

and took up the Scottish appointment in 1930. At Beckenham he was associated with Prof. Dalling, and other workers in those laboratories, in the production of biological products, and particularly in investigations of anaerobic infections in sheep. In Scotland he has led a team of workers in investigating and dealing with certain sheep diseases, notably louping-ill, tick-borne fever, braxy and lamb dysentery.

At the time of Gordon's appointment, the causal agent of louping-ill had just been discovered at the Edinburgh institute. Dr. Gordon followed up this work, making a close study of the disease and of the filtrable virus responsible for it, and developed methods for the immunization of sheep against the infection. An early discovery in this later work was that two entirely different virus infections were associated with louping-ill, that due to the true louping-ill virus and another, hitherto not recognized, that was named the virus of tick-borne fever, the latter infection being in itself a less severe disease. Among other disease problems on which he has worked in Scotland is grass sickness in horses, and although the cause of the disease is still unknown he has made notable contributions to the literature on the subject. Dr. Gordon has been active in a wide range of veterinary activities in Scotland and has a close personal interest in, and a practical experience of, general farming.

Dr. W. E. Gaunt

DR. W. E. GAUNT has been appointed research director of the Ashe group of associated companies. Dr. Gaunt graduated from the Colour Chemistry Department at the University of Leeds and obtained his Ph.D. for work on biochemistry and physiology undertaken at the Leeds School of Medicine. Afterwards Dr. Gaunt joined Sir John Orr's staff at the Rowett Research Institute to work on nutrition problems, and just before the War went to Guy's Hospital Medical School as dental research fellow to do work of a similar nature. Since the War started Dr. Gaunt has gained further experience in organic chemistry at Guy's, working with Prof. C. S. Gibson, and has also increased his all-round knowledge of nutrition during a short spell with Imperial Chemical Industries Ltd. Dr. Gaunt's experience in several research fields will enable him to serve Messrs. Ashe Laboratories Ltd. in maintaining and extending on sound nutrition lines their numerous food products. We understand that Dr. Gaunt will be encouraged to continue work on fundamental problems, particularly on human protein requirements.

Newton as an Astrophysicist

A PAPER by Elizabeth Connor entitled "Sir Isaac Newton, the Pioneer of Astrophysics" appears as Leaflet No. 158 of the Astronomical Society of the Pacific (April 1942), which supplies a brief outline of the life and work of Newton. Up to the time of entering the University of Cambridge, Newton had not exhibited any extraordinary talent, and though his undergraduate days were profitable, those which followed immediately after he graduated were the most productive which any scientific worker ever experienced. The outbreak of the plague forced him to leave Cambridge, and practically all his time between August 1665 and March 1667 was spent at Woolsthorpe, where his exile allowed him to concentrate on some of his greatest achievements. Among

these may be noticed his method of fluxions, the law of the composition of light, and the law of universal gravitation. During this period he gave attention to experiments with the refracting telescope, but because he believed that chromatic and spherical aberration could not be overcome, he turned his attention to the reflecting type.

Towards the end of 1668 Newton completed his first telescope with an aperture of a little more than an inch and a tube 6 in. long. His second telescope was exhibited at the Royal Society in 1672 and is still in the possession of the Society. Its principle was used as the model and forerunner of a succession of giant telescopes which have been constructed since the days of Newton and are still the astrophysicist's best tool. His "Principia" did not appear until 1687 and his real scientific career ended with its completion. Most of his later years were spent in London as Master of the Mint, and he had many honours bestowed on him, but there was no return of the originality of his earlier days. Nevertheless, he gave a considerable amount of time to working over the material in hand. In 1704 his "Optics" appeared and in 1713 and 1726 the second and third editions of the "Principia". Specialists in various branches of science still voice the debt of their sciences to Newton.

Benedict Dybowski

AMONG the Poles whose scientific work was conducted in and for Russia was Benedict Dybowski, a sketch of whose life is given by Dr. J. Borucki in the first issue of *Polish Science and Learning* (June, 1942: Oxford University Press. 2s. 6d.). Dybowski was born at Minsk in 1833. As a schoolboy he kept various animals and was apparently the first to observe the metamorphosis of *Petromyzon*. He studied medicine and biology at Dorpat (1856), Breslau (1857) and Berlin (1860), where he published minor researches, for example, on artificial insemination of bees. At Dorpat again, in 1861, he worked on a monograph of the fishes of the Baltic lands. However, he was arrested for his political beliefs, and though the sentence of deportation was at first revoked, he was sent to Siberia after the 1863 insurrection. Here he began by exploring the forest and steppe around Czuya. Later, at Kultuk, he made long journeys to the Saja Mountains and to Chamar, developing a vast philanthropic medical service among the native population, so that the governor, J. G. Skolkow, invited him to join an expedition to the tributaries of the Amur and Ussuri Rivers, penetrating as far as the Pacific. They had scanty means, having to make their own boats. Nevertheless, Dybowski sent extensive collections to European museums and developed a view that each region showed a special structure of animal life in close correspondence with the environment. He discovered a number of hitherto unrecorded species, including a deer on the Ussuri, and noted the differences between Siberian and Bengal tigers. The birds he collected provided the basis for Taczanowski's critical "Review of Siberian Ornithological Fauna".

