

THE *Bulletin Pharmaceutique* states that a new remedy for Phylloxera has been discovered by M. Laffon, of Capendu, and it has proved successful. It consists of a weak solution of nitrate of mercury.

THE additions to the Zoological Society's Gardens during the past week include a Red-winged Parrakeet (*Aprosmictus erythropterus*); eight Peaceful Doves (*Geopelia tranquilla*) from Australia, presented by the Hon. Stormont Finch-Hatton; a Fulmar Petrel (*Fulmarus glacialis*) from Norfolk, presented by Mr. H. M. Upcher, F.Z.S.; a Jardine's Parrot (*Psecephalus guillemi*) from West Africa, received in exchange.

OUR ASTRONOMICAL COLUMN.

THE ROYAL ASTRONOMICAL SOCIETY'S MEMOIRS.—The first part of vol. xlix. of the Memoirs of the Royal Astronomical Society has just been published, and contains a new General Catalogue of nebulae, by Dr. J. L. E. Dreyer. Sir John Herschel's General Catalogue, published in the Philosophical Transactions for 1864, was almost entirely founded upon his own and his father's observations, and hence, since several observers have devoted themselves to the work of searching for nebulae since that catalogue was prepared, the number known to us has been very largely increased. D'Arrest's great work on nebulae, which appeared three years later than the General Catalogue, gave the means of correcting many of its positions, and hence Dr. Dreyer had been induced as early as 1876 to compile a supplement to the General Catalogue, which he published in the Transactions of the Royal Irish Academy in 1878 (vol. xxvi.), containing a list of corrections to it, and a catalogue of recently-discovered nebulae. In 1886, Dr. Dreyer presented a second similar supplement—in which the later discoveries of Messrs. Stephan, Swift, Ormond Stone, and other observers had been incorporated—to the Council of the Royal Astronomical Society; but the Council, considering that the General Catalogue was practically out of print, and that the use of three catalogues and two lists of corrections would be very inconvenient, proposed to Dr. Dreyer that he should prepare from the whole of his materials a single new General Catalogue. This work he has now carried out, and the present catalogue contains 7840 objects, the positions of which have been as thoroughly corrected and revised as the materials available permitted. The epoch of the first General Catalogue, and of D'Arrest's final positions—1860—has been retained, as it is close to the epochs of the great star-charts of Argelander, Schönfeld, Chacornac, and Peters, and nearly all the modern micrometric observations of nebulae are referred to an epoch but little later. The precessions have been given for 1880, as done by Sir John Herschel, and the descriptions have been carefully revised. The work also contains an index to published figures of nebulae and clusters, and an appendix giving the places of several new nebulae discovered by Prof. Safford and Mr. Swift, but published too late to be incorporated in the catalogue itself. These are added that the volume may contain a complete record of all nebulae of which the places have been published up to December 1887.

PUBLICATIONS OF DUNSINK OBSERVATORY.—The sixth part of the observations of the Observatory of Trinity College, Dublin, at Dunsink, has just been published, and contains the separate results reduced to 1885.0, and the mean places for 1012 southern stars observed with the transit circle by Dr. Dreyer, the late, and Mr. Rambaut, the present, Assistant Astronomers. These stars are nearly all in the Southern Durchmusterung Belt, between S. Decl. 2° and 23°, and were suggested for observation by Prof. Schönfeld on account either of their proper motion or of discordances between their places as given in different catalogues. A few other stars were observed either at the request of Prof. Peters or Dr. Auwers. The work had been commenced by Dr. Dreyer in September 1881, who continued it until his appointment to the Armagh Observatory in May 1882, and Mr. Rambaut took it up, on succeeding to Dr. Dreyer's position, in November of the same year. Mr. Rambaut gives the probable error of a single observation—most of the stars were observed only once—as ± 0.065 in R.A., ± 0.0864 in Decl.; the faintness of the objects and their low altitude at meridian passage making observation somewhat difficult. A plate at the end of the volume shows a portion of one of the chronograph sheets, and

illustrates a convenient method of making notes whilst at the telescope by sending special signals to the chronograph.

ROUSDON OBSERVATORY.—Astronomical observations have been steadily carried on during the past year at Mr. Peek's private observatory, Rousdon, Lyme Regis. The principal work undertaken, besides transit observations for time, has been the observation of twenty long-period variable stars. It is proposed, so soon as any star has been observed over several complete periods, to publish a memoir with plates showing the variations in the light curve. The record of the Observatory shows that there were 165 good observing nights in 1887, as against 146 in 1886.

