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**Canada's
Explorers**

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By CHARLES HALLOCK, M. G. S.

PRESENTED TO THE NATIONAL GEOGRAPHIC SOCIETY
OF WASHINGTON, D. C.

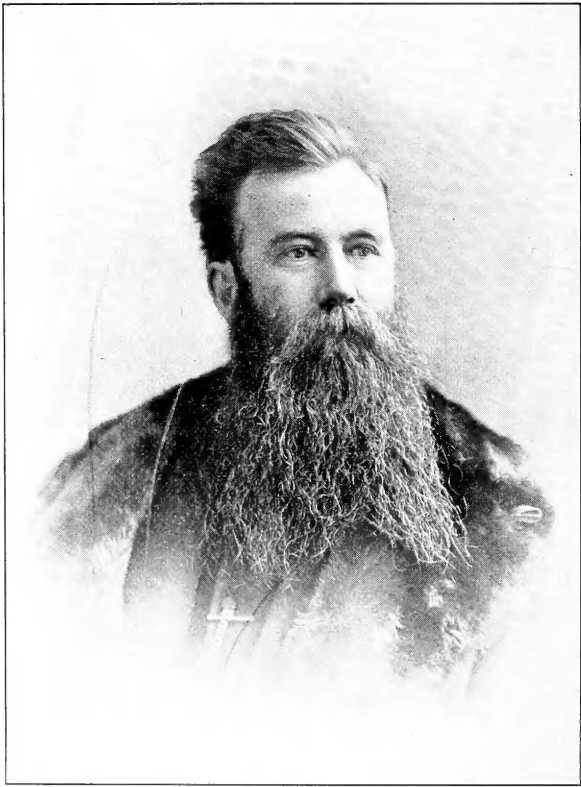
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1901.







With Mr. Hallock's Compliments.



DR. ROBERT BELL, M. D., F. R. G. S.

One of Canada's Explorers

By CHARLES HALLOCK, M. G. S.

DEDICATED TO THE NATIONAL GEOGRAPHIC SOCIETY
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PREFACE.

The object of this pamphlet is to set before the Geographic Societies of the Old and New Worlds the comprehensive work which has been accomplished during the past forty-five years by the indefatigable subject of this sketch, whose innate modesty has hitherto kept him from exploiting his own remarkable achievements, which cover well-nigh one-half of this Northern Continent. *Fiat justitia.*

C. H.

WASHINGTON,

February, 1901.

One of Canada's Explorers.

BY CHARLES HALLOCK, M. B. S.

Editor Forest and Stream:

For thirty years I have known Dr. Robt Bell, F. R. S., of the Geological Survey of Canada. To his personal canvass *Forest and Stream* is largely indebted for its early prestige and strength in the New Dominion. This month he is starting out on his forty-third year of continuous field work in British North America, his destination being the Great Slave Lake in the Mackenzie River Basin, N. W. T., lat. 63 degrees, of which he is to make a topographical and geological survey. The lake is 300 miles long and 3,000 miles off, though now accessible a large part of the way from Ottawa by rail and steamboat.

Although fifty-seven years of age, and exposed all these years to the rigors of high latitudes, he writes me that he is in perfect health and vigor, and able to get about as well as ever. This fact he attributes to a knowledge of how to take care of himself. "No matter how tired I am," he says, "I see that I always have a comfortable and dry bed of brush or some substitute every night. I always dry my clothes, or change to dry ones, if I can have a change, and do not go without more meals than I can help." He has always followed the simplest methods in his out-of-door life, carrying no impedimenta in the shape of camp furniture; his habit being to "go light" and live off the country. Where fish or game was not to be had, he has subsisted on the plain common food of the

voyageur, and taken no alcoholic drinks. He is up to all sorts of expedients in emergencies, and does not believe in "accidents" and misadventures; and has never had any, because he knows how to avoid them. Old campaigners of this ilk never think of exploiting their sufferings and hairbreadth escapes as evidences of heroism worthy of plaudit. On the contrary, they would be mortified to admit them. * * * Quite likely these recitals might impress the home members of travel clubs, but to my own mind, to glory in what one has suffered through inexperience or awkwardness would seem to be about as sensible as to boast how many rod tips a man had broken in a season on a salmon stream, as evidence of prowess in handling big fish. * * *

