

### Refresher Courses for Science Teachers

TERMINATION of a student's normal course of study often brings to an abrupt end his active connexion with the university. In the case of science teachers, this is particularly undesirable, for it is important that the rapid developments which are taking place in their subjects should be fully discussed between school and university teachers, especially in relation to teaching methods. With these considerations in view, a ten-day course on modern aspects of chemistry was recently held at the University College of North Wales, Bangor, in co-operation with the Welsh Department of the Board of Education, one of the inspectors of which, Dr. D. M. Williams, assisted in the organisation of the course. Summaries were given of recent work on atomic structure, valency theory and its application to problems concerning the structure and reactions of some inorganic and organic compounds, the electro-chemistry of solutions, and the chemistry of natural and synthetic products of special interest; lectures and experiments were included illustrating advances in the theory and practice of *pH* determination, indicators, electrometric titrations, distillation, and chromatography, together with a demonstration of glass-blowing technique, a show of scientific films and a display of modern books, dealing especially with the subjects selected. While it was apparent that the teachers attending the course derived benefit and interest from it, the discussions proved most stimulating also to the University personnel who participated. The course was conducted by Prof. E. D. Hughes and Drs. W. R. Angus, I. Dostrovsky, J. Graham and D. R. Llewellyn, assisted in the experimental work by Dr. F. Brown, Mr. T. R. Jacobs, and senior research students; Prof. C. W. Davies and Dr. W. C. Evans, of University College, Aberystwyth, gave special lectures.

### Library Service in Industry

A WELL-ATTENDED conference on "The Works Library", organised at Sheffield on March 27 by the Northern Branch of the Association of Special Libraries and Information Bureaux, was designed to help the budding works librarian to appreciate the scope of his work and the resources at his disposal. The chairman of the Conference, Mr. W. H. Higginbotham, chairman of Messrs. Edgar Allen and Co., Ltd., at the opening session, when the Association was welcomed by the Lord Mayor of Sheffield, emphasized the extent and diversity of knowledge required in industry and the importance of ensuring at all levels a sufficiency of knowledge and specialized information for the successful operation of an industrial or business undertaking, and of providing for its co-ordination and combination into an effective working tool. This is the essential task of the Association, and in the two papers presented at the morning session, "Pages from the Diary of a Steel Works Librarian" and "A Special Library in the Steel Industry", Mr. G. H. Davison and Miss A. R. Osborne gave some account of the building up of a library and information service for the United Steel Companies, Ltd., and for Messrs. Thomas Firth and John Brown, Ltd. Mr. Davison's paper in particular covered a wide range of problems in the organisation and running of a firm's library; Miss Osborne's paper was illustrated by lantern slides, and those attending the Conference had a further opportunity of seeing the actual functioning of the information service on the following morning when parties visited the Brown-

Firth Research Laboratories. Other delegates availed themselves of the invitation of Messrs. Edgar Allen & Co., Ltd., to visit their works and laboratories. At the afternoon session Mr. E. N. Simons contributed a stimulating paper on "The Works Library of To-morrow", in which he suggested a number of probable trends in works library service during the next few decades. In the concluding paper, Mr. R. Brightman discussed "Reference Books for the Works Library", dealing with the needs of a library concerned with production rather than with research, and submitting a series of lists designed to help the novice in charge of such a library in the selection of his or her own desk tools, general reference books, technical reference books and single-volume textbooks of the 'refresher' type; in general he only included one-volume reference works.

### Recent Earthquakes

OF the first three months of 1947, January was by far the most seismic. During January there were seven world-recorded earthquakes, besides minor shocks in many parts of the earth, including two near Switzerland and nineteen in New Zealand. The Americas, the Aleutian Islands and Japan provided the world-recorded earthquakes, the greatest being on January 26 at 10h. 06.7m. G.M.T. in western Nicaragua. This was a deep-focus earthquake, the focus being approximately 160 km. deep. The first shock near Switzerland was on January 16 at 22h. 30m. G.M.T., and was felt with scale V at Stein am Rhein, and the second was on January 24 at 2h. 30.5m. G.M.T., being felt at Westalpen Savoie, France. Nineteen local earthquakes and tremors were felt in New Zealand, the greatest being on January 10 at 16h. 08.8m. G.M.T. from 46.5° S., 164° E., which was felt with Modified Mercalli Scale IV at Puysgur Point.

During February there were two world-recorded earthquakes: on February 10 and 24, the latter having its epicentre in Japan. Several local tremors occurred, one of the largest being that on February 17 at 00h. 13m. at Piémont, France, with strength 5-6, being felt as far as Marseilles, Nice and Grenoble.

In March a strong earthquake occurred in China (epicentre 33.5° N., 100.0° E.) on March 17 at 8h. 19.5m. G.M.T., and on March 26, an hour after the Wellington Observatory, New Zealand, had reported a strong earthquake out at sea, the first seismic sea wave some 30 ft. high rolled up on a 60-mile stretch of the shore of Poverty Bay. This wrecked some waterside houses and shops at Gisborne and damaged some roads and bridges. At Gisborne some of the streets were 4 ft. under water. Half an hour after the first *tsunami*, a second arrived. Fortunately, the people on the sea-front saw the waves coming and got on to higher ground, so that no loss of life has been reported.

### Institution of Mechanical Engineers: Centenary Exhibitions

IN connexion with the centenary celebrations of the Institution of Mechanical Engineers, during the week commencing June 8, an exhibition of Stephenson relics will be open to the public at the Institution at Storey's Gate, St. James's Park, London, S.W.1, during June 9-13 between 10 a.m. and 5 p.m. There are personalia and numerous prints, drawings and other material on loan from individuals and institutions.

A special exhibition is also being held in the Science Museum, South Kensington, during June 10-August 24 to commemorate the founding of the Institution