

changes which are now occurring in rural Bengal. Some of this work is available to readers of English in his book, "Cultural Anthropology", and in the pages of *Man in India*, of which he is an editor, but much of it has been published in Bengali. Like the English scientists of the seventeenth century, Indian scientists are now faced with the dilemma of publishing in an international language or attempting to educate their own countrymen. Mr. Bose, with his emphatic belief that anthropology begins at home, has often chosen the latter alternative, and for this reason readers of English may under-estimate his work. Mr. Bose has been a successful and much-loved teacher, and may therefore hope to succeed in his intention to establish a working relation between the Department and the universities.

Artificial Planet 2

THE United States *Pioneer 4* space vehicle, launched from Cape Canaveral in Florida at 05.10 hr. U.T. on March 3, travelled past the Moon to become the second artificial planet of the Sun. The launching missile had four stages of propulsion: the first stage was the United States Army *Juno 2* rocket, and the later stages were made up of clusters of solid-fuel rockets. The vehicle, conical in shape and with a mass of 13 lb., carried instruments to measure the intensity of the corpuscular radiation in the vicinity of the Earth, and a photo-electric sensor which, if the vehicle passed close enough, was to register light from the Moon. A radio transmitter with a frequency of 960 Mc./s. was also carried, with batteries to last for four days. By means of these signals the vehicle was successfully tracked by the Jodrell Bank radio telescope to a distance well beyond the Moon.

The vehicle, which attained an initial speed of 6.91 miles per second, passed the Moon at a distance of about 37,000 miles at 22.24 hr. U.T. on March 4, some 41 hr. after it was launched. It then flew on into an orbit around the Sun, and its distance from the Sun is expected to vary between 91.7 and 102 million miles. Its perihelion distance is, like that of Artificial Planet 1 (see *Nature*, 183, 83; 1959), almost the same as that of the Earth, and the orbital plane is inclined at only a very small angle to the ecliptic. The orbital period about the Sun is expected to be 392 days, with the first perihelion on March 17.

New Laboratory for Research on Plutonium

THE Battelle Memorial Institute is to erect a new laboratory designed especially for studies of plutonium at its Nuclear Research Center outside Columbus, Ohio. It is hoped that the laboratory will be in operation by midsummer. It will be particularly well adapted to the study of plutonium as a reactor fuel material. This is a natural extension of the Institute's work in reactor and fuel element metallurgy, which dates back to 1942. The laboratory will be used by both governmental and industrial groups. Research at present planned for the laboratory will focus on alloys and compounds of plutonium, as well as plutonium itself. The new one-story building will provide 1,440 sq. ft. of space and will contain a variety of conventional and specialized equipment for the development of plutonium fuel elements. The research reactor, hot cells and critical assembly laboratory in operation at Battelle's Nuclear Center will provide supporting services and facilities for workers in the new plutonium laboratory.

Cyanamid European Research Institute, Geneva

CYANAMID, one of the leading chemical and pharmaceutical manufacturers of the United States, has recently completed plans for setting up a basic research laboratory, to be known as the Cyanamid European Research Institute, Inc., to be situated in Geneva. The new scientific centre, which is to employ British, French, German, Swiss and other European scientists, will be solely devoted to long-range research in the chemical and biological sciences. The Institute has acquired an 8½-acre tract of land in the Coligny section overlooking Lake Geneva. This property includes a large residence which will be converted and extended for use as laboratories.

Production and Marketing of Radioactive Isotopes in Britain

To meet the increasing demand for radioactive isotopes throughout the world, the U.K. Atomic Energy Authority has re-organized the production and marketing of isotopes, which has hitherto been shared between the Radiochemical Centre at Amersham and the Isotope Division at Harwell. It has been decided to widen the scope of the Radiochemical Centre, under the direction of Dr. W. P. Grove, to form a single comprehensive organization for producing and marketing all such isotopes. The Radiochemical Centre has its headquarters and principal laboratories at Amersham and will have irradiation facilities at Harwell and at other sites of the U.K. Atomic Energy Authority.

The re-organization is already effective, but users of radioisotopes should continue, for the time being, to order their requirements from Amersham or Harwell. Research into the properties of isotopes and new applications of them and their radiations will be continued at the Isotope Research Division, Harwell, and at the Wantage Radiation Laboratories. This Division will continue to operate the Isotope School; both the Radiochemical Centre and the Isotope Research Division will remain part of the Research Group of the Atomic Energy Authority.

Agricultural Aviation

THE use of aircraft in agriculture and forestry is by no means new and has made especially outstanding contributions to food output in newly developed areas. The aeroplane has also had some influence on traditional farming methods, and there is no doubt that the use of aircraft in farming will increase in the future. It is therefore appropriate that a new periodical, *Agricultural Aviation* (1, No. 1. Pp. 23. Published quarterly. Subscription rates per annum: Europe, 24s., 1,500 French francs; United States and Canada, 3.50 dollars. The Hague: E.A.V. v.d. Boschstraat 4, 1959), should be entirely devoted to this topic. It is published by the European Agricultural Aviation Centre at The Hague, but the contents are by no means limited to agricultural aviation in Europe. On the contrary, it should serve as a source of up-to-date information on a world-wide scale, and for this reason it is published in two editions, in English and French, respectively. The first issue contains two papers from member countries. One, by G. H. Brechley, of the British National Agricultural Advisory Service, gives an account of trials carried out over the past two years in the control of potato blight by aerial spraying. The second, by G. Schumacher (Germany), concerns