With Godlewski, Dybowski spent several years studying the fauna of Lake Baikal, and his researches included biological, chemical, bathymetric and temperature observations. The molluscs and sponges collected at this time were later described in a classical monograph by Benedict's brother, Wladislaw. Dybowski's extensive researches had enabled his

friends to secure his release in 1876, but he continued his medical, scientific and humanitarian work in east Siberia. Here he bought horses and reindeer for starving natives and introduced rabbit and goat-breeding into Kamchatka to give the native population a surer livelihood. The last years of his life brought him many honours from his native Poland, for he lived until 1931, dying in his ninety-ninth year. His earnest wish for good relations between the Slav peoples was not realized in his life-time, but his work in this connexion may inspire others to work for the same ideal now that there is close collaboration between Poland, the U.S.S.R. and Czechoslovakia in the many common aims that link them with other lands in the struggle for liberty.

Infant Protection in Mexico

IN an article on this subject in the May issue of the *Boletín de la Oficina Sanitaria Panamericana*, Dr. Salvador Zubirán, Under-Secretary of Public Assistance, states that Mexico is trying to reduce its high infant mortality, which was 30.5 per 1,000 births in 1905 and 122.7 in 1939, by the establishment of child welfare centres which were opened in 1929. In 1937 they were placed under a single Government department, and child welfare became a social as well as a medical obligation of the Government, and lost its 'charity' implications. Important objectives include the integration of the home, establishment of foster homes for deserted children, adoption of orphans, pre-natal training for the mother, vocational training for her if she has to work, and aid from pregnancy until the child is six years old. A children's hospital is being opened in Mexico this year to serve as a centre for medico-social education, scientific investigation and the spread of pædiatric information.

Anthropology in Switzerland

THE *Bulletin der Schweizerischen Gesellschaft für Anthropologie und Ethnologie*, 1941-42, contains a list of members of the Society, a report of meetings held during 1941, and three original articles. Dr. Hans Dietschy advances a number of theories to account for and to explain the attributes and nature of the Aztec pantheon. Dr. Lucia Graf describes some late medieval skeletal remains which were excavated from Holderbank in the Solothurn Canton in 1940, and Prof. Otto Schläginhaufen provides a very complete anatomical and anthropometric description of four skeletons from Darvela near Truns. Late Iron Age (la Tène period) material was found with these bones. The cranial indexes of the skulls were respectively 76.1 and 74.5 for two male specimens, and 79.4 and 82.8 for two female skulls.

Committee on Synthetic Rubber

SIR ANDREW DUNCAN announced in the House of Commons on July 22 the formation of a Committee to consider the question of synthetic rubber to be constituted as follows: Mr. F. W. Bain, chairman of the Chemical Control Board of the Ministry of Supply (chairman); Sir Edward V. Appleton, secretary of the Department of Scientific and Industrial Research; Dr. J. W. Armit, director-general of explosives at the Ministry of Supply; Sir Robert Robinson, Waynflete professor of chemistry in the University of Oxford; and Dr. F. Roffey, controller of chemical research at the Ministry of Supply.

Earthquake Registered at Kew

ON July 12, a strong earthquake was registered on the seismographs at Kew Observatory. It began recording with *iP* compressional on all three components at 05h. 17m. 47s. U.T. From a tentative interpretation, the *eS* wave registered on all three components (north-south, east-west and vertical) at 05h. 28m. 09s. U.T., which gives the epicentral distance according to the tables in use at Kew as 9,230 km. A full suite of pulses was registered, the maximum ground movement at Kew being 29 μ amplitude at 05h. 53m. 15s. U.T. on the vertical component. The earthquake finished recording at 09h. 05m. U.T.

Announcements

LORD LOUIS MOUNTBATTEN, who is a vice-president of the Institution of Radio Engineers, has given a prize to the Institution, to be known as the Mountbatten Medal; it will be "awarded to the candidate who has proved himself the best candidate amongst those of the Royal Navy or Air Force who have presented themselves for the Graduateship Examinations of the Institution held during the year".

THE British Museum (Natural History), Cromwell Road, South Kensington, London, will re-open to the public on August 1. Owing to shortage of staff and the evacuation of many exhibits, it is possible to open at present only very few of the galleries. The times of opening will be 10-4 on weekdays and 2-4 on Sundays. Small children must be accompanied by an adult or a responsible older child.

THE trustees of the Leverhulme Research Fellowships have approved the following awards for research, tenable for varying periods up to two years: Dr. M. R. Anand, for work on landmarks in Urdu literature; Dr. R. S. Bagnall, for a monograph of the British Apterygota, including springtails, bristletails, and other primitive groups; Miss A. M. Cameron, warden, Lady Margaret Hall Settlement, Lambeth, for the study of voluntary social service by wage earners.

WRITING with reference to the review entitled "A Fateful Legacy" in *NATURE* of July 18, p. 72, Prof. Magregor Skene points out that the complete quotation from Darwin's "Origin of Species", and indeed the last sentence of the book, is: "There is grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved."

REFERRING to the obituary of Sir Daniel Hall in *NATURE* of July 25, Mr. G. M. Johnson, head master, states that the school in which Sir Daniel Hall was so long interested, and in which he did such good work as chairman of the governors, is The Lord Wandsworth College, Long Sutton, Basingstoke, Hants, and not as stated in the obituary notice, at Wantage. Sir Daniel Hall was taking an active part in the life of the College until he entered the nursing home in London, some three weeks before his death.