

### Proposed National Research Development Corporation

An amendment tabled on February 26 to the Investment (Control and Guarantees) Bill, supported by several members of the Parliamentary and Scientific Committee, proposes the establishment of a National Research Development Corporation with a guarantee of up to £10,000,000 a year from the Treasury for its use. Its purpose would be the development of any new invention or scientific discovery likely to lead to the creation of a new industry or to a substantial and beneficial change in any process used in any existing industry, agriculture or medical practice, and, second, the establishment of experimental plants and conduct of experiments with a view to the introduction of new industries and testing the suitability of new processes for existing industries, agriculture or medical practice. It is also provided that the Treasury may arrange that, in return for making good any guarantee, there shall be participation in "profits, patent rights or royalty payments which may in due course accrue to the National Research Development Corporation".

### International Conference on the Problem of Overfishing

An international conference is sitting in London for the purpose of examining the question of overfishing, and, if possible, of drawing up some form of regulatory agreement among the nations concerned. Such an agreement is essential if a recurrence is to be obviated of what took place after the First World War with such disastrous results, when the stocks of fish accumulated during the war years in the North Sea, for example, were rapidly depleted by overfishing, and fishing operations soon became uneconomical. The following countries are represented at the conference: Norway, Sweden, Poland, Denmark, Holland, Belgium, France, Portugal, Spain, Eire, Iceland, Great Britain, and in addition the International Council for the Exploration of the Sea, which has for many years given attention to this problem.

### Rheology in the United States

INTEREST in rheology has increased in recent years, and with the relaxation of censorship restrictions on scientific publications several important papers in industrial rheology (ten or fourteen papers) were contained in the programme arranged for the annual meeting of the Society of Rheology held in New York City during October 26-27. Prof. E. C. Bingham found the plotting of fluidities more helpful than the plotting of viscosities when dealing with anomalies of flow, and instanced the linearity of fluidities for many protein solutions. A theoretical discussion on the rate process theory of flow, applied to viscous liquids, by A. Bondi, was illustrated by numerous examples, and an interpretation given of the energy of hole formation in terms of the Lennard-Jones theory of the liquid state. A paper on the theory of strain hardening under combined stresses was given by W. Prager, who was concerned with isotropic incompressible plastic materials. T. Alfrey dealt with stress-strain curves for visco-elastic materials obeying the Boltzmann superposition principle. The industrial papers included the viscosity of oils at high pressure, the effect of plasticizers on the visco-elastic properties of vinyl resins (W. Aiken, T. Alfrey, A. Jansson and H. Mark), the viscosity of cellulose

acetate solutions and of dilute solutions of polystyrene. Rotation cylinder viscometers were described, including a cylinder type for measurements during thixotropic recovery for a compounded latex, and a parallel plate type for high polymers. The need for an improved understanding of fundamentals leading to better methods was emphasized.

### Sound Recording on Magnetic Film

MR. D. W. ALDOUS, technical secretary of the British Sound Recording Association (BCM/BSRA, London, W.C.1), has written directing attention to the fact that the use of an iron powder film for the magnetic recording of sound (see *Nature*, January 19, p. 71) was known some years before the War. This technique was used in the magnetophone developed by the Allgemeine Elektrizitäts-Gesellschaft, and it was described by Prof. Erwin Meyer, of Berlin, in a course of lectures given in 1937 under the auspices of the University of London; these lectures were afterwards published in a book entitled "Electro-Acoustics" (G. Bell and Sons, Ltd., 1939). Apart from the improved technical quality, the chief advantage of the method is the comparative cheapness of the tape recording-medium. Another German firm has developed a pressing process for embossed ribbon recordings, which has useful possibilities for the multiplication of records. It is also understood that British and American workers are active in the field of magnetic sound recording, and that new designs of wire and tape recorders, having applications for commercial and domestic use, may be expected in the future.

