

Sir William Abbott Herdman. By Professor D'Arcy
W. Thompson.

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SIR WILLIAM ABBOTT HERDMAN, eldest son of Robert Herdman, R.S.A. (a well-known painter of portraits and historical subjects), was born in Edinburgh on 8th September 1858. He went to school at the Edinburgh Academy in 1870, where, in Dr Clyde's class, he had as class-mates several future Fellows of this Society, including Surgeon-General Bannerman, Dr John Haldane, Professor Noel Paton, and the present writer. Leaving school a couple of years before the rest of us, he went to the University in 1875; there he very soon distinguished himself, especially in Natural History, and became the favourite pupil of Sir Wyville Thomson. He first attracted Wyville Thomson's notice (if I remember rightly) by a beautiful set of diagrams of Comparative Anatomy—for Herdman had inherited no small artistic powers—and for these and other work he received a special Gold Medal. In 1889 Herdman graduated B.Sc.; he was awarded the Baxter Scholarship in Natural Science, and was appointed Secretary to the *Challenger* Commission in the same year. In the following year he took his Doctorate in Science, and became Wyville Thomson's demonstrator in succession to Mr George Leslie; he became, about the same time, a Fellow of this Society and of the Linnean Society of London.

While Herdman was still a student Wyville Thomson showed the trust he had in him in a remarkable way, by giving him the *Challenger* collection of Ascidians to examine and report upon. The collection was very large, the group is a difficult one, and the task might seem (especially nowadays) beyond the powers of a young and inexperienced investigator. But Herdman tackled it with the greatest possible energy and ability; his first preliminary reports were read to this Society in 1880, and the first large section of the official Report, with no less than thirty-seven fine plates drawn by himself, was published in 1882. This first part dealt with the simple Ascidians; reports on the compound Ascidians and the pelagic forms, such as *Salpa* and *Doliolum*, followed in 1886 and 1888. The whole Memoir, illustrated by nearly a hundred plates, filled a very important place in the great series of *Challenger Reports*, to which all the best naturalists of the day were contributors; and it made Herdman the acknowledged authority on this group of animals.

In 1881 a Chair of Natural History was instituted in the University of Liverpool on a foundation of Lord Derby's, and to this Chair Herdman was appointed when he was just twenty-three years old and while his former schoolfellows were still students at college; he held the Chair with the highest popularity and distinction for nearly forty years. A year after he went to Liverpool Herdman married Miss Sarah Douglas, daughter of the well-known Edinburgh bookseller and publisher; she had been his constant companion in his natural-history rambles, at Lamlash and elsewhere, from very early days; she died, leaving two daughters, four years after her most happy marriage.

Herdman had been from early boyhood a keen open-air naturalist and an indefatigable collector of our marine fauna; he was in this respect a true disciple and follower of Edward Forbes, for whose memory he had a peculiar affection. His very first published papers deal (in 1880) with the invertebrate fauna of Lamlash Bay, and these were followed (in 1881) by more comprehensive lists of the invertebrate fauna of the Firth of Forth.

Continuing to work on similar outdoor lines, Herdman founded (in 1885) the Liverpool Marine Biology Committee, and established in connection with it, a year or two later, a biological station on Puffin Island, a rocky islet off the north coast of Anglesey. Five years after its foundation the station was moved (in 1892) to Port Erin in the Isle of Man, within comparatively easy reach of Liverpool, and in the centre of a rich and varied fauna; ten years later a new and much larger station was built to replace the first temporary premises, and in 1919 this laboratory became part of the Oceanographical Department of the University of Liverpool, and the old committee (the L.M.B.C.) came to an end. A vast number of papers were written, and many young naturalists were trained, in one or other of these marine laboratories. Among Herdman's characteristic enterprises was the publication (from 1899 onwards) of a long series of *L.M.B.C. Memoirs*, or special monographs on common animals. There were no full accounts available, in many cases there were no detailed accounts extant at all, of the cockle, the limpet and the whelk, the lug-worm, the sea-urchin or the Ascidian, or indeed of most or all of the commonest living objects, whether plant or animal, of the sea-side. To have such descriptions in cheap and handy form was immensely useful to the teacher and the student, and at the same time the writing of such memoirs was an education in itself to the young naturalists who undertook them. Some few were written by specialists; but many another man, turning his prentice-hand to the task, became a

specialist by the time he had done his part under Herdman's guidance and example.

