

forecasting. The expedition will co-operate with Dr. L. Koch, who is to lead a Danish scientific party to Scoresby Sound on the east coast, and to cross the interior to Holstenborg on the west coast. This journey is expected to occupy about two months. A further object of Prof. Hobbs's inland station will be the investigation of the upper atmosphere by means of rubber balloons. It is also proposed to take two aeroplanes for reconnaissance work over the ice cap in various directions.

A BIBLIOGRAPHY of meteorological literature, No. 8, prepared by the Royal Meteorological Society with the collaboration of the Meteorological Office, has recently been issued by the Royal Meteorological Society (price 2s. 6d. to non-fellows). The bibliography was incorporated in the Meteorological Society's Journal from 1917 until 1920, but has since been issued as a separate publication in six-monthly parts. The publication is of considerable value to students of meteorology in all parts of the world.

THE British Museum (Natural History) has recently issued an illustrated brochure entitled "British Mosquitoes and their Control," which is obtainable

at the Museum or through booksellers for the low price of 6d. This pamphlet forms No. 4 of the Economic Series and is written by Mr. F. W. Edwards and Col. S. P. James, who are recognised authorities on their subject. Practically all the information commonly sought for by medical officers and the general public will be found readily available in its pages. The distribution and habits of the twenty-six species of British mosquitoes are briefly, but clearly, described, and there is a useful account of remedial and control measures.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—Assistant at the Low Temperature Research Station, Cambridge—Secretary, Department of Scientific and Industrial Research, 16 Old Queen Street, S.W.1 (December 14). Chair of philosophy—Registrar, University, Bristol (February 1). Lectureships in botany and in domestic science—Secretary, Huguenot University College, Wellington, C.P., South Africa. Biochemist—British Association of Research for the Cocoa, Chocolate, Sugar, Confectionery and Jam Trades, 2 Dalmeny Avenue, N.7.

Our Astronomical Column.

THE NEW COMETS.—These have both been well observed. The orbit of Comet van Biesbroeck presented great difficulties owing to the apparent motion being slow and almost directly from the sun. The following orbit by J. Möller and B. Strömngren is the best available, but it is still very uncertain:

T	1925 Sept. 29-370 U.T.
ω	99° 10' 73" } 1925.0
Ω	334 46.45
i	46 57.15
log q	0.16043

EPHEMERIS FOR 0^h.

	R.A.	N. Decl.	log r .	log Δ .
Dec. 2.	12 ^h 5.5 ^m	30° 13'	0.2310	0.1842
10.	12 7.1	27 55	0.2460	0.1751
18.	12 6.3	25 48	0.2929	0.1647

The brightness is slowly declining.

The following orbit of Comet Wilk-Peltier is from rather rough observations, but is fairly near the truth.

T	1925 Dec. 6.936 U.T.
ω	117° 56'
Ω	131 47
i	144 59
log q	9.88422

EPHEMERIS FOR 0^h.

	R.A.	Decl.	log r .	log Δ .
Dec. 4.	19 ^h 19.6 ^m	4° 38' N.	9.885	9.961
8.	19 33.4	0 2 S.	9.884	0.018
12.	19 43.4	3 47 S.	9.888	0.068
16.	19 51.0	6 53 S.	9.896	0.113

THE ORIGIN OF THE STARS.—A letter by Dr. J. H. Jeans in the *Observatory* (November) is of interest as tracing the modifications of his views that have taken place as new determinations have been made of the distances of the spiral nebulae. In a paper in *Phil. Trans. Roy. Soc.* for 1902 he showed that condensations forming stars might be expected to appear in

gaseous masses of density 10^{-23} , their distance apart being 10 parsecs. In 1917 he concluded that this process might be going on in the spiral nebulae, the visible condensations being taken as the nuclei of stars. The distances were at first assumed from Van Maanen's measures, but the recent discovery of Cepheids in the spirals indicates a much greater distance for them, and the masses of the condensations are increased from 3 sun to 16 sun. The only revision of his earlier work that he finds necessary is to conjecture that the radiation of the nebula as a whole is governed by different laws from that of the stars formed from it. The new-born stars are not necessarily giants: if the density of the nebula is as high as 10^{-16} , they will be dwarfs. It is conjectured that the group of nebulae near the galactic pole R.A. 12^h 37^m, N. Decl. 14°, may be of this character.

A MASSIVE SPECTROSCOPIC BINARY.—Orbits of many spectroscopic binaries are appearing regularly in the Publications of the Victoria Observatory. Vol. 3, No. 6 deals with an interesting star, No. 216014 in the Henry Draper Catalogue: its R.A. is 22^h 44.2^m, N. Decl. 64° 32', magnitude 6.8: spectrum Bo. The period is 2.3 days, and the minimum masses are 14.23 and 12.37 in terms of the sun, the probable values being half as great again, placing the system among the six most massive ones. The absolute magnitude is given as -2.67, implying a distance of 3400 light-years. The radial velocity of the system is -23.10 km./sec. The H and K calcium lines are sharp, and give a constant radial velocity of -26.28 km./sec. The component of the solar velocity is only -11.40 km./sec., so that the calcium cloud is not stationary with respect to the stellar system, as in some cases. It is conjectured to belong to the binary system, but to be 40 or 50 astronomical units from the stars, at which distance it would not show an oscillation. The diameters of the stars are estimated as 5.4 times that of the sun, giving a density of 0.08 sun. The relative orbital velocity is nearly 500 km./sec.