

NATURE, 151, 455 and 562; 1943). No time should be lost in bringing together those with the widest knowledge of the chemical, engineering and industrial problems involved, in order that a practicable scheme of control may be ready for operation as soon as hostilities cease.

Science and Industry at Manchester

IN presiding at the last of the series of meetings on "Science and Industry", arranged by the Manchester Chamber of Commerce, on April 20, the president, Mr. A. H. S. Hinchliffe, stated that to give continuity to the interest stimulated by the meetings and improve the liaison between scientific workers engaged on research and the industrial and commercial world, the Chamber has been discussing with the University of Manchester the formation of a joint standing council the members of which would be nominated by the University and the Chamber. The Cotton Industry Research Association is to be invited to take part in the work of the proposed council, which is intended to be an advisory and consultative body. While its precise functions cannot yet be defined, it is hoped that the results of research work would be constructively examined and discussed and the workers benefited by access to the experience of firms in the area. At the same time, business people would be assisted in their quest for new knowledge and in the solution of difficulties. It might even be possible to establish a bureau of information, and the range of subjects open for discussion in the council would cover economics and sociology as well as technical matters. The council's aim should be to stimulate an advance of thought and encourage enterprising action, primarily in the North-Western area but, it was hoped, also in a much wider sphere. Sir E. Raymond Streat urged, in supporting the proposal, that if, in the coming age of research, we could weave the life and work of the University of Manchester into the life and work of the great industrial area and commercial centre which surrounds the University, we might produce a great vitalizing force. The interest evoked by the meetings shows that people holding responsible positions in industry and commerce in Lancashire realize that only by a fertile marriage between science and industry can we establish and maintain the margin of superiority essential for post-war prosperity. He suggested three main objectives: to be first with new inventions and discoveries and promptest in their application; to be quickest and surest in diagnosis of economic and technical trends; and to be foremost in economizing costs so as to be more competitive without lowering wages. The age of research does not imply disaster for all small firms, though their managers will need much fuller scientific and technical attainments than was customary in the past.

Fundamental Scientific Research and the State

SIR EDWARD APPLETON'S final address in the Manchester series dealt with "Fundamental Scientific Research and its Practical Importance". Sir Edward said that he believes it is still necessary to insist that there is no barrier between so-called pure and applied research. There is great danger that the general public should regard the scientific man as one whose sole task is to produce a succession of discoveries of immediate use to industry, or of direct use to the individual member of the community. The

main theme of his address was the wisdom of ensuring that there should continue to be in Great Britain many active research groups the scientific work of which would be that of free inquiry and the extension of man's knowledge of Nature, without concern as to whether the final results are of practical use to humanity or not. Emphasizing and illustrating the way in which most of the scientific developments of the present century had their origin in purely scientific work conducted with no thought of utility, Sir Edward pointed out that we also owe to workers in the field of pure science the scientific method of inquiry by observation, experiment and theory. It is, of course, also important that there should be practical men eager to test the properties of the new compounds and materials, and that applied scientists should keep themselves constantly in touch with the development of new knowledge, so that the gap between discovery and its application may be bridged as quickly as possible.

With regard to the conditions of success in fundamental research, chance often plays an important part. Fundamental research flourishes most abundantly in an atmosphere of freedom and, accordingly, Sir Edward believes we must look to our universities for the main body of our fundamental research. We must also recognize the importance of the man of exceptional originality and imagination, and see that he is supplied with the facilities he needs. Industrial research organizations and Government research departments should also contribute to the general body of fundamental knowledge, and he believes it to be the function of the Agricultural Research Council, the Department of Scientific and Industrial Research and the Medical Research Council to pursue fundamental research in fields which are ultimately likely to be of practical benefit to the community. Both Government and industry are awakening to the importance of scientific research and the need for its extension and application, but the large post-war developments in industrial research and technology must be sustained by an adequate volume of fundamental research.

United Nations Educational Reconstruction Plans

A TENTATIVE draft constitution for a United Nations Organization for Educational and Cultural Reconstruction was accepted by the Conference of Allied Ministers of Education at a meeting on April 19. If adopted by the Allied and Associated Governments, it will permit joint efforts in this field in line with parallel work already being developed by the Food Conference and the United Nations Relief and Rehabilitation Administration. The projected Organization would direct its activities at first to the emergency work of restoring the educational systems and the cultural institutions destroyed by the Axis Powers. Experience gained in carrying out these emergency tasks would create a basis for lasting international co-operation in educational and cultural fields. The proposed constitution was drafted at two open meetings convened by the Conference of Allied Ministers of Education and the American Education Delegation, led by Congressman Fulbright, which came to London early this month to work out plans for American collaboration with the Conference. The meetings were attended by representatives of all member and observer States currently interested in the Conference and were presided over by Mr. Fulbright. The device of holding open meetings enabled all representatives