In 1892 Herdman became a Fellow of the Royal Society, of which Society he was afterwards Foreign Secretary from 1916 to 1920.

In 1893 Herdman married Jane Brandreth Holt of Liverpool, daughter of Alfred Holt, a very well known shipowner. He was singularly blessed in this, as he had been in his former marriage; he found first one helpmeet and then another who shared all his tastes and helped him in his many and constantly increasing labours. By his second wife Herdman had one son, George Andrew, a boy of high promise and great charm of looks and manner, who was killed in the Battle of the Somme, just as he came of age; and one daughter, Catherine, who inherited her father's scientific tastes and became the constant companion of his later years. In memory of their beloved son, the parents endowed (in 1917) the George Herdman Chair of Geology in the University of Liverpool; and shortly before his own death, the father, as a memorial to his wife (who died in 1922), gave £20,000 to the University to build a museum and laboratory for the Chair. These were not the only important gifts which Sir William Herdman and his wife made to the University. In 1919 they endowed a Chair of Oceanography, the first of its kind in the kingdom; they did so (so they said) "in the belief that oceanography—the science of the sea in all its aspects—affords an immense field both for scientific research and industrial application, and that Liverpool, a great seaport in intimate connection with the oceans of the world, is the fit place for such a Chair." It was a great gift and a wise one; it was an appropriate gift from the shipowner's daughter and the disciple of Sir Wyville Thomson and Edward Forbes. Herdman himself occupied the Chair of Oceanography for a twelvemonth after leaving that of Natural History, and the lectures which he gave during that twelvemonth made a delightful book, *The Founders of Oceanography and their Work* (1923).

Among Herdman's many labours and enterprises, too numerous to relate, let me not omit to mention his study of the Pearl Fisheries of Ceylon. The pearl fishery had failed for some ten years, when (in 1900) the Colonial Office employed Herdman to investigate the matter. This he did with his usual energy and thoroughness; and it was highly characteristic of his zeal, his powers of organisation and his stimulating influence, that the collections which he made while inspecting the pearl fishery furnished material for five large volumes of supplementary reports by various naturalists, published by the Royal Society of London, and describing the copious fauna of the Gulf of Manaar. To elucidate the

fauna of the Gulf, to contribute to the then scanty knowledge of the marine biology of Ceylon, was in Herdman's eyes a simple duty, arising directly from the narrower terms of his commission.

Herdman filled many important positions and received many notable honours. Besides those already mentioned, he was for many years (1903-1920) one of the General Secretaries of the British Association, and was President of that body at its meeting in 1920. He was President of the Linnean Society (1904-1908); he was a Doctor of Science (*honoris causa*) of Harvard, Sydney, West Australia, Durham, Liverpool and Wales; and an LL.D. of the University of Edinburgh. He was knighted in 1922. He acted as Vice-Chancellor of his University for a brief period shortly before his death which took place on July 21, 1924.

Herdman's strength and energy were a byword among us when we were boys together; they never failed him, but grew more indomitable and more conspicuous as his life wore on. He worked incessantly; he had the knack or the talent of stimulating others to do what, without his encouragement and example, they would not have done; he was a leader of men. His work received general approval, his great abilities found universal recognition. It was not the least of his great qualities that he loved his work, and needed no stimulus of ambition nor hope of reward to excite his industry. All his days he studied and loved the living creatures of the sea, just as he loved and studied them when he was a boy, with a devotion which never flagged and an eager curiosity which never diminished.