

In pursuing the difficult investigations connected with the separation of the rare earth elements, Urbain showed great versatility in employing many physical and chemical methods, often necessitating prolonged and tedious work. It is estimated that, together with Lacombe, he had carried out some 200,000 fractional crystallizations over a period of fifteen years.

Like preceding investigators, Urbain began by studying the absorption and emission spectra of the rare earths, then went on to the magnetic properties and the phosphorescence in cathode tubes, discovering the law of optimum phosphorescence of binary systems. He also carried out many accurate atomic weight determinations.

In addition to his work on the rare earths, Urbain will be remembered for his contribution to the study of complex inorganic salts, which he considered to form a link between inorganic and organic compounds.

During his career, Urbain filled many important posts. He lectured at the École Centrale and presided

over the Experimental Section of the Ecole des Hautes Études. In the Great War he directed the Chemical and Technical Section of the Artillery.

These numerous activities none the less left Urbain time for artistic recreations. Those who attended the banquet in his honour given at the Maison de la Chimie last June were privileged to hear several of his original musical productions.

WE regret to announce the following deaths :

Prof. Edwin H. Hall, emeritus professor of physics in Harvard University, on November 20, aged eighty-three years.

Prof. J. Šplíchal, professor of inorganic and analytical chemistry in the School of Mines, Pířbram, Czechoslovakia, who had only recently completed a lengthy study of the thermal decomposition of the carbonates of calcium, magnesium, iron and manganese, on December 8, aged fifty-three years.

News and Views

Society for the Protection of Science and Learning

PERHAPS there is no finer testimony to the work undertaken by the Society for the Protection of Science and Learning, the report for 1938 of which was referred to in NATURE of December 17 (p. 1051) than the extent to which it has received the active support during the whole of its five years existence of the university staffs in Great Britain. Not only have individuals and committees in the majority of academic centres lent ready assistance to their exiled colleagues from abroad in the way of advice and vigilance for new openings for them, but also they have contributed financially more than £10,000 towards the funds of the organization which seeks to aid academic refugees. The Society itself has arranged a week of meetings early next term to take place in the great majority of British academic centres, with the view of spreading information concerning the plight and prospects of academic refugees. Among those who have agreed to take part in these meetings are included: the Home Secretary, the Archbishop of York, Viscount Samuel, the Marquess of Reading, Sir William Bragg, Sir Henry Dale, Sir Richard Gregory, Sir John Hope Simpson, Sir Norman Angell, Sir Allen Mawer, Sir Bernard Pares, the Hon. Harold Nicolson, Mr. Philip Guedalla, Mr. Walter Adams, Prof. Gilbert Murray, Prof. Winifred Cullis, Prof. John Macmurray, Prof. P. M. S. Blackett, Prof. Lancelot Hogben, Prof. F. A. E. Crew, Miss Rebecca West and the Hon. V. Sackville-West. The Royal Society is giving a special reception to the academic exiles and those who have been working in their interests, in collaboration with the British Academy, on February 7; and on February 10 the evening discourse at the Royal Institution is to be given by Prof. Max Born, one of the most distinguished of the refugee men of science.

The Chemical Society

At a meeting of the Chemical Society held at the Royal Institution on December 15, it was stated that Prof. Robert Robinson, Waynflete professor of chemistry in the University of Oxford, has accepted nomination to the office of president for the period 1939-41, which includes the centenary celebrations of the Society to be held in April 1941. The Longstaff Medal for 1939 has been awarded to Prof. I. M. Heilbron, for his outstanding contributions to the science of chemistry in the field of natural products, especially vitamin A and related natural pigments, the anti-rachitic vitamin D and its precursors, and the constituents of the fish liver oils and of natural resins of the triterpene group. Prof. Heilbron was lecturer in organic chemistry in the Royal Technical College, Glasgow, from 1909 until 1914, and in 1919 became professor of organic chemistry there. In 1920, he proceeded to the University of Liverpool as professor of organic chemistry; in 1933 he held the chair of organic chemistry in the University of Manchester. In 1938, he was appointed professor of organic chemistry at Imperial College, London.

At the meeting of the Harrison Memorial Prize Selection Committee, consisting of the presidents of the Chemical Society, the Institute of Chemistry, the Society of Chemical Industry, and the Pharmaceutical Society, held on December 14, it was decided that the Harrison Memorial Prize for 1938 should be awarded to Mr. Alexander King. Mr. King received his chemical training at the Imperial College, South Kensington. From 1930 until 1931, he worked in the Physical Chemistry Institute of the University of Munich under Prof. K. Fajans, and from 1931 to the present date has held the post of assistant

lecturer at Imperial College. His original investigations on adsorption and on emulsions and other colloid topics form notable contributions to our knowledge of physical chemistry. After a brief statement regarding the establishment of the Faraday lectureship, the president (Prof. F. C. Donnan) introduced Dr. Irving Langmuir, who then delivered the seventeenth Faraday Lecture entitled "Monolayers on Solids". At the conclusion of the lecture he presented the Faraday Medal to Dr. Langmuir.

