

Robert Bell, M.

GEOLOGICAL AND NATURAL HISTORY SURVEY OF CANADA.
ALFRED R. C. SELWYN, C.M.G., LL.D., F.R.S., DIRECTOR.

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Annual Report (New Series), Vol. IV., 1888-89. Published in English and
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Contains the following Reports with Maps and Illustrations. Each
Report is published separately :—

- (A) SEEWYN—Summary Report of the Director for the year 1888-89.
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- (B) DAWSON—Report on a portion of the West Kootanie District, British
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- (D) McCONNELL—Report on an Exploration in the Yukon and Mackenzie
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- (E) UTHAM—Report on the Glacial Lake Agassiz in Manitoba. With
Maps.—12, 13, 14. Price, 25c.
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Price, 25c.
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- (R) HOFFMANN—Chemical Contributions to the Geology of Canada.
Price, 25c.
- (S) BRUMELL—Report on the Mineral and Mining Statistics of Canada for
the year 1888. Out of print.
- (S) INGALL—Division of Mineral Statistics and Mines. Annual Report for
1889. Price, 25c.
- (T) HOFFMANN—Annotated List of the Minerals occurring in Canada.
Price, 25c.

MAPS.

- 1. Reconnaissance Map of a portion of the West Kootanie District. Part B.
Scale 8 miles to 1 inch. Price, 10c.
- 2. Index Map of Routes of the Yukon Expedition. Part D. Scale 48
miles to 1 inch. Price, 10c.
Nine sheets showing Routes of the Yukon Expedition. Part D. Scale
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- 8. (6) Fort Norman.
- 9. (7) Fort Good Hope.
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- 11. (9) Yukon River.
- 12. Map of the Glacial Lake Agassiz and adjoining Portions of North
America. Part E. No separate copies.

SUPPLEMENTARY LIST OF PUBLICATIONS.

The Ammonites of the Cretaceous rocks of the District of Athabasca. By J. F. Whiteaves. Reprinted from Vol. X. of the Transactions of the Royal Society of Canada, for 1892. Montreal. 4to. Illustrated with four plates. (In the press). Price, 50c.

On some sponges from the Pacific Coast of Canada and Behring Sea. By L. M. Lambe. Reprinted from Vol. X. of the Transactions of the Royal Society of Canada, for 1892. Montreal. 4to. Illustrated with four plates. (In the press). Price, 50c.

Contributions to Canadian Palaeontology - Vol. III, Part 1 -
On Vertebrata from the Tertiary and Cretaceous Rocks of
the North West Territory - By E. D. Cope. 4to., pp. 27 -
Montreal 1891. Illustrated with 14 plates.

Price 50c.

Catalogue of Section One of the Museum of the Geological Survey,
embracing the Systematic Collection of Minerals &c.
By G. Christian Hoffmann. 8vo., pp. 256 - Ottawa, 1893
Price 10c.

Catalogue of a Stratigraphical Collection of Canadian Rocks
prepared for the World's Exposition, Chicago, 1893 - By
Walter F. Ferrier. 8vo., pp. 126 - Ottawa, 1893.
Price 5c.

Summary Report of the Director, 1892 (Blue Book form) 5c.
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NATURAL HISTORY SURVEY
OF CANADA.

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(c.) Report from time to time, in such manner and form as the Minister directs, their proceedings under this Act, and furnish proper maps, diagrams, drawings and collections of specimens to illustrate the same. 40 V., c. 9, s. 3.

5. The Director of the Geological Survey shall, as soon as may be after the close of each calendar year, make a full report to the Minister, of the proceedings and work of the Survey for the year, and the results thereof, in such manner and form, and with such details, maps, diagrams and drawings as are requisite to elucidate the same; and the Minister shall cause the same to be laid before Parliament, with such remarks, explanations and recommendations as he thinks proper. 40 V., c. 9, s. 4.

6. The museum shall be open to the public from ten o'clock in the forenoon until four o'clock in the afternoon daily, Sundays excepted, and shall be furnished with such books, instruments and apparatus as are necessary for scientific reference, and for the prosecution of the survey; and the Governor in Council may, from time to time, cause the enlargement of the museum, and the distribution of duplicate specimens to scientific, literary and educational institutions in Canada and other countries. 40 V., c. 9, s. 9.

7. The Director of the Geological Survey shall, for the purpose of obtaining an accurate basis from which the geological and topographical features of the country may be ascertained, and for the purpose of connecting together local and partial surveys, cause such topographical, geographical or other measurements or observations to be made, and such monuments or marks to be placed, as are deemed necessary. 40 V., c. 9, s. 9.

8. All railway and canal companies over which the Parliament of Canada has jurisdiction, shall, if incorporated after the twenty-second day of May, one thousand eight hundred and sixty-eight, furnish to the Geological Survey, without charge, certified copies of all plans and sections of their surveys; and all such companies theretofore incorporated, shall furnish such plans and sections upon the demand of the Director of the Geological Survey, and at the cost of the Department. 40 V., c. 9, s. 10.

THE PUBLICATIONS

OF THE

GEOLOGICAL & NATURAL HISTORY SURVEY OF CANADA.

REPORTS OF PROGRESS.

Report of Progress for 1843. Published in English and French, Montreal, 1845.
pp. 159. Out of print.

This volume contains the first of the regular Reports of Progress published after the appointment of Logan as Provincial Geologist. It is premised by "Remarks on the mode of making a Geological Survey of Canada," and by a short "Preliminary Report" containing general observations on the Geology of Canada and the adjacent States. The Reports proper are by Logan and Alexander Murray, then Assistant Provincial Geologist, and relate chiefly to the geology of portions of Western Canada. Logan's celebrated section of the Coal Measures at the Joggins on the Bay of Fundy is included as an Appendix, and occupies 59 pages.

Report of Progress for 1844. Published in English and French, Montreal, 1846
pp. English 110, French 120. Out of print.

