

Ltd. In 1941 he left the works in order to establish the new Wellcome Chemical Research Laboratories at Beckenham. Here, after setting up temporary laboratories, he was responsible for the planning and development of the extensive permanent laboratories opened in 1946.

### A Giant Meteorite

IN the issue of *L'Astronomie* for October 1948 there is an account of an enormous meteorite which, on February 12, 1947, fell in the Sihot-Alin chain of mountains in the vicinity of the Amoor River, Eastern Siberia. M. Krynov, secretary of the Commission of Meteorites of the Academy of Sciences of the U.S.S.R., who took part in the expedition which investigated the nature of the phenomenon, states that this meteorite is probably one of the largest that has ever struck the earth, and M. Fessenkov, who presides at the work conducted on meteorites, believes that the object was a minor planet. The fall was observed by the inhabitants of towns and villages over a radius of 200 kilometres around the place of impact, and those who were questioned agree that the body was moving from north to south, that its time of flight was between four and five seconds, and that it was more brilliant than the sun which was then shining on a beautiful morning in a clear sky. The noise of the fall and of a series of explosions which accompanied the flight of the object could be heard at distances of 200 km. Preliminary estimates of its mass give this as about a thousand tons.

It has been estimated that the speed of the meteorite was about 20 kilometres a second and that its surface temperature, acquired by friction with the atmosphere, was of the order of 5,000° C. It broke up into thousands of fragments of various sizes, and these lost their speed by friction with the atmosphere, falling on the earth merely by its gravitational attraction. Pieces were found over an area represented by a circle of 12 km. radius. In an oval sector of 0.75 sq. km. the members of the expedition found more than a hundred funnels in the rocks, caused by the fall of the debris, the diameters of these funnels varying from 0.5 to 28 m., and some of them attained a depth of 6 m. All around were found trees overthrown or damaged, and a number of large cedars were found split in two. On examining very carefully the neighbourhood of the fall, the expedition of 1947 discovered 257 fragments of the meteorite, varying in weight between 0.16 gm. and 1.8 tons, and about 5 tons of cosmic iron were collected, while the next expedition in 1948 collected about 4 tons more. Aerial photographs of the region were taken during 1948, and about 48 sq. km. have been declared a closed district and placed at the disposal of the Academy of Sciences of the U.S.S.R. for five years.

### Jurassic Holostei

THE questions of the classification of the fishes and of the interrelationships of the different groups are occupying the attention of modern zoologists. In such a study, which involves fossil forms, a consideration of the bones of the skull and their homologies must play an important part. The dermal bones, among other skeletal structures, are often quite well preserved and so have received much attention. On the other hand, the neurocrania, being partly obscured by the dermal bones and only capable of study in particularly well-preserved specimens, are nothing like so well known although quite important. Hence

the interest of a study of the neurocrania of some Jurassic Holostei recently made by Dr. Dorothy H. Rayner (*Phil. Trans. Roy. Soc., B*, 601; 1948). A special technique involving the grinding of the specimen and the taking of a series of transfers 0.1 mm. apart was elaborated from a previous method suggested by E. C. Case in 1937. An appendix describes the technique fairly fully, and it will probably be of use in other lines of work involving the sectioning and reconstruction of fossil material. In spite of considerable variation in the neurocranial ossifications, which differ among closely related forms and apparently in the same species with difference of age, there is, save in the supraoccipital and postotic regions, sufficient similarity to allow of broad homologies being drawn. This and other evidence adduced suggests that the Jurassic Holostei may be regarded as a natural group. Two particular points may be noted. There is sufficient similarity between the neurocrania of the Jurassic *Lepidotus* and the living *Lepidosteus* to suggest relationship between them, and in *Caturus* and *Dapedius* there is a lateral cranial canal without external opening to which, at present, no function can be assigned.

### Mental Health and World Citizenship

THE World Federation for Mental Health has published as a booklet a statement produced by the International Preparatory Commission for the International Congress of Mental Health which met in London in August 1948. Although the statement will appear in the published Proceedings of the Congress, the expressed wish that it should be given a wide circulation has resulted in its production in the present form. The International Preparatory Commission sat for a fortnight prior to the Congress and was made up of twenty-four persons from ten different countries representing the points of view of sociology, psychology, psychiatry, social work, anthropology, political science, philosophy and theology. As the raw material for its deliberations, reports were available from three hundred preparatory commissions composed of about five thousand workers in the different fields who had been working during the preceding year in twenty-seven countries. The booklet is obtainable from H. K. Lewis and Co., Ltd., 136 Gower Street, London, W.C.1.

### Family Health Service in South Africa

THE current issue of *Biology and Human Affairs* (14, No. 2; Autumn 1948) contains an article on the Family Health Service in South Africa, where twenty health centres have been established in various parts of the country by the Ministry of Health. A description is given of the Polela Health Centre which was set up in 1940 in a rural native reserve in south-western Natal. The family health service was first applied to a small area within the reserve and was gradually extended until, within four years, almost six thousand people were included in the scheme. This has led to a marked improvement in the health indices in that part of Polela where the family health service is in operation, and other health services have now been planned for the reserve, so extending the facilities to the entire population of the area. The article contains a detailed account of the way in which the service has been organised.