Life-size Model of a Blue Whale

A MODEL of a 93-ft. Blue whale has just been completed in the Whale Hall of the British Museum (Natural History). It is constructed of plaster of Paris and cement on a wood and wire-netting framework and weighs between six and seven tons. The proportions and colour are based on photographs and written descriptions and on very numerous measurements of actual specimens. Features of interest in the model are: the great size of the head, which is nearly a fifth of the total body length; the eye just behind the angle of the mouth, and the very small ear opening a little distance behind the eye; the tapering beautifully stream-lined flippers, and the enormous tail flukes some eighteen feet from tip to tip. The numerous grooves covering the throat and chest are a typical feature of the family Balænopteridæ to which this species belongs. The Blue whale, which grows to 100 ft., is the largest of all living animals and, so far as is known, the largest that has ever existed. At birth it is more than 24 ft. in length, and by its third year of life when it becomes sexually mature it is 74-77 ft. long. Its distribution is world wide, but at the present time the only remaining important area of concentration is in the Antarctic. There it is being hunted by the whalers for the oil obtained from blubber and flesh. During the 1936-37 antarctic whaling season, out of a total of 32,821 whales slaughtered, 14,183 were Blue whales.

A Kentish Iron Age Hill-Fort

THE hill-fort at Oldbury, near Ightham, Kent, the excavation of which was described by Mr. J. B. Ward before the Society of Antiquaries of London on December 15, is the largest hill-fort of iron age date in Britain. Its ramparts are some two miles in circumference and enclose a space of 120 acres. Originally, it would appear from the evidence of sections cut in the ramparts, the erection was a place of refuge rather than a permanent settlement. This was at the very beginning of the first century A.D.; but later the gate facing the North Downs was elaborately refortified with stone-revetted fighting platform and outworks. The associated pottery shows that this refortification was carried out in A.D. 43 at the time of the Claudian invasion. Although Oldbury lay off the line of march of the Claudian armies proceeding from East Kent, where they landed, to Colchester, the evidence of the burning of the gates and quantities of sling stones suggest that it was sacked then or soon after. The camp was not again occupied. No Belgic pottery was found in the original fortification, but only in the later works.

From this Mr. Ward infers that the original fortifications were erected by another people who had established themselves in the Wealden areas of Kent, Surrey and Sussex, working the local supplies of iron, and that its original purpose must have been to serve as a protection against the inroads of the Belgic tribes, whose headquarters lay north of the Thames. The occurrence of Belgic pottery in the later fortifications suggests that by that time the Belgic people had taken possession of the fort.

Mesolithic Dwellings at Farnham, Surrey

EXHIBITS illustrating the culture of the inhabitants of mesolithic pit-dwellings at Farnham, Surrey, are now on view in the Prehistoric Galleries of the British Museum (Bloomsbury). These dwellings, on a site which is the only one of its kind as yet found in Britain, have been excavated by Dr. and Mrs. Grahame Clark. The results of the excavation, which has occupied two seasons, were described by Dr. Clark at a recent meeting of the Prehistoric Society. The site of the settlement, which is the property of the Farnham Urban District Council, consists of a number of irregularly shaped pits, three feet deep in places, which have been scraped out of the gravel of the old Blackwater River. These pits represent the chief habitations of a mesolithic people, who probably spent their summers hunting on the Lower Greensand, when they lived in temporary shelters. Four huts have been excavated. In one pit there was a hearth and near another there were signs of a post, which probably had supported some light framework arranged tent-wise. Generally, however, the roofing seems to have been of the nature of a lean-to. Large numbers of microlithic implements were discovered, with flint axes, scrapers and waste flint cores and flakes. Altogether, between forty and fifty thousand worked flints have been discovered, and fifteen thousand flints cracked by fire have been found. These houses are, as stated, the first of their kind to be found in Britain; and they probably represent the first type of habitation in use in Britain other than the cave. They are considered to date from about 3000 B.C., and support the contention that artificially constructed dwellings are more ancient than has been thought. On the Continent, evidence is accumulating that mesolithic man was nomadic, inhabiting light shelters in the summer, and more or less permanent dwellings, usually of the pit-dwelling type, in the winter. The exhibits now shown in the British Museum are drawn from two of the dwellings excavated, and include a large and representative selection of the implements found.

Accessions to the British Museum (Bloomsbury)

INTERESTING additions to the collections of British antiquities of the British Museum (Bloomsbury) were announced at the December meeting of the Trustees. Among these the most important is an iron sword of the second century B.C., with its bronze scabbard mount, which has been lent for temporary exhibition by the Duke of Northumberland. It was found in the River Witham below Lincoln in 1826, probably at the same time as the famous bronze shield of the