Reports by Logan and Murray on the Geology of portions of the Gaspé Peninsula, with an Appendix including a section of the Coal Measures on the Baie Chaleur, New Brunswick, and a number of other sections.

Report of Progress for 1845-46. Published in English and French, Montreal, 1847. pp. English 125, French 137. Out of print.

Contains a Report by Logan on the Geology of the Ottawa and some of its Tributaries, and one by Murray on the Gaspé Peninsula. An Appendix by T. S. Hunt gives a list of mineral springs occurring near the Ottawa, and its tributaries, and analyses of a few ores, &c.

Report of Progress for 1846-47. Published in English and French, Montreal, 1847. pp. English 66, French 70. Out of print.

Contains the following Reports by Logan and Murray:—

LOGAN—On the Geology and Economic Minerals of Lake Superior.

MURRAY—On the Geology of the Kaministiquia and Michipicoten Rivers.

APPENDIX—Containing Statistics of Copper-mining and Copper-smelting in Great Britain.

Report of Progress for 1847-48. Published in English and French, Montreal, 1849. pp. English 165, French 171. Out of print.

Contains Reports by Logan, Murray and Hunt.

LOGAN—On the Geology of portions of Lower Canada, more particularly of the Eastern Townships.

MURRAY—On the North Coast of Lake Huron.

HUNT—On Various Minerals and Mineral Waters.

Report of Progress for 1848-49. Published in English and French, Toronto, 1850 pp. English 65, French 70. Out of print.

Contains the following Reports :—

MURRAY—On the Geology of parts of the Coast of Lake Huron, the Spanish River, &c.

HUNT—On Mineral Springs, Ores, &c.

Report of Progress for 1849-50. Published in English and French, Toronto, 1850 pp. English 115, French 120. Out of print.

Contains the following Reports :—

LOGAN—On the Geology of portions of Lower Canada, both North and South of the St. Lawrence.

HUNT—On Soils, Peat, Asphaltum, Mineral Springs, &c.

APPENDIX—Catalogue of some of the Economic Minerals and Deposits of Canada.

Report of Progress for 1850-51. Published in English and French, Quebec, 1852 pp. English 54, French 56. Out of print.

Contains the following :—

LOGAN—On the Gold of the Chaudière Region.

MURRAY—On the Geology of the Western Peninsula.

HUNT—On Various Minerals and Mineral Waters.

Report of Progress for 1851-52. Published in English and French, Quebec, 1852 pp. English 121, French, 129. Out of print.

Contains the following :—

LOGAN—On the Geology of the counties of Beauharnois and the Lake of Two Mountains; on various Economic Minerals, and on the Industrial Exhibition of 1851 (London). A catalogue is given of the Canadian Minerals shown at this Exhibition.

MURRAY—On the Geology of the Region between the Ottawa, the St. Lawrence and the Rideau.

HUNT—On the Examination of a number of Minerals, Soils, Mineral Waters, &c.

Report of Progress for 1852-53. Published in English and French, Quebec, 1854. pp. English 179, French 197. Out of print.

French copy 50c.

Contains the following :—

LOGAN—On the Geology of the North Shore of the St. Lawrence, between Montreal and Cape Tourment, and on Miscellaneous Economic Minerals.

MURRAY—On the Geology of the Region between Kingston and Lake Simcoe.

HUNT—On Mineral Waters, Various Minerals, Ores, &c.

Report of Progress for the years 1853-54-55-56. Published in English and French, Toronto, 1857. pp. 494.* With a large 4to. Atlas of Maps. Out of print.

Contains the following Reports :—

LOGAN—On the Laurentian Rocks of Grenville, Chatham, St. Jerome, &c., and the Economic Minerals found in them.

MURRAY—Reports for 1853-56 inclusive, on the Topographical and Geological Features of the Region between Ottawa River and Georgian Bay, as well as North of Lake Huron.

RICHARDSON—Report for 1856 on the Island of Anticosti, and the Mingan Islands.

BILLINGS—Report for 1856 on Fossils from Anticosti, and on New Fossils from the Silurian of Canada.

HUNT—Reports for the years 1853-56 inclusive, containing numerous Analyses of Minerals, Rocks, and Mineral Waters, and observations (Report for 1855) on the Metallurgy of Iron, the Manufacture of Salts from Sea-water, &c.

The volume contains a Map illustrating the distribution of the crystalline limestones in the Grenville Region ; a reduced map of Mr. Murray's Explorations, and a Map of Anticosti. The Atlas contains twenty-two folio maps of various Lakes and Rivers between Lake Huron and the River Ottawa. Published Toronto, 1857.

Large 4to, half bound. Price, \$2.20.

The Maps are on a scale of 1 inch to a mile and lithographed on sheets of twenty-two by thirty-three inches. The various sheets may be had separately at 10 cts. each. They are as follows :—

A.—Maps showing Explorations on the North Shore of Lake Huron and thence eastward to the Ottawa.

- | | |
|--|-------------|
| 1. *Spanish River.† | Price, |
| 2. *Spanish River, and its tributary White-Fish River and White-Fish Lake, White-Fish River with Lakes Panache and Lavase, and Round Lake. | Price, 10c. |
| 3. *Mouth of the White Fish River, and Coast of Lake Huron. | Price, 10c. |
| 4. *Wahnapietaeping Lake and Wahnapietae River, with Maskinongé Lakes and River. | Price, 10c. |
| 5. *Wahnapietae River. | Price, 10c. |

* Unless both are given, the number of pages always refers to the English edition.

† Reports and Maps marked thus (*) can be procured separately at the prices attached.

6. *Wahnapitae River, with Channels and Mouths of French River Price, 10c.
7. *Sturgeon River. Price, 10c.
8. *Sturgeon River and West end of Lake Nipissing. Price, 10c.
9. *French River. Price, 10c.
10. *East end of Lake Nipissing and Nahmanitigong River, with part of Mattawa River. Price, 10c.

