Training in Food Technology

THE Food Group of the Society of Chemical Industry met on February 13, at the London School of Hygiene and Tropical Medicine, to take part in a discussion on "The Training of the Food Technologist", opened by Dr. H. B. Cronshaw, editor of *Food Manufacture*, the *Industrial Chemist* and other publications. As Dr. Cronshaw's paper had been circulated before the meeting, he gave a brief summary of the more contentious parts and showed a number of slides illustrating numerous institutions, chiefly in North America, at which research and teaching in food technology are combined to various degrees. The main part of Dr. Cronshaw's paper, however, and that which gave rise to most discussion, contained a plea for the introduction in Great Britain of special post-graduate courses in food technology at suitable universities and colleges. Dr. Cronshaw's paper included a comprehensive and very useful survey of the kind of problems with which the food technologist is likely to be confronted, as well as some ingenious classifications of the type of product with which these technologists have to deal. For this reason alone its publication in full in *Food Manufacture* will be anticipated with much interest. His main plea, however, was subject to considerable criticism by various members of the Society, particularly on the grounds that it tended to overemphasise the need of specialised technological knowledge in the young post-graduate entering industry, and so to run the risk of supplying him inadequately with the essential scientific outlook. Some of the discussion also directed attention to the importance of considering pre-graduate as well as post-graduate studies, and even of elementary and secondary education.

Museum of the History of Science at Oxford

ON February 12 Congregation at Oxford unanimously passed the statute which alters the name of the institution housing the Lewis Evans and other collections of scientific instruments to the "Museum of the History of Science, Old Ashmolean Building". The first step towards the full recognition of this institution—hitherto governed by decrees—has thus been taken. The museum is to be administered by the Vice-Chancellor, the Proctors and six others, three of whom will be appointed by the science boards. At the moment there will be no extension of the premises. A decree, however, was also passed assigning the main ground-floor room of the Old Ashmolean to the museum at a date not later than 1942. This room, where in the past the New Oxford Dictionary was compiled, and the present upper-floor room, where the collections now are, should be adequate for the museum for many years. It is a pity, however, that this increased accommodation, at the moment badly wanted, cannot be definitely secured earlier, and that the University cannot promise adequate financial support for the staff in charge. It is to be hoped that such help will soon be forthcoming, so that the museum may take a bigger part in the science teaching in Oxford—an opportunity for a generous donor. Congregation expressed themselves very appreciative of the work of Dr. R. T. Gunther, the curator, who not only created the museum single-handed more than ten years ago, but also has since given his services as administrator and teacher for a purely nominal salary.

Pollution at Sea by Discharge of Oil

IN July last, the British Government, stating that representations had been made to it that the pollution of the coasts of the British Isles by the discharge of oil and oily matter outside the territorial limits by ships was increasing, suggested that the matter be referred for preliminary examination to the Communications and Transit Organisation of the League of Nations, with the view of concluding if possible an international convention. At the last Assembly, this view was further explained by the British representative and it was decided that an initial inquiry should be undertaken. Experts from Denmark, France, Italy, Japan, the United States and Great Britain were invited to Geneva by the chairman of the Advisory and Technical Committee on Communications and Transit. These experts agreed that oil pollution caused the destruction of sea-birds, the wings of which become saturated with oil so that they cannot swim, fly or dive; of fish, particularly shellfish, and of the marine grasses which form the staple food of fish and sea-birds. The pollution of sea-beaches by oil results in harm to bathers and depreciation in value of seaside resorts, and constitutes a menace to public health; finally, the accumulation of oil drifting into harbours offers a serious risk of fire. These evils exist to a varying extent in many countries and the object in view is to provide, by international agreement, some means whereby oil-burning and oil-carrying ships may be prevented from polluting, through the discharge of oil and oily mixtures on the high seas, the coasts to which the matter is liable to drift. Some causes of pollution such as collision, or the pouring of oil on to the sea during storm to assist vessels in distress, cannot be prevented, but it is possible by co-operation to guard against voluntary discharge outside territorial limits, and the Committee of Experts recommend that an appropriate international convention should be concluded.

Security of Tenure and Intensive Farming

THE private bill promoted by the Metropolitan Water Board, which may involve the destruction of Holly Lodge Farm (see NATURE of February 2, p. 177), was read a second time in the House of Commons on February 18. Sir A. Boyd-Carpenter moved that an instruction be given to the committee which is to consider the bill to leave out works on this site, on account of the unique value of the farm as a research centre. After discussion, Sir Hilton Young, Minister of Health, pointed out that he had consulted the Minister of Agriculture on the matter and it was agreed that the appropriate means of dealing with the question was to refer it to a committee of the House. Sir A. Boyd-Carpenter's motion was then by leave withdrawn. In a letter in *The Times* of

February 15, Sir William Prescott, chairman of the Metropolitan Water Board, stated that the "site for the proposed reservoir at Walton has been selected after the most exhaustive examination of other available lands". It is not stated whether the expert opinion available to the Ministry of Agriculture or to the Geological Survey has been sought, but it is much to be hoped that such scientific advice may be consulted before the matter comes under discussion in committee of the House of Commons.

