Fordyce, Esq., has lately been formed. We would urge the teachers of the Riding to give it their cordial support.

— THE FIRST SCHOOL IN CANADA.—We learn from our Canada exchanges that the first school in Canada was kept by Father *Lejeune* at Quebec, in 1632. It consisted of a Negro boy and an Indian boy, to whom the good father taught reading and writing. He wrote to France that he would not exchange his class for the best university. The following year he had twenty pupils, most of whom came on foot every day from several miles in the country. That school was the foundation of the famous Jesuit's College which produced men of eminence under the French régime, and was numerously attended when suppressed in 1676. The course of studies was identical with that of the College of *Louis le Grand* in Paris. It occupied an immense quadrangular building with a yard in the centre, which for the times, must have been a most stupendous construction, and is still one of the largest in Quebec. It has, ever since 1776, been occupied by the troops, and is known under the anomalous appellation of 'the Jesuits' Barracks'.—*Illinois Teacher.*

GREAT BRITAIN.

— CAMBRIDGE UNIVERSITY.—The Hon. and Rev. Latimer Neville, master of Magdalen College, has been appointed Vice-Chancellor of Cambridge University for the ensuing academical year.

— PROFESSOR FORBES, who at present fills the chair of Natural Philosophy at the University of Edinburgh, has been appointed Principal of the United College of St. Salvador and St. Leonard, in the University of St. Andrews.

— SIR JOHN FORBES, the physician and author, has intimated his intention of retiring from active life. He has presented his very valuable medical library, numbering about 3,000 volumes, to the Marischal College, Aberdeen, where he received his early education. He graduated in medicine at Edinburgh in 1817.

— CELTIC PROFESSORSHIPS.—Several public bodies and societies connected with the Highlands have memorialized the Scotch Universities' commissioners to take the necessary steps for instituting and endowing Celtic professorships in some or all of the Scotch Universities.

— QUEEN'S COLLEGE, BELFAST.—The engineering school of the Queen's College, Belfast, is approved by the Secretary of State for India in Council, as one in which an attendance for two years will qualify a student who has fulfilled also the other required conditions to become a candidate for admission to the engineering establishments of the public works department of India.

— THE WORKING MEN'S COLLEGE IN LONDON.—Has progressed so satisfactorily that the institution has been removed to more commodious premises. During the past year from 200 to 300 students on an average have attended the various classes, which include, among others, drawing, arithmetic, mathematics, geology, chemistry, English grammar and composition, Latin, Greek, French, and English, and Bible history. Of the students from October to Christmas, 1858, 109 out of 242 belonged strictly to the class of operatives, the remainder being principally clerks, tradesmen, tradesmen's assistants, and warehousemen, and school masters. The operatives included, in the largest proportion, carpenters, cabinet makers, piano-forte makers, watch and clock makers, opticians, printers, compositors, and bookbinders. The total number of students who joined the college in the first year was 400, in the second 350, in the third 260,

in the fourth 296, and in the fifth, to the end of the second term, 169, making a total of 1475. There are classes for women in connection with the college, in which cookery and domestic economy are especially taught, as also reading and writing, and vocal music, arithmetic, history, the Bible, needlework, and geography.

UNITED STATES.

— ST. JAMES COLLEGE, MARYLAND.—The corner stone of the College of St. James, near Baltimore was laid on the 15th of November. The premises consist of 180 acres of land, purchased for \$7,000—about \$40 per acre. The building will have a front of 280 feet, and will cost near \$80,000.

— BAPTIST COLLEGE, ALABAMA.—Jeremiah H. Brown, who had agreed to support fifty-two young men studying for the Baptist ministry in Howard College, Alabama, at an annual cost of \$13,000 in the aggregate, has recently endowed a theological chair in that college by a contribution of \$25,000, in addition to his former pledge.

— CONNECTICUT SCHOOL FUND INCREASED.—The Hartford Times says that Thomas W. Parmelee, of West Bloomfield, N. Y., by a will made in 1855, after providing for the support of his widow, and making some small legacies, bequeathed his real estate to the School Fund of Connecticut, to be conveyed on the death of his wife, (now about 70 years of age.) The property is worth about \$5,000. The School fund of Connecticut amounts to \$2,044,672. Mr. Parmelee assigned as a reason for giving this property to the School Fund, that long ago, when he was poor, the State loaned him money, which gave him a start in the world, and from which he was enabled to leave a comfortable amount of property, after paying off the loan and all other indebtedness.

— WISCONSIN SCHOOLS.—In Wisconsin there are 3,538 school districts, 118 districts which have not reported, 1,611 parts of districts, 78 parts of districts which have not reported, and 657 school houses in joint districts. The whole number of children under four years of age who have attended school is 1,066 and of children over 10 years of age, 2,914.