B.—Mattawa River and part of Ottawa River. Price, 10c.

11. *Maps showing Explorations between the East Shore of Lake Huron and the Ottawa River. Price, 10c.
- 12 and 13. *Meganatawana River, with a number of Lakes. Price, 10c.
- 14 to 18 inclusive. *Muskoka and Petewahweh Rivers, and numerous Lakes. Price, 10c.

C.—Maps of Bonne-chère, Madawaska and Shawashkong Rivers and sources of the Ottonabee. Price, 10c.

19. *Bonne-chère River, with Mud Lake and Clear Lake. Price, 10c.
20. *Bonne-chère River with Golden and Round Lakes, and Little Madawaska River, Lake Kamaniskaik, and Madawaska River, and South-west Branch or Shawashkong River. Price, 10c.
21. *Shawashkong River, with Kajick Manitou and Papineau Lakes. Price, 10c.
22. *Drag Lake, Kah-shah-gah-wigamog Lake, Gull River, Gull Lake and Balsam Lake. Price, 10c.

Map showing the distribution of Crystalline Limestones of the Laurentian Series in various townships between Grenville and Rawdon. Scale 3 miles to 1 inch.

Two Index Maps of Atlas (see p. 16) showing Exploration between Lake Huron and the Ottawa. Scale 10 miles to 1 inch.

*Map of the Island of Anticosti. Scale 9 miles to 1 inch. Price, 10c.

Report of Progress for 1857. Published in English and French, Toronto, 1858. pp. 240. Out of print.

Contains the following Reports with maps and illustrations:—

LOGAN—Remarks relating chiefly to the succeeding Reports.

MURRAY—On the Coast at the mouth of French River, Georgian Bay; on Echo Lake and its environs, and on the Limestone of Bruce Mines.

RICHARDSON—On part of the Gaspé Peninsula from Magdalen River to Gaspé Bay, and on Lake St. John.

BELL—On the Fauna of portions of the Lower St. Lawrence, the Saguenay, Lake St. John, &c.

HALL—Descriptions of Canadian Graptolites.

BILLINGS—On the Black River Limestone and the Limestone of Galt. Also descriptions of various Fossils.

HUNT—On Dolomites, Limestones, Fish Manures, &c.

ASHE (Lieut. E. D.)—On the Longitude of some of the principal places in Canada, as determined by Electric Telegraph in the years 1856-57.

Report of Progress for 1858. Published in English and French, Montreal, 1859. pp. 263. 752.
Out of print

Contains the following Reports with maps and illustrations:—

LOGAN—On the Distribution of the Laurentian Limestones, and of the Drift, in the Grenville Region. Also on the Ramsay Lead Mine, the Acton Copper Mine, and Miscellaneous Economic Minerals.

MURRAY—On the country between the Thessalon River and Lake Huron, and between the Thessalon and the Mississagui.

RICHARDSON—On the Geology of a portion of the Gaspé Peninsula, including an examination of the Coast from Marsouin River to Rivière du Loup.

HUNT—On Intrusive Rocks, Minerals from Silurian Rocks, and on the History of Magnesian Limestones.

An appendix to this volume includes the following :

Levels of the River Rouge, &c.

Localities of Copper Ores in the Silurian Rocks of Lower Canada.

Localities of Copper Ores in the Huronian Rocks, Mississagui River.

Catalogue of Animals collected by Mr. D'Urban in the counties of Argenteuil and Ottawa.

Catalogue of Animals and Plants collected by Mr. R. Bell on the South-east side of the St. Lawrence, from Quebec to Gaspé.

✓ *Geology of Canada, 1863; Report of the Geological Survey from its commencement to 1863.* Illustrated by 498 wood cuts in the text. Published in 1863; in English and in French. Large 8vo. pp. 983. This volume includes the more important facts published in all the preceding Reports. Out of print.

“The style in which this work has been got up, the precision of the drawing, and the accuracy of the woodcuts, may almost challenge comparison with the execution of similar productions on this side of the Atlantic. There has been a steady persistence in the conduct of this remarkable survey, honourable alike to the successive Governments that have encouraged it, and to the officers who have carried out the work. No other Colonial Survey has ever yet assumed the same truly national character; and the day may come—if ever the “Imperial Colony” shall claim and obtain independence—when the scientific public of a great nation, looking back upon the earlier dawnings of science in their land, shall regard the name of Logan, native born, with the same affectionate interest with which English Geologists now regard the names of our great geological map makers, William Smith and De la Beche.”—*London Saturday Review*.

“This large octavo, of 983 pages, illustrated with 498 wood cuts, and to be accompanied by an atlas of maps and sections, presents a condensed view of the work of the Canadian Survey from its commencement in 1863. It gives the results of the combined labours of Sir W. E. Logan, Mr. Murray, Dr. Hunt and Mr. Billings, a staff not to be surpassed either in ability or energy, and aided also by several able assistants, of whom Mr. Richardson and Mr. Bell stand first. The value of the work to Canada can scarcely be over-estimated. It must be regarded as of vast importance, whether we consider readers abroad or at home, whether we consider scientific objects purely, or those which are practical. Its mechanical execution is an evidence of the progress of the arts among us. Its publication to the world is a proof of the interest taken in science in this country, and of the enlightened patronage afforded by the Government to such investigations, and, at the same time, of the immense value of our mineral resources, as well as of the extent to which they have already been made available. It gives, for the first time, to geologists abroad

the means of making themselves thoroughly acquainted with the geology of this country; and it thus places Canada on a level with those older countries whose structure has been explored, and the knowledge of it made the common property of the world."—*Canadian Naturalist*.

An Atlas of Maps and Sections to Accompany the Geology of Canada, 1863—Published Montreal, 1865. Large 8vo. Cloth. Price, \$2.50.

