of health for Leith, where his ability and achievements, added to those already accomplished in his previous appointments, led to his selection, in 1901, for the post of medical inspector under the Local Government Board for Scotland. In 1904, he became medical member of the Local Government Board and later of the Scottish Board of Health which took its place. In the latter capacities he took a prominent part in the development of the tuberculosis service and the scheme for medical services in the Highlands and Islands of Scotland. His name is also closely associated with the development of the maternity and child welfare service, he having, in 1915, prepared a report for the Carnegie Trust on "Scottish Mothers and Children", published in 1917. At this time also he was a member of the Royal Commission on Housing, the Ballantyne Commission, a branch of public health work which he himself regarded as among the most important, if not the most important, of his activities for the betterment of the people of Scotland. He was also crown nominee for Scotland on the General Medical Council.

Among Sir Leslie's published writings, other than those already referred to, were "The Nervous System" in Prof. Bain's "Senses and Intellect"; "The Development and Outlook of Public Health" in Nelson's Loose Leaf Medicine; "Health and Disease"; "The Health of the School Child"; "The Medical Inspection of School Children".

The sympathy of all who knew him, personally or by repute, will go out to Lady Mackenzie, who also is a well-known and active social worker. Lady Mackenzie has taken a keen interest and no small part in the effort for the improvement of conditions in Scotland, and is a member of several boards of public bodies and of the Departmental Committee now receiving evidence on the health services of Scotland.

News and Views

'Backward Tribes' in the India Bill

COL. WEDGWOOD, by moving two amendments on Clause 91 of the India Bill in the House of Commons on March 22, secured from Sir Samuel Hoare a statement of the intentions of the Government in dealing with the primitive tribes of India. He pointed out the extreme undesirability of the probable course of action of the Provincial Governments in an effort to assimilate tribal areas to conditions in the rest of the territory under their jurisdiction, and urged the retention of such areas under British control with a system of administration similar to that of 'indirect rule' which has been introduced in West Africa. That the problem is by no means negligible in its dimensions is indicated by the numbers affected. Col. Wedgwood's estimate puts the numbers of the backward tribes at 43,000,000, of whom 13,000,000 only will be affected by the protective measures proposed by the Government. These figures are in excess of those given in the Census Report of 1931, where the primitive tribes are stated to number 25,000,000 (in round numbers), of whom 8,280,000 are said to retain their tribal religion. The difference is probably due to the more rigid exclusion in the Census figures of tribes which have passed over recently, or are in process of passing, into the depressed classes, the usual fate of tribes which have come into contact with outside conditions.

ALL observers are agreed as to the delicate equilibrium of the social organisation of the primitive tribes of India, which is unable to withstand even the most impartial application of the principles of British justice. In Rajputana, for example, it has been found to have led, in the desire to distribute even-handed treatment, by almost imperceptible degrees to an increase in the power of the land-owner and the restriction of the rights of the tribal holding. Any increase in facilities of communication has had a rapidly disintegrating effect. Sir Samuel Hoare was able to give the House an assurance that the Government has this aspect of the matter in view; and he informed the members that, as the result of consultation with expert opinion in India, it had been decided that certain areas, wherever such treatment was possible, would be scheduled for control by the Governor only. He closed with the confident statement that "the Government had made the position safe". In so doing, he appeared to rely to a great extent upon the fact that there has developed a school of Indian administrators "who had specially concentrated on the study of the kind of problem that was in the mind of Col. Wedgwood". Some assurance, however, that measures are being taken to ensure that the supply of such administrators will not fail in the changed conditions would have been even more welcome.

Antiquities in Iraq

FURTHER details of the allocation of antiquities from Ur as between the Bagdad Museum and the institutions which were responsible for the Joint Expedition are given by Dr. Leonard Woolley in *Antiquity* of March. These, unfortunately, had to be omitted from his communication in *The Times* (see NATURE, **134**, 999; 1934); but they should convince any impartial judge of the fairness of Dr. Woolley's contention that the principle of division has operated in favour of the Bagdad Museum, and that there is no ground for the accusation that Iraq has received a negligible proportion of the finds or has been deprived of priceless treasures which should not have left the country. Dr. Woolley admits that in the earlier years of the excavations objects of exceptional importance or value were allotted to the share of the Expedition; but this was due to the fact that the Bagdad Museum had not then the technical equipment necessary for their special treatment and preservation. As Dr. Woolley's statement is precise, its detail is open to verification; but a reply which

has since appeared in the Bagdad paper *el Bilad* evades this issue. Dr. Woolley goes on to show specifically in detail that the Antiquities Department of Iraq, having first choice, was in a position to, and did, select the most valuable and finest specimens for its proportion of the finds, without any compensation being given to the Expedition. The law is interpreted in such a way that there is a danger that the share of any Expedition may become insufficient to justify the expenditure entailed by the work of excavation. The reduction of the number of expeditions in this field to three indicates that this view is only too well founded.