— U. S. LIBRARIES.—From M. S. Rhee's manual of the Public Libraries, Institutions and Societies in the United States we learn that the whole number of libraries is 40,890, containing 12,720,686 volumes. Of the public libraries there are 1,297, containing 4,280,866 volumes. Of these New York has 750,421 volumes, and Massachusetts 632,800. Pennsylvania ranks next with 467,716 volumes. A comparison of the number of volumes in public libraries in the largest cities shows New York has 346,185; Philadelphia, 271,081; Boston, 258,079. The Astor library in this city is also the largest public library in the country, containing eighty thousand volumes, six thousand more than the next in size, that of Harvard University. One fact worthy of remark is that of 4,008,081 volumes in the public libraries of all the states, (omitting the District of Columbia, which contains 272,835) there are 3,103,085 in those of the Free states, and 904,946 in those of the slave states.

— THE BOSTON PUBLIC LIBRARY contains nearly seventy thousand volumes of books, many of them are rare and costly. Fifteen thousand volumes have been indexed and opened for gratuitous circulation. Most of the books have been privately donated. Any person professing to be a citizen of Boston is entitled to the privilege of the Library, without paying a subscription. A borrower can keep a book fourteen days. Over that time a slight fine is imposed. The total losses of books for the past five years have amounted to \$100. The fines have more than paid all the losses.

XV. Literary and Scientific Intelligence.

— TORONTO CANADIAN INSTITUTE.—The following gentlemen were on Saturday evening elected office-bearers of the Canadian Institute: President—Professor D. Wilson, LL. D. 1st Vice-President—Rev. Professor Hincks, F. L. S. 2nd Vice-President—Professor H. Croft, D. C. L. 3rd Vice-President—J. Bovell, Esq. M. D.; Treasurer—D. Crawford, Esq.; Corresponding Secretary—Professor J. B. Cherriman, M. A.; Recording Secretary—Patrick Freeland, Esq.; Librarian—Professor H. Y. Hind, M. A.; Curator—J. F. Smith, Jun., Esq.; Council—Hon. G. W. Allan, M. L. C. W. Hay, Esq., Architect; Professor E. J. Chapman; George R. R. Cockburn, M. A.; S. Fleming, Esq.; Thos. Henning, Esq.

— **PTOLEMY'S GEOGRAPHY.**—Mr. Sebastinoff, a Russian savant, has discovered an old manuscript of Ptolemy's Geography in the Monastery of Mount Athos, and has made photographic copies of the maps for the classic world.

— **A MUNIFICENT DONATION.**—The British Museum has just received a magnificent addition to its numismatic treasures, by the gift from the Count de Salis of his well-known collection of coins. These are in fourteen cabinets, containing altogether as many as 7,000 coins, brought together with the greatest taste during the Count's life, and at an expense of about £5,000.

— **GERMAN PERSEVERANCE.**—A curious instance of the patience and perseverance of the Germans is afforded by a new Encyclopedia, which, commenced at Berlin in 1773, is just completed in two hundred and forty-two volumes. Six editors have been employed upon it, and notwithstanding the commotions which have shaken the country to its centre, the work has gone steadily forward, scarcely delayed by the events which furnished so much material for its pages.

— **UNION OF FRANCE AND ENGLAND.**—In addition to the prize of 50 guineas for the best English essay, the donor has offered one of £1,000 and one of £250 for the best French essays on "The immense importance of a close union of France and England, as well for their own interest and welfare as for the interest and happiness of the world." MM. Thiers, Mignet, and Merimee, members of the Institute, have consented to be the French adjudicators.

— **BEAUTY AND LEARNING.**—Beauty is a great thing, but learning is better, (and Punch says) that in the estimation of the ancients even, the Muses counted for three times as much as the Graces.

XVI. Departmental Notices.

NOTICE TO SENIOR GRAMMAR SCHOOL TRUSTEES.

In the Consolidated Statutes for Upper Canada, which came into force on the 5th of December, it is enacted that the old statutory regulation, in regard to the average number of pupils attending Senior County Grammar Schools, shall be enforced for the future. These Schools will not, therefore, be entitled, in 1860, to the additional \$400 apportioned to them, unless the average number of *daily bona-fide* Grammar School pupils in Greek and Latin equals ten; or more than \$200 additional when this average attendance is below ten.

SCHOOL REGISTERS SUPPLIED THROUGH LOCAL SUPERINTENDENTS.

School Registers are supplied gratuitously, from the Department, to Common and Separate School Trustees in Cities, Towns, Villages, and Townships by the County Clerk—through the local Superintendents. Application should therefore be made direct to the local Superintendents for them, and not to the Department. Those for Grammar Schools will be sent direct to the head Masters, upon application to the Department.

