

tion from the early use of measuring instruments as mere safety devices to the modern employment of remote centralized control, based upon the comprehensive measurement of the operating conditions. As improvements in plant design and operating efficiency are governed by the degree to which their dependent factors are known and understood, exploratory measurement must embrace all the measurable quantities, while the operating measurements must include those of all the variables which are susceptible to regulation. A table of essential measuring instruments for shell-type and water-tube type boilers is included in the paper. Remote manual control is compared with automatic control in order to show that, as measurement is now the acknowledged basis for control, it follows that the measuring instruments which detect and report the adverse tendencies should be used to institute the corrections needed to arrest them, wherever this is practicable.

### Standards of Electrical Measurement]

DR. L. HARTSHORN has written an interesting progress review on this subject (*J. Inst. Elect. Eng.*, 89, Pt. 1, No. 24; Dec. 1942). Following introductory paragraphs dealing with the general character of measurement, an account is given of the more recent experimental researches of the standardizing laboratories, and of the present legal and international position of the various electrical units. The review is presented under the headings of units and standards, fundamental and derived measurements, the absolute system and the international position. The section on the absolute system deals with the measurement of inductance, current, resistance and voltage, capacitance and quantity of electricity, power and energy, practical standards, and frequency. The remarks relating to the international position give prominence to the M.K.S. system.

### Maternal and Child Welfare in Venezuela

DISCUSSING maternal and child welfare in Venezuela (*Bol. Of. San. Panamericana*, November 1942) Dr. Pastor Oropeza refers to the creation in 1936 of the Ministry of Public Health and Social Welfare as providing a sound foundation. At the present time, these services are under the direction of the Division of Maternal and Child Hygiene. The Ministry operates through health units and health centres, and offices in places where centralized local public health services have not been organized. In 1942 there were 37 fully qualified health units, 4 health offices and 61 rural medical officers. Regulations have been issued for the supervision and education of midwives. In 1936, pregnancy was made the subject of industrial legislation. Obstetrical assistance and post-natal care are given to the wives of insured workers. The official infant death-rate has fallen in Venezuela from 124 per 1,000 live births in 1936 to 121 in 1940, but these figures are probably inaccurate owing to many births not having been registered until baptism, and numerous deaths were probably not reported. Child welfare work includes examinations and immunizations carried out by the various health centres, assisted by public health measures. During 1930-41, 45 stations for distribution of milk to children were organized throughout the country in connexion with health centres. Attention is also given to the care of sick children mainly through the welfare agencies of the States and municipalities. Other

developments include the creation of a course in clinical paediatrics and puericulture, and a new law making these subjects compulsory for medical qualification.

### Commemoration of Copernicus in the United States

THE Kosciuszko Foundation of New York is making arrangements to celebrate the four hundredth anniversary of the death of Copernicus on May 24. Invitations to take part have been sent to American universities and other institutions by Dr. Henry N. MacCracken, president of Vassar College and also of the Kosciuszko Foundation. With Poland now associated with the United States in the war of survival and several million citizens of Polish extraction living in the United States, it is the desire of the Foundation to make the occasion an outstanding event in the history of science.

### Announcements

THE Committee of the Athenæum has elected the following under the provisions of Rule II of the club, which empowers the annual election by the committee of a certain number of persons of distinguished eminence in science, literature, or the arts, or for their public services: Sir William Stanier, scientific adviser to the Minister of Production; Sir Thomas Lewis, director of clinical research, University College Hospital; Sir Bernard Pares, lately professor of Russian history, University of London.

THE Managers of the Royal Institution have awarded the Actonian Prize of one hundred guineas for the year 1942 to Dr. Alexander W. G. Ewing and Mrs. Ewing for their investigation concerning the detection, measurement and assessment of deafness, their pioneer work upon hearing aids, and the development of their successful technique for education by the 'hearing lip reading' method.

DR. ROBERT E. WILSON, president of the Pan American Petroleum and Transport Company, has been awarded the Perkin Medal of the American Section of the Society of Chemical Industry for outstanding work in applied chemistry. His work includes research on such varied subjects as flow of fluids, corrosion, motor fuel volatility and contributions in the use of tetraethyl lead.

THE Institute of Industrial Administration is organizing a Conference on Training for Industrial Management, to be held at the Waldorf Hotel, London, during March 5-7. The opening session on March 6, on "Management and Nation", will be addressed by the Archbishop of Canterbury. Other sessions will be devoted to the position of management in industry, external and internal training for industry, and the training required by a director. Particulars can be obtained from the Institute, Artillery House, Artillery Row, London, S.W.1.

THE Council of the Harveian Society of London announces that the subject of the Buckston Browne prize essay for 1943-44 will be the use and abuse of sulphonamides. The essay must be sent to the Treasurer of the Society, 14, Devonshire Street, W.1, by October 1, 1944.

THE German Academy of Natural Science at Halle proposes to issue an edition of Goethe's scientific works.