This Atlas contains the following Maps and Sections:—

- *Coloured Geological Map of portions of the British American Provinces and the United States. Out of print.
- *Coloured Maps showing the distribution of the Laurentian Rocks in parts of the counties of Ottawa, Terrebonne, Argenteuil and Two Mountains. Scale 7 miles to 1 inch. Price, 10c.
- *Coloured Map showing the distribution of the Huronian Rocks between Rivers Bachehwahnung and Mississagui—the typical Huronian Region of Mr. Murray. Scale 8 miles to 1 inch. Price, 10c.
- *Coloured Map showing the distribution of Rocks belonging to the Potsdam, Quebec and Trenton Groups on the East side of Lake Champlain. Scale 2 miles to 1 inch. Price, 10c.

Five uncoloured sections of these Groups.

Uncoloured Map showing the distribution of Limestone Conglomerates in the Quebec Group at Point Lévis.

Uncoloured section of these Rocks.

- *Map (partly coloured) showing the distribution of various Superficial Deposits between Lake Superior and Gaspé. Price 10c.
- *Four plates of coloured Geological Sections illustrating the Geology of Canada. Price, 10c.

Report of Progress, 1863-66. Published in English and French, Ottawa, 1866. Large 8vo, pp. 321. Price, \$1.00,

Contains the following Reports with maps and illustrations:—

LOGAN—Summary Report of Geological Investigation.

RICHARDSON—On the Geology of the Quebec Group in the Eastern Townships.

*MICHEL—On the Gold Region of Lower Canada. Out of print.

*HUNT—On Gold Assays of Quartz from Eastern Canada, Mineralogy of Gold Veins, and method of Gold-working. Out of print.

MACFARLANE—On the Laurentian, Huronian and Upper Copper-bearing Rocks of Lake Superior. With an Appendix on the Rocks and Cupriferous Beds of Portage Lake, Michigan.

MACFARLANE—On the Geology and Economic Minerals of portions of the county of Hastings.

BELL—On the Geology of the Grand Manitoulin Island.

HUNT—On the Geology and Mineralogy of the Laurentian Limestones; on Petroleum and Salt; on the porosity of Rocks; and on Peat and its applications.

APPENDIX—List of Copper localities in Eastern Canada.

Geological Map of Canada and the adjacent regions, including the other British Provinces, and parts of the United States. By Sir W. E. Logan, F.R.S., &c. Published 1866. Scale 25 miles to 1 inch.

Price, in sheets.....\$18 00
 " mounted on rollers..... 24 50
 " " in portfolio, portable shape.. 25 00

The Geology of Canada (Quebec and Ontario) is derived from the results of the Canadian Geological Survey; that of the other Provinces from the labors of Dr. J. W. Dawson, Prof. Robb, Jukes, and others; while that of the United States is compiled under the authority of Professor James Hall, from various sources mentioned in the Atlas accompanying the "Geology of Canada."

This beautifully executed Map will at once recommend itself to all lovers of geological science in America. It consists of eight sheets, each 24 x 20½ inches, and, when mounted on rollers, measures 8 ft. by 3 ft. 7 in. It is engraved on steel, in the best style, and is colored by hand in 33 colors, showing the different formations. The territory mapped extends from Labrador on the east, to the Red River on the west, and from Hudson's Bay on the north, to northern Virginia on the south. Besides the Geology of the British Provinces (the main object of the Map), the Geology of the Northern United States is fully shown; and it is as completely a Geological Map for the states of New York, Pennsylvania, Ohio, Indiana, Illinois, New Jersey, Vermont, Michigan, Missouri, Iowa, Wisconsin and Minnesota, as it is for Canada. The Coal Regions are shown with precision from Cape Breton to Missouri.

"We have at length the pleasure of announcing the appearance of this important and long-looked for contribution to American geology. The legend of the Map informs us that the geological details for Canada, comprising the former Provinces of Upper and Lower Canada (now Ontario and Quebec) are furnished by the Geological Survey under the direction of Sir William E. Logan. He has himself compiled the geology of the various states of the Union, under the supervision of Prof. Hall, from various sources which are mentioned in detail in the preface to the Atlas of the Geology of Canada (published in 1865), where he tells us that this portion of the work was done 'with the approval of Prof. James Hall, who has freely placed all his materials at the disposal of the compiler, and aided by his intimate personal knowledge of the geology of a greater part of the region represented.' For the geology of the Provinces of New Brunswick, Nova Scotia and Newfoundland, also, the most authentic printed and manuscript maps were consulted, as described in the Atlas just referred to."—*Silliman's Journal*.

Report of Progress, 1866-69. Summary of Geological Investigations by Sir W. E. Logan, F.R.S., &c. Published Ottawa, 1869. pp. 9.

Report of Progress from 1866 to 1869. Published in English and French, Montreal, 1870. Large 8vo, pp. 475. Out of print.

Contains the following Reports with maps and illustrations:—

*LOGAN AND HARTLEY—Reports on part of the Pictou Coal Field. With a coloured Geological Map.

Price, with an Appendix on Coal and Iron Ores, \$1.00.

BELL—On the Geology of the Manitoulin Island Group.

RICHARDSON—On the Region South of the St. Lawrence, between the Chaudière River and the Temiscouata Road. With a coloured Geological Map.

*VENNOR—On the Geology of portions of Hastings, Peterborough and Frontenac counties, Ontario. With a coloured Geological Map.

Out of print.

ROBB—On the Geology of a part of New Brunswick. With a Sketch-Map.

*HUNT—On the Goderich Salt Region. Out of print.

*HUNT—Notes on Iron and Iron Ores. Out of print.

RICHARDSON—On the North Shore of the Lower St. Lawrence.

✓ *BELL—On the Geology of the North-West Coast of Lake Superior and the Nipigon District. With a topographical Sketch-Map.

Price, 75c.

*HARTLEY—On the Coals and Iron Ores of Pictou county, Nova Scotia; being an Appendix to Reports on the Pictou Coal Field. (*Vid ante.*) Price, 60c.

HARTLEY—Notes on coal from Springhill Coal Field.