Already the published reports of Dr. Bell alone comprise more than 190 titles on a great variety of scientific subjects, yet so quietly and unostentatiously have his duties been performed that the public is not cognizant of them, nor perhaps ever heard of him, while plaudits attend the high roller who has compassed the earth in eighty days, or perchance outlined a rapid transit trip to Mars or the moon. Meanwhile, immense geographical areas have been mapped and charted and districted and divided into Territories and Provinces and settled, which had been almost *terra incognita* until this indomitable surveyor first set foot on them. And up to present date no abstract of these researches has ever been published. Modesty or pre-occupation has intervened, though he has been often importuned. But at last I have procured from him the sub-joined enumeration, which reads like Revelation, and for which I am sure you will congratulate me and your numerous readers.

Beginning in 1857, as a youth of fifteen, under the late Sir W. E. Logan, Director of the Geological Survey, he served for the first three years as assistant to the principal members of the staff, and has continued as the head of parties in the same work ever since. Commencing on the east side of the continent, his

surveys comprise the Gaspé Peninsula from Percé to Rimouski, and from the St. Lawrence to the Baie des Chaleurs, and thence to Quebec, the eastern townships, the Saguenay and Lake St. John region, the north shore of the Gulf of St. Lawrence, the west coast and the interior of Newfoundland and parts of Nova Scotia and New Brunswick. He has coasted all around the Labrador peninsula, from the Saguenay, via Bellisle, its eastern or Atlantic coast, its northern coast, which forms the south side of Hudson Strait, and its western coast, which is the east side of Hudson and James' bays, besides some of the islands lying far off this coast. Dr. Bell has computed the area of the Labrador peninsula to be 560,000 square English statute miles, or considerably more than the combined areas of Great Britain and Ireland, France, Germany, Belgium and Holland.

In 1897 our friend made a survey of most of the southern coast of the great Island of Baffinland, opposite to Greenland, and which is only exceeded in size by this ice-covered island, and by Australia—being 1,000 miles in length. Besides surveying its southern coast, he made an exploration of the interior, as far as the large lakes, only one of which had ever before been seen by a white man.

He has visited some of the large islands at the north end of Hudson Bay, that great inland sea of our continent, which he described more than twenty years ago as the Mediterranean of North America. He has in different years explored and, in fact, surveyed the whole east coast of Hudson Bay, except a few miles in the north part, from the Strait south to the head of James' Bay, also parts of the west coast of this inland sea from Marble Island to Moose Factory, at its southern extremity. Instrumental, or, in some cases, good track-surveys have been made by him of the rivers flowing into James Bay from the southeast, south, southwest and west. The largest of these is the Noddaway—a bigger stream than the Ottawa, and which drains an area exceeding that of England. The great west

branch of the Noddaway had no recognized name, and by common consent it has been called Bell River, in honor of the man who first called attention to its existence and made an instrumental survey of its entire course. In connection with this work, he also surveyed a chain of lakes from the Waswanipi to the Rupert River, and mapped out the whole of this great region heretofore a blank.

The other principal rivers mentioned as flowing into James' Bay are the Moose and its larger branches (Mattagami, Missinaibi, etc.), the Albany to its source and its branches (Kenagami, Kabinakagami, Ogoké, etc.), the Attawapiskat—the next river north of the Albany, 400 miles long and as large as the Rhine.

Further north he has done the Hayes, Steel and Hill rivers, Oxford Lake, Knee Lake, etc., as well as the whole of the Nelson—one of the great rivers of the world—which drains the continent west to the Rocky Mountains, besides some of its tributary streams, also the Great and Little Churchill rivers.

