In the following year Dendy was appointed lecturer in zoology in the University of Melbourne, a post he held until 1894, when he was promoted to the professorship in the same subject in the Canterbury College of New Zealand.

In the rich and extremely interesting fauna of Australasia, Dendy found full scope for his brilliant abilities in zoological research, and he published in rapid succession a long series of papers on the anatomy and development of some of the most interesting animals of that region. Apart from some excellent papers on sponges, he wrote on land planarians, on the land nemertine (Geonemertes), on the remarkable polyzoan Cryptozoon, on Holothurians, and on the Collembola. His valuable papers on the oviparous species of Peripatus greatly enriched our knowledge of this extremely interesting and archaic arthropod, and his study of the pineal eyes of the New Zealand lamprey Geotria threw important light on the history of these remarkable vestigial structures previously discovered in Sphenodon by his friend—also an old Owensian—Sir Walter Baldwin Spencer. On reaching New Zealand he lost no time in going in search of Sphenodon itself, and, on finding that there was serious danger that the enterprise of collectors would lead to its early extinction, he made urgent and successful appeals to the Government to pass measures for its protection. He was the first to write an account of the development of this reptile, and to record many important features of its anatomy and natural history.

In 1902 Dendy came back to England on a visit, and was given the hospitality of the Zoological Department of his old University in Manchester to enable him to pursue some investigations on which he was engaged. Here he completed his description of the aberrant floating hydroid Pelagohydra and examined sections through the brain of the Ammocoetes larva. In studying the anatomy of the Geotria in New Zealand, he had discovered a pair of ciliated grooves lying beneath the posterior commissure of the brain, and he found these grooves to be even better developed in the brain of the young Petromyzon. On these researches he published an interesting paper, which appeared in the Proceedings of the Royal Society in 1902. His studies on these brains led him to the investigation of another structure in the nervous system of vertebrates, namely, Reissner's fibre. On this subject, also, he made a very important communication to the Royal Society in 1910.

While he was in England on this visit, Dendy heard of the vacancy in the chair of zoology at Cape Town. He applied for the post and was appointed. But he remained in South Africa only two years, as he received the appointment to the professorship in King's College, London, in 1905, vacated by the retirement of the late Prof. F. J. Bell. He held this chair until his death. He was elected a fellow of the Royal Society in 1908.

In London Dendy carried on his teaching and researches with increasing energy and success, and under his guidance King's College soon became recognised as an active centre of research in his subject. He put together some of his teaching notes in the form of a book entitled "Outlines of Evolutionary Biology," which was published in 1912 and has already reached a third edition, and he also wrote an interesting little book entitled "The Biological Foundations of Society," which was published in 1924.

The last important work he wrote was the memoir on the Antarctic sponges reviewed in NATURE of March 7, p. 330, but a preliminary note published in these columns on February 7 showed that he had in hand a paper in which he was prepared to maintain the rather startling proposition that the spicules of siliceous sponges are formed by the skeleton-forming cells enveloping migratory symbiotic organisms resembling micrococci. Many of his friends looked forward with much interest to the fulfilment of his promise made last December to maintain this thesis at the next meeting of the British Association.

Dendy was a man with a very striking and impressive personality, a fine speaker, and a clear and sympathetic teacher. His father was a well-known Unitarian minister. One of his sisters, Miss Mary Dendy, is widely known for her philanthropic work, particularly in connexion with the care and education of feeble-minded children. Another sister married Dr. Bernard Bosanquet, and is herself a well-known writer.

S. J. H.

WITH the sudden and untimely death of Prof. Dendy, we have lost the only man in England with a catholic knowledge of sponges, and probably the leading authority of the two or three in the world who could be classed with him. He was a biologist with wide scope of learning and research as well as a spongologist, but it is of his work on sponges only that I am competent to write.

A catalogue of Dendy's papers on sponges would be long. They begin in 1886, when he was twenty-two, with Ridley and Dendy's "Preliminary Report on the Monaxonida . . . *Challenger*"; they end with a letter, unseen by me as I write this (March 26), which appears in NATURE for March 28, and shall remain in these columns unanswered. Ridley and Dendy's classic *Challenger* monograph (1887) was written as to some five-sixths by Dendy, a wonderful piece of work for so young a man. Then came careful anatomical and histological studies of single species (*Q.J.M.S.*, 1888 *et seqq.*). Beside them the "Monograph of the Victorian Sponges . . . Homocœla" (1891) described several important new forms, of some of which we have little added information—one is now recognised as of generic rank by the name Dendya, not conferred by its discoverer. But the contemporary importance of the "Monograph" was that it carried on Poléjaeff's revolt (*Challenger* "Calcarea," 1883), and struck loose from Haeckel's "Kalkschwämme," and in this it was followed by "Observations . . . and Classification of the Calcarea Heterocœla" (1893, *Q.J.M.S.*), which made a serious and valuable attempt at classification *de novo*.

It would be a long article which should follow Dendy from youth to maturity and from maturity to the admirable work of his last years; we may say briefly that Vosmaer's "Bibliography" to 1913 (in press) gives him thirty-five publications, mainly before 1898, and that his masterly "Reports" since 1913 on collections of sponges add up to 460 quarto pages of print. They are all good. As in other descriptive monographs, there is much which is only readable to the colleague whose interest has been aroused in the

organism described. But there is no slovenly work, and nothing written without purpose, responsibility, and accuracy.

