

property owned by the Trust has necessitated some reorganization. Nevertheless, an imposing series of research papers (more than fifty) on a large range of subjects, together with several important discoveries, indicate that the Institution is as vigorous as ever.

Among the new results may be mentioned the discovery of a method for testing incompatibility of pollen *in vitro*, the production of polyploid apples and pears by heat treatment, the successful hybridization of *Phaseolus vulgaris* and *P. multiflorus*, and the discovery of the plant with probably the highest chromosome number among wild Angiosperms—*Morus nigra* ( $2n = 308$ ). Highly important work is developing from the theory of polygenes and from the discovery that inert parts of the chromosome may be identified by starvation of nucleic acid. The publication of the John Innes leaflets on horticultural subjects has met with a popular demand, and there has been a large increase in advisory work on horticulture. This is a new and welcome branch of the activities of the John Innes.

### A New X-Ray Synthesis

S. H. Yü has recently developed a synthesis of X-ray intensity data which, it is claimed, has certain advantages over the Patterson synthesis. An account of the method has been published in *NATURE* (June 6, 1942, p. 638). S. H. Yü and C. P. Ho have illustrated the synthesis by a detailed treatment of iron pyrites (*Science Records, Academica Sinica*, 1; 1942). In a further study, submitted to *NATURE*, they have investigated the effect of the approximations necessary in practice, and the conditions for obtaining satisfactory results from the new method. It is necessary to use a mean value for the variation of atomic structure factor with angle; that given by the Thomas-Fermi atom proves to be a sufficient approximation. For a good determination of the atomic parameters the edge of the unit cell must be divided into at least 100 parts. For the synthesis described in *NATURE* it is necessary to know at least 13 orders of  $h00$  to get a good result, but it is shown that it is possible to modify the method so that it is applicable to a smaller number. Yü and Ho are to be congratulated on maintaining scientific research in China in difficult circumstances, and the application of the method to unknown structures will be awaited with interest.

### Shortage of Drugs in France

ACCORDING to the *Journal of the American Medical Association* of March 25, the Academy of Medicine of Paris has for months been studying the problem of the shortage of indispensable drugs. At the suggestion of Dr. Georges Duhamel, a committee has been formed to publish periodically a list of drugs and chemical products becoming rare. The majority of raw materials come from foreign countries, and importation of these has mostly been cut off. A second reason consists in the difficulty of transport and the dearth of packing material. In the latest list presented to the Academy the following were said to be extremely scarce or entirely absent: caffeine, theobromine, iodine, camphor, boric acid and its derivatives, quinine, opium and its alkaloids, glycerine, cod liver oil, starch, dextrose, mustard meal, lactose, tartaric and citric acids, insulin, and many other chemical and vegetable products.

### Lady Tata Memorial Trust

THE Trustees of the Lady Tata Memorial Fund announce that, on the recommendation of the Scientific Advisory Committee, they have agreed, if circumstances permit, to make the following awards for research in blood diseases, with special reference to leukaemia, in the academic year beginning on October 1, 1942. Grants for research expenses: Prof. J. Furth (New York); Dr. P. A. Gorer (London); Dr. A. H. T. Robb-Smith (Oxford); Prof. L. Doljanski (Jerusalem). Part-time personal grant for assistance: Dr. W. Jacobson (Cambridge).

### The Night Sky in July

THE moon is new on July 13d. 12h. 03m. U.T. and full on July 27d. 19h. 14m. There are no occultations of any bright stars during the month. The following conjunctions occur: July 3d. 23h., Venus in conjunction with Saturn, Venus  $0.1^\circ$  N.; July 9d. 21h., Saturn in conjunction with the moon, Saturn  $3^\circ$  N.; July 10d. 11h., Venus in conjunction with the moon, Venus  $4^\circ$  N.; July 11d. 15h., Mercury in conjunction with the moon, Mercury  $3^\circ$  N.; July 12d. 10h., Jupiter in conjunction with the moon, Jupiter  $4^\circ$  N.; July 16d. 00h., Mars in conjunction with the moon, Mars  $3^\circ$  N.; July 18d. 08h., Mercury in conjunction with Jupiter, Mercury  $0.4^\circ$  S.; July 30, 10h., Mars in conjunction with Regulus, Mars  $0.7^\circ$  N. Mercury is a morning star and is in greatest elongation on July 6 when it is  $21^\circ$  W. Venus is a morning star and souths at 9h. 50m. in the middle of the month. Mars is too close to the sun to be well observed. Jupiter is a morning star, in Gemini, and rises about 2h. 40m. in the middle of the month. Saturn is a morning star and souths about three hours before the sun in the middle of the month. Comet Grigg-Skjellerup can be observed with a small telescope; an ephemeris appeared in *NATURE* of June 6, p. 636. The earth is at aphelion on July 6.

### Announcements

MR. A. GOUGE has been elected president of the Royal Aeronautical Society for the year 1942-43, and Mr. E. F. Relf, superintendent of the Aerodynamics Department, National Physical Laboratory, and Dr. H. Roxbee-Cox, deputy director of scientific research at the Ministry of Aircraft Production, have been elected vice-presidents.

AT the seventy-ninth annual general meeting of the Institution of Gas Engineers, held on June 10, Mr. E. V. Evans, general manager of the South Metropolitan Gas Company, was elected president for the year 1942-43. Mr. Evans, who is also chairman of the Council of the Gas Research Board, is the first chemist to occupy the presidency of the Institution of Gas Engineers.

THE Association of Scientific Workers (with the collaboration of the Federation of Ayrshire Scientific Film Societies) has arranged a Conference on "The Scientific Film and Scientific Film Societies", to be held in two sections: in Ayr on August 1 and 2, and in London on August 16. The Conference will discuss the possibilities of scientific film societies run by branches of the Association of Scientific Workers to give science films the widest possible showing, and will direct public attention to these activities and to the need for increased and co-ordinated production of science films.