Mr. Charles Babbage, F.R.S.—This eminent mathematician and philosopher was born 26th December, 1792, and died at his residence, Dorset St., Marylebone, on the 20th inst., in his eightieth year. He was the inventor and partial constructor of the famous calculating engine or machine, which the world has associated with his name, and which is now preserved in the Museum of King's College, London. As a writer in the *Dictionary of Universal Biography* remarks:

"The possibility of constructing a piece of mechanism capable of performing certain operations on numbers is by no means new; it was thought of by Pascal and geometers, and more recently it has been reduced to practice by M. Thomas, of Colmar, in France, and by the Messrs. Schütz, of Sweden; but never before or since has any scheme so gigantic as that of Mr. Babbage been anywhere imagined."

His achievements, says the *Times*, were two-fold; he constructed what he called a Difference Engine, and he planned and demonstrated the practicability of an Analytical Engine also.

It would be entirely beyond our province to refer here in any detail to Mr. Babbage's labours and sacrifices; his history is that of almost all original inventors; his machine, the labour of his life, over which he expended his time, his brains, and his fortune, was never completed, and will remain unfinished, until perchance some adapter of other men's ideas shall be able to effect its completion by some more economic method than was known to him.

Geologists are indebted to Mr. Babbage for a most valuable and philosophical paper on the rate of Geological changes, and the movements of elevation and subsidence of land as illustrated by the Temple of Serapis, at Puzzuoli, in the Bay of Baiæ, near Naples (see Quart. Journ. Geol. Soc., 1847, vol. iii.). This celebrated monument of antiquity affords in itself unequivocal evidence that the relative level of land and sea has changed twice at Puzzuoli since the Christian era; and each movement of elevation and subsidence has exceeded 20 feet. Mr. Babbage examined the temple and inland cliff (covered with *Balani* and full of the perforations of Lithodomous Mollusca) in company with Sir Edmund Head, in June, 1828; and a full account will be found of his researches both in his original paper and also in Sir Charles Lyell's "Principles" (vol. ii. pp. 164-179, 10th edition, 1868). It may seem strange at the present day that the idea of the permanence of the ocean's level should have been denied by many otherwise able writers, but the phenomena of the Bay of Baiæ have given rise to interminable controversies, all arising (says Sir Charles Lyell) from an extreme reluctance to admit that the land, rather than the sea, is subject alternately to rise and fall (Principles, *op. cit.* p. 179).

A list of eighty papers and works by Mr. Babbage is recorded; the most valuable no doubt of all are his "Tables of Logarithms," from 1 to 108,000, a work which, although now forty years old, is still held in high esteem by all upon whom the laborious calculations of astronomy and mathematical science devolve. Mr. Babbage was one of the oldest members of the Royal Society, and more than fifty years ago was one of the founders of the Astronomical Society; he and Sir John Herschel were the last survivors of that body.