

many personal interests, ranging from Dutch pictures to army buttons, wherein Hall's exuberant boyish vitality found expression. For him, as for Stevenson's happy child, "the world was so full of a number of things".

Meanwhile, in the Museum, Hall rapidly mastered the difficult technique of both sides of his department, Egyptian and Assyrian. He published hieroglyphic texts, Coptic and Greek documents almost as difficult, scarabs combining linguistic and historical with artistic problems, early metal-castings from Al-'Ubaid, and the monumental architecture of Dair-el-Bahari. A great museum's exhibition galleries rightly reflect the personality and outlook of its keepers, in liaison between the advance of learning and the broadening interests of its popular visitors. Certainly, with his keen eye for colour and modelling, and his strong historical sense of perspective, Hall left appreciably brighter as well as more intelligible those halls along which, swinging his keys, you met him striding as if over downland.

It was Hall's good fortune—as well as due to his quality—that he was one of the first assistants in the British Museum to be allowed, and later sent, to take part in excavation abroad; a practice now well established, and amply justified by its effects, as the recent Royal Commission has testified. Hall's first campaigns were with the Egypt Exploration Fund at Dair-el-Bahari (1903-7) and at Abydos (1910), under the veteran Edouard Naville, and with Prof. T. E. Peet in the party. At Abydos he excavated again in 1925. The War brought him in time, like other archaeologists, to the countries he most needed to visit, as a captain in political service in Mesopotamia; and as soon as circumstances permitted he organised the great series of excavations which the Museum has conducted jointly with the University of Pennsylvania, at Ur and in its neighbourhood, and himself discovered and brought home the wonderful early statues and relief work in copper from Tell-al-'Ubaid, published in the first

instalment of "Ur Excavations" (1929). As responsible Keeper, after 1924, he was no longer able to conduct this field work; but the successes of Mr. C. L. Woolley and his colleagues owe much to his vigorous, methodical, and tactful conduct of the home-front.

Probably Hall's best-known book was an "Ancient History of the Near East", first published in 1912. It was the first handbook of the kind in English, since the days of Rawlinson, and is in its seventh edition; the soundness of its conception and workmanship is attested by the very small amount of remodelling which it has needed, in a period of rapid, multifarious discovery. Without attempt at fine writing, Hall tells his story as of a living world, with a historian's training, the museum-man's gift of easy reference to required fact, and the broad humanity and common sense characteristic of all he said and did. That indeed is what his Trustees, other learned institutions, and the Government valued in him increasingly; and his untimely death followed over-exertion as their representative at a series of important conferences abroad.

J. L. M.

WE regret to announce the following deaths:

Prof. Adolf Engler, formerly Director of the Botanic Garden and Museum at Berlin-Dahlem and joint author with Prantl of "Die Natürlichen Pflanzenfamilien", on Oct. 10, aged eighty-six years.

Col. J. W. Gifford, a pioneer in the use in Great Britain of X-ray photography, who also contributed to the improvement of telescopic lenses, on Oct. 27, aged seventy-four years.

Mr. J. E. Purvis, of Corpus Christi College, Cambridge, who had been University lecturer in chemistry and physics as applied to preventive medicine since 1909, on Nov. 1.

Mr. B. B. Woodward, an original member and past-president of the Malacological Society of London, formerly librarian of the British Museum (Natural History), on Oct. 27, aged seventy-seven years.

News and Views.

THE Rede lecture delivered by Sir James Jeans at Cambridge on Tuesday last, on "The Mysterious Universe", was marked by the clarity and suggestiveness to which we have grown accustomed in his welcome utterances. Starting with the conception of mankind as the product of an accident in a universe the main course of which was quite other than towards the production of human life, he reviewed the successive ideas which these chance creatures have held of the universe outside themselves. He enumerated three stages, represented by an anthropomorphic, a mechanical, and a mathematical view of the nature of the reality behind phenomena. The last of these has lately been introduced by the advance of physics, and Sir James regards it as a far closer approximation than its predecessors to the 'ultimate reality', with which, however, we are not yet in contact. He made no attempt to evade issues which are the subjects of acute differences of opinion. "We discover", he said, "that the universe shows evidence of a designing or controlling power that has some-

thing in common with our own individual minds—not, so far as we have discovered, emotion, morality, or æsthetic appreciation, but the tendency to think in the way which, for want of a better word, we describe as mathematical." "This concept of the universe as a world of pure thought", he went on, "implies, of course, that the final truth about a phenomenon resides in the mathematical description of it; so long as there is no imperfection in this, our knowledge of the phenomenon is complete."

To Sir James Jeans, as—rather less tentatively—to Sir Arthur Eddington, the recent developments of physics seem to rule out determinism from the course of Nature. "The old science had confidently proclaimed that Nature could follow only one road, the road which was mapped out from the beginning of time to its end by the continuous chain of cause and effect; state A was inevitably succeeded by state B. . . . The new science . . . can . . . specify the relative probabilities of states B, C, and D. But,