

with a report on the ornithological observations, compiled by Dr. von Boetticher, was published as a special supplement of the *Journal für Ornithologie* in 1930. He was a regular attendant of the meetings of the Deutsche Ornithologische Gesellschaft which were held each year in various parts of Germany and took part in all the ornithological excursions, however arduous. In 1934 he attended the International Ornithological Congress at Oxford, including the visit to the bird islands off the Pembrokeshire coast. His enthusiasm and activity were such that even at the age of seventy-six, in 1937, he was considering the possibility of a trip by aeroplane and motor-car from Cairo to the Cape in order to study the bird-life throughout Africa.

He was a brilliant linguist, and in fact it was difficult to discover how many languages he did know, for he would turn with bewildering speed and facility from French, German, English, Bulgarian to Portuguese. His dominating personality, astuteness as a politician and the unpopular role he took in the destinies of Europe have always been emphasized; but his love of beautiful things, his great generosity

to the cause of science and to his friends, his delightful sense of humour and a surprising simplicity are sides of his character which have generally been missed.

PHYLLIS BARCLAY-SMITH

WE regret to announce the following deaths:

Peter A. Bungart, for nearly twenty-five years associated with the Department of Geology and Palæontology of the Cleveland Museum of Natural History, who was a distinguished collector and preparator of fossil fish, on July 30, aged seventy-two.

Prof. Alexandr Orlov, professor of petrography and chemical mineralogy at the Charles University of Prague, known for work on the origin and occurrence of groups of ore-bearing rocks and soils, the metamorphosis of limestones and dolomites and especially for his petrographic studies of Czech garnet deposits, aged forty-nine.

Prof. D. A. Welsh, emeritus professor of pathology in the University of Sydney, where he held the chair from 1902 until 1936, on May 13, aged eighty-two.

## NEWS and VIEWS

### Botany at Cambridge:

Prof. F. T. Brooks, C.B.E., F.R.S.

ON September 30 Prof. F. T. Brooks retired from the professorship of botany in the University of Cambridge, which he has held since 1936. When he succeeded Sir Albert Seward he became head of a large and well-organised department, which continued to expand and prosper under his direction in spite of the difficulties and restrictions of the war years. At the present time, accommodation in the Botany School is strained to its utmost by ever-increasing numbers of research students, and investigations are being made in all the main fields of botanical science, while the number of undergraduate students is well maintained. During his tenure of the chair, Prof. Brooks has continued his researches in plant pathology, and during his career he has been responsible for the training of a large number of mycologists and plant pathologists who now hold important posts in many parts of the world. His wise guidance and administrative ability have been freely extended to the University Botanic Garden; he has acted as chairman of its executive committee and as secretary of the managers of the Cory Trust. His work has extended beyond the University; he was for five years an active member of the Agricultural Research Council and has been one of the general secretaries of the British Association for the Advancement of Science. He will continue to live in Cambridge and to carry on his researches in the Botany School.

Prof. G. E. Briggs, F.R.S.

PROF. G. E. BRIGGS will succeed Prof. Brooks as professor of botany. He will be the ninth holder of the chair, which was founded in 1724, and the first plant physiologist to be appointed to it. His researches on photosynthesis and growth have brought him a world-wide reputation as a clever experimenter and a critical and original thinker. A pupil of F. F.

Blackman, he has been head of the Sub-department of Plant Physiology in the Botany School since 1937, and was raised to the rank of professor in 1946. He is a man of wide interests, distinguished as a teacher, and he has had considerable administrative experience in the University and as a fellow and officer of St. John's College.

### Solar Eclipse of November 1: British Expedition to Mombasa

A SMALL expedition from the Royal Observatory, Greenwich, under Dr. R. d'E. Atkinson, is proceeding to Mombasa to observe the eclipse of the sun on November 1; the purpose is to try out a method of correcting the moon's place from observations on the thin crescent of the sun seen from a station where the eclipse just fails to be total. Measurements of the position-angle of the line of cusps, as a function of the time, can give corrections to the differential co-ordinates of sun and moon which are independent of any assumption about their apparent radii, and independent also of irradiation if the sky is uniform. If a large number of such measures is made, the effects of irregularities of the moon's limb also cancel out to a considerable extent. In the neighbourhood of Mombasa, where the eclipse is nearly 98 per cent total, the position-angle swings round through about 70° in 2½ minutes; it is hoped to obtain 3,000 timed pictures on 35-mm. film in this interval. The camera will be stationary, and the trail of successive images produced by the sun's diurnal motion will give the zero of position-angles. An ordinary small visual telescope-lens, stopped down to about  $f/40$ , is being used, in conjunction with a green filter and exposure times of 1/1,000 sec. Special time-signals will be sent from Rugby, and these will be recorded, together with the instants of the shutter-openings, on tape-chronographs which have been made at Abinger. The accuracy of the results will be limited by uncertainties about the contour of the moon's limb;

it seems certain that if the limb were smooth the moon's place would be determined with considerably greater accuracy than that with which it is at present computed in the Nautical Almanac. Whatever the limb-effects may be, the accuracy should be higher than that which results from six thousand ordinary occultations, since the timing is considerably better than is possible with visual methods, while all effects due to personality, systematic time-differences between stations, and real changes of libration are eliminated. If the method works out as well as is hoped, it will probably be used for long-range geodetic purposes; the accuracy will then be more severely limited by our ignorance of the moon's limb, since considerable changes in the libration are inseparable from a long shadow-path. However, the accuracy should still be considerably greater than can be obtained, for the same purpose, by merely timing the instants of contact, since in that case all the emphasis is on some one point of the limb at each contact; a chance error at that point can cause a large error in the time.

