

Kumar, now working at the National Research Council of Canada, to be Rutherford Scholar for three years from next November, to carry out studies on elementary particles at University College, London.

Ciba Foundation Awards

AN advisory panel of the Ciba Foundation has considered sixty-two papers from nineteen countries for the Ciba Foundation's Awards for 1958 for research relevant to the problems of ageing, and the following have received awards (the names of leading authors only are given): Dr. R. J. Boucek (Miami), Dr. D. S. McLaren (Mwanza, Tanganyika), Dr. A. Comfort (London), Dr. L. O. Pilgeram (Minneapolis), Dr. H. Sobel (Los Angeles), Dr. Z. Hruza jointly with Dr. E. Holečková (both of Prague), Dr. K. Walter (Giessen, Germany), Dr. A. A. Hürlimann (Bern), Dr. M. Murakami (Maebashi City, Japan). These awards are being offered for a fifth and final time in 1959, the closing date for entries being January 10, 1959, and further information may be obtained from the Ciba Foundation, London.

Darwin-Wallace Centenary

At a meeting of the Linnean Society on July 1, attended by members of the Darwin and Wallace families, representatives of other societies and institutions and members of the Linnean Society, the president, Dr. C. F. A. Pantin, unveiled a plaque in the meeting room commemorating the centenary of the reading before the Society on July 1, 1858, of the joint communication by Charles Darwin and Alfred Wallace on their theory of evolution by natural selection. At the meeting a hundred years ago neither Darwin nor Wallace was present: Darwin because of family bereavement and illness, and Wallace was still in Ternate. The papers were communicated by Sir Charles Lyell and Dr. (later Sir) J. D. Hooker, and as was the custom were read by the secretary. Hooker, writing to Francis Darwin at a later date giving an account of the meeting, said, "I was present . . . said something impressing the necessity of profound attention to the papers and their bearing on the future of Nat. Hist., etc., etc., but there was no semblance of discussion. The interest excited was intense, but the subject too novel and too ominous for the old School to enter the lists before armouring. It was talked over after the meeting, 'with bated breath' . . ."

The papers were received by the secretary of the Society on the day before the meeting with a covering letter from Lyell and Hooker, and no prior notice of their title or contents was known to the Fellows before the meeting. They contained the first and quite independent statements of the great principle of natural selection. In both cases the discovery was the fruit of their profound experience of tropical nature while they were still young men. In further commemoration of this centenary the Society held a dinner in the Drapers' Hall on the evening of July 1, and on July 15, at a special meeting to be held at the Royal Geographical Society, some twenty Silver Darwin Medals will be presented to British and foreign biologists in recognition of their outstanding contributions to our knowledge of evolution.

Two Nuclear Reactors at the Atomic Weapons Research Establishment

HORACE, a zero energy reactor, is now operating at the Atomic Weapons Research Establishment at

Aldermaston, Berkshire. It is being used for the study of the nuclear characteristics of a light-water research reactor, and consists of an arrangement of enriched reactor fuel in ordinary water. It will be used to investigate different types of reactor core arrangements and the use of different materials as 'reflectors' (to reflect neutrons back into the core). Work with it should enable the time taken for full commissioning of a second Weapons Group reactor of the same class to be materially shortened, since it will provide data relating to the control, safety and core arrangements of this type of reactor. This second reactor at Aldermaston, named HERALD, is being built by A. E. I.—John Thompson, Ltd., and should be completed by the autumn of this year. This will also have ordinary water as a moderator and coolant, will operate at power-levels up to five megawatts and will be used for research with neutrons and for the production of special isotopes. There are now thirty-five reactors either in operation or under construction in the United Kingdom for research, testing and power production.

Oak Ridge Research Reactor

A NEW research reactor at the U.S. Atomic Energy Commission's Oak Ridge National Laboratory has been successfully operated at its design power-level of 20,000 kW. of heat. The reactor, called the Oak Ridge Research Reactor (ORR), was brought to design power on May 29 after the power-level was raised in incremental steps over a period of several days while various operational tests were carried out. Operational testing is continuing. The reactor was designed to operate normally at 20,000 kilowatts, but may be operated at 30,000 kilowatts during some periods to meet the needs of the experimental programmes. The ORR will be used for fundamental research and engineering studies. The research programmes to be carried out in connexion with the reactor will include engineering studies on the effects of nuclear radiations, basic studies on the properties of metals, alloys and ceramics, and experiments involving neutron spectroscopy. The reactor also will be used for limited production of both short- and long-lived radioisotopes, many of greater specific activity than is now possible through other reactors available at the Laboratory. The ORR is a heterogeneous reactor, moderated and cooled with demineralized water. It has an average flux greater than 1×10^{14} neutrons per square centimetre per second, and has a beryllium-reflector core which utilizes fuel elements of uranium-aluminium alloy clad with aluminium.

Plutonium for Bombs

In the House of Commons on June 24, the Paymaster-General, Mr. R. Maudling, said that at the request of the Government, the Central Electricity Generating Board had agreed to a small modification in the design of Hinkley Point and of the next two stations in its programme so as to enable plutonium suitable for military purposes to be extracted should the need arise. The modifications would not in any way impair the efficiency of the stations, and as the initial capital cost and the additional operating costs would be borne by the Government, the price of electricity would not be affected. The country would thus be provided, at comparatively small cost, with an insurance against possible future defence requirements.