and compared under varying conditions of soil

humidity.

In the Photometry Division a large integrating sphere Io feet in diameter, constructed by the Metrology Department, was shown in use. It is intended primarily for the photometry of large illumination fittings. Apparatus has also been installed for the purpose of measuring candle-power by means of photo-electric cells. Light from the lamp under test falls on a rubidium cell mounted at one end of a photometer bench. A lamp mounted in a whitened cube, in the floor of which is a second cell screened from the direct light of the lamp, provides a suitable source for comparison. The cells, connected in series, are arranged to form part of a Wheatstone bridge and their currents are balanced by suitable adjustment of the illumination. In the illumination building experimental arrangements were shown for determining the daylight illumination in large or small rooms by means of models. Such information indicates the probable behaviour of their full scale prototypes with regard to daylight and is thus of value in

In the Wireless Division experience has shown the importance of complete screening of local oscillators and receivers from local electrical disturbances. Several pieces of apparatus, so protected, and including oscillators and receiving apparatus, a variometer and a model frame aerial, were exhibited. The knowledge has been used in the case of amplification tests on valve amplifiers. The amplifier under test and the local oscillator are both carefully protected, the former being placed in a specially screened room. Experimental work in connexion with short wave transmission is also being developed and various transmitting and receiving circuits were on view.

In the Electrical Measurements Department, in addition to the usual equipment, were various quartz piezo-electric resonators for use as radio frequency standards. These, on account of their constant frequency, are very suitable for the control of oscillators. One such oscillator with amplifying valves designed to produce radio frequency oscillations of great power and extremely constant frequency has been installed.

L. J. C.

## University and Educational Intelligence.

BIRMINGHAM.—The annual degree congregation was held on July 3. There were 6 successful candidates for the degree of Ph.D., 9 for M.Sc., 77 for the degree of B.Sc. with Honours, 48 for the ordinary B.Sc., and 24 for M.B., Ch.B. The degree of Doctor of Medicine was conferred on Gladys Mary Evans and Mr. Victor Goode Williams.

Dr. Laurence Ball, assistant to the chair of medicine and physician to the Queen's Hospital, has been appointed joint professor of medicine to fill the vacancy caused by the resignation of Prof. Kauffmann.

BRISTOL.—Sir George Wills, Pro-Chancellor and chairman of the Council of the University, has given 25,000l., to be used with the 110,000l. which he presented two years ago, for the erection of a residential hall for students.

Cambridge.—The Mayhew Prize in applied mathematics has been divided between J. A. Gaunt, Trinity College, and A. H. Wilson, Emmanuel College. The Rex Moir Prize in mechanical sciences has been awarded to H. L. Cox, Emmanuel College, and the John Bernard Seely Prize in aeronautics to R. E. Stevenson, St. John's College.

Durham.—Dr. Arthur Holmes, hitherto reader in geology, has recently been made professor of geology

at Durham. Two new lectureships have been filled by the appointment of Dr. R. K. Schofield (physics), and of Dr. G. H. Christie (chemistry).

London.—A University post-graduate travelling studentship of the value of 275l. has been awarded to Miss C. L. T. Lucas. Miss Lucas obtained the B.Sc. with honours in zoology as an internal student of Bedford College in 1923, and has worked since at the London School of Tropical Medicine. She proposes to carry out research on Amæbæ living in insects, chiefly at the Johns Hopkins University, Baltimore.

St. Andrews.—The degree of D.Sc. in engineering has been conferred upon Mr. William John Walker for a thesis entitled "Developments of Engineering Thermodynamics. Analysis for Variable Specific Heat Conditions." Dr. Walker has resigned the post of lecturer in mechanical engineering and machine design held by him in University College, Dundee, having been appointed professor of mechanical engineering at the University of the Witwatersrand, Johannesburg.

Prof. A. E. Morgan, professor of English language and literature in the University of Sheffield, has been appointed principal of University College, Hull.

DR. W. E. CURTIS has been appointed professor of physics and director of the Physics Department at Armstrong College, Newcastle-on-Tyne, in succession to Prof. Henry Stroud, who retires at the end of the present session. Dr. Curtis, who is at present reader in physics in King's College, London, was educated at the Imperial College of Science and Technology, London, and was for a time lecturer in physics in the University of Sheffield. He is the author of important papers on spectroscopy.

The third Congress of the Universities of the Empire will be in session at Cambridge on July 13-16. The subjects for discussion and the names of the chairmen are as follows: "The State and 13-16. The subjects for discussion and the names of the chairmen are as follows: "The State and the University," Lord Balfour; "The Desirability of establishing in London a School of Advanced Legal Studies," the Lord High Chancellor; "Co-operation in Research throughout the Empire," Lord Londonderry; "Mutual Recognition of Examinations and of Time spent in Study Elsewhere," Sir Matthew Nathan; "The Desirability of making Provision for the Physical Welfare and Training of Students and the Organisation of Athletics with a Students and the Organisation of Athletics with a View to securing more general Participation," the Duke of Devonshire; "The Actual Working of the Ph.D. Scheme," Viscount Cecil of Chelwood; "The Desirability of Articulating other Pension Schemes with the Federated Superannuation System of Great Britain and Ireland," Lord Haldane. Among the invited speakers on "Co-operation in Research" are Sir Thomas Holland, Sir John B. Farmer, Sir Arthur Shipley, and Dr. Andrew Balfour; on the Ph.D. scheme, Mr. R. A. Priestley, Prof. Wenley, of the American University Union, Prof. Dobson of Bristol, and Prof. H. P. Newton, of King's College, London. Representatives of India, Australia and Canada, as well as Sir Alfred Hopkinson and Sir Theodore Morison, are among those who have promised to contribute to the discussion on "The State and the University." The sessions at Cambridge will be preceded by series of visits by delegates from overseas to all the other universities of Great Britain and Ireland. On July 12 there will be a Government luncheon in honour of the delegates, at which Lord Peel will preside. and in the evening they will have an opportunity of meeting the members of the second Anglo-American conference of professors and teachers of history at a reception given by the University of London.