

NEWS and VIEWS

Physics at the University of Oxford :

Prof. B. Bleaney, F.R.S.

DR. B. BLEANEY has been appointed Dr. Lee's professor of experimental philosophy and head of the Clarendon Laboratory at Oxford, at the age of forty-one, in succession to the late Sir Francis Simon. Dr. Bleaney has been associated with the Clarendon Laboratory for some considerable time, having graduated from St. John's College and taken his doctorate at Oxford. He was appointed a Fellow and lecturer in physics at his old College in 1947 and has been one of the most active members of the Clarendon Laboratory since this time, being elected to the Royal Society in 1950. He was the first person to observe spectral lines in the microwave region, from which work the whole subject of microwave spectroscopy has now developed. In recent years he has been responsible for extending the theory and technique of electron resonance with particular reference to the transition elements. Under his leadership the microwave resonance group has contributed to some of the most important of recent advances in both low-temperature physics and magnetic theory, including the experiments on nuclear alignment. He is one of the relatively few modern physicists who is equally at home with both the theoretical and the experimental sides of his subject, and has also taken a keen interest in the problems of undergraduate teaching, having recently written a new text-book on electricity and magnetism. Dr. Bleaney is in the United States at the moment as visiting professor at Columbia University, and will be returning to take up his chair in the summer.

Atomic Scientists Association Report on Strontium-90 and Bone Cancer

A COMMITTEE on radiation hazards appointed by the Council of the Atomic Scientists Association has published a report on its assessment of the effect of radioactive strontium-90, produced in hydrogen-bomb tests, on the incidence of bone cancer. On the assumption that the probability of contracting bone cancer is directly proportional to the radioactive dose received by the bone, the committee estimates the number of cases of bone cancer which are likely to result from a given hydrogen-bomb test. A calculation, given in an appendix to the report, shows that a hydrogen-bomb of the type tested at Bikini in 1954, if exploded high in the atmosphere, may eventually produce bone cancer in 1,000 people for every million tons of T.N.T. of equivalent explosive power. It has been stated that the bombs hitherto exploded are equivalent, in aggregate, to 50 million tons, in so far as their strontium-90 fall-out is concerned, implying that 50,000 people, spread throughout the world, may be affected by the fission products already released into the atmosphere as they fall out on to the Earth over the next decades. The committee estimates that by 1970 the radiation dose to bone due to all the fission-bomb tests carried out up to the autumn of 1956 will amount to between 9 per cent and 45 per cent of the dose received from all natural sources, including cosmic rays, radioactivity from rocks and from the small amounts of radium normally present in bone. There is also the probability of a number of cases of leukaemia resulting, but the committee has found insufficient data upon which to estimate its size. The report briefly dis-

cusses the validity of the initial assumption that there is no threshold-dose of radioactivity below which cancer is not induced.

The report is signed on behalf of the Association by its president, Prof. H. S. W. Massey, and by its secretary, Dr. H. R. Allan. The members of the radiation hazards committee are: Prof. J. Rotblat (*chairman*), Dr. J. W. Boag, Prof. A. Haddow, Dr. W. M. Levitt, Dr. Patricia J. Lindop, Mr. S. B. Osborn, Prof. L. S. Penrose, Dr. A. J. Salmon, Prof. P. A. Sheppard and Dr. G. Simon.

Russian 10 GeV. Synchrotron

ON April 11 it was announced in Moscow that the 10 GeV. synchrotron at the United Institute for Physical Problems at Dubna, near Moscow, is now operating at an energy of 8.3 GeV. This machine has many features in common with the 6 GeV. 'Bevatron' at the University of California, formerly the largest operating accelerator in the world. The impressive size of this new accelerator is illustrated by the fact that the magnet alone weighs some 35,000 tons. Physicists from America and Western Europe visited the Institute at Dubna and saw the accelerator during the Moscow Physics Conference last May.

Harwell Atomic Energy Course for Journalists

A TWO-DAY course in atomic energy designed for journalists will be held in the Reactor School of the U.K. Atomic Energy Authority at Harwell on May 30 and 31. The syllabus will include lectures on radioactivity and fission, on reactors and energy from fusion, and on the metallurgy and chemistry of atomic energy, with practical experiments and demonstrations. The number attending the course will have to be limited to about twenty-five, and a fee of ten guineas will be charged. For those who wish to stay in the district overnight, the Reactor School will be able to arrange accommodation at Goring-on-Thames. Inquiries should be addressed to the Reactor School, Atomic Energy Authority, Harwell, Berkshire.

Brecon Beacons National Park

THE Minister of Housing and Local Government has confirmed an Order designating the Brecon Beacons as a National Park. This is the tenth National Park to be designated, and the third in Wales. Its creation means that one-eleventh of England and Wales is now National Park land. The new Park covers the southern part of Breconshire and extends into Carmarthenshire in the west and Monmouthshire in the east. Its 515 square miles include the Brecon Beacons, the Black Mountains and the Carmarthenshire Vans, and its varied scenery of river and moorland, of mountain slope and wooded valley, is among the finest in the country. Some old and interesting towns are included within the Park; Brecon with its cathedral and the once-walled market town of Hay-on-Wye form excellent centres for exploration. Sites of Roman and ancient British settlements abound and there are several fine Norman and medieval castles, existing churches and country houses. The River Usk offers some of the best salmon fishing in the country. Fishing is also to be had in Llangorse Lake under the shadow of the Black Mountains, where many varieties of wild fowl are to be found. The purpose of the designation is to preserve the natural beauty of the area and to promote its enjoyment by the public, but it does not confer any additional freedom of access to private