

depressions, coming up from the Adriatic, as those of late summer seem to be on the south or south-east border of Atlantic depressions.

BETHNAL GREEN FREE LIBRARY has been doing a large amount of good work in the thickly-populated district in which it is situated, not only by giving facilities for reading books, but by science lectures and science "talks." It is much in want of funds for the extension of operations, and we commend it to the consideration of our readers. The librarian is G. F. Hilcken.

THE additions to the Zoological Society's Gardens during the past week include a Bonnet Monkey (*Macacus sinicus*) from India, presented by Miss G. M. Fisher; a Hedgehog (*Erinaceus* —) from Madras, presented by Mr. H. R. P. Carter; two Mute Swans (*Cygnus olor*), European, a Common Peafowl (*Pavo cristatus*) from India, presented by Lady Siemens; a Red and Yellow Macaw (*Ara chloroptera*) from South America, presented by Mr. Arthur Daunt; a Grey Parrot (*Psittacus erithacus*) from West Africa, presented by Mrs. Greenwood; five Great Eagle Owls (*Bubo maximus*), European, presented by Mr. Philip Crowley, F.Z.S.; a Common Guillemot (*Lomvia uoile*), British Islands, presented by Mr. J. H. Gurney, F.Z.S.; two Gambel's Partridges (*Callipepla gambelli*) from California, presented by Mr. W. A. Conklin, C.M.Z.S.; a Malabar Green Bulbul (*Phyllornis aurifrons*) from India, received in exchange; five Great Titmice (*Parus major*), four Blue Titmice (*Parus caeruleus*), two Bullfinches (*Pyrrhula europæa*), European, purchased.

OUR ASTRONOMICAL COLUMN

THE ARGENTINE GENERAL CATALOGUE OF STARS.—This Catalogue, containing the mean positions of 32,448 southern stars determined at the National Observatory of Cordoba, has recently been published by Dr. Gould. The observations from which the Catalogue positions are deduced were made with the meridian-circle of the Cordoba Observatory during the years 1872-80. During these years the zone-observations were the chief object of attention, and the present Catalogue contains the places of those stars whose positions were more elaborately determined during the progress of that great work, and constitute an addition to our knowledge of southern stellar positions of perhaps not less importance than the Cordoba Zone-Catalogue. The General Catalogue gives the positions, for the epoch 1875.0, of most of the southern stars brighter than magnitude 8½, the deficiencies in this respect being chiefly found north of the parallel of 23°, at which the zones begin. These omissions will be of comparatively small importance, inasmuch as the new *Durchmusterung* of Prof. Schönfeld comprises all the southern stars within this region, while accurate determinations of the brighter ones will have been made in the re-observation of Lalande's stars now nearly completed at the Paris Observatory.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1886 DECEMBER 5-11

(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 December 5

Sun rises, 7h. 51m.; souths, 11h. 50m. 51'4s.; sets, 15h. 50m.; decl. on meridian, 22° 25' S.; Sidereal Time at Sunset, 20h. 47m.

Moon (two days after First Quarter) rises, 13h. 30m.; souths, 19h. 35m.; sets, 1h. 51m.*; decl. on meridian, 0° 19' N.

| Planet | Rises h. m. | Souths h. m. | Sets h. m. | Decl. on meridian |
|---------|----------------|-----------------|---------------|-------------------|
| Mercury | 7 16 | 11 32 | 15 48 | 19 53 S. |
| Venus | 7 54 | 11 53 | 15 52 | 22 27 S. |
| Mars | 10 19 | 14 10 | 18 1 | 23 45 S. |
| Jupiter | 3 34 | 8 49 | 14 4 | 9 41 S. |
| Saturn | 18 35* | 2 38 | 10 41 | 21 29 N. |

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

Occultations of Stars by the Moon (visible at Greenwich)

| Dec. | Star | Mag. | Disap. | Reap. | Corresponding angles from vertex to right for inverted image |
|------|-------------|------|--------|---------------|--|
| | | | h. m. | h. m. | |
| 5 | 14 Ceti | 6½ | 16 52 | near approach | 358° |
| 10 | 48 Tauri | 6 | 5 52 | 6 38 | 105 339 |
| 10 | B.A.C. 1526 | 6 | 22 29 | 23 44 | 78 292 |

Saturn, December 5.—Outer major axis of outer ring = 45"·4; outer minor axis of outer ring = 17"·7; southern surface visible.

