

lines in the Debye-Scherrer photographs were identified as due to the dissolved salt. The effect of various concentrations of gold and platinum dissolved in boric anhydride and borax glasses was also investigated, and other studies relating to the electrical and magnetic properties of single crystals of molybdenite indicate that along the basal plane the conductivity is wholly electronic above 90° C. Raman spectra studies have demonstrated the formation of associated molecules of ethylene dibromide and aliphatic ketones in the solid state. The spectra of di-*n*-propyl ketone shows no appreciable fluorescence at room temperature; but an intense fluorescence band at 4880–5100 Å. has been observed in the solid state at –170° C. The absorption and fluorescence spectra of anthracene have also been studied from the temperature of liquid oxygen to 100° C. Many of these investigations carried out under the auspices of the Association have been reported as "Letters to the Editors" in *Nature*.

### Amateur Astronomy in Czechoslovakia

ZIENEK KOPAL has an article on this subject in *Sky and Telescope* of July, in which he discusses the development of amateur astronomy in Czechoslovakia since its beginnings in the second half of the nineteenth century. A large portion of the article is devoted to a survey of the careers of Josef and Jan Fric who, late in the last century, were among the first in Central Europe to photograph celestial objects systematically. The Ondrejov Observatory, on a hill about 1,700 ft. above sea-level and thirty miles south-east of Praha, was erected by Josef Fric as a memorial to his younger brother Jan, who died in 1897. It is interesting to know that one dome of the Observatory houses an 8-in. refractor, the lens of which was made nearly a century ago by the then unknown amateur optician, Alvan Clark. The Rev. W. R. Dawes, the well-known British amateur astronomer, purchased the lens from Clark, and after his death it was purchased by Prof. Safarik and eventually reached Praha. After the death of Safarik it came into the possession of the Fric brothers and was later mounted at Ondrejov. In 1917, the increase of astronomers in the country justified the founding of an astronomical society in Praha, and in 1928 the Czechoslovak Astronomical Society erected its own Observatory at Petrin Hill overlooking Praha. At present the membership numbers more than 2,400, and as there are only about eleven million Czechoslovaks living in Central Europe, this is probably the highest percentage of amateur astronomers in any country in the world. The article describes the activities of the Society at length, and forms very useful reading for those who are interested in the work of the amateur astronomer.

### Academy of Sciences of the U.S.S.R.: Design for New Buildings

ACCORDING to the *Soviet News*, work began immediately after the War on the new headquarters in Moscow of the Academy of Sciences of the U.S.S.R. The designs were executed by the Russian architect Alexey Shchusev. A single building will house the Academy's general council, all its administrative offices, a central library for 6,000,000 volumes, and ten institutes studying the humanities. It will be erected on the right bank of the Moscow River, opposite Gorky Park and next to the Crimea Bridge. The site has an area of more than 200,000 square

yards, and the main façade will be 300 yards in length. The design provides for a central building with a tower at each end, and two side blocks with semicircular entrances. The seven-storied central building, 132 ft. high, will stand upon a five-floor basement, from which a broad staircase leads down to the river. In the centre there will be an eight-columned portico 80 ft. high, supporting four pairs of Corinthian columns surmounted by a hexagonal dome. To the left of the portico will rise a 260-ft. pierced tower. The main façade will be faced with natural stone. The building will stand in a large park in which eventually the Museum of the History of the Earth and the Museum of the History of Life will be built.