*BELL, J., M.D.—Appendix on the Plants of the Manitoulin Islands.

Out of print.

Postscript by Sir W. E. Logan, addressed to Alfred R. C. Selwyn.

NOTE.—Up to 1860 the Geological Reports were printed as Appendices to the Journals of the Legislative Assembly, in English and French. The Appendices in which they are to be found are as follows:—

Session	1844-45.	Appendix	W.
"	1846	"	G.G.G.
"	1847	"	C.
"	1849	"	G.
"	1850	"	V.
"	1852-53	"	O.
"	1854-55	"	L.
"	1857	(Explorations for the years 1853-54-55-56.)	
		Appendix No. 32.	
"	1860	"	No. 24.

MAPS.

*Coloured Geological Map of the Pictou Coal Field, Nova Scotia. Scale 1 inch to a mile. Price, 10c.

Coloured Map showing the distribution of Lower Silurian Rocks between the Chaudière and the Trois Pistoles River, South of the River St. Lawrence. Scale 8 miles to 1 inch. Price, 10c.

*Coloured Map showing the distribution of the Rock Formations in parts of the counties of Peterborough, Hastings, Addington and Frontenac, Ontario. Scale 4 miles to 1 inch. Price, 10c.

*Sketch Map of the counties of York, Carleton and part of Victoria, New Brunswick. Scale 8 miles to 1 inch. Price, 10c.

✓ *Topographical Sketch-Map showing the Thunder Bay and Lake Nipigon Regions. Sale 4 miles to 1 inch.

3 sheets, price 10c. per sheet.

In December, 1869, Sir William Logan retired from the Directorship, and was succeeded by the present Director, A. R. C. Selwyn.

Report of Progress, 1869-70. Summary of Geological Investigations, by Alfred R. C. Selwyn. Published Ottawa, 1870. pp. 14. Out of print.

Report of Progress for 1870-71. Published in English and French, Ottawa, 1872. Large 8vo., pp. 351. Price, \$1.25.

Contains the following Reports with maps and illustrations :

SELWYN—Summary Report of the Director.

BAILEY AND MATTHEW—On the Geology of Southern New Brunswick.

ROBB—Supplementary Report on the Geology of North-Western New Brunswick.

SELWYN—Notes of Observations on the Gold Fields of Quebec and Nova Scotia.

RICHARDSON—On the Geology of the Country North of Lake St. John.

VENNOR—Abstract of a Report on the Geology of parts of the counties of Frontenac, Leeds and Lanark, Ontario.

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Report of Progress for 1871-72. Published in English.* Montreal, 1872. Large 8vo., pp. 154. Price, \$1.00.

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BAILEY—On Geological Investigations in New Brunswick.

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*Published in French, in Sessional Documents of the House of Commons for 1872, Vol. V., No. 7. The Report bears Number 31. Printed Ottawa, 1873, pp. 156.

MAPS.

- *Map showing the position of the Coal Fields of Nanaimo and Comox, Vancouver Island. Scale 10 miles to 1 inch. Out of print.
- Map of the Township of Marmora showing the position of the Gold Mines. Scale 1 mile to 1 inch.

Report of Progress, 1872-73. Published in English and French. Montreal, 1873. Large 8vo, pp. 300. ~~Out of print.~~ \$1.75

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ROBB—On the Coal Mines of the Eastern or Sydney Coal Field of Cape Breton, Nova Scotia.

HARRINGTON—Notes on Samples of Brick Clay from Fort Garry; Analysis of Serpentine, etc.

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*Plan of the Acadia Iron Mines, and Section of the same. Scale 400 yards to 1 inch. Price, 10c.

Map of a part of the Strait of Georgia and of Vancouver Island, showing a portion of the Comox Coal Field and the distribution of the Cretaceous Coal-bearing Rocks. Scale 2 miles to 1 inch.

Plan of the Dalhousie Iron Mine, Lanark County, Ontario.

Report of Progress, 1873-74. Published in English and French. Montreal, 1874. Large 8vo, pp. 268. Price, \$1.50.

Contains the following Reports, with Maps and Illustrations:

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✓ BELL—On the Country between the Red River and the South Saskatchewan, with Notes on the Geology of the Region between Lake Superior and Red River. With an Appendix by C. Hoffmann on Lignites.

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*WHITEAVES—Notes on the Cretaceous Fossils collected by Mr. James Richardson, at Vancouver and the adjacent Islands. With a lithographed Plate.

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*Sketch Survey of the Saskatchewan River from Rocky Mountain House to Cumberland Lake. Scale 16 miles to 1 inch. Price, 10c.

*Plan of North Burgess, showing position of Apatite Openings. Scale $\frac{1}{2}$ mile to 1 inch. Price, 10c.

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DAWSON, PRINCIPAL J. W. Appendix II.—Note on Fossil Plants collected by Dr. Selwyn in the Lignite Tertiary Formation of Roche Percé, Souris River.

DAWSON, G. M.—Report on an Exploration from Fort Simpson, on the Pacific Coast, to Edmonton, on the Saskatchewan, embracing a portion of the Northern part of British Columbia and the Peace River Country.

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MACOUN, J. Appendix I.—List of Plants collected in the Northern part of British Columbia and the Peace River Country, 1879.

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Summary Report of the Director to 31st December, 1886, being part III Annual Report of the Department of the Interior, 1885, pp. 42. Price, 10c.

Annual Report (New Series), Vol. II, 1886. Published in English and French, Montreal, 1887. Large 8vo, pp. 1030. Price, \$2.00.

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Summary Report of the Director to December 31st, 1887, being Part III, Annual Report of the Department of the Interior, 1887, pp. 40. Price, 10c.

Annual Report (New Series), Vol. III, 1887-88. Published in English and French. Montreal, 1888. Large 8vo. pp. 1429. Price. \$2.00.

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MACOUN, J. Appendix III.—List of Plants collected by Dr. G. M. Dawson in the same district in 1887.