Coming back to more southern latitudes, his geological work comprises the Ottawa River from its mouth to its extreme source, including surveys of the Gatineau, the Upper Ottawa and some of the streams east of Lake Temiscaming, the Montreal River and the country to the north and south of it, the country north of Lake Huron to the watershed, Lake Nipissing and Mattawa River, the French, Spanish, Missisagi and White rivers to their sources; Blind, Thessalon and Garden rivers, also Lake Temagami, Lady Evelyn and surrounding lakes; Temagami and Sturgeon rivers; and all the geographical as well as geological features in the Sudbury mining district. He had visited every square mile of the several islands of the Manitoulin chain before any township surveys had been made or a single settler had gone there. His purely geological labors comprise the western or lake peninsula of Ontario, while on the north side of Lake Superior, besides the geological work, he surveyed nearly all the rivers, Nipigon

Lake, the uppermost of the Great Lakes of the St. Lawrence ; Nipigon River, Long Lake and Pic River, and the country northward of these to the Albany, and most of the thirteen rivers flowing into Lake Nipigon, together with their lakes. Westward of Lake Superior he has explored all the wooded country to the prairies and made the first passably good map of the Lake of the Woods (published in 1881). In the northern parts these extended operations included Minnetaki Lake, Lonely Lake (100 miles long), and Lake St. Joseph or Osnaburgh Lake, nearly as large, the English River and its chain of lakes, Shoal Lake and Red Lake, and its river. The international boundary line was examined geologically from Lake Superior westward to Lake of the Woods, including Rainy Lake and River.

A track survey was made of most of the shores of Lake Winnipeg ; Lake Manitoba and the boat route from it to Lake Winnipeg were explored, as well as the "mountains" along the west side of the Winnipeg Basin, and a track-survey, showing the details of the course of Red River from Winnipeg City to the lake of the same name. Further west the Assiniboine, Swan and Qu'Appelle rivers were explored, as well as considerable portions of the North and South Saskatchewan, also the prairie region between these streams, and thence southward to Montana. Two routes were explored from the North Saskatchewan to Clearwater River, and a good track-survey made of Lac la Biche and its river to the Athabasca, as well as of this stream itself all the way to Athabasca Lake, and of the waters around its western extremity, Lac la Loche, Clear Lake and Isle à la Crosse Lake, Beaver River, Green Lake and the route thence to Prince Albert.

The above enumeration Dr. Bell has put down hastily from memory, but it does not by any means mention all the geological and topographical work which has been personally accomplished by him. He is also fairly entitled to credit for additional work performed under his immediate superintendence

by field assistants whom he has trained and specially equipped for each particular survey. Some of these which we recall are the Megiskun and Waswanipi rivers and connected lakes, a route south from Lake Mistassini toward Lake St. John, God's Lake, Island Lake, various rivers on the east side of Lake Winnipeg, Pine River from Cross Lake on Nelson River westward to Moose Lake and the Saskatchewan, and this river itself, two routes from this stream northward to Reindeer Lake, this large lake itself; Wollaston Lake and route thence to Athabasca Lake, this lake and the chain of lakes forming the upper Churchill River, Black Sturgeon Lake and River, Cat Lake and River, with the connected lakes, the Abitibi River and numerous other important features in various regions.

Dr. Bell was on all the steamship expeditions sent out by the Canadian Government to Hudson Strait and Bay. In addition to his duties as geologist and naturalist, he was medical officer on the *Neptune* and *Alert* expeditions, but on the *Diana* expedition of 1897 he was obliged to leave the ship in order to make his surveys by means of a yacht and boat, so that it became necessary to take out another medical man.

At the close of his field operations in 1880, he sailed by the Hudson's Bay Company's barque *Ocean Nymph*, from York Factory, on the west side of the bay, to London, and had a long and very stormy voyage. He has passed through Hudson Strait nine different times, and having studied the navigability of these waters is considered an authority on this subject.