### British Archæology in Greece

ALTHOUGH the British School of Archæology in Greece was necessarily closed during the German-Italian occupation, it was possible to publish during the war years two of its Annuals, representing the studies of former students. Volume 40, for 1940–45, now issued (London: Macmillan and Co., Ltd. 2 gas.), contains obituaries of former students who lost their lives in the War; studies of miniature panathenaic vases by Prof. J. D. Beazley, of some provincial black-ware workshops by Mrs. A. D. Ure, and of inscriptions from Beroea by J. M. R. Cormack; an archæological survey of the classical antiquities of Chios by D. W. S. Hunt; and a full publication by Sir John Myres of excavations in Cyprus undertaken for the Cyprus Museum, including a sanctuary site at Lefkóniko, settlement sites at Enkomi, Larnaca, and a rich bronze-age cemetery at Lapithos; with notes on the 'black stone' on the site of the famous temple at Paphos (which may be the actual cult-object), on the dates and origins of Cypriot sculpture, and on the 'rising from the sea' of Aphrodite, a remarkable natural incident, resulting from the collision of incoming and reflected waves in certain winds on a steep beach, immediately in front of the Paphian Temple.

With the restoration of more normal conditions in Greece, the British School has resumed some of its former activities. The buildings and library in Athens are unharmed; the Palace site and hostel at Knossos very little damaged; but excavation is suspended until the end of 1947, through the disorganisation of the Greek Department of Antiquities.

### Verticillium Disease of the Mushroom

A USEFUL pamphlet entitled "Verticillium on Mushrooms" has recently appeared from the Midlands Group Publications (Yaxley, Peterborough, 55 p., 1946, 5s. net). Fred C. Atkins, honorary secretary of the Mushroom Growers' Association, reviews the history of the disease, its symptoms and control. *Verticillium Malthousei* is the causal fungus; it may be soil-borne, or carried by flies. The best method of control appears to be fumigation of mushroom houses by formalin vapour generated by mixing potassium permanganate and 40 per cent formaldehyde. An appendix contains extracts from "Control of Mushroom Diseases and Weed Fungi" by W. S. Beach (Bull. 351, Pa. Agric. Exp. Sta., 1937). Infection by *Verticillium* is favoured by high relative humidity, and an additional measure of control lies in spraying a diseased area of the bed, after removal of the good mushrooms, with Bordeaux mixture. A further appendix is a reprint of the original paper by

W. M. Ware, which describes *V. Malthousei* as a new species (*Ann. Bot.*, 47, No. 188; Oct. 1933). This gives cultural details, thermal reactions, the results of inoculation tests, and outlines methods for the examination of diseased mushrooms for the disease. There are six excellent photographs, and the pamphlet is further enriched by a coloured plate prepared by McG. Bulloch. This shows symptoms of the soil-borne and insect-borne phases of the disease.

### Commonwealth Fund Fellowships

COMMONWEALTH FUND fellowships are being awarded in 1947. These fellowships, established by the Commonwealth Fund of New York in 1918, are confined to British subjects and are tenable in the United States. Three kinds of fellowships are awarded: (1) Ordinary fellowships; (2) Service fellowships, for candidates who hold British Government appointments overseas; (3) Home Civil Service fellowships, for candidates holding appointments in the Home Civil Service. None of these fellowships is open to women. There is no fixed stipend, but the emolument attached to each fellowship, which is estimated at a minimum of approximately 3,500 dollars for twelve months, is calculated to cover the full expenses of residence, study and travel in the United States during the year. All applications must be submitted on the prescribed form, and must be approved by the authorities of the college or university of which the candidate is, or has been, a member. They must reach the Secretary to the Committee, Richard H. Simpson, Commonwealth Fund Fellowships, 35 Portman Square, London, W.1, by February 1, 1947.

### Ministry of Agriculture Post-graduate Scholarships

THE Ministry of Agriculture has awarded the following post-graduate research and training scholarships in agricultural economics, agricultural engineering and husbandry, tenable for periods up to three years, in the first instance at the institutions shown: *Agricultural Economics*: A. W. Ashby, School of Agriculture, Cambridge; R. D. Hewlett, Department of Agriculture and Horticulture, University of Reading; O. T. W. Price (not yet determined); Miss M. A. Wilson, School of Rural Economy, Oxford. *Agricultural Engineering*: J. A. Gibb (not yet determined). *Husbandry*: G. E. Barnsley, Norfolk Agricultural Station, Sprowston; A. Mitchell, School of Agriculture, Cambridge; D. E. Tribe, Rowett Research Institute, Aberdeen.