FLETCHER, JAMES. Appendix IV.—List of Diurnal Lepidoptera from the same district and from the Mackenzie River.

BEAN, T. H. Appendix IV.—Fishes from the same district.

MERRIAM, C. HART. Appendix IV.—Description of a new red-backed mouse from the Liard River, N.W.T.

ADAMS, F. D. Appendix V.—Notes on the lithological character of some of the rocks collected in the district covered by the report.

DAWSON, G. M. Appendix VI.—Meteorological observations in the same district.

DAWSON, G. M. Appendix VII.—Summary of Astronomical Observations employed in the construction of the map.

- (C) BOWMAN—Report on the Geology of the Mining District of Cariboo, British Columbia. Price, 25c.

- (E) TYRRELL—Notes to accompany a preliminary Map of the Duck and Riding Mountains in Northwestern Manitoba. With Map No. Price. 10c.

- (F) LAWSON—Report on the Geology of the Rainy Lake Region. With Map. Price, 25c.

- (H) INGALL—Report on Mines and Mining on Lake Superior, Part I. A. History and General Conditions of the Region. B. Silver Mining. With Maps. Price, 30c.

- (J) Low—Report on Explorations in James' Bay and country east of Hudson's Bay, drained by the Big, Great Whale and Clearwater Rivers. Price, 25c.
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 FLETCHER, JAMES. Appendix II.—List of diurnal Lepidoptera collected by S. J. Cotter and J. M. Macoun in the same district.
 SWINER, MILES. Appendix III.—Notes on the breeding habits of certain Mammals.
 CUNNINGHAM, A. R. AND MACNUTT, C. H. Appendix IV.—Meteorological Observations on James' Bay in 1887, and on the east coast of Hudson Bay in 1888.
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 AMI, H. M. Appendix.—Systematic List of Fossils collected in the district.
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 AMI, H. M. Appendix—Tabulated List of Fossils collected in the district.
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MAPS.

1. *Yukon District and British Columbia, three sheets. Part B. Scale 8 miles to 1 inch. Price 10c. per sheet.
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13. Sheet (6 S.W.) and (2 N.E.), New Brunswick. Part N. Scale 4 miles to 1 inch. Price 10c.
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SPECIAL PUBLICATIONS.

GEOLOGY AND MINERALOGY.

Remarks on the Mining Region of Lake Superior, addressed to the Committee of the Executive Council; and Report on Mining Locations claimed on the Canadian shores of the Lake,—addressed to the Commissioner of Crown Lands. By W. E. Logan. Published Montreal, 1847, pp. 31.

Price, 10c.

Report on the North Shore of Lake Huron, By W. E. Logan. pp. 47, Montreal, 1849.

On the Footprints occurring in the Potsdam Sandstone of Canada. By W. E. Logan, 1852. } out-

Esquisse Géologique du Canada, pour servir à l'intelligence de la Carte géologique et de la Collection des Minéraux économiques envoyées à l'Exposition Universelle de Paris, 1855. Par W. E. Logan et T. Sterry Hunt. Paris, 1855. pp. 100.

Descriptive Catalogue of a Collection of the Economic Minerals of Canada, and of its Crystalline Rocks. Sent to the London International Exhibition for 1862. Published Montreal. Large 8 vo, pp. 83. Price, 25c.

Notes on the Gold of Eastern Canada, being a reprint of portions of various Reports of the Geological Survey of Canada. from 1848-1863. Published Montreal, 1864. pp. 40.

Petroleum—Its Geological Relations considered with especial reference to its occurrence in Gaspé. With a Geological Map by R. Bell, of a portion of Gaspé. By T. Sterry Hunt. Published Quebec, 1865, pp. 33.

Price, 50c.

Canada—A Geographical, Agricultural and Mineralogical Sketch. By T. Sterry Hunt. Published Quebec, 1865, pp. 33. Price, 25c.

Reports on the Gold Regions of Canada. Transmitted by Sir W. E. Logan to Commissioner of Crown Lands, 1866.

Esquisse Géologique du Canada, suivie d'un Catalogue Descriptif de la Collection de Cartes et Coupes géologiques, Livres imprimés, roches, fossiles et minéraux économiques envoyées à l'Exposition Universelle de 1867. Par T. Sterry Hunt. Paris, 1867, pp. 72. Price, 50c.

Report on the Gold Region of the County of Hastings. By Dr. T. Sterry Hunt and Mr. A. Michel. Transmitted by Dr. Hunt to the Hon. Commissioner of Crown Lands, January 29, 1867. Published Montreal, 1867, pp. 11. Price, 10c.

Report on the Gold Region of Nova Scotia. By T. Sterry Hunt. Published Ottawa, 1868. Large 8vo, pp. 48. Price, 25c.

Laurentian Limestones of North America. Reprinted with additions from the Report of the Geological Survey for 1863-66. By T. Sterry Hunt. Published 1871, pp. 54. Price, 25c.

- Descriptive Catalogue of a Collection of the Economic Minerals of Canada, and Notes on a Stratigraphical Collection of rocks sent to the Philadelphia International Exhibition of 1876. Montreal, 1876, pp. 152. Price, 25c.
- General Note on the Mines and Minerals of Economic value of British Columbia with a List of Localities. By George M. Dawson. (Reprinted with additions and alterations from the Canadian Pacific Railway Report, 1877.) 10c.
- Exposition Universelle de 1876, Paris. Catalogue des minéraux économiques du Canada, avec Notes descriptives et explicatives. Par B. J. Harrington. Londres, 1878, pp. 134. Price, 25c.
- Preliminary Note on the Geology of the Bow and Belly Rivers District N.W. Territory, with Special Reference to the Coal Deposits. By George M. Dawson. Published Montreal, 1882, pp. 19. Price, 10c.
- Descriptive Catalogue of a Collection of Economic Minerals of Canada. By the Geological Corps (Colonial and Indian Exhibition, London, 1886.) Published London, 1886, pp. 172. Price, 15c.
- Descriptive Sketch of the Physical Geography and Geology of the Dominion of Canada. By Alfred R. C. Selwyn, and George M. Dawson. With colored Geological Map. Published Montreal, 1884, pp. 55. Price, 50c.