### Humanitas

THE autumn number of *Humanitas*, just issued, completes the second year of publication of this

quarterly journal. Throughout its eight issues, *Humanitas* has maintained an admirably high standard. It is edited by a joint board of university students and teachers, under the chairmanship of Prof. M. Polanyi. Its contributors include Bertrand Russell, D. M. MacKinnon, C. V. Wedgwood, Sherwood Taylor, C. F. von Weizsäcker, Storm Jameson and Dorothy Emmet. In its scope it embraces the philosophy of science and history, and questions of religion and education. Its purpose is to awaken interest in the moral and social responsibilities of scholarship. The autumn number is notable because it contains a full text of the recent broadcast between Bertrand Russell and Father Copleston. *Humanitas* may be obtained from Dr. W. Schenk, University College, Exeter.

### Colonial Service : Recent Appointments

THE following appointments in the Colonial Service have been announced: H. A. Fooks, temporary assistant conservator of forests, Nigeria; T. Geddie, agricultural superintendent, Nigeria; T. O. Ellis (agricultural chemist, Jamaica), senior agricultural chemist Jamaica; J. C. Eyre (senior agricultural officer Palestine), deputy director of agriculture, Northern Rhodesia; B. G. Owen (senior agricultural officer, Nigeria), assistant director of agriculture (produce inspection), Nigeria; R. M. Harley (assistant conservator of forests, Gold Coast), senior assistant conservator of forests, Gold Coast; R. G. Hiller (senior assistant conservator of forests, Northern Rhodesia), senior assistant conservator of forests, Uganda; A. C. Russell (assistant conservator of forests, Gold Coast), senior assistant conservator of forests, Gold Coast; C. J. Taylor (assistant conservator of forests, Gold Coast), senior assistant conservator of forests, Gold Coast; N. F. Bowers (development officer, Nigeria), field officer, West African trypanosomiasis research, Nigeria. The following have been appointed assistant conservators of forests in the countries mentioned: A. E. Beveridge (Federation of Malaya), W. Carmichael (Tanganyika), D. G. Cumming (Northern Rhodesia), J. Grant (Sarawak).

### British Social Hygiene Council : Summer Schools

THE British Social Hygiene Council is arranging two summer schools this year, one in England, the other in Switzerland. The first will be held at 'Elfinward', Haywards Heath, Sussex, during August 1-14, and the second at the University of Berne, during August 17-September 1.

The course at 'Elfinward', which will be entitled "The Teaching of Biology", is intended primarily, though not exclusively, for teachers in secondary modern schools and of junior forms in grammar schools. The director of the School will be Mr. W. L. Sumner, of the University of Nottingham. The fee, including registration, is £15 15s. In the Swiss Summer School, which will have as its theme "The Family and the Nation", an attempt is being made to cater for the needs of social workers who are interested in the family. It should appeal especially to children's officers, probation officers, magistrates, health visitors, almoners, nurses and teachers, though members of the general public will be equally welcome. The cost, including travel, hotel accommodation and tuition, will be approximately £34. Further information can be obtained from the Secretary, British Social Hygiene Council, Tavistock House North, Tavistock Square, London, W.C.1.

### Summer School in Micro-Chemical Techniques

A COURSE in micro-chemical techniques will be held at the Queen's University, Belfast, during June 20-July 2, for the third successive year. Instruction will be given in centigram and milligram techniques which are of general use in various branches of inorganic and physical chemistry. Operations such as micro-electrolysis, chromatography and chemical microscopy, which are of increasing importance in diverse fields, are optional. In addition, exercises in microgram analysis will be available for specialists.

### Announcements

PROF. LINUS PAULING, professor of chemistry at the California Institute of Technology, Pasadena, and M. Henri Besaire have been elected *correspondants* for the Section of Mineralogy of the Paris Academy of Sciences, in succession to the late J. C. de Lapparent and M. Leriche.

SIR NOEL ASHBRIDGE, director of technical services of the B.B.C., and Mr. H. Bishop, chief engineer of the B.B.C., will deliver the Faraday Lectures of the Institution of Electrical Engineers on February 16, at 6.30 p.m. They will speak on "Television", and will give demonstrations and experiments. The lecture will be delivered at the Central Hall, Westminster, London, and admission will be by ticket, obtainable on application to the Secretary, Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2. The Lecture is also to be delivered at various towns throughout the country.

The University of London has arranged a course of three lectures on "The Application of Atomic Piles in Nuclear Physics", to be delivered by Sir John Cockcroft. The lectures will be given at the Senate House, on February 2, 9 and 16, 1949, at 5.30 p.m. Admission is free and without ticket.

Two full-day conferences on "Combined Heat and Power Supplies" have been arranged by the Institute of Fuel and will be held at the Institution of Mechanical Engineers on January 25 and April 27. The conferences will be open to the public, but admission is by ticket only, to be obtained from the Secretary, Institute of Fuel, 18 Devonshire Street, London, W.1.

MARCONI INSTRUMENTS, LTD., are showing a wide range of industrial measuring instruments at their London showroom, 109 Eaton Square, S.W.1, during March 14-25, and all interested in electronics and process control are invited to apply for admission tickets either to Marconi Instruments, Ltd., St. Albans, Herts, or the London showroom.

The Cecil Peace Prize of £100 is open to all members (less than twenty-five years old) of the universities of the United Kingdom. The subject for the year 1949 is: "What international action should be taken with regard to the many millions of displaced or expelled persons and refugees in Western Europe, with a view to both the restoration of European economy and to the utilization of labour power now running to waste". Essays must be sent before November 1 to the Secretary, Association of Universities of the British Commonwealth, 32 Woburn Square, London, W.C.1.

THE Operational Research Club (see *Nature*, October 23, p. 646) announces a change of address. The address of the honorary secretary, Mr. D. Neville-Jones, is now 14 Sheen Gate Gardens, East Sheen, London, S.W.14.