

makes the appointment—may have felt towards a man who has recently crossed swords with the magazine *Private Eye*, Dr Doll emphasized last week that throughout his career he has maintained an active interest in clinical medicine and teaching. For the past twenty years, he has done clinical research at the out-patient department of the Central Middlesex Hospital, where he is an honorary associate physician. And as a result of his work on gastroenterology, he has also been elected a member of the British Society of Gastroenterology and an honorary member of the American Gastroenterology Association. Dr Doll lectures at the London School of Hygiene and Tropical Medicine and



at University College Hospital on epidemiology. He emphasized that there is also at Oxford a chair in clinical medicine, so the Regius professor need not be, and often in the past has not been, a clinician.

Dr Doll intends to continue his research in epidemiology, and says that he will have good facilities and at least as much time for research as at present. The teaching and administrative load at Oxford will occupy no more time than the work involved in planning the Clinical Research Centre. The Department of Medicine has only six established posts and there are no vacancies, but the Nuffield Committee has apparently given a substantial sum so that he can take a nucleus of a research team with him. He hopes to take at least two of his current staff at the Statistical Research Unit. It remains to be seen what will now happen in the Statistical Research Unit of the MRC, which was intended to become the division of epidemiology at the Clinical Research Centre.

#### MEDICAL RESEARCH

### Computer for Medicine

At midday last Tuesday the Medical Research Council's new computer centre in London was officially opened by Mr Edward Short, the Secretary of State for Education and Science. With the addition of this £280,000 GEC 90/300 computer, the MRC now owns about six computers and also has access to several others. The

new unit is the biggest yet and is intended to be a central facility for MRC staff in London.

The new computer is an American machine manufactured in Britain under licence by GEC-AEI Automation Ltd. It has a general speed of operation and access time of 2–5 microseconds and 32,000 words of fast core store. The computer, which is being programmed in Fortran, also has a fast line punch, a fast card reader and five magnetic tape decks. This machine was particularly chosen for the fine range of software which is incorporated and which includes a large disk store of 500,000 words—particularly useful for problems involving large quantities of information.

The computer was installed last autumn (19 months late) and has been working for the past two months. The unit, however, has for a year been compiling a library of standard programs which can be applied to many of the service tasks. There will be analyses of both large and small-scale clinical and epidemiological studies and the computer will also be used for keeping records of MRC expenditure.

One team at the unit is at present exploring the application of computers in medicine and biology while another is using the computer to recognize microscopical preparations of chromosomes in the hope of finding an automated process which will be 100 times faster than human methods. Other research activities of the unit will be concerned with problems of mathematical modelling and medical data processing.

Dr Clive Spicer, the director of the unit, estimates that the running cost of the unit will be about £60,000 a year, excluding the depreciation of the computer. It is hoped, however, that this unit will be directly linked with another new computer which is to be installed at the Clinical Research Centre at Northwick Park, thus providing an even better service.

#### SOCIETIES

### Together at Last

AFTER a year and a half of scarcely perceptible activity, merger discussions between Britain's three largest chemical societies are now in full swing, and the presidents of the Chemical Society, the Royal Institute of Chemistry and the Society of Chemical Industry hope that they will have concrete proposals to put before their members within the next month or two.

Abortive attempts to streamline the organization of the chemical societies were made in 1941 and again in 1960, but this time, according to Sir Ronald Nyholm and Mr Leslie Williams, the presidents of the Chemical Society and the R.I.C., it should be possible to arrive at a workable solution—which is just as well since "what is now at stake is the future standing and prestige of chemistry in the community and a failure to take action on this occasion will have much more serious and lasting consequences". The latest move toward collaboration was made in 1967 when the societies agreed (*Nature*, 215, 1116; 1967) that Sir Eric Bingen, a former deputy chairman of Imperial Chemical Industries Ltd, should conduct an independent investigation into ways and means of rationalizing the activities of the three organizations. Nothing much seems to have happened until Sir James Taylor, an industrialist and former president of the Institute of Physics and the Physical Society, took over in 1968



and produced an outline scheme which was approved as a basis for negotiation in December. A working party consisting of five representatives from each of the three societies was then set up with Sir James Taylor as chairman, and will report to the councils of the three bodies as soon as they have a positive proposal. When this has been approved it will be for the members to decide whether they wish to support the scheme. It seems likely that some sort of announcement will be made at the annual conference of the Chemical Society and the RIC this April.