PALÆONTOLOGY.

- Decade I—Descriptions of twenty-eight species of Lower Silurian Fossils. By J. W. Salter. Illustrated with ten steel plates. Large 8vo., pp. 47. Published Montreal, 1859. Price, \$1.00.
- Decade 2—A Monograph of the Graptolitidæ of the Quebec Group. By Prof. James Hall. Illustrated with twenty-one steel and two lithographed plates. Large 8vo., pp. 151. Published Montreal, 1865. Price, \$2.00.
- Decade 3—Monographs of Lower Silurian Cystidæ and Asteriadæ. By E. Billings. Description of the genus *Cyclocystoides*. By J. W. Salter and E. Billings. Monograph of the Palæozoic Bivalve Entomostraca of Canada. By Professor T. Rupert Jones. Illustrated with eleven lithographed plates and numerous wood cuts. Large 8vo., pp. 102. Published Montreal, 1858. Price \$1.00.
- Decade 4—Monograph of the Lower Silurian Crinoidæ. By E. Billings. Illustrated with ten lithographed plates and numerous wood cuts. Large 8vo., pp. 72. Published 1859. Price, \$1.00.
- Catalogue of the Silurian Fossils of the Island of Anticosti, with descriptions of some new genera and species. By E. Billings. Published Montreal, 1866. pp. 93. Price, 25c.
- Fossil Plants of the Devonian and Upper Silurian Formations of Canada. By Sir William Dawson. Published Montreal, 1871. Large 8vo., pp. 92. Price, 50c.
- Fossil Plants of the Erian (Devonian) and Upper Silurian Formation of Canada. By Sir William Dawson. Published Montreal, 1882. Large 8vo., pp. 49. With four lithographed plates. Forming Part II. of the preceding. This volume contains twenty lithographed plates illustrating the Pre-carboniferous Flora of the Dominion. Price, 50c.

- Fossil Plants of the Lower Carboniferous and Millstone Grit Formations of Canada. By Sir William Dawson. Published Montreal, 1873. With ten full-page lithographed plates. Large 8vo., pp. 47. Price, 50c.
- Palæozoic Fossils,—Vol. I.—Pt. I, 1861-65—containing descriptions and figures of new or little known species of Organic Remains from the Rocks of the Silurian and Devonian Formations. Illustrated by 399 wood cuts. By E. Billings. Published Montreal, 1865. Large 8vo., Cloth. pp. 426. Price, \$2.50.
- Palæozoic Fossils—Vol. II.—Part I—Illustrated by 85 wood cuts and ten lithographed plates. By E. Billings. Published Montreal, 1874. Large 8vo., pp. 144. Price, 50c.
- Palæozoic Fossils—Vol. III—Part I—Illustrated by eight lithographic plates and four wood cuts. By J. F. Whiteaves. Published Montreal, 1884. Large 8vo., pp. 43. Price, 50c.
- Mesozoic Fossils—Vol. I.—Part I—On some Invertebrates from the Coal-bearing Rocks of the Queen Charlotte Islands, collected by Mr. James Richardson in 1872. By J. F. Whiteaves. Published Montreal, 1876. With ten lithographed plates and a map showing localities of fossils. Large 8vo., pp. 92. Price 50c.
- Mesozoic Fossils—Vol. I., Part II—On the Fossils of the Cretaceous Rocks of Vancouver and adjacent Islands in the State of Georgia. By J. F. Whiteaves. Published Montreal, 1879. With ten lithographed plates. Large 8vo., pp. 93. Price, 50c.
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- Contributions to the Micro-Palæontology of the Cambro-Silurian Rocks of Canada. Part I—(1) Monticuliporidae, (2) Some Polyzoa from the Trenton Mountain, and (3) on the genus Tetradium. By Arthur H. Foord. Published Ottawa, 1883, pp. 26. Plates 7. Price, 25c.
- Contributions to Canadian Palæontology. Vol. 1, Part I—(1) Report on the Invertebrata of the Laramie and Cretaceous Rocks of the vicinity of the Bow and Belly Rivers and adjacent localities in the North-west Territory. By J. F. Whiteaves. Published Montreal, 1885. Large 8vo, pp. 89. Illustrated by eleven lithographic plates. Price, 50c.
- Preliminary Report on some Graptolites from the Lower Palæozoic Rocks on the south side of the St. Lawrence from Cape Rosier to Tartigo River, from the north shore of the Island of Orleans, one mile above Cape Rouge, and from the Cove Fields, Quebec. By Prof. Chas. Lapworth. Extracted from the Transactions of the Royal Society of Canada for the year 1886. 4to, pp. 18. Price, 25c
- Illustrations of the Fossil Fishes of the Devonian Rocks of Canada. By J. F. Whiteaves. Extracted from the Transactions of the Royal Society of Canada for the years 1886 and 1888. Part 1 (1887), 4to, pp. 10, illustrated with five plates, and Part 2 (1888), 4to, pp. 21, illustrated with six plates. Price, 25c. each.
- Contributions to Canadian Palæontology—Vol. I., Part II.—(2) On some fossils from the Hamilton Formation of Ontario, with a list of the species at present known from that formation and province; (3) The fossils of

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the Triassic Rocks of British Columbia; and (4) On some Cretaceous fossils from British Columbia, the North-West Territory and Manitoba. By J. F. Whiteaves. Published Montreal, 1889. With fifteen lithographed plates. Large 8vo., pp. *out of print*. Price, 50c.

