

6-8 ft. in diameter the centre portion of which is heated to 2,100° F. electrically. The copper melts and is by capillary attraction drawn into the joints. Oxidation is prevented by the tube being filled with a gas prepared by the action of steam at high temperature and pressure on illuminating gas. Beyond the welding zone the tube is cooled so that the articles emerge at room temperature. The copper alloys with the steel at the joint and the alloy appears to be stronger than the steel.

#### Lectures on the Rothamsted Experiments

DURING the forthcoming winter, Mr. H. V. Garner, guide demonstrator at the Rothamsted Experimental Station, and other members of the staff are prepared to give a few lectures to chambers of agriculture and horticulture, farmers' clubs, farm workers' associations, agricultural societies, etc., on the Rothamsted experiments. The subjects offered include manures, soil micro-organisms (bacteria, protozoa, etc.), agricultural botany, agricultural chemistry, soil physics, entomology, and plant pathology. No fee will be charged for the lecturers' services but travelling and other expenses must be defrayed. Further information can be obtained from the Secretary, Rothamsted Experimental Station, Harpenden, Herts.

#### Gift to the University of Sheffield

SIR ROBERT HADFIELD, as head of the firm of Hadfields, Ltd., and by his generosity to the University of Sheffield, for which some years ago he built and equipped a metallurgical research laboratory for the Department of Applied Science, is well known to the citizens of Sheffield. He has now placed them still further in his debt by a gift of £5,000 to the University, expressing the hope that it may form a nucleus for the establishment of a course in founding in the Faculty of Metallurgy. Sir Robert was president of the Iron and Steel Institute when it visited Sheffield in 1905, and now, after an interval of twenty-eight years, the Institute has again held its annual meeting at Sheffield, the president being a friend of Sir Robert's, Mr. W. R. Lysaght, who was unfortunately prevented by ill-health from attending. It is to mark these two visits that Sir Robert has made this generous gift to the University. The steel industry of to-day, still centred at Sheffield, owes much to metallurgical research in which the universities have played their part, and Sir Robert's benefactions to the University of Sheffield are a fitting recognition of this debt and at the same time a gesture for the encouragement of so-called academic research.

#### Institute of Metals

THE Institute of Metals will hold its silver jubilee autumn meeting in Birmingham on September 18-21, under the presidency of Sir Henry Fowler. The Institute was founded in Birmingham twenty-five years ago and it is appropriate, therefore, that the forthcoming meeting should be held in that city. An inaugural lecture on "Twenty-Five Years' Progress in Metallurgical Plant" will be given by Mr. W. R. Barclay, vice-president, and a series of

fourteen papers dealing with various phases of metallurgical work are to be delivered. A specially interesting feature of the meeting will be the reproduction of the first office of the Institute of Metals. This was housed in the Metallurgical Department of the University of Birmingham, and was set up by the Institute's first and only secretary, Mr. G. Shaw Scott, who, with the president and the chairman of the executive committee, will receive the remaining original members of the Institute in the reconstituted office. Here visitors will have an opportunity of inspecting the earliest records of the Institute—including the original membership applications and photographs taken during the inaugural meeting in 1908. During Mr. Shaw Scott's period of office as secretary and editor the membership of the Institute has increased from 200 to 2,200. Whereas originally the membership was confined almost entirely to Great Britain, it now covers the whole world. The Institute removed in 1909 to London, where it now has offices at 36 Victoria Street, Westminster, S.W.1.

#### Announcements

THE following appointments have recently been made in the Colonial Agricultural Service: Mr. A. C. Barnes, to be director of agriculture and Island chemist, Jamaica; Mr. D. L. Blunt, to be director of agriculture, Cyprus; Mr. H. B. Stent, to be agricultural chemist, Coffee Experimental Station, Tanganyika.

WITH reference to the paragraph in NATURE of August 19, p. 285, on the cluster variable numbered 65 by Bailey (who discovered its variability, but not its period) it was stated that the period was first found by Mr. Kooremann. This is incorrect. The period was actually determined by Prof. E. Hertzsprung.

A BIBLIOGRAPHY of the scientific papers of Sir James Dewar and his colleagues from 1867 until 1923 has recently been published in a limited edition of two hundred copies, price 5s. Copies may be obtained from Mr. H. Young, 16, Causton Road, London, N.6.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A principal teacher of mathematics and physics at the Technical College, Coatbridge—The Director of Education, Lanarkshire House, 191, Ingram Street, Glasgow (Sept. 23). An assistant inspector of scientific supplies—The Director-General, India Store Department, Belvedere Road, Lambeth, London, S.E.1 (Sept. 25). A drainage engineer for the Government of Bihar and Orissa—The High Commissioner for India, General Department, India House, Aldwych, London, W.C.2 (Sept. 26). A principal of Dudden Hill Technical Institute, Denzil Road, Willesden, London, N.W.10—H. M. Walton (H.), 10, Great George Street, Westminster, London, S.W.1 (Oct. 7). An agricultural bacteriologist in the Punjab Agricultural Service, Class 1—The High Commissioner for India, General Department, India House, Aldwych, London, W.C.2 (Oct. 7). A lecturer in agriculture at the Cheshire School of Agriculture, Reaseheath, Nantwich—The Principal (Oct. 7).