

To Pavlovsky also belongs the credit of developing an ecological approach to the phenomenon of parasitism, based on the recognition of the organism of the host as the environment of its parasites. He introduced the original concept of parasitocenoses, concerning the mutual relations between the components of the parasitic fauna of a host. One of the great merits of his scientific activities was the application of scientific principles to the solution of problems of practical importance in public health, which resulted in the local eradication of certain diseases. Pavlovsky was the author of more than 1,000 publications, devoted to parasitology, entomology, microbiology, epidemiology, toxicology and evolution, as well as to the history of biology and medicine, and including several monographs and text-books. Some of his most important works have recently been brought together in three volumes (in Russian): *General Principles of Parasitology and Zoology* (1961); *Collected Papers on Experimental Zoology and Toxic Animals* (1963); and *Collected Papers on Experimental Parasitology* (1963), as well as in the following English versions: *Human Diseases with Natural*

*Foci* (Moscow, 1963) and *Natural Nidality of Transmissible Diseases, with special reference to the Landscape Epidemiology of Zoonoses* (in the press: U.S.A.). Pavlovsky was also an outstanding teacher, who created an imposing school of Russian parasitologists.

In addition to the professorship at the Military Medical Academy, which he relinquished in 1958 with the rank of Lieutenant-General in the Soviet Army Medical Service, Pavlovsky was for many years director of the Zoological Institute of the Academy of Sciences and president of the Geographical and Entomological Societies of the U.S.S.R. He was also an honorary member of several academies of science and of numerous learned societies outside his own country. For his outstanding scientific achievements he was elected a member of the Academy of Sciences in 1939 and of the Academy of Medical Sciences of the U.S.S.R. in 1944; he was awarded the honorary degree of D.-ès-Sc. of the Sorbonne, and was the recipient of many prizes and medals, including the Darwin-Wallace Medal of the Linnean Society in 1959.

CECIL A. HOARE

## NEWS and VIEWS

### Civil Engineering in the Welsh College of Advanced Technology, Cardiff: Prof. J. D. Geddes

DR. J. D. GEDDES, senior lecturer in civil engineering materials in the University of Newcastle upon Tyne, has been appointed professor of civil engineering in the Welsh College of Advanced Technology, Cardiff, from January 1. Dr. Geddes gained a first-class honours degree at the University of Newcastle upon Tyne in 1949. Later, after work with consulting civil engineers, he returned to his *alma mater* to work on the subject of piled foundations; he was awarded a Ph.D. for this work at the age of twenty-five. His research was carried out under the Radley postgraduate studentship of the Institute of Civil Engineers, of which body Dr. Geddes already held the distinction of a Miller Prize. In later years he was to be awarded prizes and a Bronze Medal by the Institution of Structural Engineers for his work on mining subsidence. After a year or two as head of the Federal Laboratory of the Public Works Department of Nigeria, controlling all testing and site investigation, he again returned to the University of Newcastle upon Tyne and, for the past 10 years, has been head of the Materials and Building Science Division of the Department of Civil Engineering in the University. His researches have covered mining subsidence and its effects, heat flow through concrete, stresses in buried pipelines, the part played by grout in pre-stressed concrete construction, and studies in site investigation. Dr. Geddes has controlled an effective testing laboratory run by the Department as a regional service, and has forged a bond between the profession and the University. He has found time to become an authority on the history of the British regiments and will return in the spring to give a University lecture on the subject in Newcastle. His new students will also welcome his contributions to *Problems in Engineering Soils*—a text-book soon to be published under joint authorship.

### Fast Reactor Agreement

THE United Kingdom Atomic Energy Authority and Aktiebolaget Atomenergi, Sweden, have concluded an agreement for exchange of information and collaboration on fast reactor research and development. Information to be exchanged concerns design and operating experience from research and experimental reactors, basic physical and chemical properties of materials for use in fast reactors

and reactor physics, as well as operating experience with certain fuels. The agreement will be effected by means of reports and visits. There may be exchanges of staff from time to time. The progress of the agreement will be reviewed periodically at meetings between representatives of the Authority and Aktiebolaget Atomenergi.

### Ministry of Technology

IN written answers in the House of Commons on November 30, the Minister of Technology, Mr. F. Cousins, listed sixteen projects on which he had required the Atomic Energy Authority to carry out research at estimated costs varying from £500 to £73,000 during the financial year 1964-65 and totalling more than £377,800. These projects involved 108 people full-time or part-time, and accounted for about 1 per cent of the Authority's effort on civil research and development in 1965. In addition, work on some minor projects had been authorized, and certain preliminary investigations were being made, while Aldermaston was undertaking non-atomic work on repayment for Government departments, mainly in the defence field, to the amount of about £600,000 in the present year. Desalination research, to the extent of £278,000, was proceeding at Winfrith, Culcheth, Harwell and Risley; work is also under way on hydrostatic extrusion (£54,000) at Springfields, on a medical centrifuge (£15,000) at Capenhurst, and on a design study for scientific payload for the European Space Research Organization satellite (£41,000) at Culham and Aldermaston. The Authority's expenditure on civil nuclear research and development is given as £47.9 million. Of the £35 million shown in the Authority's civil trading account as the proceeds of sales for the year ended March 31, 1965, 60 per cent is attributed to fuel elements for civil reactors, 20 per cent to electricity and 6 per cent to radioactive isotopes. Of the £6.5 million expenditure on the Ministry of Technology in the past 12 months, £4.5 million was for research stations, just under £2 million on grants for research to research associations and other bodies, and £650,000 on the Ministry's headquarters. Appropriations in aid amounted to £850,000.

### Mechanical and Electrical Engineering

IN a written answer in the House of Commons on December 1, the Prime Minister, Mr. H. Wilson, stated that the Ministry of Technology would now assume responsibility for sponsoring the mechanical and electrical