Artificial Lighting at the National Gallery

ON and after April 1 the public will be able to visit the National Gallery, Trafalgar Square, until 8 p.m. on three evenings in the week. This has been made possible by a new lighting scheme, which has been the subject of extensive research during the past six years. The installation has been designed to secure a reasonably high intensity—about 4 foot-candles—upon the pictures themselves, and at the same time to prevent too great a feeling of darkness over the remainder of the room. Suspended fittings, each containing a high-powered frosted bulb, are used, and a system of louvers and reflectors directs as much light towards the picture-carrying portion of the walls as the architecture of the several rooms will permit. The height of the fittings has been calculated upon the assumption of a viewing distance of eleven feet from the walls. Masks are employed to stop the glare in the direction of doorways: in the majority of cases this has proved satisfactory, though instances will always arise when the geometry cannot be satisfied without producing a shadow on the wall or in a corner. An emergency system of lighting, which comes into operation automatically in case of failure, is held in reserve.

International Vitamin Standards

THE International Standards for vitamins A, B_1, C and D are now available for issue to laboratories, institutions and research workers in Great Britain and Northern Ireland. These standards were accepted for international use at the Second International Conference on Vitamin Standardisation held in London in June 1934 under the auspices of the Permanent Commission on Biological Standardisation of the Health Organisation of the League of Nations. The Conference recommended that they should be kept at the National Institute for Medical Research, Hampstead, N.W.3, which would act for this purpose as the central laboratory on behalf of the Health Organisation of the League of Nations. The standards for the vitamins B_1 and D remain unchanged, and their supply at regular half-yearly intervals will be continued as before. The standard for vitamin A has been changed; a pure specimen of β-carotene having been adopted in place of the impure preparation of carotene hitherto employed. The unit of vitamin A remains unchanged, though it is now defined as the vitamin A activity contained in 0·6 microgram of pure β-carotene. In accordance with the recommendations of the Conference, the β-carotene is issued in the form of a solution in oil, of which 1 gm. contains 500 international units. The quantity of this standard solution supplied to each applicant is approximately 5 gm., and, on account of the small quantity available, it can be supplied only at yearly intervals, and not half-yearly as formerly. *l*-Ascorbic acid has been adopted as the international standard for vitamin C, the unit of activity being defined as the vitamin C activity contained in 0·05 mgm. of pure *l*-ascorbic acid. A fuller account of the recommendations of the Conference on Vitamin Standardisation appears elsewhere in this issue (p. 516).

Chemical Engineering in Industry

GREAT BRITAIN is awakening to the importance of the chemical engineer, a man who knows the nature and properties of the new constructional materials or is able to design large plants for the continuous production of those materials which are classed as chemicals. It is at least likely that the big developments in the future will be among the chemical industries making, at a low price, substances for which there is a considerable need, almost automatically as a continuous process. Such will require the ablest chemical engineers to design and operate them. There are two societies active in promoting the subject and in bringing together those who practise it, and post-graduate courses are provided in several of the London colleges. Greater progress in chemical engineering has been made abroad, particularly in the United States and in Germany, and for some time past the desirability of holding an international congress has been realised by those interested, in particular by the late Sir Frederic Nathan. Thanks to the assistance of the World Power Conference with its widespread organisation, a Congress has now been arranged, to take place in London on June 22–27, 1936. The programme, which has just been issued, lists the influential members of the organising committees, whose names are a guarantee of the support the Congress is receiving. It further indicates the scope of the projected programme: this covers plant, fuel and heat and general problems, administration, development and general aspects of the subject. It is desired that the papers, while adhering strictly to chemical engineering, should deal as fully as possible with the economic aspect of the subject. The Committee aims at inviting technicians of repute to present papers dealing with particular aspects of these subjects rather than having a miscellaneous collection of papers, and if they are successful the Congress should be a memorable one.

Dr. William Derham, F.R.S. (1657–1735)

ON April 5, the bicentenary occurs of the death of Dr. William Derham, rector of Upminster, Essex, and for thirty-three years a fellow of the Royal Society. Born at Stoughton, near Worcester, on November 26, 1657, he entered Trinity College,