

work was carried out on the phenomenon of rock-bursts with a view of devising methods for their prevention or at least of decreasing their incidence and severity. The Institute is also studying erosion, the silting of rivers and harbours, coal-burning gas turbines and solar operated refrigeration systems.

In telecommunications a radio tracking system was improvised which enabled the orbit of the first Russian Earth satellite to be determined roughly within a few days and an accurate determination of the velocity of radio waves was made by means of extensive measurements at the Ridgeway base and surrounding triangulation to provide a value which can be used confidently in work with 'tellurometers'. Work was carried out on the shear strength of non-saturated soils under different moisture conditions and the stresses set up in various layers of road foundations by compaction operations or surface loads were closely observed. Experimental studies on the relations between malnutrition and the mental development of young children showed that 38 per cent of a group of Bantu children suffering from kwashiorkor had abnormal electroencephalograms compared with only 3 per cent of normal children, and another study showed that rats bred from protein-deficient mothers and themselves reared on protein-deficient diets were inferior in learning ability to those bred and fed normally. In medical research particular attention is being given to the relation between diet and diseases of the arteries.

Waterways and Ionizing Radiations

CIRCULAR No. 57/59 from the Ministry of Housing and Local Government to local authorities, joint water boards, joint sewage boards, river boards, statutory water companies in England and Wales tells them from which departments of the Government they should seek advice when in doubt about local problems concerning hazards from ionizing radiations. As a potted "Inquire Within on Everything" in this field it is extremely informative and helpful. As an explanation of the scientific problems involved it is slipshod, since the construction of the sentences is tortuous, 'radioactivity' is confused with 'radiation' and there is at least one mis-statement attributed to the Medical Research Council on the contribution by diagnostic X-rays to the dose of radiation received by the general population.

Hatfield Memorial Lecture

ACADEMICIAN G. V. KURDJUMOV, director of the Department of Metallography and Metal Physics at the Central Research Institute for Ferrous Metallurgy, Moscow, has accepted an invitation from the Council of the University of Sheffield to deliver the twelfth Hatfield Memorial Lecture, in the Firth Hall of the University on November 25. His subject will be "The Phenomena occurring in Steels during Quenching and Tempering". The Hatfield Lectures, which are given annually in either London or Sheffield, were founded in memory of the late Dr. W. H. Hatfield, and are always devoted to a subject in which Dr. Hatfield was interested. The Hatfield Memorial Lecture Fund is administered by the University of Sheffield as trustees, and arrangements are in the hands of a Lecture Committee, composed of representatives of the University, the Royal Society and the Iron and Steel Institute. Academician Kurdjumov is also to lecture to the Iron and Steel Institute during the autumn general meeting in London. He will be speaking at the Hoare Memorial

Hall, Church House, Great Smith Street, S.W.1, on December 2, and on this occasion his subject will be "Martensitic Transformations in Metals and Alloys".

International Federation of Automatic Control

FOLLOWING the first General Assembly in Chicago of the International Federation of Automatic Control, it is announced that the Executive Council now consists of the following members: *President*, A. M. Letov (U.S.S.R.); *Past President*, H. Chestnut (U.S.A.); *First Vice-President*, Ed. Gerecke (Switzerland); *Second Vice-President*, O. Benedikt (Hungary); *Treasurer*, M. Cuénod (Switzerland); *Ordinary Members*, J. G. Balchen (Norway), J. F. Coales (Great Britain), G. Evangelisti (Italy), K. Kaneshige (Japan), P. J. Nowacki (Poland), Z. Trnka (Czechoslovakia). D. P. Eckman (U.S.A.) will remain chairman of the Advisory Committee of which J. Loeb (France) was appointed vice-chairman.

The Vernon Prize

THE late Dr. H. M. Vernon made a bequest to the National Institute of Industrial Psychology expressing the wish that the Institute should award a prize every second year to the investigator who, being a British subject and under the age of forty-five years, has in the opinion of the council of the Institute done the most valuable research work in the service of industrial psychology or industrial physiology. The fourth award will be made in 1960; it will consist of approximately £40 in cash and a silver medal. Recommendations and direct applications must be received by February 29, 1960. Further information can be obtained from the Secretary, National Institute of Industrial Psychology, 14 Welbeck Street, London, W.1.

Royal Agricultural Society of England Research Medal

THE Royal Agricultural Society of England offers annually a Medal together with an award of 100 guineas for research work of outstanding merit carried out in the United Kingdom which has proved, or is likely to prove, of benefit to agriculture. Recommendations for this award can be made by the heads of university departments, research stations and institutes and other research organizations. No direct application by candidates will be considered. Recommendations for the next award must be submitted to the Secretary, Royal Agricultural Society of England, 35 Belgrave Square, London, S.W.1, not later than January 30, 1960, and from whom further information can be obtained.

Course on Digital Computers

THE British Council is arranging a course on digital computers in London during February 7-20 for industrial and research scientists from overseas. The course will concentrate on recent improvements in computer design and programming techniques, and will be closely linked with practical work in industry. Many firms have already offered to show computers being made or actually used for commercial and industrial purposes. Course members will also be able to discuss problems with workers on the job. The course will be directed by Dr. Andrew Booth, head of the Department of Numerical Automation at Birkbeck College. Visits have been arranged to see computing equipment at the National