secondary education suited to their pupils". In fact, the Ministry seems to entertain definite views as to external examinations. Cautious commendation is given to 'multi-lateral' experiments in organization. We note, however, that in the reconstructional plans of certain counties, the letters 'G. T. M.' frequently indicate that grammar, technical and modern education will be combined in one institution which will not be too large.

Survey of Technical Education, 1944-45

IN his presidential address before the annual Whitsuntide conference of the Association of Teachers in Technical Institutions held in London, Mr. C. J. Tirrell referred to some of the major problems now emerging from attempts to implement the 1944 Education Act in the technical field. At the level of secondary education, past successful experience with junior technical schools will be of great value in the establishment of practical and realistic curricula, while the extension of the school-life under the Act to at least five years opens up a wide field of educational experiment in the technical secondary school, without prejudging the issue as to the extent to which the 'multi-lateral' idea may be applied. An extension of the system of part-time day release is essential if practical experience and theoretical study are to be properly correlated, and there is an obvious need for a central council to bring together the universities, technical colleges and industry, if higher technological education is to maintain contact with industrial practice in all its stages of development. Moreover, the great importance of craftsmanship to the many small industrial firms (some 100,000) seems to demand the establishment of new national certificates in craftsmanship which would ensure due attention being paid to the necessary technical background underlying all aspects of vocational training.

Vocational Guidance

THE City of Birmingham Education Committee has issued a report of a research on "Scientific Vocational Guidance and its value to the choice of employment work of a Local Education Authority". The whole research, carefully and competently carried out, has extended over a period of no less than eighteen years, its general object being to ascertain what value there is in using psychological methods in aiding young entrants into industry, commerce and the professions, by showing clearly at the outset the likelihood of success or failure in certain branches of employment. The report suggests that on the staff of a secondary school there should be at least one teacher competent to apply psychological tests, and that he or she should work in close co-operation with a specially qualified officer. The resulting records should be used from time to time to enable decisions to be reached as to the course of a child's instruction, and towards the end of the child's school life to enable the juvenile employment officer, co-operating with the head and with the trained teacher, to give reliable vocational guidance. The report, which includes the most elaborate details, may be obtained from the City of Birmingham Education Committee for 2*s*. 6*d*.

British Council: Formation of Agricultural Department

AN Agricultural Department, which will be advised by a panel presided over by Prof. J. A. Scott Watson, chief education and advisory officer of the Ministry of Agriculture, has been set up within the Science Department of the British Council, and Dr. W. T. H. Williamson has been appointed director of the new Department. Since the formation of the Science Department of the British Council in 1941, it has been found that many of the inquiries from abroad relate to agriculture. In consequence, the Department of Agriculture has been created to control, co-ordinate and extend the work already begun in this direction. Prominent agricultural scientific workers have made visits abroad under the auspices of the British Council and provided reports on the agriculture of some foreign countries. It will be one of the functions of the new Department to follow up these reports and to provide expert information on how far the agricultural needs of the countries concerned can be provided for by the nations of the British Commonwealth. It will present the achievements of British agriculture to other countries and keep them supplied with up-to-date information on all advances in practice and science. Experiments have already been made in the distribution of original articles for reproduction in the technical press overseas.

Dr. Williamson has been adviser in agricultural chemistry to the University College of South Wales and Monmouthshire. This post was a war-time creation, but he has built up a department which is now rendering valuable service to the farming community in South Wales and Monmouthshire. Before the War he was, for eleven years, chief chemist to the Egyptian Ministry of Agriculture. He was entrusted with the reorganization of the department and expanded it to more than three times the size of the original, housed in laboratories designed by himself and with greatly extended activities in the way of research, advisory work and routine analysis. In 1937, in recognition of his services, he was created a commander of the Order of the Nile by the King of Egypt. Dr. Williamson has also served on the staff of the Edinburgh and East of Scotland College of Agriculture and the University of Aberdeen.

Proposed North Polar Flights

SEVERAL flights over the north geographical pole have been made since Rear-Admiral R. E. Byrd, U.S.N., made the flight in 1926 using Spitsbergen as a base. Most important was the Soviet expedition of 1937–38, but more flights are required, not probably for geographical discovery but for magnetic and meteorological research. Flights over Arctic Canada have been made on several occasions. It is now announced that a series of flights over both the geographical and magnetic poles are being made by an expedition from the Empire Air Navigation School of R.A.F. Flying Training Command. The aircraft used is the Lancaster *Aries* which was flown round the world last autumn by Wing-Commander D. C. McKinley. Four new Rolls-Royce Merlin XXIV engines have been installed. The base of the expedition is in Iceland, at least for the flights over the geographical pole. A Canadian base will later be used for flights over the north magnetic pole in Boothia Peninsula. The objects of the flights are stated to be. to examine the behaviour of compasses and automatic dead-reckoning gear, and to collect data on engine handling as well as magnetism and meteorology. The plane carries food for four weeks, sledging gear and arctic kit. The crew, all told,