A New American Balloon Ascent into the Stratosphere

FOLLOWING on the American ascent into the stratosphere last year recorded in NATURE of July 28, p. 132 and November 3, p. 707, 1934, careful inquiry has now shown that the mishap was caused by internal adhesions of the lower part of the balloon fabric. Plans for a new ascent are well advanced. The personnel of the advisory committee has been chosen by the National Geographic Society working in co-operation with the United States Army Air Corps, and once again Capts. A. W. Stevens and O. A. Anderson will ascend. It is gathered from the announcement by the president of the Society in the *National Geographic Magazine* of February 1935 that the arrangements will differ but little from those of last year's flight. The balloon will have the same capacity and the ascent will be made from the same place. No details are as yet available of the instruments that will be carried, but as the lifting power will be about six tons and as "special emphasis is to be placed on data that can be obtained from manned balloons capable of lifting standard laboratory instruments", there is no doubt that every possible self-registering device that might supply information about the upper atmosphere and cosmic rays will be included. An advisory committee under the chairmanship of Dr. Lyman J. Briggs, director of the U.S. Bureau of Standards, is to be congratulated on the thoroughness of its investigations of the previous failure. The findings will be of greatest value to those who undertake future hazards.

A New Diphtheria Prophylactic

OWING to the prevalence of diphtheria during the last year, a considerable demand has followed for immunising agents for preventive inoculation, which is now extensively practised with good results. Various agents have been employed for this purpose, such as toxin-antitoxin mixtures and preparations of modified diphtheria toxin known as 'toxoid'. An alum-precipitated toxoid (A.P.T.) of high immunising efficiency is now available, and is issued by Messrs. Burroughs Wellcome and Co., in germ-proof containers of 1 c.c. and 5 c.c. This substance was first prepared in the Wellcome Physiological Research Laboratories in 1926. The results of animal tests showed that it possessed considerable immunising power against diphtheritic infection, and since that date its high immunising efficiency in human beings has been established. Caution has been exercised in applying the inoculation of A.P.T. in human beings on account of the production of a tissue response at the site of injection. This, though medically trivial, may disturb parents of inoculated children. The efficiency of A.P.T. probably depends upon the deposition of the relatively insoluble aluminium-toxoid compound at the site of injection, and from this the immunising toxoid is gradually liberated. The complex toxoid compound, however, excites a tissue response in the form of a small painless nodule, and this tissue response is probably an essential factor in the potent immunisation that ensues. Unpublished experiments made in the Wellcome Research Laboratories have shown that in animals two spaced injections of one tenth, or less, of the ordinary human dose results in a more rapid, or a higher, immunity than one single larger dose. It is possible that a similar method may prove useful in human immunisation, the chance of troublesome local reaction being lessened by this course.

Juan Fernandez and Easter Island

BY a recent decree of the Chilean Minister of Lands and Colonisation, it is reported by a correspondent of *The Times* in the issue of February 14, Juan Fernandez and Easter Island have been declared national parks. This gives effect, so far as Juan Fernandez is concerned, to a proposal which was first put forward so long ago as 1921. The two volcanic islands grouped together under the name Juan Fernandez and situated four and five hundred miles respectively west of Valparaiso are of popular interest because it was on one of them that Alexander Selkirk was marooned from 1704 until 1709; and his adventure is supposed to have inspired Defoe in writing "Robinson Crusoe". Easter Island, on the other hand, which lies about 2,300 miles from the mainland, is one of the most interesting islands of the Pacific. Its archæological remains present a problem for ethnologists which hitherto has defied satisfactory solution. These remains consist of more than five hundred human figures, portrait statues, carved in stone, some of gigantic size and one at least approaching forty feet in height, over two hundred stone platforms and stone houses, unique in the Pacific, relics of a race of which the present inhabitants have no knowledge. Even more interesting in certain respects are the tablets inscribed in a script which no one has yet succeeded in deciphering. Since 1888 the island, which has an area of about 48 square miles, has been in the possession of Chile, and has served as a penal settlement. The native inhabitants, who are Polynesians with a Melanesian strain, barely exceed 200 in number, though in 1860 they numbered 3,000; but in the 'seventies a considerable proportion migrated or was removed to Tahiti and the Gambier archipelago. The decree of the Chilean Government, in so far as it will ensure the protection from vandalism of these unique relics of an otherwise unknown culture and an apparently vanished race, is a public-spirited act worthy of the highest commendation.

A Tidal Power Project in the Bay of Fundy

THE Bay of Fundy is well known throughout the world for the height of its tides. It is not surprising, therefore, that Americans are interested in the