

THE  
GEOLOGICAL MAGAZINE

VOLUME LXI.

No. II.—FEBRUARY, 1924.

OBITUARY.

**The Rev. Professor T. G. Bonney, Sc.D., F.R.S., etc.**

Thomas George Bonney was born on 27th July, 1833, at Rugeley, Staffordshire, the eldest of the ten children of the Rev. Thomas Bonney, of Pipe Ridware, near Rugeley. The family was of French Protestant origin, but had long been settled in Staffordshire. During his boyhood Thomas George Bonney showed an inclination towards natural science, which, indeed, seems to have been hereditary, as both parents were keen botanists. The years spent at Uppingham School helped to increase this taste, and provided facilities for fossil-collecting, thus awakening an instinct for geology. On leaving Uppingham as head of the School he went to St. John's College, Cambridge, where he soon obtained a scholarship. As was the custom of those days, he took both the mathematical and classical triposes, graduating in 1856 as twelfth wrangler with a second class in classics. Shortly after this his health partly broke down and he left Cambridge for a while, but a few months spent on the south coast and in the Alps restored him to health, and he accepted the post of mathematical master at Westminster School, while at the same time he prepared for holy orders, being ordained deacon in 1857 and priest in 1858.

In 1859 Mr. Bonney was elected to a fellowship at St. John's, and in 1861 he returned to Cambridge to take up the duties of junior dean, afterwards becoming tutor of his college. His principal work in Cambridge was done between 1861 and 1881, at which latter date he took up his residence in London. His regard for his college was shown by his return to Cambridge to spend the last years of his life.

Dr. Bonney was an ideal college tutor, "to his pupils he might be said to have given all he had; he helped them to the utmost of his powers, by lectures, private tuition, friendly advice, and informal teaching in the field." To all of them he was a true friend and the evening gatherings in his college rooms when undergraduates met many of the leading residents are still gratefully remembered by those who were privileged to be present. His geological pupils were specially favoured, and his influence is well shown by the recognition of St. John's as a college to which geological students have been and are specially attracted. During the years when the infirmities of old age were weighing on the Woodwardian Professor, Adam Sedgwick, Bonney's college lectures were the means of maintaining the traditions of the Cambridge School of Geology, and so continued during his tenure of his college lectureship. Among the members of his own college whom he taught were Teall, Sollas,

Jukes-Browne, Strahan, Clough, Milnes-Marshall, and Marr, while members of other colleges who studied under him included P. H. Carpenter, F. Maitland Balfour, and W. W. Watts.

In 1877 Dr. Bonney accepted the Professorship of Geology in University College, London, in addition to his work at St. John's. In 1881, on being appointed Secretary of the British Association, he quitted Cambridge, and went to live at Hampstead. To sum up his academic career, he retired from the Professorship in 1905 and returned to live in Cambridge. Though then over 70 years of age, his scientific career was still in full activity, and what may perhaps be regarded as its climax came in 1910, when he was elected President of the British Association for the Sheffield Meeting: his Presidential Address will long be remembered, both for its matter and its manner. Space will scarcely permit of an enumeration of the various offices held by Dr. Bonney, and of the academic and other distinctions showered upon him. Among them must be mentioned the following: Doctor of Science, Cambridge, Dublin, and Sheffield; Hon. LL.D., Montreal; Fellow and Vice-President of the Royal Society; Secretary and President of the Geological Society of London; President of the Mineralogical Society and of the Alpine Club; Whitehall Preacher, Hulsean Lecturer, Rede Lecturer, and Honorary Canon of Manchester.

Dr. Bonney's earliest publication seems to have been a contribution to that interminable subject, the study of palæolithic flint implements and the greater part of his writings, apart from theological publications, have reference to geology. It is a curious and perhaps instructive fact that Dr. Bonney apparently never attended any lectures on geology. This doubtless helps to account for the originality and independence of his outlook. As things were at Cambridge in his time, it fell to him to give lectures rather than to listen to them; in the special branch of the subject to which he at first devoted himself little was then known. It was only about 1859 that Henry Clifton Sorby, of Sheffield, prepared the first microscope-slide of a rock, and the pioneers of this great branch of geology were Zirkel and Rosenbusch in Germany, Allport, Clifton Ward, J. A. Phillips, and Bonney in England. The last-named was actually the first to publish technical descriptions of a vast number of the rocks of the British Isles, and he also described many specimens brought by travellers from the farthest regions of the earth. About 1875 a textbook of petrology was announced as being in preparation, but unfortunately it never appeared, probably owing to press of other work. The study of rocks, combined with a love of the Alps, naturally led Dr. Bonney to attack the problems of Alpine geology. He acquired an intimate personal acquaintance with almost the whole of the Alpine chains, and, indeed, he was one of the pioneers in Dauphiné. His conclusions as to the geology of certain parts of the Alps are founded on personal observation throughout a long life, and if not fully accepted by some of the Continental geologists, they

are, at any rate, worthy of most careful consideration. From the structure of the mountains, it was an easy transition to the study of ice-work in all its forms, and this subject, perhaps even more than petrology, occupied the later years of Dr. Bonney's geological life. The importance he attached to it is shown by the fact that he made it the principal theme of his presidential address to the British Association, which is a masterly summary of the evidence bearing on glacial problems, with special reference to those of the British Isles. In the great glacial controversy, as in many others, Dr. Bonney took the unpopular and unfashionable side, for the simple and characteristic reason that the popular views did not accord with his own observations on the spot. He was always the enemy of theorists and of cabinet geologists; his work was done in the open air, and the results recorded in a great array of notebooks, illustrated by his own vivid sketches. Then, when the matter was clear to himself, he proceeded to write out his results with a lucidity of exposition and a wealth of detail that left little loophole for doubt in the minds of readers as to what his own views were.

Besides a vast number of purely scientific and technical papers on geological subjects, the mere list of which occupies nearly six pages of small type in the GEOLOGICAL MAGAZINE, Dr. Bonney wrote several books of a more popular character, including *The Story of our Planet*, 1893; *Charles Lyell and Modern Geology*, 1895; *Ice-work*, 1896; *Volcanoes* (three editions); *The Building of the Alps*, 1912; *The Present Relations of Science and Religion*, 1913; four volumes of sermons, and several writings on Alpine subjects. At one period of his life he also contributed largely to the leading columns of a well-known daily paper since extinct. In 1921 there appeared a charmingly written little book entitled *Memories of a Long Life*, in which were set forth Dr. Bonney's reminiscences of early days at home and at school, of Cambridge and of travel and climbing, with a wealth of anecdote and many graphic sketches of the days now long gone by.

In spite of rather precarious health, Dr. Bonney was a man of marvellous activity, both mental and physical, and in his day a famous climber. Even after his retirement to Cambridge in 1905, he led a very active life, and when over 80 years of age he was able to spend long and strenuous days on the hills of Cumberland and Yorkshire, or scrambling about the steep cliffs of the Lizard. He also made frequent journeys to London to attend the meetings of the Geological Society, to Manchester to preach in the Cathedral, and to visit friends elsewhere. At this period also, so great was his love of teaching that he even found time to assist geological students in the Sedgwick Museum, where with unflinching patience he would spend hours in explaining small difficulties to a succession of inquirers, enlivening his discourse with witty illustration and caustic comment. Besides his own pupils in the old days at St. John's, now the masters of the science, Cambridge geologists of the younger generation owe much to Dr. Bonney.