Dendy was above all truthful in record. I have followed much of his work very closely in calcareous sponges, and I have never found the sign of anything described which I had reason to doubt had been seen. He was a beautiful draughtsman, and I have always considered that I could trust one of his drawings as if I had seen the specimen. Four or five years ago I questioned him as to certain details in his early illustrations (*a*) of the collar-cells of Halichondria, (*b*) of the pore-canals of *Leucosolenia stolonifer*. He showed me under the microscope the actual sections from which the drawings had been made, a third of a century earlier, and the fidelity was perfect.

Dendy's life's work as regards sponges was to accomplish a revised classification of the whole group and of their spicules. He was an evolutionist to the core, and believed in the evolutionary chain not only for all forms of sponges but also for all their spicules. His work, however, led him to the conclusion that it is impossible to consider the detailed form of spicules to be evolved for functional advantage to the sponge, and in the case of the two-disced spicule of Latrunculia he, in conjunction with Prof. J. W. Nicholson, gave a most important physical theory of the nodal position of the discs.

I have elsewhere expressed disagreement with his classification. But Dendy had investigated probably more forms of sponges than any one else has ever done, unless possibly Topsent, Hentschel, or Vosmaer. His works constitute a logical catalogue of their forms and of their spicules, illustrated almost entirely by himself with innumerable accurate drawings and accompanied by clear and careful description. He has made research on sponges easier for all who come after him; he has left order where there was much chaos.

Dendy enjoyed public discussion and hard hitting, given and received without disturbing private friendship. Veracity in record, swift work, accurate observation, clear description, untiring industry and enthusiasm for biological knowledge—these were his characters.

In ten years have died Minchin, Maas, Vosmaer, Dendy. The evening grows chilly.

GEO. P. BIDDER.

MR. THOMAS HUGH POWELL, who died in London on February 19, was a remarkable personality in the microscopical and photographic world. He devoted practically the whole of his life to the development and improvement of appliances in connexion with microscopes and photography, and, following in the footsteps of his father, Mr. Hugh Powell, was responsible for many progressive inventions. When Mr. Powell's father died in 1883, it was said of him in an obituary notice in the *Times* that he was the first optician in England to construct object glasses on Amici's "immersion" system. After making a considerable number of one-eighths, one-sixteenths, one-twenty-fifths, and one-fiftieths, he completed, with the assistance of his eldest son, who has just died, an object glass of this kind having a focal length of one-eightieth of an inch. The formula of the "homogeneous immersion" system was the subject of special attention on the part of Mr. Powell, sen., but failing health compelled him to rely on the efforts of his son, by whom object glasses on this formula, having the highest apertures on record, were constructed. Mr. Powell was within a month of his ninety-third birthday at his death, having been born in March 1832. He was believed to be the oldest member, both in age and in length of membership, of the Royal Microscopical Society and the Quekett Microscopical Club, and displayed an active interest in his life-work to within a short time of his death.

WE much regret to record the death of Mr. Robert Standen, Senior Assistant-keeper in the Manchester Museum, who died on March 15, aged seventy-one years. He was born at Goosnargh, near Preston, and spent his whole life in Lancashire, forming one of the band of first-rate field naturalists who have done so much work on the fauna and flora of the north-west of England. He had wide knowledge and experience, and would have something of interest to say about most of the live things met with on a country walk, and to this he added a skilful museum technique and a scholar's knowledge of his special group—mollusca—on which he wrote many papers both on the British and, in conjunction with Dr. Cosmo Melvill, on foreign forms. In recent years he was active in promoting interest in neglected groups and quickly made himself an authority on wood-lice: here and everywhere he never grudged time and trouble spent on helping any one who asked for assistance. His services to natural knowledge were recognised by the M.Sc. degree which was conferred upon him by the University of Manchester in 1924.

THE issue of the *Physikalische Zeitschrift* for February 15 contains an obituary notice of Gustave Jaumann, professor of physics in the Technical School of Brünn, from the pen of his colleague Dr. E. Lohr. Jaumann was born at Karansebes in South Hungary on April 18, 1863, and was educated in Prague and Vienna. In 1885 he became assistant to Mach at the University of Prague, in 1893 professor of physics there, and in 1901 at Brünn, where he died suddenly on July 21, 1924. He published a number of experimental investigations on electric discharges and cathode rays, but is probably best known by his theoretical work, which is in great measure co-ordinated in his 1918 paper on the physics of continuous media.

THE editors of the *Journal of Genetics* inform us that they have received, with great regret, news that Mr. V. Issayev, of the University of Leningrad, has been killed in the Caucasus. The last number of that Journal contained a remarkable memoir by Mr. Issayev, giving the results of novel and curious experiments on grafting different species of Hydra together (noticed in NATURE, March 21, p. 438).

WE regret to announce the following deaths:

Mr. W. W. Rouse Ball, fellow and formerly tutor of Trinity College, Cambridge, on April 4, aged seventy-four.

Prof. Burt G. Wilder, professor of neurology and vertebrate zoology in Cornell University from 1867 until 1910 and afterwards emeritus professor, and president in 1885 of the American Neurological Association and in 1898 of the American Association of Anatomists, on January 21, aged eighty-three.