

## Controlling Drugs

THE Medicines Bill published in Britain this week (H.M.S.O., 10s. 6d.)—less than five months after the Sainsbury Committee's report on the relationship between the pharmaceutical industry and the National Health Scheme—proposes a number of controls and safeguards in the importation, marketing and retailing of medicinal products. One of the principal decisions made is to appoint a Medicines Commission with eight members from medicine, veterinary medicine, pharmacy, chemistry other than pharmaceutical chemistry, and pharmaceutical industry. This body will advise on matters relating to the administration of the Bill or, generally, in relation to medicinal products, but it will also be required to advise on the pattern and membership of expert committees.

The Bill also follows the Sainsbury Committee in laying down that a "product licence" will be required before any medicinal product can be marketed in Britain, regardless of where it is produced. Doctors, dentists and others will, however, be allowed to continue making up their own mixtures, but veterinary surgeons and practitioners will have to comply with certain standards on vaccines and sera.

Applications for and renewals of licences will have to be made to the licensing authority, which will take account of factors such as safety, efficacy and quality in relation to product licences, the facilities and control arrangements in relation to manufacturers' licences, and premises and storage facilities in relation to wholesale dealers' licences. Requests cannot, however, be refused on the grounds of selling price and, indeed, refusal on any grounds can only be enforced after consultation with the appropriate committee or the commission. The licensing authority will be able to reserve the right to suspend licences on a number of grounds—for example, if the standards to which a product is manufactured are no longer satisfactory. A product licence or certificate will also be required before clinical and field trials can be carried out, and the risk involved will have to be considered by the licensing authority. Moreover, every clinical trial certificate will expire after two years but can be renewed on application. The question of including medicinal products in animal feeding stuffs is also covered in the Bill; this will only be possible in accordance with the conditions in a product licence or field trial certificate. Ultimately it will be for the Minister of Health to specify which medicinal products are safe enough to be sold without the supervision of a pharmacist.

According to the Bill, subject to certain provisions, it will now be an offence for any commercially interested party to issue advertisements that are false or misleading. This provision replaces the one in the Food and Drugs Act with respect to false and misleading advertisements for drugs. Furthermore, the Bill allows regulations to be made concerning the particulars in an advertisement, the form and manner of presentation, and in addition it enables the licensing authority to call for copies of advertisements. Persons other than licence holders will not be able to issue advertisements without the consent of a licence holder, and a fine not exceeding £100 will be imposed on anyone contravening this restriction. Copyright in the British Pharmacopoeia may pass from the General Medical Council and be assigned to Her Majesty: future editions will be prepared by the Medicines Commission or an

appropriate committee under its direction, and the editions will then be published by the ministers on the Commission's recommendations.

Obviously the success of the Bill will depend on how strictly the new regulations are followed. Those who fear that the new Bill is unduly restrictive should perhaps look at the United States where the Committee of the National Academy of Sciences is giving the Food and Drug Administration a sharper bite than it has had in the last few months.

## The Government Inspector

THE Comptroller and Auditor-General began his visits to British universities last week. First on the list was the University of Sussex at Brighton, to be followed by the University of Lancaster. In spite of the cries of horror which greeted the announcement some months ago that the universities would now be subject to an audit by the comptroller and his staff, the occasion seems to have passed off without incident.

The Exchequer and Audit Department, which is responsible for carrying out the audit, seems not yet certain exactly how it is to be done. "We're feeling our way," one member of the staff explained. But the general pattern of visits seems likely to be that two members of the staff will visit universities for about two weeks at a time, and quite literally examine the books. Surprise visits are definitely not on—"We always notify the universities in advance". It is thought that about a dozen universities will be examined each year, which means that the whole lot will be covered in about four years. But more frequent visits are not ruled out—it all depends how difficult the job turns out to be. A new section has been set up at the department specifically to deal with the task.

## Scientists Redundant

THE angry reaction to the news of AEI factory closures seems to have made the giant GEC cautious in its dealing with its research workers. Following the announcement that the telecommunications laboratories at Blackheath and Harlow are to close came the statement that work would be transferred to other research establishments at Coventry and Wembley, where more technicians would be needed as well as a "substantial number of engineers and scientists". Official comment suggested that the company would be more occupied in persuading people to move with them rather than in pacifying the ones who will be redundant. This may indeed be the case for some of the older men, particularly in the development engineering section, because some of them have had to move several times already, to keep up with reorganizations. For the rest, it is believed that offers of employment will be made to selected staff only.

