

T. MELLARD READE.

BY the death of Mr. Thomas Mellard Reade, F.G.S., geological science has lost an amiable, painstaking, and enthusiastic geological worker. Educated as a civil engineer, he was at one time chief draughtsman in the civil engineering department (northern division) of the London and North-Western Railway. Later on he became engaged in independent engineering and architectural work, and was elected an Associate Member of the Institution of Civil Engineers and a Fellow of the Royal Institute of British Architects. In the course of his professional work, the strata exposed in foundations and trenches aroused his interest, and, recognising the practical advantages of a knowledge of geology, he began, when about thirty-five years of age, to pursue the study with great earnestness. The list of his scientific papers and works, numbering about 200, commenced in 1870 and continued until the present year. Residing in the neighbourhood of Liverpool, his attention was in earlier years given especially to the Glacial and post-Glacial deposits of Lancashire and Cheshire, and he was ever an advocate of the glacio-marine origin of much of the Boulder-drift.

Mr. Reade became a Fellow of the Geological Society of London in 1872, and was also an active member of the Liverpool Geological Society, of which he was three times president. His more important papers were communicated to these societies, and to the *Geological* and *Philosophical Magazines*, while many short contributions (dating from 1870) were published in *NATURE*. He extended his researches on Glacial geology into North Wales, Norfolk, Scotland, and Ireland. Tidal action as a geological cause, chemical denudation in relation to geological time, and the physiography of the Trias are among the subjects with which he dealt. In 1886 he published his great work on "The Origin of Mountain Ranges considered Experimentally, Structurally, Dynamically, and in Relation to their Geological History." The results of much original and experimental research were given in this volume, and the existence of a level-of-no-strain in a cooling solid globe was for the first time pointed out. It was recognised that his experiments on the rates of expansion of different kinds of rock were of great interest and value, although they did not explain some of the more complicated phenomena of mountain structure. In recognition of this work and other researches, the Geological Society in 1896 awarded him the Murchison medal.

Pursuing the subject of dynamic geology, and making further experimental investigations, he published in 1903 a volume entitled "The Evolution of Earth Structure, with a Theory of Geomorphic Changes." In this work he embodied much material which he had previously published, including researches on slaty cleavage, carried out in conjunction with Mr. Philip Holland, as well as essays on denudation and on the permanence of oceans and continents; and the volume may be said to summarise his main contributions to geological science. He expressed his conclusion that while the relative proportions of land and water have been fairly constant throughout the ages, regional changes of level are due to alterations in the bulk of certain portions of the lithosphere caused by expansion and contraction, without other movements in mass. Among his later investigations, those on "Sands and Sediments," in which he had the cooperation of Mr. P. Holland, are of great interest and importance, especially in connection with the micro-sediments, such as quartz-dust, and fine particles of carbonate of lime of detrital origin. In the latter case the suggestion is

made that some deep sea-limestones may be due in part to mechanical causes.

Mr. Reade died on May 27, aged seventy-seven, at his residence, Park Corner, Blundellsands, Liverpool.

H. B. W.

NOTES.

THE Croonian lecture of the Royal Society will be delivered on Thursday, June 10, by Prof. E. A. Schäfer, F.R.S., on "The Functions of the Pituitary Body."

THE statue of Lamarck, erected by international subscription, is to be unveiled in the Jardin des Plantes, Paris, on Sunday, June 13, at 3 p.m. M. Fallières will preside at the meeting.

THE death is announced of M. Eugène Grenet, well known as an electrical engineer and the inventor of the potassium bichromate cell.

PROF. IRA REMSEN, president of the Johns Hopkins University, Baltimore, U.S.A., has been elected president of the Society of Chemical Industry for the ensuing year. The next annual meeting of the society will be held in Glasgow.

It is announced that the principal trustees of the British Museum have appointed Mr. Lazarus Fletcher, F.R.S., keeper of the department of mineralogy, to the post of director of the natural history departments of the British Museum.

THE New York correspondent of the *Times* announces that the American delegates to the Darwin centenary celebration at Cambridge will bring with them a bronze bust of the great naturalist, 40 inches in height, which they will present to Christ's College.

It is announced in *Science* that the American Academy of Arts and Sciences has awarded the Rumford premium to Prof. R. W. Wood, of the Johns Hopkins University, for his discoveries in light, and particularly for his researches on the optical properties of sodium and other metallic vapours.

MR. HORACE DARWIN, F.R.S., has been elected a corresponding member of the Vienna Academy of Sciences.

THE annual meeting of the Cape Chemical Society was held on April 30, when the following officers for 1909 were elected:—*president*, Dr. R. Marloth; *vice-president*, Dr. C. F. Juritz; *hon. secretary and treasurer*, Mr. St. Clair O. Sinclair; *additional members of council*, Mr. G. N. Blackshaw and Prof. P. D. Hahn. Dr. R. Marloth delivered his presidential address, on "The Chemistry of some Vegetable Products of South Africa."

At the last meeting of the International Physiological Congress, which was held at Heidelberg in 1907, it was decided to hold the next congress at Vienna in 1910, at Whitsuntide. It has been found, however, that at this time of year it would be impossible for a large number of physiologists to attend the congress, and the local committee of the congress at Vienna has therefore, after consulting the local secretaries in the various countries, determined to change the date. In accordance with the general wish, the congress will now be held on September 26-30, 1910.

ON July 1 the price of the *Astrophysical Journal* is to be increased. In a letter upon this change, Prof. E. B. Frost, the managing editor, points out that a periodical of a