

he explained the geological origin of some montmorillonite clays.

Indeed, Prof. de Lapparent was able to combine the keenest observation of the naturalist, either in the field or in the laboratory, by eye or with the aid of a microscope, with the ability to call upon modern physico-chemical techniques, to contribute to lithological problems. In this respect, it must be emphasized that, though he considered himself a naturalist, he was fully conversant with many physico-chemical methods, procedures and tests, X-ray crystallography being among the most helpful. He was able to grasp very easily the structural work coming from Sir Lawrence Bragg and his school and from Prof. L. Pauling. His aptitude for understanding in quite a short time the geometrical and physical aspects of atomic structures was really amazing. His efforts to introduce into petrography the results of structural X-ray crystallography, made with a pioneer's confidence, began to receive full appreciation in recent years.

J. de Lapparent wrote with a modern style—rather unusual, at least in French scientific papers—which sometimes gave a wrong impression to the reader more accustomed to a bald style supposed to be more fitted to scientific truth. The epigraph intro-

ducing one of his books was the famous quotation: "To everyone his own truth"; one of his works bears for title: "Defense de l'attapulgitite".

Actually, J. de Lapparent strived to report with a vivid style changes in the earth's crust, because he was himself a living representation of these phenomena. Further, the reader cannot but be impressed by the longing for truth which inspires J. de Lapparent's works and to appreciate the essential synthesis which appears in them in various guises. Up to the end of his life, Jacques de Lapparent maintained his high standards and his enthusiasm. His loyalty to friends, his charming attitude to all his acquaintances without reference to their position, made him a most attractive personality.

R. J. HOCART

WE regret to announce the following deaths:

Mr. T. R. D. Bell, C.I.E., chief conservator of forests, Bombay Presidency, during 1909–20, on June 24, aged eighty-five.

Mr. Harry Brearley, Bessemer medallist of the Iron and Steel Institute in 1920, known for his work on stainless steel, on July 14, aged seventy-seven.

NEWS and VIEWS

Zoology at Belfast: Prof. T. T. Flynn, M.B.E.

PROF. T. T. FLYNN is to retire at the end of the present session from the chair of zoology at the Queen's University, Belfast, which he has held since 1931. Born in Australia in 1883 and trained at Sydney under W. A. Haswell and J. P. Hill, he developed a natural interest in the anatomy and embryology and reproductive phenomena in marsupials. He maintained this interest throughout his university career, making valuable additions to knowledge in this subject. So recently as 1941, in collaboration with J. P. Hill, fundamental agreement in the mode of formation of the primary germ layers in monotremes and marsupials was demonstrated, while in 1947 strong support was given for the view of a similar mode of formation in birds and an incentive predicated for the re-examination of germ-layer formation in reptiles in the light of the work portrayed. Along with his interest in marsupials and their nearer allies, Flynn contributed work on the Pycnogonida of South Africa, describing ten new species; on corals of the Barrier Reef; on the invertebrate fauna of Tasmania; on rare and fossil Cetacea; and he demonstrated his interest in marine biology as leader of the Australian Antarctic Summer Expedition 1912, and as sole Royal Commissioner for the Tasmanian Fisheries in 1915. In his retirement to Jamaica he hopes to utilize this latter experience in taking a serious interest in the marine biology and fisheries of the Caribbean area, as well as in meeting the demands of the British Museum for local biological material.

On graduating at the University of Sydney, Prof. Flynn was awarded the University Medal and John Coutts Research Scholarship; and later he received the University Medal for his D.Sc. thesis. He was Macleay Fellow of the Linnean Society of New South Wales in 1911, and Rockefeller Fellow during 1930–31; he was elected a member of the Royal Irish Academy in 1934. In the Second World War he was Chief Casualty Officer (Civil

Defence), Belfast, and received the M.B.E. for his services. His many friends wish him a happy and fruitful retirement.

Baron Roland von Eötvös (1848–1919)

ON July 27 the centenary occurs of the birth of the distinguished Hungarian physicist Baron Roland Eötvös, who in 1891 founded the Hungarian Mathematical and Physical Society and was long the president of the Hungarian Academy of Science. Both his grandfather and great-grandfather had held high office under the Austrian crown, and his father Baron Josef von Eötvös (1813–71) was at one time Minister of Public Instruction. Born at Budapest, the younger Eötvös was educated at the University there, but studied later under Kirchhoff, Helmholtz and Bunsen at Heidelberg, and under Franz Neumann at Königsberg. He became a *Dozent* in physics at Budapest, and in 1872, at the age of twenty-four, was appointed to the chair of theoretical physics, and later was transferred to the chair of experimental physics. Known widely for his invention of the torsion balance for the investigation of gravitational anomalies, he was recently referred to by Prof. A. O. Rankine as "the father of geophysical prospecting for oil, even if a hesitant one". He died at Budapest on April 8, 1919, at the age of seventy.

European Meteorological Telecommunications Panel

AN international conference was held in London during July 5–10 to consider the problems which confront European meteorologists in the exchange of weather information. The meeting took place under the auspices of the International Meteorological Organisation, which recently decided to establish a meteorological telecommunications panel under each of its six regional commissions. This was the first meeting of the panel for the European region, and it was attended by meteorologists and telecommunications experts from Belgium, Eire, France, Great

Britain, Italy, Netherlands, Norway (also representing Sweden), Poland and the Occupied Zones of Germany. Observers from the United States Weather Bureau and the International Civil Aviation Organisation were also present. Unhappily, the Danish delegate and his secretary were killed in an air collision over Northolt on the day before the conference opened.

