

are, by a crust of these silicates.¹ In this case there is no doubt that fluorides contained in the tuff magma were the catalyzers or mineralizers.

When we have solved all these problems, then will be the time to institute a true classification of rocks and their mineral constituents, but until then any of the recent attempts to do so only hide our ignorance under a cloud of fantastic but unfounded generalizations. The 'saturation of minerals' is, I contend, more accurately represented by my 'principle of fraction exhaustion'.

H. J. JOHNSTON-LAVIS.

VITTEL (VOSGES), FRANCE.

July 16, 1914.

OBITUARY.

REV. OSMOND FISHER, M.A., F.G.S.,

HON. FELLOW AND LATE TUTOR OF JESUS COLLEGE, CAMBRIDGE.

BORN NOVEMBER 17, 1817.

DIED JULY 12, 1914.

So lately as last June we claimed our dear and valued friend, the Rev. Osmond Fisher, as one of the four surviving contributors to the opening volume of the GEOLOGICAL MAGAZINE in 1864, and now in August we have to record his loss. He passed peacefully away on Sunday, July 12, after an honourable and useful life of 97 years, retaining his faculties active until the end.

Those who *knew* him need no record of his worth; for the younger generation of geologists, we may refer them to his life and portrait which appeared in the GEOLOGICAL MAGAZINE for February, 1900, pp. 49–54.

From a very early age Osmond Fisher displayed a keen interest in geology, and was an assiduous collector of fossils in Dorset and Wilts. When at King's College he attended lectures by Lyell and Daniell and visited the galleries of the British Museum. He entered Jesus College, Cambridge, in 1836, taking up mathematics, in which he graduated as 18th Wrangler in 1841. Whilst at Cambridge Fisher attended Sedgwick's lectures and soon a warm friendship followed, and later on, in 1852, Sedgwick proposed Fisher as a Fellow of the Geological Society.

Besides the numerous papers which Osmond Fisher communicated to the Geological Society, the Philosophical and the Geological Magazines, the British Association, and elsewhere, he published a most important work, *The Physics of the Earth's Crust*, to which subject he devoted fully thirty years of his life, and expended the best efforts of his mathematical powers to perfect.

The Geological Society, always anxious to welcome the contributions of mathematical geologists, awarded him the 'Lyell Fund' in 1887, and the Murchison Medal in 1893; but the crowning recognition of his life's work, the award of the Wollaston Gold Medal, did not take place until 1913, probably owing to the retirement in

¹ "On the Formation at Low Temperatures of certain Fluorides, Silicates, Oxides, etc., in the Pipernoid Tuff of the Campania": *GEOL. MAG.*, Dec. IV, Vol. II, pp. 309–13, 1895.

which Mr. Fisher remained for so many of his latter years, and to the vast number of younger geologists occupying the stage, amongst whom this illustrious early worker was for a time overlooked.

Mr. Fisher was elected an Honorary Fellow of King's College, London, in 1878, and of Jesus College, Cambridge, in 1893. His portrait was subsequently painted and placed in the Hall of Jesus College.

SIR JOHN BENJAMIN STONE, KNT.,

J.P., F.S.A., F.G.S., M.P. FOR EAST BIRMINGHAM 1895–1909,
HIGH STEWARD OF SUTTON COLDFIELD.

BORN FEBRUARY 9, 1838.

DIED JULY 2, 1914.

ALTHOUGH most widely known and recognized as the "Prince of Photographers", and during fourteen years as Conservative M.P. for East Birmingham, Sir Benjamin Stone was remarkable as a tireless traveller, having visited Japan, China, British Columbia, Vancouver and the Rocky Mountains, the West Indies, the River Amazon, the Straits Settlements, Asia Minor, Europe generally, and Egypt specially.

He was an accomplished antiquary and enriched the places he visited by his remarkable photographic records. He wrote accounts of his travels in Japan, Brazil, Spain, and Norway, and made the photographic history of the Houses of Parliament, of Westminster Abbey, the Tower, Windsor Castle, St. James's Palace, Lichfield Cathedral, and Sutton Coldfield, of which last place he was five times Mayor and was the founder of its celebrated Vesey Club.

Some years since Sir Benjamin Stone commenced to photograph the most interesting objects preserved in the British Museum (Natural History), Cromwell Road. One of these, representing the complete skeleton of *Diprotodon australis* (reconstructed in part from remains in the Natural History Museum, but chiefly from skeletons discovered by Dr. E. C. Stirling, F.R.S., at Lake Callebonna, South Australia), forms the subject of Plate XV in the *GEOLOGICAL MAGAZINE*, Dec. V, Vol. VI, pp. 337–9, August, 1907, in illustration of an article by Dr. Arthur Smith Woodward, F.R.S. Among his geological photographs is one taken of Mount Vesuvius during an eruption, when stones were being hurled into the air and lava flowed nearly at his feet.

It is earnestly to be desired that the magnificent series of portraits he took of his many eminent contemporaries, and of the thousand and one places which he visited—commencing in 1868—should find a suitable resting-place in the British Museum or other national repository.

Sir Benjamin Stone was not only celebrated as a photographer; he will long be remembered as one of the most amiable and generous of men, who spared no pains nor private means to promote the welfare of all those with whom he was brought into contact, and his numberless acts of kindness have endeared him to a very wide circle of devoted friends who lament his loss. Lady Stone, his constant companion in his travels, only survived her husband three days.