

municipal enterprise in the country". Three years later, the relation with the University of Manchester was established, under which the University's Faculty of Technology has ever since been in the College of Technology and the professorial staff of the College have been members of the University Senate. Even half a century ago the building just then completed was too small to meet the demands being made upon it, and the building expected to be completed shortly is a little bigger than the one for which plans were first approved in 1914. Two years before the latter date, however, the principal, Dr. Maxwell Garnett, had pleaded for more advanced education for engineers, claiming that while the practical man was as necessary as ever, the practical man of the day was the man who could readily apply theory to practice, when practice was governed by something better than rule of thumb. At that time, the position of Britain in the vanguard of progress was already threatened by developments attributable to the growth of the technical institutions in Germany, the Netherlands and Switzerland, where by 1910 there were twelve such institutions of university rank as against two in Britain. Dr. Bowden said that nowadays the survival of Britain as a great nation depends on the production of many more scientists and technologists than are at present being trained; after referring to the value of the part-time training given by the College, he added that it is hoped to develop an institution which would derive its strength from the traditions of the past hundred and thirty years, but which would be specially adapted to meet the changing needs of to-day, contributing both the ideas and the men which industry needs.

#### School for Advanced Study at the Massachusetts Institute of Technology

A SCHOOL for Advanced Study has been established at the Massachusetts Institute of Technology, with Dr. Martin J. Buerger, professor of mineralogy and crystallography, as director. The School will be similar in its objectives to the Institute for Advanced Studies at Princeton, but will differ in that it will be an integral part of the Institute and serve as an extension of the level pursued at the existing Undergraduate and Graduate Schools. These three Schools will thus constitute the three 'horizontal' levels of the Institute, and the staff will continue as members of the five 'vertical' organizations, namely, the Faculties of Science, Engineering, Architecture and Planning, Industrial Management, and Humanities and Social Studies. For the moment, the staff of the School for Advanced Study consists solely of the director and a secretary. Scholars will be invited by the Institute to pursue advanced study and will have the status of Fellows in the School. Up to now there have been approximately a hundred such people a year, from fifteen countries, studying at the Institute, and they have been registered as 'guests' or 'visiting Fellows'. It is hoped that ultimately the new School will provide a centre and adequate housing for Fellows and guests and, by means of special programmes and other schemes, arrange for them to meet in informal conferences among themselves and with the permanent staff of the various Faculties of the Institute. Dr. Buerger, who will assume the office of director on July 1, was a student at the Institute in 1920 and has been on the staff since 1925, becoming a full professor in the Department of Geology in 1944. A former president of the Mineralogical Society of America, he is widely known

for his studies in theoretical mineralogy and for the development of new theories of crystal structure analysis.

#### Nuclear Weapons and Civil Defence

THE first of a series of pamphlets in Vol. 1 of the "Manual of Civil Defence", prepared by the Home Office and Scottish Home Department, is one on "Nuclear Weapons" (pp. 55. London: H.M.S.O., 1956; 2s. 6d. net), and replaces "Atomic Warfare" ("Basic Training", Vol. 2, Pamphlet No. 6). Freely illustrated with photographs, diagrams and maps, and lucidly written so that the intelligent layman should have no difficulty in understanding the exact nature of the hazards of nuclear explosions and what can be done to mitigate them, it is nevertheless not a popular exposition for the general public, and something much simpler and more concise would better serve to bring home to the ordinary citizen the value of those few simple precautions which they could themselves take to reduce casualties outside the immediate area of an explosion. The major part of the pamphlet is concerned with the hazards from nuclear radiation, including the immediate and delayed dangers and protection from fall-out as well as the control of exposure to radiation in contaminated areas, but there are chapters on the fire risk and on blast. It is, in fact, in these chapters that the pamphlet best indicates the contribution which common-sense and such simple measures as white-washing windows and remaining under cover can offer against thermal radiation and blast, respectively, and the pamphlet could assist in providing the basic information and stimulating simple practical measures needed. That such measures are severely limited in scope, and that the tactical and administrative measures which are not considered in the pamphlet are of the utmost importance, will not be gainsaid. Nevertheless, a campaign of public education is of the utmost urgency to enable ordinary people to take whatever precautions are in their power, some of which, such as the construction of trenches or shelters and the choice of one type of house as against another, demand a certain amount of foresight and preparation.

#### Preservation of the Lake District

THE report and newsletter for 1955 of the Friends of the Lake District (pp. 25. Ulverston: Friends of the Lake District, 1955) comments on the growing support for the idea that national parks should be financed nationally, and the proposal that some part of the annual interest on the National Land Fund should be used for this purpose has been widely canvassed. A detailed resolution has been submitted to the Chancellor of the Exchequer by the British Travel and Holiday Association, and the Financial Secretary to the Treasury has received a deputation of members of Parliament on the matter and has agreed to raise with the Chancellor the possibility of including some suitable provision in the Finance Act accompanying the next Budget. Moreover, the Minister of Housing and Local Government, at a recent conference of park planning authorities, in suggesting that the time had come to review the working of the Act, emphasized his full support for any efforts to resist undesirable encroachment or disfigurement in the national parks. The newsletter recapitulates in some detail the events which led, in June 1955, to the decision of the North-Western Electricity Board to lay underground the whole of the much-debated