

sented at international conferences, it can only be through the agency of a national organisation. Valuable as may be the local activities of the Asiatic Society of Bengal, and of the Academies at Allahabad and Bangalore, they cannot fulfil these duties.

Preparation of Woad in England

In a paper on "The Preparation of Woad in England", read by Messrs. H. O. Clark and R. Wailes on February 19 to the Newcomen Society, the authors said that, after being cultivated for centuries, dyer's woad (*Isatis tinctoria*) was last grown and prepared at Skirbeck, Lincolnshire, in 1932, and that it is not likely to be grown again either in England or elsewhere. Much has been written on the history, botany and chemistry of the plant and the dye, and the object of the paper was to place on record information as to the technology and the cost of the preparation of woad. Fortunately, on farms at Algarkirk and Skirbeck, the machinery used in the industry remains almost intact and many photographs and drawings have been made of it. At Algarkirk, too, are old account books covering the period 1844-56, and these show that the output of the farm varied from 75 tons to 178 tons and the price obtained for the prepared woad from £9 to £15. The operations involved in the preparation of woad include sowing, weeding, cropping, grinding, balling, drying, couching and packing. The most interesting of these processes was the grinding in large horse- or steam-driven mills. In the mill at Algarkirk is a circular track of oak blocks about 24 ft. in diameter on which the leaves of the plants were crushed and chopped by means of four great tapered rollers each furnished with about thirty-six cutters. The rollers were towed round the track by a large overhead cast-iron wheel with cast-iron spokes and a toothed rack with 456 teeth. Such mills were fine specimens of millwrighting. After the woad leaves were crushed, they were kneaded into balls by hand, and dried. A few weeks later the balls were broken up and the woad spread over the floor of the 'couching house' to a depth of about three feet. It was allowed to ferment for six to eight weeks, being turned over daily, and then was again dried, after which it was packed in barrels for dispatch to the dyers.

Academic Assistance Council

At a meeting of the Academic Assistance Council, under the presidency of Lord Rutherford, in the rooms of the Royal Society on February 21, the Council recorded its gratitude for the generous gift from Mr. and Mrs. Simon Marks, Mr. and Mrs. Israel M. Sieff, Mr. and Mrs. Harry Sacher, Mr. and Mrs. Norman Laski and Miss Mathilda Marks of two research fellowships for displaced German men of science of the value of £450 per annum each for a period of five years. After consultation with the Royal Society, the Council awarded one fellowship for a period of three years to Dr. Walter Heitler, to enable him to continue his research in theoretical physics at the University of Bristol. Dr. Heitler,

formerly of the University of Göttingen, is best known for his work in connexion with the quantum theory of valency and more recently in connexion with the theory of absorption of particles and radiation of high energy. The Council will shortly award the second fellowship. From its general funds the Council established a third fellowship for a period of three years, which it awarded to Dr. Veit Valentin, to enable him to continue his work in German history at University College, London. Dr. Valentin was head archivist and director of the research department for the history of culture of the German State Archives at Potsdam.

THE officers of the Academic Assistance Council reported that the dismissal of university teachers in Germany on account of opinion or race is continuing, and that even after dismissal scholars are further victimised by being denied access to libraries and forbidden to accept invitations from universities and learned societies abroad. The officers also reported that six university teachers have been dismissed in Portugal for other than professional reasons. There is, therefore, continuing need for a non-political organisation to assist displaced men of science and other scholars, and the Council has made plans for the creation of a more permanent body, a Society for the Protection of Science and Learning, to take over its activities. An invitation will shortly be issued for persons to join this Society, and at the same time an appeal for funds will be made.

The Universities, Social Sciences and Local Government

REFERENCE is made in the annual report to the Court of Governors of the University of Birmingham, presented by Sir Charles Grant Robertson (vice-chancellor) on February 20, to the criticisms of Miss Fry, at the recent Annual Conference of Educational Associations: (a) that in the ratio of number of university students to population Great Britain attains only to the fifth place among the European nations; (b) that there does not exist a single university department in Great Britain dealing with causes, incidence and treatment of crime; and (c) that too large a percentage of university graduates go down almost ignorant of the structure of society and its claims upon them. As to these criticisms, the Vice-Chancellor says that "unless the community can annually and suitably absorb the output of the Universities, an increase in the number of university students will defeat the purpose for which it is made. . . . What is needed even more than a knowledge of the existing social structure is the power to amend it and strengthen its capacity to absorb the trained mind . . . ignorance of the structure of society is not confined to graduates; it is shared by a huge percentage of the community, including the House of Lords at one end and the recipients of Public Assistance at the other". He quotes with approval Miss Fry as reported in *The Times* of December 31, 1935: "In the local service there was too little bringing in of generally well educated people in the early twenties, as in the State Civil Service. The

attitude of local authorities seemed rather paradoxical. By the award of scholarships they encouraged their ablest scholars to carry on their education till they were too old to have a chance of entering the service of the authorities." Inter-departmental committees in Whitehall have investigated the situation and made valuable recommendations—but nothing has been done to open up a real road from the universities to the local and municipal services other than that long enjoyed by the technicians, for example, medical men or engineers.