Variable Stars

| Star | R.A. | Decl. | h. m. | h. m. |
|-------------|---------|----------|---------|------------|
| U Cephei | 0 52·2 | 81 16 N. | Dec. 8, | 1 46 m |
| Algol | 3 0·8 | 40 31 N. | „ | 6, 23 15 m |
| ζ Geminorum | 6 57·4 | 20 44 N. | „ | 9, 20 5 m |
| ν Geminorum | 7 16·8 | 13 19 N. | „ | 7, 5 0 m |
| U Coronæ | 15 13·6 | 32 4 N. | „ | 7, 0 32 m |
| β Lyræ | 18 45·9 | 33 14 N. | „ | 11, 19 0 m |
| S Vulpeculæ | 19 43·7 | 27 0 N. | „ | 6, m |
| T Aquarii | 20 43·9 | 5 34 S. | „ | 5, M |
| δ Cephei | 22 24·9 | 57 50 N. | „ | 7, 0 0 m |
| | | | „ | 10, 19 0 m |

M signifies maximum; m minimum.

Meteor-Showers

The principal shower of the week is that of the *Geminids*; R.A. 105°, Decl. 32° N., but moonlight will interfere with its observation at the time of its maximum, December 10-11.

Stars with Remarkable Spectra

| Star | R.A. 1886° | Decl. 1886° | Type of spectrum |
|-----------------|------------|-------------|------------------|
| | h. m. s. | ° ' " | |
| 20 Leporis | 5 6 3 | 11 59·4 S. | III. |
| 119 Tauri | 5 25 32 | 18 30·5 N. | III. |
| 64a Schjellerup | 5 38 52 | 20 38·8 N. | IV. |
| α Orionis | 5 48 59 | 7 23·1 N. | III. |
| π Aurigæ | 5 51 27 | 45 55·5 N. | III. |

THE ROYAL SOCIETY¹

FOR many years it has been my duty as senior secretary to read at each anniversary the death-roll of the year. The names this year are perhaps slightly fewer than usual, but many recall to us faces once familiar that we shall never see here again. Earliest among them comes Sir Frederick Evans, whose death took place only very shortly after our last anniversary. In the course of the preceding summer he crossed the Atlantic to take part in that International Conference which assembled at Washington, to deliberate among other things on the choice of a common prime meridian for all civilised nations. On his return he was looking ill, and the illness increased until it carried him away. Yet even through his illness he kept on working at science, at a task he had undertaken, and which was almost completed when he died. To this I shall have occasion to refer again. In Mr. Busk we have lost one who has long been among us, and who took an active part in the scientific business of the Society. He repeatedly served on our Council, and both then and subsequently gave us the benefit of his extensive knowledge and sound judgment in the important but laborious task of advising the Committee of Papers as to the proper mode of dealing with papers which they referred to him. In Lord Cardwell we have lost a statesman whose political duties did not prevent him from coming among us and serving on our Council. The public services and singular honesty and straightforwardness of Mr. Forster are appreciated by the nation at large. Quite recently, at no advanced age, we have lost Prof. Guthrie, the occupant of a chair which a great many years ago I held for a time; a man whose genial character drew around him a close circle of friends. Still more recently we have lost the Earl of Enniskillen, whose fine palæontological collections are well known to geologists. Only the other day one passed away whom we seldom missed at our anniversary meeting, and who was frequently with us on other occasions: I allude to General Boileau, whose philanthropic labours will not soon be forgotten, and may, I trust, be recognised in a much needed form.

The Fellows will have noticed with satisfaction a very con-

¹ Anniversary Address by Prof. G. G. Stokes, President, on Tuesday, November 30, 1886.