β DELPHINI.—Mr. J. E. Gore published two years ago elements for this difficult and interesting binary (NATURE, vol. xxxiii. p. 518), in which he gave the period as 30.91 years, a value fairly corresponding to that found by Dubiago a couple of years earlier, viz. 26.07. Sig. Celoria having been placed in possession of Prof. Schiaparelli's observations made in 1875 and 1886-87, and those of Engelmann made in 1885 and 1886, has re-investigated the orbit, and deduced elements differing widely from these two earlier sets, particularly in the period, which he finds to be a little short of seventeen years (*Astr. Nachr.* No. 2824). If this last orbit be correct, the star has already been watched through nearly a complete revolution. There is, however, a considerable divergency between the recent observations of Schiaparelli and Engelmann, and those of the latter would accord better with a longer period. It is, therefore, much to be desired that astronomers who possess sufficient optical power should give early and careful attention to this star. The following are Sig. Celoria's complete elements:—

| | | |
|---------------------------------|-----|----------------------|
| T = 1868.850 | ... | $\epsilon = 0.09622$ |
| $\Omega = 10^{\circ} 9' 38''$ | ... | $\alpha = 0.46000$ |
| $\lambda = 220^{\circ} 9' 52''$ | ... | P = 16.955 years |
| $\gamma = 61.582$ | | |

OLBERS' COMET.—The following ephemeris for Berlin midnight is in continuation of that given in NATURE, vol. xxxvii. p. 234:—

| 1888. | R.A. | Decl. | Log r. | Log Δ . | Bright- ness. |
|------------|----------|-----------|--------|----------------|------------------|
| Feb. 11... | h. m. s. | ° ' " S. | ... | ... | ... |
| 11... | 17 46 35 | 6 5' 7 S. | 0.3320 | 0.3974 | 0.29 |
| 13... | 48 57 | 6 17.2 | | | |
| 15... | 51 15 | 6 28.4 | 0.3394 | 0.3970 | 0.28 |
| 17... | 53 28 | 6 39.3 | | | |
| 19... | 55 36 | 6 50.0 | 0.3477 | 0.3962 | 0.27 |
| 21... | 57 39 | 7 0.4 | | | |
| 23... | 59 36 | 7 10.7 | 0.3558 | 0.3951 | 0.26 |
| 25... 18 | 1 28 | 7 20.8 | | | |
| 27... | 3 15 | 7 30.7 S. | 0.3638 | 0.3936 | 0.25 |

The brightness on 1887 August 27 is taken as unity.

NEW MINOR PLANET.—A new minor planet, No. 272, mag. 13, was discovered by M. Charlois, of the Nice Observatory, on February 4.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1888 FEBRUARY 12-18.

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24. is here employed.)

At Greenwich on February 12

Sun rises, 7h. 22m.; souths, 12h. 14m. 28.6s.; sets, 17h. 7m.; right asc. on meridian, 21h. 42.4m.; decl. 13° 46' S. Sidereal Time at Sunset, 2h. 36m.
Moon (New, February 12, oh.) rises, 7h. 47m.; souths, 12h. 41m.; sets, 17h. 43m.; right asc. on meridian, 22h. 9.2m.; decl. 13° 19' S.

| Planet. | Rises. | | Souths. | | Sets. | | Right asc. and declination on meridian. | |
|--------------|--------|-------|---------|---------|-------|-------|---|--|
| | h. m. | h. m. | h. m. | h. m. | h. m. | h. m. | ° ' " | |
| Mercury.. | 7 54 | 13 19 | 18 44 | 22 47.5 | 7 39 | 5 | | |
| Venus ... | 5 37 | 9 41 | 13 45 | 19 8.2 | 21 38 | 8 | | |
| Mars ... | 22 59* | 4 20 | 9 41 | 13 46.6 | 8 18 | 8 | | |
| Jupiter ... | 2 27 | 6 42 | 10 57 | 16 9.1 | 20 4 | 8 | | |
| Saturn ... | 14 51 | 22 46 | 6 41* | 8 15.4 | 20 22 | N. | | |
| Uranus... 22 | 4* | 3 37 | 9 10 | 13 3.9 | 6 4 | S. | | |
| Neptune.. | 10 33 | 18 13 | 1 53* | 3 41.6 | 17 55 | N. | | |

* Indicates that the rising is that of the preceding evening and the setting that of the following morning.