THE new announcement list of Mr. John Murray contains three works likely to interest readers of NATURE, namely, "Sixty-three years of Engineering," by Sir Francis Fox; "Cancer: How it is caused, how it can be prevented," by J. Ellis Barker, with an introduction by Sir W. Arbuthnot Lane, Bart., and "Cancer Research at the Middlesex Hospital, 1900–1924: Retrospect and Prospect," edited by W. S. Handley.

ANOTHER of the well-known special catalogues of Messrs. Bernard Quaritch, Ltd., 11 Grafton Street, W.1, has reached us. Its No. is 383 and it gives nearly 2000 titles of works relating to zoology and geology. As is usual with the lists of this bookseller, many rare and costly books are offered for sale, but the catalogue also contains particulars of a yet greater number of volumes likely to be of service to men of science, priced at reasonable figures.

MR. H. GILBERT-CARTER, director of the Cambridge University Botanic Garden, has written a small book on "Descriptive Labels for Botanic Gardens," the object of which is to induce those in charge of collections of plants to exhibit them so as to give information as well as pleasure to as many people as possible and, in particular, to adopt descriptive labels similar to those in use in the Cambridge University Botanic Garden. The work will be issued shortly by the Cambridge University Press.

THE spring announcement list of Messrs. Constable and Co., Ltd., has just reached us; it contains the following books of science: In *Biology*—"Biological Foundations of Society," Prof. A. Dendy; in *Chemistry*—"Chemical Thermodynamics," Prof. J. R. Partington; in *Engineering*—"Factory Costing," H. H. Emsley; in *Geography and Travel*—"A Woman Alone in Kenya, Uganda and the Belgian Congo," Etta Close; "Red-deer Stalking in New Zealand," Captain Donne; in *Medical Science*—"Modern Views on the Toxæmias of Pregnancy," O. L. V. De Wesselow and J. M. Wyatt; "Modern Methods in the Diagnosis and Treatment of Pulmonary Tuberculosis," R. C. Wingfield; "Modern Diagnosis and Treatment of Syphilis, Chancroid and Gonorrhœa," Col. L. W. Harrison; "The Pathology and Treatment of Syphilis," Dr. C. H. Browning and Ivy Mackenzie (new edition); "Modern Methods in the Diagnosis and Treatment of Renal Disease," Dr. H. Maclean; in *Technology*—"Glass Technology," F. W. Hodkin and A. Cousen; "Pattern Making," J. M. C. Wilson; "Moulding and other Foundry Work," W. Bell.

ERRATUM.—The date of the discovery of the process by which the parasites causing malaria are extracted from the blood of the sick man and introduced into the blood of healthy individuals by Anopheles mosquitoes, given in NATURE of May 3, p. 630, col. 1, line 37, as 1899, should have been 1898.

Our Astronomical Column.

THE PROBLEM OF THE NEBULÆ.—The question of the nature of the spirals and other nebulæ has been keenly debated for more than a century, and there have been curious pendulum-like oscillations of thought on the subject; the island-universe theory has alternated with the shining-fluid one in public favour.

Mr. J. H. Reynolds, who has himself played a leading part both in providing photographs and in discussing them, gives an interesting summary of the present state of the problem in the March issue of the Journal of the British Astronomical Association. He estimates the number of spirals as about 1500, this being a great reduction from the half-million that was accepted a few years ago. Very many of the latter were called spirals on insufficient evidence and are classed by Reynolds as spheroidal; he assumes that these are the more primitive, and that in some cases through increased speed of rotation, matter is ejected at their equators, ultimately forming spiral arms in the manner deduced by Jeans. As the spirals condense they become more irregular, the arms becoming S-shaped, and the nucleus diminishing in size owing to the drainage of matter into the arms. The condensations on the arms are assumed to form giant stars of type M.

The peculiar distribution of the spiral and spheroidal nebulæ is mentioned, but no explanation is suggested.

ROTATION PERIODS OF SATURN'S SATELLITES.—For several years it has been recognised as practically certain that the satellites of Saturn, at least as far out as Japetus, resemble our moon in always turning the same face to their primary: but the light variation, due to rotation, is in most cases so small, and the observation of it so difficult, that further confirmation is welcome. *Astr. Nach.*, No. 5276, contains a series of observations of Titan, Rhea, Tethys, Dione, and Enceladus, made in 1921 by K. Graff at Bergedorf. The curves for Titan and Dione are sine-curves, showing that the brightest and the darkest parts of the surface are opposite each other. Those of Rhea and Tethys are more irregular, indicating a rather complicated arrangement of spots.

Titan, Rhea, Tethys, and Dione are brightest at the eastern elongation, Enceladus and Japetus at the western one. It is pointed out that, while the indications of the rotation periods are the same as those deduced by Guthnick in 1908, the details of the light curves differ considerably. This might arise from the different presentment of their surfaces to us, their axes being probably perpendicular to their orbit planes.

GREENWICH OBSERVATIONS, 1920.—The printing of the Greenwich Observations is rapidly overtaking the serious arrears that were caused by the War. The 1920 volume contains the principal results of observations with the transit circle and altazimuth, and the observations of some 230 double stars made with the 28-inch equatorial in the years 1920 to 1923. There is a reprint of all the observations of the moon made from 1850 (when the transit-circle was erected) to the end of 1922 (when Hansen's tables were superseded by those of Brown). Various corrections have been applied both to the tabular and the observed places to reduce them to a uniform system; the annual means are given, compared with the Hansen-Newcomb positions, also with those of Brown, and with those of Fotheringham (who increased Brown's value of the secular acceleration). There are the customary details about sun-spot, magnetic, and meteorological observations. The magnetic records are reproduced for the disturbances of Feb. 24-25, March 4-5, March 22-23, Sept. 28-29, Dec. 4-5, 1920. The first and third are separated by a synodic rotation of the sun.

The volume closes with the annual report of the Astronomer Royal read on June 4, 1921.