

apparatus and other expenses in connexion with the work. The tenure of the scholarships is one year, with possible renewal for a second or third year. Applications must be sent before April 1 to the Clerk of the Grocers' Company, Grocers' Hall, London, E.C.2, from whom a form of application and further information may be obtained.

CERTAIN of the members of the staff of the Rothamsted Experimental Station, Harpenden, Hertford, are available for a limited number of lectures to Chambers of Agriculture and Horticulture, Farmers' Clubs, Agricultural Societies, Farm Workers' Associations, and similar bodies, on the work being carried on at the Station. The subjects include various aspects of manuring and agricultural chemistry, physics and botany, the use of insecticides and fungicides, bee-keeping, and so on. All communications regarding lectures should be addressed to the Secretary of Rothamsted Experimental Station.

ACCORDING to the Report of the Council of the Zoological Society of London for December, the number of visitors to the Society's Gardens in Regent's

Park during the year 1924 reached the total of 2,057,146—the largest number in the history of the Society, and an increase of 444,021 as compared with the previous year. The number of visitors to the Society's Aquarium since its opening in April reached the total of 567,936. The number of fellows elected and readmitted during the year 1924 was 876, an increase of 374 as compared with the previous year, and a record never before reached in the history of the Society.

THE collection of antique microscopes, about 400 in number, formed by the late Sir Frank Crisp, Bart., is to be offered for sale by auction at Stevens's Auction Rooms, Ltd., 38 King Street, Covent Garden, W.C.2, on Tuesday, February 17. Catalogues can be had from the auctioneers.

It has been suggested recently that Messrs. Oertling, Ltd., are importing parts of German balances and merely assembling them in Great Britain. We understand that this is quite untrue. All Messrs. Oertling's balances are manufactured entirely at the firm's works in Turnmill Street, E.C.1.

Our Astronomical Column.

THE SOLAR ECLIPSE OF JANUARY 24.—Preparations were made at Greenwich for observing the first contact by the Innes method with several instruments, but thick clouds interfered. There were frequent glimpses of the partially eclipsed sun, but nothing could be done except to note the change of illumination and of the colour of daylight. The latter changed markedly near greatest phase, the cause, doubtless, being the absorption of light of short wave-length near the sun's limb. There were some beautiful spectral colours on clouds near the sun.

It is very welcome news that the conditions at the Yale Observatory, Newhaven, and elsewhere on the east coast of the United States, are described as perfect, and the photographs obtained there should be of great interest. The following time determinations of totality are given in the telegrams (the figures are the corrections to the times computed from the almanac data): Yale +4^{sec}, Buffalo -2^{sec}, Ithaca +5^{sec}, Poughkeepsie +3^{sec}, Newhaven +5^{sec}, Long Island +3.6^{sec}. Mean +3^{sec}. The almanacs used a correction of +8.0" to Brown's longitude (corresponding with +7.0" to his mean longitude), but used no correction for the sun, which requires about +1", or +2^{sec} in the time of eclipse. Hence it would appear that the correction applied to the moon was within 1" of the truth, but perhaps slightly too great.

The country round New York was covered with snow, and the passage of the moon's shadow over this white surface, which was clearly seen, must have been a striking sight. On the whole, the weather in the United States seems to have beaten expectations, which were not high owing to the season.

OCCULTATION AND LUNAR ECLIPSE.—It is worth directing attention to the fact that the occultation of Aldebaran on February 2 is the last (at least for the neighbourhood of London) of the series that have been going on for some three years. It will be followed by a blank period of nearly sixteen years. Disappearance is at 23^h 54^m, 4 hours west of the meridian, and reappearance 53 minutes later. In view of Prof. Brown's appeal, and the facilities for

accurate time afforded by wireless, it is hoped that it will be extensively observed.

The lunar eclipse of February 8, lasting from 20^h 8^m to 23^h 15^m, will be favourably visible in Great Britain, the moon being high up. Three-quarters of the moon's diameter will be obscured, and it may be possible to form some idea of the colour and illumination of the portion in the shadow. These are now believed to depend on the meteorological conditions prevailing at the regions where the moon is in the horizon, so that they give a sort of integrated effect of terrestrial weather.

THE NEW WOLF PERIODIC COMET.—Although this object was of mag. 17 on January 13, Prof. M. Wolf was able to make some interesting observations of its physical structure. "It was a small nebulous object of fan or sector shape, $\frac{3}{4}$ ' in width, somewhat less in height, with nuclear condensation in the point of the sector which was towards S.S.E." This structure and the cometary nature of the orbit leave no doubt that it is correctly classed as a comet. The following orbit is by Dr. A. C. D. Crommelin from the photographic positions of December 22, January 13 (Heidelberg), and December 26 (Greenwich):

T	1925, January 23.9624 G.M.T. (new)
ω	184° 8' 27"
Ω	260 36 36 } 1924.0
i	23 7 9
ϕ	21 57 47
μ	472.951"
Period	7.5022 years.

An ephemeris is of little use, for very few instruments can reach so faint an object.

There is a very near approach of the orbit at aphelion to that of Jupiter. There is no near approach at the next aphelion (nor has there been any in recent revolutions), but there will be a fairly close approach at the next aphelion but one. Similar elements were obtained by Herr Kahrstedt, who gave the period as 7.43 years.