Notes on the Palæozoic Bivalved Entomostraca. No. XXVII. On some North American (Canadian) Species. By Prof. T. Rupert Jones. Reprinted from the Annals and Magazine of Natural History for May, 1889, 8vo, pp. 15, with two lithographic plates. Contains descriptions of several species from Campbellton and Cape Bon Ami, N.B., also of one from the valley of the Red River in Manitoba. Price, 10c.

Contributions to Canadian Micro-Palæontology. Part II. On some Polyzoa (Bryozoa) and Ostracoda from the Cambro-Silurian rocks of Manitoba. By E. O. Ulrich. Published Montreal, 1889. Large 8vo, pp. 32. Illustrated by two lithographed plates. Price, 25c.

ZOOLOGY.

Report on some recent Polyzoa from the Queen Charlotte Islands. By Rev. Thos. Hincks. Reprinted from the Annals and Magazine of Natural History, London, England, for December, 1882, June, 1883, and March, 1884. Price, 10c.

On some Marine Invertebrata, dredged or otherwise collected by Dr. G. M. Dawson in 1885, on the coast of British Columbia; with a supplementary list of a few land and fresh water shells, fishes, birds, etc., from the same region. By J. F. Whiteaves. Reprinted from Vol. IV. of the Transactions of the Royal Society of Canada. Montreal, 1887. 4to, pp. 28, with four wood cuts. Price, 25c.

BOTANY.

Catalogue of Canadian Plants. By Professor Macoun.

Part I.—Polypetalæ. Published Montreal, 1883, pp. 192.

Price, 25c.

Part II.—Gamopetalæ. Published Montreal, 1884, pp. 398.

Price, 25c.

Part III.—Apetalæ. Published Montreal, 1886, pp. 228.

Price, 25c.

Part IV.—Endogens. Published Montreal, 1888, pp. 248.

Price, 25c.

MISCELLANEOUS.

Comparative Vocabularies of the Indian Tribes of British Columbia, with a map illustrating distribution. By W. Fraser Tolmie and Dr. George M. Dawson. Published Montreal. Large 8vo, pp. 131. Price, 50c.

MUSEUM.

The Geological and Natural History Museum and Headquarters of the Survey were, in accordance with an Act of the Dominion Parliament, 40 Vic., cap. 9, sec. 7, removed from Montreal to Ottawa, and are now established in a three-story stone building on the corner of Sussex and George streets.

The large increase of visitors to the Museum, since its removal from Montreal fully justifies the action of the Government in transferring it to the Capital. The largest number of names entered in the register of visitors for any one year at Montreal, was 1,652, and this number in 1880, was reduced to 1,183; whereas, at Ottawa, at the end of the first year, there were 9,549 names registered; at the end of the second year 10,806; at the end of the third 12,325; at the end of 1888, 17,414.

The ground floor contains offices, library and chemical laboratory.

On the first floor there are two rooms devoted to museum purposes—the larger one, 103 feet long by 34 feet wide, contains upwards of 4,000 geological and mineralogical specimens, arranged in cases to illustrate the economic and scientific geology of the Dominion. The specimens are labelled, showing the localities from which they were obtained, and the formations to which they belong. The economic collection is arranged under the following heads:—

- I-VII. Metals and their Ores.
- VIII-X. Fossil Fuel.
- XI. Materials Applicable to Construction.
- XII-XVIII. Materials used in the production of Light and Heat.
- XIX. Mineral Manures.
- XX. Mineral Pigments and Detergents.
- XXI-XXII. Refractory Materials, Pottery Clays and Pottery.
- XXIII. Materials for Grinding and Polishing.
- XXIV. Salt, Brines and Mineral Waters.
- XXV-XXVI. Minerals applicable to the Fine Arts and to Jewelry.
- XXVII-XXXII. Illustrations of Geological Phenomena.

The smaller of the two rooms on this floor is 18 feet long and 22 feet wide. It contains a large series of objects of Indian manufacture, both ancient and modern, principally from the Pacific Coast of the Dominion, and from Western Ontario, besides a fine collection of Eskimo implements, &c. The total number of specimens illustrative of Canadian ethnology and archaeology, which are on exhibition in the cases in this room, is nearly 3,000, and the whole collection is carefully labelled.

The rooms on the second floor are of the same dimensions as those on the first floor. The larger one contains upwards of 13,000 specimens of Canadian fossils, representing between 3000 and 4000 species; and about 6,000 species of shells, comprising upwards of 14,000 specimens, most of which are exotic. There are also in this room some miscellaneous zoological specimens, such as mounted examples of Canadian Mammalia, and a few articulated skeletons.

The smaller room on this floor, the hall between it and the large room, and part of the stair-case are now utilized for the exhibition of the collection of Canadian mammals, birds and turtles.

The following is an estimate of the number of specimens and species of native vertebrata now (July 22, 1889) exhibited in the Museum:—

MAMMALS.

109 Mounted specimens of.....	59 species.
8 Mounted heads of.....	8 "
4 Mounted skeletons of.....	4 "
27 Separate skulls of.....	17 "

BIRDS.

526 Mounted specimens of 335 species.

TURTLES.

3 Mounted specimens of 2 species.

The Entomological collection in the Museum of the Survey contains about 10,000 specimens belonging to all orders. The Lepidoptera are most largely represented and include specimens from all parts of the world. During the last two years large additions have been made to the Coleoptera, chiefly of Canadian species, and although as yet the collections in the other orders are small, they are being gradually increased as occasion offers.

The nucleus of the Entomological collection was purchased from Capt Gamble Geddes in 1887, and, since that time, many valuable contributions have been made by different members of the Survey staff.

The Museum possesses an Herbarium containing upwards of 17,519 sheets of specimens, including specimens from Canada, Europe and the United States.

LIBRARY.

In the Library there are about 7,500 volumes and 2,600 pamphlets, comprising mainly works of reference on Geology, Mineralogy, Metallurgy, Chemistry and Natural History.

Persons desiring to consult any volume can do so, by applying to the Librarian. The Museum is open from 10 a.m. to 4 p.m. Admission free.

Ottawa, July, 1889.