SCHOOLS MAPS AND APPARATUS.

The Chief Superintendent will add one hundred per cent. to any sum or sums, not less than five dollars, transmitted to the Department by Municipal and School Corporations on behalf of Grammar and Common Schools; and forward Maps, Apparatus, Charts, and Diagrams to the value of the amount thus augmented, upon receiving a list of the articles required. In all cases it will be necessary for any person, acting on behalf of the Municipality or Trustees, to enclose or present a written authority to do so, verified by the corporate seal of the Corporation. A selection of articles to be sent can always be made by the Department, when so desired.

PRIZES IN SCHOOLS.

The Chief Superintendent will grant one hundred per cent. upon all sums not less than five dollars transmitted to him by Municipalities or Boards of School Trustees for the purchase of books or reward cards for prizes in Grammar and Common Schools. Catalogues and Forms forwarded upon application.

PUBLIC SCHOOL LIBRARIES.

"Township and County Libraries are becoming the crown and glory of the Institutions of the Province."—*Lord Elgin at the Upper Canada Provincial Exhibition, September, 1854.*

The Chief Superintendent of Education is prepared to apportion *one hundred per cent.* upon all sums which shall be raised from local sources by Municipal Councils and School Corporations, for the establishment or increase of Public Libraries in Upper Canada, under the regulations provided according to law. Prison Libraries, and Teachers' County Association Libraries, may, under these regulations, be established by County Councils, as branch libraries.

PRE-PAYMENT OF POSTAGE ON BOOKS.

According to the new Postage Law, the postage on all books, printed circulars, &c., sent through the post *must be pre-paid by the sender*, at the rate of one cent per ounce. Local Superintendents and teachers ordering books from the Educational Depository, will, therefore, please send such an additional sum for the payment of this postage, at the rate specified, and the new Customs duty, as may be necessary.

POSTAGE REGULATION IN REGARD TO GRAMMAR AND COMMON SCHOOL RETURNS.

All official returns which are required by law to be forwarded to the Chief Superintendent, or a Local Superintendent, and which are made upon the printed blank forms furnished by the Educational Department, *must be pre-paid*, at the rate of one cent, *and be open to inspection*, so as to entitle them to pass through the post as printed papers. No letters should be enclosed with such returns.

NO PENSIONS TO COMMON SCHOOL TEACHERS, UNLESS THEY SUBSCRIBE TO THE FUND.

Public notice is hereby given to all Teachers of Common Schools in Upper Canada who may wish to avail themselves at any future time of the advantages of the Superannuated Common School Teachers' Fund, that it will be necessary for them to transmit to the Chief Superintendent without delay, if they have not already done so, their annual subscription of \$4, commencing with 1854. The law authorizing the establishment of this fund provides, "*that no teacher shall be entitled to share in the said fund who shall not contribute to such fund at least at the rate of one pound per annum.*" No pension will be granted to any teacher who has not subscribed to the fund.

THOMAS HODGINS, (Late of the Educational Department for Upper Canada,) BARRISTER, &c., King St., East, Toronto.
Toronto, January, 1860. np

EXAMINATION OF COMMON SCHOOL TEACHERS, COUNTY OF YORK.

NOTICE is hereby given, that an Examination of Common School Teachers and others will take place on Tuesday, the 7th of February, 1860, at the Court House in the City of Toronto, at Richmond Hill, and at Newmarket, at 9 A.M. Candidates will be required to produce certificates of moral character from their respective Ministers, and if Teachers before also from their respective School Trustees.

JOHN JENNINGS, D.D.,
Chairman County Board.

City of Toronto, 31st Dec., 1859. np

GRAMMAR SCHOOL TEACHER WANTED,

AS HEAD MASTER of the UNITED GRAMMAR, AND COMMON SCHOOLS, at Prescott, C. W. Applications with Testimonials, to be sent to H. D. JESSUP, Esq., Chairman of the Board, before the 10th of February next. Salary, £175 cy., per year.
Prescott, 11th January, 1860. np

ADVERTISEMENTS inserted in the *Journal of Education* for twenty-five cents per line, which may be remitted in postage stamps, or otherwise. TERMS: For a single copy of the *Journal of Education*, \$1 per annum; back vols., neatly stitched, supplied on the same terms. All subscriptions to commence with the January Number, and payment in advance must in all cases accompany the order. Single numbers, 12½ cents each.

All communications to be addressed to Mr. J. GEORGE HODGINS,
Education Office, Toronto.

TORONTO: Printed by LOVELL & GIBSON, corner of Yonge and Melinda Streets.