### Aerial Photographs for Scientific Purposes

FROM time to time aerial photographs are required for scientific purposes. Facilities for such photographs, required for non-commercial scientific purposes, may be provided by the Royal Air Force and Royal Navy; but it will be readily understood that such facilities are limited, and priority must therefore be allocated to the various requirements. The Advisory Committee on Airborne Research Facilities, a joint committee of the Royal Society and the Services, is to advise the Services on this matter. Requirements for photographs to be taken during 1947 should be forwarded to the Committee, at the Royal Society, Burlington House, London, W.1, before October 31, 1946; it will assist if the envelope is marked 'Aerial Photographs'.

### Annales d'Astrophysique

THE French National Centre of Scientific Research announces that, beginning with this year, the *Annales d'Astrophysique* will be reorganised as an international medium for the publication of articles on astrophysics. Prof. F. Joliot-Curie, director of the Centre, has nominated a French committee to organise the French Service d'Astrophysique (Upper Provence Observatory, Institute for Astrophysics in Paris, *Annales d'Astrophysique*, etc.): *Chairman*, Prof. A. Danjon, director of the Paris Observatory; *Vice-chairman*, M. Chalonge, astronomer at the Paris Observatory and at the Institute of Astrophysics; *Secretary*, H. Mineur, astronomer of the Paris Observatory and director of the Institute of Astrophysics; *Members*, Messrs. Coulomb, Dufay, Fehrenbach, Lyot, Couder, Lallemand and Barbier. Dr. D. Barbier has been appointed editor-in-chief for the *Annales*. An international board of foreign correspondents has also been formed including Messrs.



Abetti, Beals, Gaviola, Lindblad, Mayall, Menzel, Merrill, Cort, Plaskett, Redman, Russell, B. Ström-gren, Struve and Swings. Under the new plan the *Annales* will accept articles from all countries and will be prepared to print them in French, English or German. During the War the *Annales* published two issues a year. Those dated 1945 are expected to appear shortly. The first issue of 1946, which will start the international series, is expected to appear in the middle of the year. The address of the editor is Dr. D. Barbier, Institut d'Astrophysique, 98 bis, Boul. Arago, Paris (14ème), France.

### The Night Sky in April

NEW moon occurs on April 2d. 04h. 37m. U.T. and full moon on April 16d. 10h. 47m. The following conjunctions with the moon take place: April 8d. 19h. Saturn  $2^{\circ}$  S.; April 9d. 07h., Mars  $0.2^{\circ}$  S.; April 16d. 01h., Jupiter  $3^{\circ}$  S.; April 29d. 15h., Mercury  $2^{\circ}$  N. Occultations of stars brighter than magnitude 6 are as follows: April 6d. 19h. 46.8m.,  $\alpha$  Taur. (*D*); April 20d. 01h. 23.9m.,  $\omega$  Ophi. (*R*); April 21d. 02h. 39.8m.,  $b$  Ophi. (*D*); April 21d. 03h. 54.0m.,  $b$  Ophi. (*R*). The times are for Greenwich and (*D*) and (*R*) refer to disappearance and re-appearance respectively. Mercury rises shortly before sunrise and is not well placed for observation. The planet is stationary on April 11 and attains its greatest western elongation on April 23. Venus is conspicuous in the western sky for some time after sunset, setting at 19h. 47m. and 21h. 19m. at the beginning and end of the month respectively. The apparent area of the illuminated disk on these dates is 0.970 and 0.929, that of the entire disk being the unit. Mars is in the constellation of Gemini early in the month and moves into Cancer later on. The planet is visible throughout the greater portion of the night, setting at 3h. 16m., 2h. 35m., and 1h. 51m. at the beginning, middle and end of the month respectively. The stellar magnitude of Mars varies from 0.7 to 1.1 between April 1 and 30. Jupiter is well placed for observation, rising at 19h. 37m., 18h. 26m., and 17h. 17m. at the beginning, middle and end of the month respectively. The planet is in opposition to the sun on April 13, and its magnitude is  $-2.0$  throughout April. Saturn, in Gemini, can be seen through the night and early morning hours, setting at 2h. 44m., 1h. 51m., and 0h. 56m. at the beginning, middle and end of the month respectively. The Lyrid meteors are due from about April 18–22, but moonlight will partly interfere with observations of this shower.

