

OBITUARY.

Sir Lazarus Fletcher, Kt., M.A., F.R.S., etc.

BORN MARCH 3, 1854.

DIED JANUARY 6, 1921.

BY the death of Sir Lazarus Fletcher, of heart-failure, at Grange-over-Sands, Lancashire, on January 6, mineralogical science has lost one of its ablest exponents. The famous series of Introductions to the Study of Meteorites, Minerals, and Rocks respectively, which he prepared at intervals after he became Keeper of the Mineral Department in the British Museum, have been the most efficient means for bringing the elementary principles of the science before the public, while for advanced students his treatise on double refraction, *The Optical Indicatrix and the Transmission of Light in Crystals*, has revolutionized the teaching of physical optics. Although he has thus been, and will continue to be as long as these guide-books are published, the means of arousing an interest in minerals in others, it may be said of him, as of many other mineralogists, that he was a mathematician first and a mineralogist afterwards. In order to appreciate fully the beauty, variety of form, and mutual relations of minerals, some knowledge of mathematics, physics, and chemistry is essential. Fletcher's distinguished career at school and college gave him to perfection this preliminary training, and it was not until after he had taken his degree at Oxford that he was first led to the study of crystals and thence was attracted to minerals.

Sir Lazarus Fletcher was born at Salford, Manchester, on March 3, 1854. At the age of eleven he entered the Manchester Grammar School, and during the next four years displayed such brilliance as a scholar that, instead of being launched upon a business career in that commercial centre as contemplated by his father, he was allowed, by the advice of the headmaster, to continue his studies, with the result that at the early age of seventeen he obtained a Brackenbury Science Scholarship at Balliol. His career at Oxford was signalized by first classes in mathematical Moderations and in the final schools of mathematics and natural science. After taking his degree he became demonstrator in physics to Professor Clifton in the Clarendon Laboratory, and Millard lecturer in physics at Trinity College, and was made a Fellow of University College. His work in the Clarendon Laboratory attracted the notice of Story Maskelyne, who at that time was acting both as Professor of Mineralogy at Oxford and as Keeper of the Mineral Department of the British Museum in London; and in 1880 Fletcher, after serving two years as assistant, on Maskelyne's retirement became the Keeper of the Department. It was at first a troublesome heritage to which he had succeeded, for almost immediately he was confronted with the formidable task of removing the mineral collections from

Bloomsbury and arranging them in their new home at South Kensington. This transference and rearrangement skilfully accomplished, time was afforded him for the preparation of the celebrated guide-books and the selection and arrangement of the series of specimens to illustrate them. In the intervals of this work he was able to prosecute his crystallographic investigations of minerals and those chemical analyses of meteorites which are characterized by the meticulous care which he brought to bear upon any scientific work he undertook. In recognition of his services to science, in 1889 he was elected a Fellow of the Royal Society, in 1894 was chosen as President of the Geological Section of the British Association at its meeting in Oxford, and in 1912 was awarded the Wollaston medal of the Geological Society. After the retirement of Sir Ray Lankester in 1909 he became the Director of the Natural History Museum, and in 1916 was knighted. A few years before his promotion to the Directorship of the Museum he had been attacked by that heart-trouble which had the effect of sapping his energies during the rest of his career, and was eventually the cause of his death. This took place in his native country, the North of England, to which he had returned with his wife and daughter after his retirement from the Museum less than two years ago.

Fletcher's genial and amiable disposition and dry North Country humour endeared him to friends and colleagues. As characteristic examples of this quiet humour the following passages from the address delivered to the Mineralogical Society on his retirement from the Presidency in 1888 may be quoted: "It may be cast in our teeth that the volume (of the Society's Journal) is small, but one can proudly and truly retort that few volumes of the same size furnish so vast an amount of heavy reading," and again: "The Ancients, not unwisely, refrained from the invention of printing; they recognized . . . that their duty to posterity was to transmit to it only their masterpieces; when even these became burdensome, an incendiary, doubtless a librarian, quickly reduced their volume." Fletcher was put in a position of authority over others early in life, and happy was the lot of those who were fated to work under his direction. No bitterness or ill-feeling ever arose to mar their friendly intercourse, for irritability of temper was not in his nature, and the scrupulous regard for fair-play which characterized his relations with his assistants may be judged from the following extract from one of his reports: "After the Assistant has come on duty I have encouraged him in precise rather than in voluminous scientific work, and have taken care that he has had the sole credit of any work he has done. Further, to avoid the possibility of development of difficulties between the Assistant and myself, no one has been allowed to give me the least help in any scientific work which I have myself taken in hand." For the prosecution of such work he possessed in the highest degree that capacity for taking infinite pains which is supposed to be the attribute of genius. The elaborate

method which he adopted for the analysis of meteoric stones, and which he described in detail for the benefit of others engaged in similar work, was one which it is to be feared could appeal to few who were not possessed of his own skill and infinite patience. For many years previous to his retirement from the Museum he had devoted much thought to the problem of the classification of minerals, and with his usual thoroughness had critically examined every system which had been entertained during the last 200 years. During the last year of his life he had made some effort towards the completion of his task, and it is to be hoped that it may be possible to prepare for publication something of interest, at any rate from a historical point of view, from the manuscript which he has left behind.

The Mineralogical Society owes Fletcher a special debt of gratitude for the work which he did on its behalf. As one of its earliest members, its President from 1885 to 1888, and its Secretary for more than twenty years afterwards, he worked indefatigably first to establish the Society on a firm basis, and then to promote its interests.

Loyalty to friends and to any institutions with which he was or had been connected was one of the guiding principles of Fletcher's life. After he had attained to an assured position he was ever ready to help those from whom he may have received benefit in his youth, and the school and college in which he was educated. No one in trouble ever appears to have appealed to him in vain. Partly as a consequence of this open-handed generosity and partly, no doubt, from choice, his home life was always a very quiet and simple one. He was twice married, first to Miss Agnes Ward Holme, who died in 1915, leaving one daughter, and afterwards to her sister Edith. His wife and daughter survive him.

G. T. PRIOR.

James Reeve, F.G.S.

BORN MAY 12, 1833.

DIED DECEMBER 19, 1920.

MR. JAMES REEVE, F.G.S., Consulting Curator of the Norwich Castle Museum, died at Norwich on December 19, 1920, in which city he was born on May 12, 1833.

The 27th Annual Report of the Committee of the Norfolk and Norwich Museum for 1851 records that James Reeve, Assistant, had been appointed Curator in succession to Mr. H. J. Bellars, who had resigned. This appointment he held with conspicuous success until 1894, when the collections were transferred to the Town Council of Norwich and housed in the splendid buildings known as the Norwich Castle Museum, which was opened to the public on October 23, 1894, by the Duke and Duchess of York (the present King and Queen). Mr. James Reeve received the appointment as Curator under the Town Council, and by his energy and unrivalled knowledge