On account of the length of time he has devoted to the work, together with the fact that the expenses were defrayed by the Government, and with a great capacity for physical endurance, Dr. Bell has been enabled to accomplish a greater amount of geographical and geological work than any other man in America, or probably in any other country. As most of this work was in heretofore unknown regions without many distinctive names, he has been obliged to give a vast number of such names as a necessity for the sake of identification and de-

scription. Mr. George Johnson, the official Dominion statistician, who has paid great attention to this matter, calls him the principal place-name father of Canada.

More of the above work was done by canoes with Indian and half-breed voyageurs than by any other method, but the coasts of Hudson Bay, Lakes Superior, Winnipeg and Manitoba were explored by means of boats. His work on the prairies and plains was all done before treaties had been made with the Indians, before there were any mounted police, and before the international boundary line was run—when horse-stealing was considered a virtue and buffalo were abundant. Under these circumstances he had many very exciting experiences and adventures.

Before closing this brief outline of Dr. Bell's career I might add that any part of his time which was not required for actual official work he utilized to study and graduate as a bachelor of science, a doctor of medicine and master in surgery, to study practical chemistry under Lord Playfair and others in the old country, to travel in Europe in different years, and to become a professor for five sessions in Queen's University, which conferred upon him the degree of LL. D. He is a fellow of many learned societies, among them the Royal Society of London, which is the highest distinction for scientists in the British Empire.

While making his extraordinary record of geological and topographical survey and exploration, Dr. Bell has had more adventures and thrilling experiences and more hardships from fatigue, wet and other discomforts, lack of provisions, etc., and has seen more of the game and fish, the real wild Indians and Eskimos and the Hudson's Bay Company's people of all ranks than any other white man, or any Indian that ever lived. He has improved his unequalled opportunities to map out the geographical distribution of the forest trees of Canada, has collected the folk-lore of the various Indian tribes and of the Esquimos, has taken great numbers of photographs in the far-

away regions, and has made extensive zoological and botanical collections and observations on a variety of subjects. He has a rare genius for telling his experiences, and although he has never written them out from his field notes, the original records in his possession would fill many most entertaining and useful volumes. As the author of this running biographical sketch I am proud of the distinction of first making public this record of marvelous achievements.

[The mere enumeration of his surveys and explorations, covering forty-five years of time and extending over half a continent, cannot convey to the mind any adequate conception of the vast amount of geographical work which has been accomplished, especially as it was done in wild and little known regions. Think of the enormous labor, to say nothing of the privations, hardships, and dangers involved in accomplishing any one of the many important undertakings which have been incidently mentioned, as for example those of Lake Nipigon, which is seventy miles across with numerous long bays and large islands; Lake of the Woods almost equally large; the Albany River, 600 miles long, with large branches some of which were also surveyed; the Attawapiskat, 400 miles long; the basin of Moose River measuring about 300 miles in every direction and with an area greater than that of England; the Noddaway River and its branch, the Bell River, both instrumentally surveyed, as well as other rivers and some large lakes tributary to these and draining an area also as large as England; the Churchill River, as large as the Rhine; the Nelson, one of the five great rivers of North America; Hayes River and its branches; Winnipeg River and some of its principal tributaries, including the English River and Long Lake (100 miles); Great Slave Lake as long as Lake Superior; much of the shore line of Hudson Bay, which is nearly half the size of the Mediterranean; part of Baffin-

land. We might say much more, but these references are perhaps sufficient. They show a rare talent and ability for carrying out geographical work on a large scale, which has been of the greatest value to Canada and a most important addition to the science of geography in general.

The regions in which Dr. Bell's surveys have been carried on lie for the most part far away from the headquarters of the Survey at Ottawa, so that in order to reach them before beginning each season's work and to return again in the fall generally required long journeys through uninhabited country. Let the reader take a map of British North America and trace the various surveys and explorations which have been mentioned and he will soon be convinced that the amount of work which has been accomplished by one man is almost phenomenal.

Besides his more distant explorations Dr. Bell has done a large share of the regional or detailed geological work of the Survey in such regions for instance as between the Great Lakes of the St. Lawrence, the Manitoulin Islands, the country north from the shores of Lakes Huron and Superior, the Gaspé Peninsula, etc., etc.—C. H.]



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