### Royal Society of Edinburgh

THE following have been elected officers of the Royal Society of Edinburgh: *President*, Sir W. Wright Smith; *Vice-Presidents*, Prof. R. J. D. Graham, Lord Cooper, Prof. J. W. Heslop Harrison, Prof. W. M. H. Greaves, Lieut.-Colonel W. F. Harvey, Prof. J. P. Kendall; *General Secretary*, Dr. J. E. Richey; *Secretaries to Ordinary Meetings*, Prof. E. T. Copson and Prof. A. Holmes; *Treasurer*, Sir E. Maclagan Wedderburn; *Curator*, Dr. J. E. Mackenzie; *Councillors*, Prof. T. Alty, Mr. J. Morrison Caie, Sir Robert Muir, Lord Birnam, Prof. E. P. Cathcart, Prof. Alexander Gray, Dr. J. Russell Greig, Dr. W. A. Harwood, Prof. C. M. Yonge, Prof. A. D. Hobson, Dr. W. O. Kermack, Dr. John Weir.

The Dr. W. S. Bruce Memorial Prize (1946) has been awarded by the Joint Committee of the Royal Physical Society, the Royal Scottish

Geographical Society and the Royal Society of Edinburgh to Lieut.-Colonel P. D. Baird for his valuable survey and geological work with Mr. J. M. Wordie in North-West Greenland and Baffin Island in 1934, and with Mr. T. H. Manning's British Canadian Arctic Expedition in 1936-37; during 1938-39 he went back again with his friend Bray and reached Igloolik near Fury and Hecla Strait that summer. Bray was unfortunately drowned, but Baird carried on by himself and travelled extensively over northern Baffin Island, mapping as he went, and made a first entry into Bylot Island. Recently, he has been in charge of the 'Musk-Ox Operation' in Arctic Canada.

### Announcements

DR. HAROLD JEFFREYS, reader in geophysics in the University of Cambridge, has been elected to the Plumian professorship of astronomy and experimental philosophy at Cambridge, vacant since the death of Sir Arthur Eddington.

DR. H. ZANSTRA has been appointed director of the Astronomical Institute of the University of Amsterdam, in succession to Prof. A. Pannekoek, who has retired.

DR. HOWARD REID CRAIG has been appointed director of the New York Academy of Medicine in succession to Dr. Herbert B. Wilcox, who has resigned. Dr. Craig was born in 1894, and since 1921 has been associated with Babies' Hospital, New York; he has served on the Advisory Council of the Child Welfare Bureau of the U.S. Department of Health.

THE trustees of the Miners' Welfare National Scholarship Scheme invite applications for a limited number of university scholarships for award in 1947. There are, in addition, a limited number of exhibitions available for award to the most meritorious of the unsuccessful candidates for scholarships. Candidates must be either workers in or about coal mines in Great Britain, or sons and daughters of such workers, and should not normally be less than seventeen years of age on January 25, 1947. Forms of application can be obtained from the Secretary, Miners' Welfare National Scholarship Scheme, Ashley Court, Ashted, Surrey. Applicants for forms must state whether they apply as workers in or about mines or as children of such workers. Completed forms must be returned by January 25, 1947.

MESSRS. EASIBIND LTD., Pilot House, Mallow Street, London, E.C.1, have sent for examination an example of the covers they supply for filing or binding periodicals. The covers are made to fit specific journals, and that for *Nature* holds twenty-six issues. Each issue is kept in place by a stiff wire the ends of which run in slots in two metal frames at the back edge of the binder; and the issues are held together by two stouter wires passing outside the first and last issues and inserted in holes in the same frames. The binder is easy and convenient to use whether full or only partially full.

ERRATUM. Dr. P. J. G. Mann and Dr. J. H. Quastel write: "The equation, relating to the decomposition of manganese dioxide by hydroxylamine, mentioned in our article on 'Manganese Metabolism in Soil' (*Nature*, August 3, p. 154) was by an oversight incorrectly stated. The equation should read:

