SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

FRIDAY, APRIL 12, 1901.

CONTENTS:

GEORGE M. DAWSON.

BY the death of Dr. G. M. Dawson, the Dominion of Canada loses one of her ablest and most distinguished men of science and one whose loss will be felt for many years to come. George Mercer Dawson was the eldest son of the late Sir William Dawson and was born at Pictou, Nova Scotia, on August 1, 1849. In 1855, his father, having received the appointment as Principal of McGill College, left Nova Scotia and came to live in Montreal. The wide college grounds, lying then on the outskirts of the town and backed by Mount Royal, at that time covered with its original forest growth, formed an environment full of interest and delight to the boy, whose mind turned to the study of nature from the first, a study which was made doubly fascinating in his case by his father, who was always ready to encourage him in his work, explain his difficulties and talk with him as a friend.

At the age of ten he entered the High School at Montreal, where he took a high place among the boys of his class. There were, however, at that time, near what is now the center of the city of Montreal, a number of ponds in which the boys from the High School used to go rafting at lunch hour. On one of these occasions he received a drenching and remained in his damp clothes through the afternoon; a chill was induced, which led to spinal trouble,

George M. Dawson

resulting in years of suffering and final deformity. He consequently left school, and his education, until he was old enough to enter college, was carried on chiefly by private tutors. While not neglecting the ordinary subjects of a school curriculum, he was allowed to follow out lines of study in which he found a particular interest and in this way learned many things which were later of the greatest value to him. Surrounded by books, chemical apparatus, paints and pencils, the days were never too long, and photography, bookbinding, painting magic lantern slides, pyrotechny and even cheese-making were among his many occupations. He seemed to absorb knowledge rather than to study, and was always cheerful, amusing and popular, other boys flocking round him and invariably submitting to his unconscious leadership. At times he suffered much pain and was deprived of many things dear to boys, but was never heard to complain. When quite a lad he often accompanied his father on his geological excursions with the students of McGill College on Saturdays, and even on longer expeditions to Murray Bay, Gaspe and the Joggins, and was always a helpful and bright companion.

At nineteen he had recovered his health and entered McGill College, where he studied for a year, and in the following year entered the Royal School of Mines in London. He went to England in a sailing ship, for the benefit of the longer voyage, and on the way over amused himself by studying navigation under the captain. Years later when he chartered a schooner, in order to make an examination of the Queen Charlotte Islands, the captain of the latter, proving to be drunken and unsatisfactory, was dismissed, and Dawson navigated the schooner himself during the remainder of the trip, and this on a deeply indented and dangerous coast, of which at that time no chart existed.

At the Royal School of Mines he took the regular course, extending over three years, taking the Duke of Cornwall's Scholarship, and the Forbes medal and prize in paleontology and natural history. While at the Royal School of Mines he paid especial attention to the study of geology and paleontology under Ramsay, Huxley and Etheridge, and also devoted much time to the study of chemistry and metallurgy in the laboratories of Frankland and Percy.

Returning to Canada, he was engaged for a year in mine surveys in Nova Scotia and in lecturing at Morrin College, Quebec, and in 1873 was appointed Geologist and Botanist to Her Majesty's North American Boundary Commission, which was to fix the boundary line from the Lake of the Woods to the Rocky Mountains, and which had been at work for over a year. There are but few corners of the earth which now appear so far off as the great Northwest did at that time—a veritable *terra incognita*. Fort Garry, now the city of Winnipeg, was the last point of civilization and the 49th parallel had to be traversed on horseback or on foot, the provisions and materials being taken along in Red River carts. The difficulties now experienced in traversing that district were then increased by its remoteness from civilization and the fact that it was unexplored. In summer there was not only the scorching heat of the Plains, but the prairie fires, the difficulty of procuring and carrying firewood, the scarcity of water, and, in the late autumn, the cold with all its accompanying inconveniences. Notwithstanding these difficulties, however, during the two years in which he was a member of the Boundary Commission, he accumulated materials for an elaborate and very valuable 'Report of the Geology and Resources of the Country in the Vicinity of the 49th Parallel,' accompanied with maps and many illustrations, which was published in Montreal in 1875. In connection with

this work he also prepared a report on the Tertiary Lignite Formation, a memoir on the 'Superficial Deposits of the Central Region of North America,' and papers on the 'Locust Visitations,' on the 'Fresh Water Sponges of Canada' and on the 'Fluctuations of the American Lakes.'

When the work of the Boundary Survey was brought to a close, he was appointed, in 1875, to the Staff of the Geological Survey of Canada, and, in 1883, on the retirement of Dr. Selwyn, he succeeded him as Director of the Survey, which position he held at the time of his decease. His field work, while connected with the Geological Survey, was carried on chiefly in British Columbia and the Northwest Territories, and the excellent character of this work contributed largely to the great development of the mining industry in these parts of the Dominion in recent years.

Dr. Dawson also rendered important public service in connection with the Behring Sea arbitration. As one of the British Commissioners he spent the summer of 1892 in the Behring Sea region, for the purpose of inquiring into the facts and conditions of seal life. The report of the Commission constituted the case of Her Majesty's Government, and I remember hearing at the time a high tribute paid to Dr. Dawson's ability by one of the gentlemen connected with the United States side of the case, in the statement that had it not been for Dr. Dawson's evidence and arguments, a finding much more favorable to the United States would probably have been secured. In connection with his services on this arbitration he was made a Companion of the Order of St. Michael and St. George (C. M. G.).

He usually enjoyed excellent health and had great capacity for hard work, but he succumbed very suddenly, on the 2d of March last, to an attack of acute bronchitis after an illness of but two days.

Dr. Dawson was a prolific writer. In addition to his numerous and voluminous official reports, he contributed many papers on geological, geographical and ethnological subjects to the scientific magazines and to the Transactions of various learned societies, both on this continent and in England.

He received the degree of D.Sc. from Princeton, and the degree of LL.D. from Queen's University in 1890 and from McGill University in 1891. In the same year he received the Bigsby gold medal from the Geological Society of London for his services to the science of geology, and was elected a Fellow of the Royal Society. In 1893 he was elected President of the Royal Society of Canada. In 1896 he was President of the Geological Section of the British Association for the Advancement of Science at its Toronto meeting, and was last year President of the Geological Society of America. His presidential address, delivered on retiring from the latter position, appeared in a recent number of SCIENCE. In 1897 he was awarded the gold medal of the Royal Geographical Society. He also received many other distinctions which cannot here be mentioned.

Dr. Dawson was a man of more versatile gifts than his father, but like him possessed of an unusual combination of scientific insight, literary ability and administrative capacity. He was a man of broad views, clear and judicial frame of mind, modest and retiring, but withal an excellent conversationalist. He won the esteem of all who knew him, and his loss will be keenly felt by his very large circle of friends.

FRANK D. ADAMS.
MCGILL UNIVERSITY, MONTREAL.

*STATE NATURAL HISTORY SURVEYS.**

A GEOLOGICAL survey of Wisconsin, very complete and careful for the time, was com-

* Abstracts of addresses made before the Naturalists, meeting in Chicago, December, 1900.