

of sandstone and shale. The similarity of the phenomena presented in the strata of the Coal Measures with those recorded where alluvial beds had been traversed by recent earthquakes as in India and America led Kendall to see in the disturbances in the Coal Measures a number of 'fossil earthquakes', an idea which is engaging the attention of investigators in many other sedimentary deposits.

Prof. Kendall became a fellow of the Geological Society of London in 1889. The Society awarded him the Lyell Fund in 1895, and in 1909 further recognised his distinguished contributions to geological science by awarding him the Lyell Medal. He also served on the Council of that Society for some years. In 1922 he retired from the chair of geology at the University of Leeds, and two years later was elected a fellow of the Royal Society. The University of Leeds in 1926 conferred upon him the degree of doctor of science, *honoris causa*. In collaboration with Mr. H. E. Wroot he wrote the

"Geology of Yorkshire", which was published in 1924 and is generally admitted to be one of the most 'readable' books on geology extant. A. G.

We regret to announce the following deaths:—

Lord Invernairn, who as Sir William Beardmore was president in 1917 of the Iron and Steel Institute, on April 10, aged seventy-nine years.

Prof. J. P. Khomenko, an authority on the Cenozoic palaeontology and stratigraphy of the U.S.S.R., on August 7.

Prof. J. M. Page, formerly professor of mathematics, and dean of the University of Virginia, an authority on the calculus, on March 12, aged seventy-two years.

Prof. James Rice, associate professor of physics in the University of Liverpool and author of noteworthy books on the theory of relativity, on April 17, aged sixty-two years.

News and Views

Experiments on Mammalian Embryos

THE technical difficulties of experiments on embryos removed from the uterus are only very slowly being overcome. Nearly a quarter of a century ago, Brachet showed that the rabbit egg could be kept alive and developing for a short time in tissue culture, and slightly, but only slightly, better results have been obtained by later workers. Another method is to transplant the egg obtained from one animal into a new mother. The experiment was first successfully performed by Heape in 1890; he transferred the segmenting eggs of an Angora rabbit into the uterus of a Belgian hare, and got a normal development of Angora young. The transplantations can only be carried out with very young eggs, but there are many problems relating to the early stages of development which might be investigated in this way, and in recent years the method has been taken up again and several interesting results have been obtained. Thus Nicholas and Hall have been able to follow the development of isolated rat blastomeres into complete embryos, although they could not maintain the development for the full period of pregnancy.

PINCUS has combined the experiments of tissue culture and transplantation, and has recently, as reported in *The Times* of March 30, been able to verify the occurrence of parthenogenesis in the rabbit. His first experiments on the tissue culture of the rabbit egg, made at the Strangeways Research Laboratory some six years ago, showed that the unfertilised egg is very sensitive to external conditions, and may start to cleave under the influence of slight changes of temperature or the osmotic pressure of the medium. The attempts which were then made

to transplant the parthenogenised eggs to other mothers were unsuccessful; but in his recent work the transplanted eggs have undergone normal development and eventual birth. Transplantations of older embryos into the uterus are not successful, and attempts have been made to find other transplantation sites (kidney, mammary gland, omentum, chamber of the eyeball, chick chorio-allantois), but the results have not been very encouraging. The tissue culture method, imperfect as it is, is still the only one which has made possible experiments on the crucial period of gastrulation, when, by analogy with other vertebrates, one may expect the major processes of determination to occur.

Sir George Grierson and Indian Linguistics

THE commemorative volume "Indian and Iranian Studies" presented to Sir George A. Grierson by friends and admirers on the occasion of his eighty-fifth birthday on January 7, and published as a special issue by the School of Oriental Studies of the University of London (*Bull.*, 8, 2-3, 504. 25s.), is a remarkable tribute to even so great a scholar. This will be most readily appreciated in the extent to which it shows how those who have here united to do him honour—fifty-three scholars drawn from thirteen different countries, including India and the United States—have been indebted to him in outlook or method or as a contributory source of their material. In this volume of "Studies" not unnaturally, and as is usual in collections of its class, a considerable proportion is of highly specialised interest, though even here certain of them as, for example, the communications dealing with the Karosthi material retrieved from the Central Asiatic Desert by Sir Aurel Stein or Colonel D. L. R. Lorimer's "Nugae