Science at the British Industries Fair

THE visit of H.M. The King to the British Industries Fair at Olympia and the White City on February 19 was the first public function which he attended since his accession to the throne. At Olympia he spent some time in the Scientific Instrument Section and inspected the principal exhibits, especially the epidiascopes, microscopes and binoculars. His Majesty expressed his appreciation of the fine display of instruments and of the general lay-out of the grouped stands, for the organisation of which the Scientific Instrument Manufacturers' Association of Great Britain was responsible. This year there were a greatly increased number of buyers from overseas, among whom representatives from Continental countries were predominant, and many of the leading scientific instrument firms report that, through the Fair, they have established valuable connexions in the markets of the Continent and elsewhere.

Romano-British Cave Burial in Yorkshire

SOME interesting questions are raised in the report by Sir Arthur Keith on human skeletal remains discovered last year in a cave in Kingscar, near Langeliffe, Yorkshire. The implements and weapons associated with the remains, according to a statement accompanying the report in *The Times* of February 24, are of Romano-British date. A detailed account of the artefacts will be given when the investigation of the cave, which is being carried out by members of the Pig Yard Club, is complete; but in the meantime Sir Arthur reports that the skeletal material submitted to him consists of the skeleton of a man, from which certain parts are missing, and fragments of at least four individuals, of whom one is a girl, one a man, and two, or possibly three, are women. The portions missing from the main burial, which was in the extended position, suggest to Sir Arthur that there has been a partial disturbance across the lower part of the body, which brought about the simultaneous removal of the missing parts. He is, however, at a loss to account for the appearance, both here and elsewhere in caves, of the fragmentary remains; though he is disinclined to regard them, as do some authorities, as evidence of the survival of cannibalism in Britain to so late a date. It will be interesting to see how far the detailed stratigraphic evidence supports the natural presumption of disturbance. It is unfortunate that the missing parts include both the thighbones; but on the evidence of

the left tibia, which has survived, the stature has been calculated as five feet five inches. In the measurements which have been made, the most marked feature is the length of the head, which gives the low cranial index of 69.3. In general character, the remains suggest a population comparable to the late Celtic (Romano-British) population of the west of Britain.

Huskless Oats

So many letters are reaching the National Institute of Agricultural Botany asking for information about huskless oats that Sir Rowland Biffen has prepared a brief account of them. These oats differ from our ordinary varieties in two important respects. The first is that the thin, paper-like husks surrounding the grain do not grip it tightly, with the result that, on threshing, the naked grains are set free just as those of wheat are. The second is that they have some six or seven grains in each spikelet instead of the usual two or three. These grains are loosely strung on a stalk sufficiently long for two or three to protrude and hang down well below the glumes. As the result of this exposure, considerable losses from shattering may be expected in unfavourable harvesting conditions. It is responsible, too, for giving the standing crop the appearance of being very high yielding. But this expectation is not realised on threshing any more than is the expectation that a barley with six rows of grain must out-crop one with two rows only. Most of the huskless oats now in existence come from China, where several distinct forms are in cultivation, but though these have been tried out in many countries during the past half century, their range of cultivation has not increased to any extent. Of late years experimenters have paid a great deal of attention to these Chinese oats. Apparently none of these experimenters, although it is an important part of a plant breeder's work to assess the agricultural value of the material he collects, has seen fit to recommend the general cultivation of huskless oats. One English firm of seedsmen, famous throughout the world for the cereal varieties which it has bred and distributed, has for the past forty years used strains of naked oats for crossing with many varieties of the ordinary cultivated oats. Two years ago the firm abandoned this work, having become convinced that the chances of obtaining any derivative of outstanding agricultural value were negligible.

Recent Acquisitions at the Natural History Museum

AMONG the donations received by the Zoological Department during the last month have been two collections of Indian game trophies, presented by Lieut.-General Sir Henry Keary and Lieut.-Colonel Sir Armine Brereton Dew. The first of these collections consists of a number of mounted heads, mostly from Burma, while the second comprises a number of skulls and horns of Kashmir sheep, markhor and ibex. Eleven hundred specimens of birds, collected by the late Capt. Boyd Alexander in Central and West Africa, have been acquired from his heir. Capt.