

size. One stream, after leaping in a cascade from a hollow in a hill-side, has cleared out a channel of from eight to ten feet deep, and in some parts fifteen to eighteen broad. The loose gravelly sides of such channels soon fall in, and beyond a modification of the contour of the slope, all trace of the denuding agent is lost.

JAMES DURHAM.

P.S.—I heartily concur in Mr. Mackintosh's estimate of Mr. H. B. Woodward's admirable Geology of England and Wales, but Mr. Woodward says little about 'Kames' which would not be explained as readily by the Denudation theory as by any other.—J.D.

THE TROPICAL FORESTS OF HAMPSHIRE.

SIR,—Please correct the following *erratum* in the last Number of the *GEOL. MAG.* in my letter, line 3, from top of page 96; for "200 feet" read "2000 feet." That is the thickness of the Eocene beds in section in Hampshire, according to the Geological Survey Memoir by Messrs. Forbes and Bristow. It was written *very plainly* in figures in the MS. of my letter.

MARTLESHAM, NEAR WOODBRIDGE,
February 21st, 1877.

SEARLES V. WOOD, JUN.

OBITUARY.

SARTORIUS VON WALTERSHAUSEN.

BORN 17 DEC., 1809. DIED 16 OCT., 1876.

THE death is announced of Professor Sartorius von Waltershausen, of Göttingen, on the 16th of last October, after a long and painful illness. The loss of a man who has done so much to advance the science of Petrology will be generally felt and deeply regretted. The obituary notice which has appeared in the *Jahrbuch für Mineralogie* is so singularly meagre that we propose to review in somewhat fuller detail his history and scientific labours.

Wolfgang Sartorius von Waltershausen was born on the 17th December, 1809. He was an illustrious son of an illustrious father, Georg Sartorius von Waltershausen, who was Professor of Philosophy in the University of Göttingen. The father was a great friend of Goethe, and was more especially known as the author of the "Geschichte des Hanseatischen Bundes." The son, after having taught for a time in some of the German schools of learning, and having published some memoirs on terrestrial magnetism, devoted several years to travel. From 1834 to 1846 he visited various districts, where the phenomena of volcanic activity could be studied with advantage, and the observations made in the field formed the material for more important memoirs issued in later years. He was for a considerable period in Sicily, returning in 1843, and his "Atlas" of researches on the rocks of Etna appeared three years later. In 1845 he visited Ireland and Scotland, and in 1846 we find him in Norway and Iceland. In the journey to the Danish Island he was accompanied by his friend Bunsen, and the results of the investiga-

tion of the igneous rocks, geysers and gases of that remarkable region have long been famous. In the same year appeared his paper on the submarine volcano of Val di Noto; while his riper reflections appeared in a memoir on the volcanic rocks of Sicily and Iceland in 1853.

In 1865 he published his views respecting the causes of the change of climate since the commencement of what has been termed the Historic period, and expressed his belief that the interval known as the Ice Age was due to an alteration of the contour of the earth's surface since Diluvial times. His labours, however, were not restricted to the field of Petrology. In 1856 he described what he regarded as a new mineral species from Borgarfjord, parastilbite, differing from epistilbite in some of its angular measurements; and he published about the same time his examination of the crystalline form of boron. In Palæontology, again, we find him actively at work; he described a fragment of a Saurian from the Coal-beds at Zwickau, and that of a fossil snake from Burlington, in Mississippi. It should be stated, moreover, that he was the close friend and ally of Gauss, and wrote the life of this eminent physicist and mathematician, which appeared at Gotha in 1856.

While so ably filling the position of Professor of Mineralogy and Geology in the University of Göttingen, he devoted himself to writing a *magnum opus* on Etna, which occupied him till a short time before his lamented death. The Chair which after the lapse of thirty years now becomes vacant has, it is stated, been offered to Prof. Tschermak, of Vienna.—W. F.

FIELDING B. MEEK,

PALÆONTOLOGIST, U.S.A.

BORN 10 DEC., 1817. DIED 22 DEC., 1876.

MR. F. B. MEEK was born in the city of Madison, Indiana, U.S. America, Dec. 10th, 1817. His grandparents were Irish Presbyterians, and emigrated to America from the county of Armagh, Ireland, about the year 1768. He spent his early days in Madison, where his father was a lawyer of considerable eminence; but unfortunately died when young Meek was only three years old, leaving his family in very moderate circumstances. From his earliest recollection he was interested in the Silurian fossils so abundant in the rocks of the neighbourhood of his home. He had never heard of Geology, but studied these remains with admiration and wonder as to their origin. On attaining his majority, by the advice of his friends, but against his own wishes, he commenced business as a merchant; but, absorbed in his favourite pursuit, he neglected his avocation, and in the financial crisis of 1847 he lost his small capital, on which he depended.

In 1848 he seems to have really commenced his career as a scientific man, being first employed as assistant to Dr. D. D. Owen, on the States Geological Surveys of Iowa, Wisconsin, and Minnesota.

In 1852 he became the assistant of Prof. James Hall, the eminent palæontologist of Albany, New York. Here he remained until