### Frozen Foods Consultative Group

To ensure the fullest co-operation and collaboration between the various research organisations engaged in the field of food, and also that inquirers will be directed to the best sources of information, the Frozen Foods Consultative Group was set up last year. It consists of representatives of research organisations, official and semi-official, under the chairmanship of the director of food investigation, Dr. Franklin Kidd. The objects of the Group are in the main the exchange of information on research investigations in progress on the preservation of food by quick-freezing processes so as to prevent overlapping and to discover gaps in research programmes. The terms of reference are: (a) to table and discuss the results of investigations into new developments in methods of preserving food by freezing; (b) to consider the planning of further investigations (each organisation to retain its own independence and the responsibility for its own programme); (c) to maintain contact between investigators in such fields as packaging and engineering which bear on preservation by freezing; (d) to direct inquirers in industry to the best sources of information. The following research organisations and stations are represented: Low Temperature Research Station, Torry Research Station and Ditton Laboratory (all of the Department of Scientific and Industrial Research); Scientific Adviser's Division, Ministry of Food; British Food Manufacturing Industries Research Association; Printing, Packaging and Allied Trades Research Association; British Baking Industries Research Association; Fruit and Vegetable Preservation Research Station, Chipping Campden. The Group has power to invite to its meetings representatives of other organisations such as the Refrigerated Cargo Research Council, the Institute of Refrigeration and the Food Manufacturers Federation. The secretary of the Group is Mr. P. R. P. Claridge, Food Investigation Organisation, Lloyds Bank Chambers, Hobson Street, Cambridge.

### Petroleum Films Bureau

It may not be generally known that there exists in London an organisation specializing in circulation (free of charge to responsible bodies such as educational and Service authorities) of 35 mm. and 16 mm. sound and silent documentary instructional films. The

August catalogue has reached us from the Petroleum Films Bureau, 46 St. James' Place, London, S.W.1, sponsors of this scheme, from which it is clear that the range of subjects covered is not limited to varying aspects of the oil industry. Titles of general interest include the microscope, microscopy of opaque objects, hydraulics and hospital service. "How Oil is Produced and Refined" is covered by fifteen different reels giving a total of more than three hours showing. Other sections deal with automobile engineering and road safety for children. Short synopses of each film are available; also lantern slides, with appropriate lecture notes, on the subject "About Oil" can be borrowed to illustrate the early history of oil, its nature, origin, production, refining and transportation. This is a valuable scheme, capable of great expansion and certain of support in lecture theatre, classroom, drill hall and, presumably, the home.

### Fertilizer Manufacture in East Africa

A SCIENTIFIC mission from East Africa is at present on a short visit to the United States to study the methods employed by the Tennessee Valley Authority in the manufacture of fertilizers. Large deposits of rock phosphates are known to exist in Uganda, and it is expected that the knowledge gained from this visit can be applied to the exploitation of these deposits when hydro-electric power becomes available from the Owen Falls scheme. The members of the mission are: Dr. A. J. V. Underwood, industrial consultant in London to the East Africa High Commission; Mr. H. B. Stent, acting chairman of the East African Industrial Research Board; Dr. K. A. Davies, director of the Geological Survey, Uganda; and Mr. C. R. Westlake, chairman of the Uganda Electricity Board.

### Life-Histories of Birds

THE United States National Museum has issued a number of bulletins dealing with the life-histories of various North American birds. The latest addition to the series covers the nuthatches, wrens, thrashers and their allies, and is a painstaking work. Mr. Burt, the author, says that he has endeavoured to give as full a life-history as possible of the best-known sub-species of each species, and has written more briefly of the related sub-species, by this method avoiding repetition and duplication. He has amassed much information which is presented in a clear and readable manner, the volume being illustrated by a large number of photographs, mostly excellent ones, the last, of a sage thrasher, being a particularly successful picture.

### Edward Livingston Trudeau (1848-1915)

WHEN he was a student at the New York College of Physicians and Surgeons, Edward Livingston Trudeau, who was born on October 5, 1848, was taught to regard tuberculosis as an incurable disease. When, therefore, the celebrated physician Edward G. Janeway in 1873 diagnosed extensive tuberculosis in his left lung, his patient, who had recently graduated and married and whose brother had died of the same disease, felt he was under sentence of death and gave up his practice to spend his last days in the Adirondack Mountains. To his and everyone else's surprise he recovered, and in 1884 established the open-air Adirondack Cottage Sanitarium—the first in the United States. In the isolation of a primitive forest, badly crippled and single-handed, Trudeau preached and practised the gospel of fresh air and extolled