The closing of the Harlow sections comes as the third and final stage of reduction. Originally the laboratory served three sections of AEI with a staff of 300 working on radio, sales and telecommunication. In 1963 the radio interests of the company were sold, work on semiconductors and transistors ceased and total staff fell to about 180. The cables section was withdrawn in 1966 and the remaining staff of 140 remained for telecommunications. Rather than being involved in the expertise of the subject, the group has concentrated particularly on the materials science side,

working on advanced materials and developing micro-electronics. It is thought that a few workers will be offered posts at Wembley, where fundamental work in this line is carried out, but GEC already has a well established group working on materials science. There is also a group at Harlow which is just getting going onto production engineering and automation, and it is feared that the GEC is just not interested in this.

It is highly likely that a similar story would emerge from the Blackheath laboratories, but GEC is trying to restrain comment. The statement that the company is to build up powerful research teams, particularly at Wembley, is being received with scepticism by some of those affected.

## New Man at Harwell

DR WALTER MARSHALL is to succeed Dr Robert Spence as director of the Atomic Energy Research Establishment at Harwell on April 1. One of his principal tasks will be to supervise the practical and commercial assistance which the establishment hopes to give to industry in Britain.

Dr Marshall, who is 35, joined the AERE in 1954 and became head of its theoretical physics division in 1960. He was appointed deputy director in 1966. Dr Spence became head of the chemistry division at Harwell in 1946 and has been director since 1964. He now goes to the University of Kent to take up the mastership of the new third college, as yet unnamed, and the chair of applied chemistry.

## New Man in France

THERE is great pleasure in France that the new head of the Délégation Générale de la Recherche Scientifique et Technique is Dr Pierre Aigrain, until this week in charge of higher education at the Ministry of Education. Dr Aigrain is 43 and is a physicist by origin and since 1959 has been secretary-general of the French Physical Society. His career has alternated spells in government departments with intervals of academic life. He has, for example, held scientific positions with the French navy, the atomic energy commission (CEA) and, most recently, the army. He was at the Collège de France for a brief spell in the early fifties and has been connected with the universities of Lille and Paris. He has won himself a high reputation as an energetic and sensible man.

## Physics Information

THE American Institute of Physics has landed the first instalment of a grant from the National Science Foundation which is likely to amount to more than a million dollars in the next five years and which will be spent on the study and development of new techniques in the dissemination of information in physics. Work has already begun on the project, which was described at the New York meeting of the American Physical Society at the end of January by Dr H. W. Koch, director of the American Institute of Physics. Like the American Chemical Society, the American Institute of Physics, which is a federation of several learned societies ranging in size from the American Physical Society to the Society of Rheology (with a few hundred members), has come to occupy a central position in the

publication of original material in physics. Dr Koch said that the institute's journals have been publishing more than 50,000 pages in aggregate each year for several years now. The total size of all its journals seems in fact to be doubling every five years. The American Institute of Physics is perhaps more outspoken than other similar organizations in its belief that there would be benefits in devices which could replace formal publication.

The plan for the information study now begun will cover several aspects of this problem. For one thing, there is to be a thorough study of the uses of computers in the storage and retrieval of information. In this sense, the Institute of Physics will be following the Chemical Abstracts Service, which is now publishing lists of titles on magnetic tape. It seems, however, to be acknowledged that physicists may not be as well served by computer storage as are the chemists—for one thing the costs of tape retrieval seem to be high and informal exchanges of preprints among interested groups of physicists have been well developed. But the Institute of Physics is also hoping to tackle directly the qualitative problems of the scientific literature, and the programme of work ahead is to include a serious attempt to decide what part formal articles in the scientific journals should play in the dissemination of information. A convincing answer would be well worth a million dollars.

## Doctorates in the United States

A STATISTICAL report on the education and subsequent employment of PhD students and their equivalent in the United States has been published by the National Academy of Sciences for the Office of Scientific Personnel of the National Research Council (*Doctorate Recipients from United States Universities, 1958-1966*). The source of all the information is the Documents Records File which is compiled from extremely detailed surveys of graduates completing doctoral degrees. This file goes back to 1920 and must surely be the envy of higher education authorities in other countries for its thoroughness. All subjects are covered in the report, though there is no doubt about the predominance of science and technology. In 1966, a total number of 17,865 graduates received doctorates, of which 6,077 (34.02 per cent) were in physical sciences and engineering, and 2,869 (16.06 per cent) were in biological sciences. A further 2,666 (14.92 per cent) were awarded doctorates in the social sciences. Altogether there has been an average growth rate of 9.2 per cent over the period 1958-66. Engineering has had the most spectacular increase—in 1966, four times as many doctorates were given in this field as in 1958. Corresponding to the growth in numbers of PhDs are figures for the growth in numbers of colleges and universities. There is also a detailed analysis of the pattern of doctoral education—the time taken to register for higher degrees after completion of first degrees, transference from one course to another and from one institution to another during the period of study and so on.

Of interest to the followers of the Swann and Willis Jackson reports on scientific and technical manpower are the analyses of postdoctoral employment. Colleges and universities are the main employers of higher degree graduates in all fields, and a greater percentage