

servancy to notify the local planning authority of any area which in its opinion is of special scientific interest, and, for the Government, Earl Jellicoe agreed that such early information should help to avoid possible clashes of interest between the river authorities and the Conservancy. He wished to consider further, without prejudice, whether it would be reasonable for the Minister to give a directive to the river authorities requiring them to consult the Conservancy at the earliest possible stage about any scheme, operations or activities likely to affect the areas of which they have been notified. An amendment moved by Lord Conesford and proposing to insert specific reference to the use of sea-water and extracting the salt as a means of augmenting water resources was, by leave, withdrawn on Earl Jellicoe pointing out that the matter was covered more comprehensively elsewhere in the Bill under a clause which made the Water Resources Board responsible for considering desalination along with other means of augmenting water supplies.

### Emperor Tandem Van de Graaff Accelerators

AN *Emperor* tandem Van de Graaff accelerator, costing 3 million dollars, for the University of Rochester has been financed by the largest single grant ever made by the U.S. National Science Foundation. The accelerator is being made by the High Voltage Engineering Corporation, Burlington, Mass. This is the fourth *Emperor* recently built by the Corporation. All the machines will be used to conduct research on the structure of the atomic nucleus. The most precise, powerful and versatile instrument yet developed for the study of nuclear structure, the *Emperor* tandem accelerates protons and heavy atomic nuclei to energies of 20 million eV and velocities close to the speed of light. The highly stabilized and homogeneous accelerated ion beams, at currents rated up to 25  $\mu$ amp, will permit many experiments to be carried on simultaneously. Two of the 187-ton accelerators were recently purchased by the U.S. Atomic Energy Commission to be installed at Yale University and the University of Minnesota. A third will go to the Chalk River Nuclear Laboratory of Atomic Energy of Canada, Ltd., in Ontario. Other large radiation machines for physics research have been supplied by the Corporation to West Berlin, the Laboratoire Joliot-Curie de Physique Nucléaire, Orsay, France, and the Universities of Washington, Pittsburgh, Virginia and Kentucky.

### Science and the Welfare of Mankind

In a lecture, "Science, State and Society", delivered at Dynevor School, Swansea, on October 18, 1962, Prof. B. H. Flowers dealt with the potentialities of science for good and ill on lines that are strikingly reflected in Dr. C. P. Haskins's subsequent presidential report to the Carnegie Institution of Washington (see *Nature*, 197, 729; 1963). Beyond the possibilities which the development of nuclear energy, of synthetic materials, of satellites, of biotechnology have put in our reach, science has profoundly affected the political and sociological atmosphere of the world through radio and television, as well as through the use of electronic computers. Many of the technical problems of world government are disappearing and the time-interval between scientific discovery and full-scale use is now so short that the scientist himself can be involved from the moment of discovery to the final application. Further, scientific endeavour now absorbs a very large proportion of the intellectual and industrial skill of the State, so that it is a matter of public importance whether one venture is undertaken rather than another. Endorsing Sir John Cockcroft's comment to the British Association about wrong priorities in the context of space research, defence and the underdeveloped countries, Prof. Flowers urged that it is not enough for universities simply to provide the scientists and technologists needed and to carry out the fundamental

research on which progress in technology depends; they must also prepare a far larger fraction of the population for intelligent participation in the democratic way of life and must foster the study of man himself. Copies of the lecture (Pp. 16) are obtainable from Dynevor School, Swansea, price 1s. 6d.

### The Southern Regional Council for Further Education

THE fifteenth annual report of the Southern Regional Council for Further Education expresses concern at the additional accommodation problems which may beset colleges where more workshop space is required to implement some of the new engineering courses, and has already recommended to the National Advisory Council that some financial help should be given by the Ministry to local education authorities through an additional minor projects allocation specifically for engineering workshop accommodation (Pp. 38. Reading: Southern Regional Council for Further Education, 1962). A conference of teachers and representatives of the engineering industry was organized in July to discuss the organization of the new courses. Full-time students in the 1961-62 session numbered 8,034 compared with 7,437 in 1960-61; for part-time day students the corresponding figures are 46,996 and 37,329, and for part-time evening students 41,214 and 33,357. Notes are included on progress and developments in the colleges in the area, and the Regional Academic Board has expressed to the Ministry of Education the view that some new agency is needed to give financial assistance in the development of research in technical colleges. The report includes also the accounts for the year ended March 31, 1962, lists of chairmen and changes in membership of the Council, the Regional Academic Board, Executive Committee and Advisory Committees as at September 30, 1962, evidence submitted to the Robbins Committee and a list of 42 research projects notified by colleges in the region during the session 1961-62.

### Fellowship Programme in Nuclear Science

THE Fellowship Programme of the International Atomic Energy Agency has, since the inception of the fellowship activities of the Agency in April 1958, provided with the Exchange Programme a variety of training opportunities relating to the peaceful uses and applications of nuclear energy and its technology. The Fellowship Programme operates through the award of several types of fellowship to qualified applicants and is financed from three different sources: (a) member States making contributions to the Agency's General Fund, allocations of which are made every year to the Fellowship Programme by the General Conference; (b) direct from the member States which make fellowships available to the Agency for training at their national institutions and universities; (c) the Expanded Programme of Technical Assistance of Unesco according to the usual procedure of country programming. Stipends and other allowances are determined mainly by the scale of monthly stipends agreed on by Unesco in consultation with its specialized agencies. Travel expenses of the candidates are expected to be borne by the nominating Government. A brochure entitled *The Fellowship Programme in Nuclear Science* deals with the following aspects of the Programme: types and periods of training; training opportunities; application and nomination of candidates; documents required for submission to the Agency; selection of candidates and award of fellowships; financial considerations; insurance; reports and control; vacation leaves; extensions; obligations of Governments; statistics; general list of institutions; opportunities at the International Atomic Energy Agency Laboratories. Copies of the brochure and further information can be obtained from the International Atomic Energy Agency, Karntner Ring, Vienna 1, Austria.