### Announcements

MR. H. G. STRAUSS (Conservative) has been elected member of Parliament for the Combined English Universities in the by-election caused by the death of Miss Eleanor Rathbone.

THE Rockefeller Foundation has made a grant of 19,000 dollars to the University of Oxford for research on anti-biotics, under the direction of Sir Howard Florey, professor of pathology.

BRIGADIER M. HOTINE, director of military surveys, War Office, has been appointed by the Colonial Office to be director of Colonial geodetic and topographical surveys. He will be the head of a new central organisation for topographical and geodetic surveys in the Colonial Empire. Lieutenant-Colonel G. J. Humphries, lately of the Nigerian Survey Service, has been appointed deputy director of Colonial surveys.

DR. ROBERT B. JACOBS, previously engineer in charge of high-vacuum development and research for the Kellogg Corporation, which designed the gaseous diffusion plant for atomic energy developments at Oak Ridge, Tennessee, has joined the staff of Distillation Products, Inc., Rochester, N.Y., where he will take charge of work on physical phenomena at low pressures.

A SYMPOSIUM of papers on "Degaussing" has been arranged for meetings of the Institution of Electrical Engineers to be held on April 4 and 5, at 5.30 p.m. Seven papers covering various aspects of the subject are to be given.

AN Arnold Gerstenberg studentship for philosophical study, of the annual value of about £150 and tenable for two years, will be offered at Cambridge next year. It will be open to men and women who have obtained honours in either part of the Natural Sciences Tripos and whose first term of residence was not earlier than the Easter term of 1941 (except those who have been on war service). The studentship will be awarded for an essay to be submitted before May 1, 1947. Further particulars of the studentship, of the subjects for essays, and of the condition applicable to candidates who have been on war service, may be obtained from Mr. R. B. Braithwaite, King's College, Cambridge.

A COURSE of six lectures on microscopy, suitable for those having to use the microscope in technical practice, and including advanced methods in microscopy, will be given by Mr. B. K. Johnson in the Technical Optics Section of the Imperial College of Science and Technology, London, S.W.7, on Tuesdays and Thursdays at 4 p.m., beginning April 25. An optional course of practical work will be arranged during the eight weeks commencing May 20. Applications to attend should be sent to the Registrar of the College.

THE American Telephone and Telegraph Company has announced the award of five Frank B. Jewett fellowships. The purpose of the fellowships is to stimulate and assist research in the fundamental physical sciences, and particularly to provide the holders with opportunities for individual growth and development as creative workers. The awards carry an annual stipend of 3,000 dollars to the holder and 1,500 dollars to the institution at which the recipient elects to do research. The new fellows, with their subjects of research, are: Dr. Martin G. Ettlinger (chemistry of cyclopropane, cyclopropene and dicyclobutane derivatives); Dr. Edward W. Fager (photosynthesis in green plants); Dr. Bernard Goodman (very high energy particles and processes); Dr. Shuichi Kusaka (theoretical physicist, in the Army of the United States, stationed at Wright Field, Ohio); Dr. Robert L. Scott (thermodynamics of solutions).

IN the article on "Kilimanjaro" by J. J. Richard published in *Nature* of September 22, 1945 (p. 352), the scale of upper air temperatures (Curve C) was inadvertently omitted from Fig. 3; the temperatures at the dates of crater fumarole readings were 22, 23, 23, 19, 17, 19, 20, 22, 25, 25° F., showing a variation of only 8° F. In Fig. 2, the date against fumaroles 1–5 should be Oct. 10, 1942; and "Northern Ice Carrier" should read "Northern Ice Barrier".