

to do all that in him lies to aid production during this time of crisis, and to assist those directly engaged in the work of production, whether it be the manufactures or agriculture. And those who have it in their power to strengthen the chemist's hands in such a work will themselves be not only aiding the State, but also assisting to bear up the lofty principles for the maintenance of which amongst men Britain and her Allies are contending.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

AN effort is being made by the New York University to raise a fund to meet the war emergency conditions. Part of the plan is to secure an endowment of 100,000*l.* for the engineering school in connection with a co-operative scheme of education between the industries and the University. So far the sum of 50,000*l.* has been received.

THE new session of the Sir John Cass Technical Institute, Aldgate, London, commences on September 23. The courses of instruction which have been arranged are directed especially to the technical training of those engaged in trades connected with the chemical, metallurgical, and electrical industries. Full facilities are available for qualified persons who desire to undertake special investigations in connection with these branches of industry. Among the special courses of higher technological instruction which form a distinctive feature of the work of the institute may be mentioned analytical work in fuel and gas analysis, courses on brewing and malting and on the micro-biology of the fermentation industries, and, in the department of metallurgy, courses of an advanced character on gold, silver, and allied metals, on iron and steel, on metallography and pyrometry, and on the heat treatment and mechanical testing of metals and alloys. Detailed information concerning the work of the institute is given in the new syllabus, a copy of which may be obtained on application.

THE summer school of civics and eugenics, which was organised conjointly by the Civic and Moral Education League and the Eugenics Education Society, and held at Oxford from August 10 to 31, was very successful, the programme being comprehensive and attractive, and the courses and meetings well attended. A prominent feature of the school was a civics and eugenics exhibition. The exhibits showed on the civic side the possibilities of regional study with a view to civic service as a part of the school and college work, and on the eugenic side gave illustrations of recent work in heredity and the study of family histories. An exhibit from the National Council of Venereal Diseases was also shown. The following public lectures were delivered:—"The Principles of Co-education," Miss A. Woods; "The Three Voices of Nature," Prof. J. Arthur Thomson; "The Sociological Bearing of Race-study," Prof. H. J. Fleure; "The Influence of Finance on Social Reconstruction," W. Schooling; "The Eugenic and Social Influence of the War," Prof. Lindsay; "The Training College of the Future," Dr. M. W. Keatinge; "Emigration and Eugenics," C. S. Stock; "The Forward Outlook of Eugenics and Civics," Major L. Darwin and A. Farquharson.

THE Indian Bureau of Education at Delhi has issued the first two of a series of short pamphlets in which it proposes to give some account of developments in Indian education which may suggest themselves as worthy of notice. Both pamphlets deal in the main with the sphere of elementary education. The first

treats of drawing and manual instruction in Punjab schools. It shows that the same movement is proceeding in India as at home towards providing facilities for the young to learn by *doing* as by talking, listening, reading, and writing. The schemes of instruction follow those adopted of recent date in this country, and several of our own early mistakes are being avoided. Tools and benches are of European pattern. The problem of training teachers is being attacked with some vigour. The second pamphlet is of more general interest. It tells of the humble beginnings of the education of factory children in India, and also children working in tea plantations and on the colliery estate of the East Indian Railway. Descriptions are given of the work going on in all three classes of schools, ranging from the *crèche* to what in England is now called the junior technical school. Above the stage of the *crèche* and the infant school the instruction is that of the part-timer, as a rule, but there are arrangements for evening continuation schooling for older children and adolescents. The vernacular has, as it should have, a more important place than the teaching of English, and the vital importance of manual instruction is recognised. The value of this enterprise can scarcely be exaggerated, for, apart from the fact that the individual is given the opportunity of rising as clerk or, preferably, as skilled workman, there is the likelihood of greater confidence between employer and employed when direct communication is possible, terms of engagement can be clearly understood, and rates of pay calculated. Difficulties abound, and one's sympathy must go out to the pioneers in an uphill task. Mill-owners in Madras, planters in Darjeeling, the railway company, who have actually introduced compulsory education, and officials deserve encouragement.

A PAMPHLET (price 3*d.*) has been issued by the Association for the Scientific Development of Industry, containing the terms of a remarkable address on "The Place and Importance of Science in Education," delivered before the society at Manchester on February 21 last by Mr. Edw. C. Reed. Mr. Reed alludes with satisfaction to the awakened interest of all classes towards science and scientific questions, largely induced, however, by the events of the war, and warmly pleads, with a variety of vivid illustrations, the claims of scientific knowledge and of scientific methods of imparting it as a fundamental part of our educational system. "The result of our neglect of science," he states, "has revealed itself to us in waste, muddle, and inefficiency in practically every department of our national life," whilst, on the other hand, "wherever we have resolutely endeavoured to make good our past deficiencies the effect has been wholly beneficial." From these postulates he proceeds to argue powerfully for a new method and purpose in our educational system. "For every national purpose brains are of more use than bodies," and "the most mechanical job is the better for a little intelligence." But it is not merely on the ground that a training in science and in scientific methods would make the nation more effective in its industrial and commercial activities that the author pleads so powerfully for the inclusion of scientific aims and training in the curriculum of the schools from the earliest period of child-life, but from the much higher consideration that only in so far as this is done can the real, permanent well-being of the nation, both material and spiritual, and of the individuals comprising it, be achieved, and the thesis is worked out with surprising cogency and supported by a wealth of apt allusion. The pamphlet is accompanied by a diagram showing the place of science in the service of man and its importance in industry.