As far as other more specialized chemical societies are concerned, the idea seems to be that they should perhaps be included after the details of the collaboration between the Chemical Society, the RIC and the SCI, which have by far the biggest memberships, have been hammered out.

## ENGINEERS

### Jobs for the Girls

In spite of the enlightened attitudes of many countries, the opinion still prevails in Britain that engineering is not a suitable career for women. In France, one engineer in twenty-eight is a woman, and in Syria one in fourteen, while in Russia the figure is one in three. But in Britain, only one engineer in five hundred is a woman, which is nevertheless a great improvement on the situation a few years ago when the number was only one in a thousand.

Last week, the Women's Engineering Society, founded after the First World War when women first made their mark in this male preserve, celebrated its fiftieth anniversary. At the same time "Women in Engineering Year" was launched in a concerted effort to break down the prejudice of teachers, parents, pupils and employers against women taking their place in a profession which needs as many eager recruits as it can get. Conferences, exhibitions, lectures and visits have been organized throughout Britain to demonstrate that engineering does not consist entirely of heavy and dirty work requiring massive physical stamina, and that women have a valuable part to play.

WOMEN ENGINEERS AS A PROPORTION OF ALL ENGINEERS  
IN VARIOUS COUNTRIES (PER CENT)

USSR	31	Germany	2
Norway	10	USA	2
Turkey	10	Italy	1
Syria	7	UK	0.1
France	3.6		

Inaugurating the proceedings at a lunch last week, Mrs Shirley Williams, Minister of State for Education and Science, remarked that there is much very delicate work to be done in, for example, electronics, aeronautics and design engineering, and there is no reason why a girl in engineering should be less feminine than a girl in home economics. The women engineers present, some of them with very senior positions, certainly testified to this.

Much of the campaign is aimed at encouraging girls to study applied science and their teachers not to throw up their hands in horror at the thought. At the same time, more boys need to be encouraged into the

applied sciences, and several schemes are already in progress to show engineering as an attractive prospect to all school children. The Department of Education and Science has produced the magazine *Project*, with lavishly illustrated articles on all aspects of engineering, for fifth and sixth formers. Since 1966, 22,000 copies have been distributed to schools each term, apparently interesting teachers as much as pupils.

A touring exhibition—Technology Today—showing what the everyday work of an engineer involves, has now been on the road for three years and visited hundreds of schools. The department is also organizing Engineers Days and Engineering Weeks which have already been visited by thousands of boys and girls. More than eight hundred schools are now involved in the Schools Council scheme Project Technology, designed to encourage boys and girls to devise their own engineering projects. Although none of the schools involved is exclusive to girls, the number of mixed schools involved has considerably increased since the scheme began, so that girls are being exposed to Project Technology and undertaking projects themselves.

Girls are obviously discouraged to some extent by the attitudes of employers, who often see women in the familiar role of potential mothers on whom all training is wasted. Those firms which do give girls the opportunity to prove themselves, however, find that they can make very good engineers. The electronics industry is now employing increasing numbers of women, especially working with computers, and in civil and chemical engineering efforts are being made to recruit more women.

## FIELD STUDIES

### Consolidation Ahead

THE Field Studies Council seems to have decided on a period of consolidation after the opening last year of two new field centres—the Drapers' Field Centre at Betws-y-Coed in Caernarvonshire, and the Leonard Wills Field Centre at Nettlecombe Court near Taunton in Somerset. According to the council's annual report for 1968, it now plans to extend and improve its present residential centres, and it is also helping in the development of some closely related activities. It has, for example, agreed to establish a Countryside Unit in Pembrokeshire and to act as the Countryside Commission's agent for providing educational and information services through guides, field excursions, lectures and leading organized parties.

Although the Field Studies Council is known principally for its educational work, it is becoming increasingly interested in encouraging research. A step forward in this direction is now being made at Dale Fort Field Centre in Pembrokeshire, where a new biology laboratory is being built. Thanks to a grant of £500 from the John Spedan Lewis Foundation, the laboratory will be equipped with saltwater aquaria and a constant supply of seawater, which the scientific director, Dr J. D. Carthy, says "will greatly increase the facilities for visiting research workers". At Slapton Ley Field Centre in Devon, it is hoped to develop a research programme on productivity studies. The Oil Pollution Unit at Orierton Field Centre in Pembrokeshire is monitoring polluted sites in Milford Haven, and data have been collected in Bantry Bay