In an address of welcome to the delegates the Secretary of State for Air referred to the growing importance of meteorology to economic problems, and he directed attention to the accuracy of modern weather forecasts—a fact which is frequently forgotten by the public, who tend to stress the occasional failures. Rapid dissemination of weather reports is vital to forecasting. Hitherto the international exchange of reports has been made primarily by wireless telegraphy, but in recent years high-speed teleprinters have been introduced to link several of the countries in western Europe. The conference discussed measures for increasing the efficiency of this international meteorological teleprinter network and for extending it to the countries of central and eastern Europe. For exchanging weather information between Europe and North America, high-speed radio teleprinters are to be used, although it will be necessary to retain a trans-Atlantic cable link as a standby for use when radio fade-outs render the radio-teleprinter channel inoperative. The conference recommended that Great Britain should provide the European terminal for these trans-Atlantic exchanges and should also be responsible for disseminating the American reports throughout Europe by wireless telegraphy and by the European land-line teleprinter network. Great Britain already transmits in high-power broadcasts from Rugby a 'European collective' message, which gives a selection of European weather reports and can be heard throughout the northern hemisphere.

Evolution of the Gene

PROF. A. H. STURTEVANT discusses one of the most pressing problems of biology in a recent issue of the *American Scientist* (34, 225; 1948). It has been a mystery how new heritable material for the production of new characters originates. When Harland, as the result of his work on cotton, concluded that homology of parts in related species is not correlated with the homology of genes which produce them, another reason was given for disbelief in the value of homology for biological analysis. Sturtevant challenges this view and points out that the polyploid nature of cotton permits the differentiation of two sets of genes in the amphidiploids after their creation. Hence, in one species, one set of genes may control some characters, leaving the other free for differentiation. In a different species the reverse takes place. Sturtevant compares the characters in different species of *Drosophila* and suggests that two organs are homologous if they are conditioned by homologous genes. This implies degrees of homology, since genes may vary from being identical (being allelomorphous mutants), partly homologous to non-homologous. Homology therefore becomes relational and amenable to mathematical treatment rather than absolute.

Sturtevant points out that in a diploid organism all the genes are functional in that the characters they affect are subject to selection. An alteration in any one of them will give rise to a new phenotype. Therefore these genes cannot be spared for other purposes. If, on the other hand, some genes are

carried on duplications, these will be surplus to the requirement of the organism and could vary to wide limits without an immediate effect on the individual or even its progeny. He therefore sees a source for new hereditary material in the duplications which constantly occur in most, if not all, living organisms.

Hæmophilia in Dogs

F. B. Hutt, C. G. Rickard and R. A. Field (*J. Hered.*, 39, 3; 1948) describe the discovery of a sex-linked hæmophilia in dogs. This shows as a lameness and by swellings in various parts of the body when the puppy is six weeks old. Examination showed that the lameness was due to hæmorrhage at the joints. Of seventeen puppies which have been recognized as hæmophilic, not one has been raised to maturity. Several tests for hæmophilia in man were applied to these dogs and were found to give positive results. The breeding histories of the parents of the puppies were known; as a result, it was easily seen that the condition was due to a sex-linked recessive gene called *h*. The importance of the discovery lies in the fact that the comparative physiology of dog and man is well known, and the condition will be of value in research. It is noteworthy that this case in dogs is one of the few sex-linked genes in mammals other than man where seven or eight sex-linked characters are known. The pig has an inherited hæmophilia; but this is controlled by a recessive gene on an autosome. It is probable that paralytic or lame puppies which were destroyed in the past were in reality sometimes hæmophilic. It would be desirable to discover whether any hæmophilic puppies survive to maturity; on the different genetic backgrounds of different breeds, the recessive gene may not always have a lethal effect.

Uganda Forestry Department Report

THE report for the year ended December 31, 1946, of the Uganda Forestry Department has recently been issued (Govt. Printer, Entebbe. 1s. 6d.). The following quotation from a report on forestry in Uganda, by the late Prof. R. S. Troup in 1922, is given in an opening paragraph. "The percentage of timber forest in Uganda is very small compared with that of most timber-producing countries. . . . There does not, however, appear to be any real cause for alarm, provided the existing forest area is strictly maintained, and all accessible forests are brought under systematic management. . . . The preparation of forest Working Plans should be pushed on in all forests which are accessible to regular working. . . . Without Working Plans systematized work is impossible, and there is a strong risk of the forests being overworked and eventually rendered valueless." Uganda is one of the few departments in the Colonial Forest Services which has printed, published and circulated outside the Protectorate a working plan, with several others in hand. This plan is for the Budongo Forest and it undoubtedly saved that forest during the War. It has now been accurately revised for the second period of ten years, 1945-54. The Buganda Forests were exploited heavily during the War in the absence of a working plan, as in so many other parts of the British Empire and elsewhere in the world. The yield is now carefully controlled. The forest policy for Uganda is also being implemented by the systematic reservation of all main watersheds. This annual report shows that forestry and its requirements are thoroughly understood in Uganda.