

normally with 750,000 K.V.A.; Société Alsacienne de Constructions Mécaniques: high-frequency alternators for wireless transmission (32,400 periods/second, 6000 R.P.M.); Ateliers Carpentier: measuring instruments; Szilard: extra-sensitive electrometers for radio-activity and ultra-violet measurements; Étab. GaiFFE-Gallot and Pilon: Dauvillier's absolute dosimeter for X-ray therapy, etc.

*Optics.*—Jobin and Yvon: flint, quartz, and fluor-spar spectrographs, Fabry-Buisson microphotometer, Yvon spectrophotometer; Beaudouin: Féry spectrographs; Prin: automatically-controlled meridian instrument with 190 mm. telescope and circles 1 metre diameter; Optique et Précision de Levallois: stereoscopic range-finder for anti-aircraft use, range-finders for survey and military purposes, speed recorder for aircraft, photo "machine-gun"; Société d'Optique et de Mécanique: range-finders, surveying instruments, seismograph; interesting exhibits of different light-sources, optics and automatic appliances for lighthouses, searchlights, etc., were shown by the Service des Phares and by the manufacturers Barbier, Bénard, and Turenne, Sautter-Harlé, and the Cie. Générale d'Acétylène.

*Photography and Cinematography.*—In the section devoted to photography and cinematography, Messrs. Pathé-Cinéma, the Établissements Gaumont, and others, exhibited their latest models of cameras and projectors. Other exhibits were: apparatus for 3-colour cinematography and for vocal synchronisation, micro-photographs in colours of sections of wood for musical instruments, showing degree of ageing.

*Metallurgy.*—A fully-equipped metallurgical laboratory formed an interesting collective exhibit. Among the exhibitors were: S.A. de Commentry-Fourchambault: invar, elinvar, and other special alloys and their applications, Chevenard's recording dilatometer for the rapid determination of critical points. An instructive set of experiments illustrating the anomalous properties of certain alloys included a "thermo-elastic oscillator," showing the effect of temperature in increasing the elasticity of the alloy "modulvar," a "thermo-magnetic wheel" made of the alloy "N.M.H.G." which becomes a magnetic at 30° C.; Jacob Holtzer: special magnetic steels; Aciéries et Forges de Firminy: electrolytic iron. Progress in electro-metallurgy and in the electro-chemical industries was illustrated by an historical display of furnaces and products by the Comité Électro-Métallurgique de France and other firms. Resistance and arc furnaces of industrial dimensions were shown in operation. Samples of electrically-welded apparatus in steel, aluminium, and other metals were also exhibited.

*Glass and Ceramic Industries.*—These industries were well represented. Parra Mantois and the Manufacture de St.-Gobain showed a large assortment of optical glass in various forms. Demonstrations of heat-resisting domestic glassware attracted large crowds. The firm of "Quartz et Silice" exhibited chemical apparatus, insulators, lamps, etc., in fused silica.

The Exhibition, which was visited by the President of the Republic and by many high officials, was a great success, and its educational value was appreciated by a large section of the general public. The authorities are to be congratulated on the artistic decorative effects, and especially on the pleasing uniformity of the name-signs. With a very few exceptions, the exhibits were of French manufacture, and one was struck by the vast progress made in recent years in the manufacture of many commodities which were previously imported from Great Britain and other countries. It would be interesting to know to what extent this industrial development has been assisted by the depreciation of the franc.

## University and Educational Intelligence.

BRISTOL.—Dr. J. A. Hanley has been appointed as Agricultural Information Officer. Dr. Hanley has been a member of the staff of the University of Leeds since 1915, and is lecturer in agricultural chemistry and advisory chemist in that University.

A Joint Extension Board for the University of Bristol and the University Colleges of Southampton and Exeter has recently been set up which will undertake the arrangement of Extension Lectures over the whole of the south-western counties. The first representatives of the University on the Board are the Vice-Chancellor and the Director of Extra-Mural Studies (Mr. Hubert Phillips).

CAMBRIDGE.—Dr. C. E. Tilley, Emmanuel College, has been appointed demonstrator in petrology. The John Bernard Seely prize has been awarded to A. E. W. Nutt, Gonville and Caius College, for an essay on "Aviation and Commerce."

EDINBURGH.—At the request of the London and North-Eastern Railway, the University has resolved to institute courses of lectures, for the managing and clerical staff of railways, in law, geography, and economics, with special reference to railway requirements, and in railway operating. A course of lectures will be delivered in each of four successive years. The first course of twenty lectures on railway law will begin on January 7.

LONDON.—Prof. G. B. Jeffery, at present professor of mathematics at King's College, has been appointed to the Astor chair of mathematics tenable at University College.

Miss Eleanor M. Scarborough has been appointed to the recently instituted readership in pharmacology tenable at the London School of Medicine for Women. Miss Scarborough was appointed demonstrator in pharmacology at the London School of Medicine for Women in 1919, and since 1921 has been assistant lecturer in that subject at the School.

The degree of D.Lit. has been conferred on Mr. Morris Ginsberg (University College) for a thesis entitled "The Psychology of Society."

Prof. Hugh MacLean has been awarded the William Julius Mickle fellowship (of the value of 200*l.*) for 1924 in respect of the work which he has carried out during the past five years in experimental medicine. This fellowship is awarded annually by the Senate, under the terms of the Mickle bequest, to the man or woman who, being resident in London and a graduate of the University, has done most to advance medical art or science within the preceding five years and has therein shown conspicuous merit.

Mr. Harold Cloughton has been appointed Financial Officer and Secretary to the Senate as from January 1, 1924. He was educated at Radley and at Trinity College, Oxford, graduating with honours in modern history.

DR. J. N. GREENWOOD, of Stocksbridge, near Sheffield, has been appointed to the chair of metallurgy in the University of Melbourne.

THE *Times* of December 28 reports that a fire on December 26 at the Imperial University at Fukuoka, South-Western Japan, destroyed the entire building and the Engineering College. The damage is estimated at 500,000*l.*