Guiana, a Sun Bittern (*Eurypyga helias*) from South America, a Thick-necked Tree Boa (*Epicrates cenchris*) from West Indies, purchased; three Long-fronted Gerbilles (*Gerbillus longifrons*), born in the Gardens.

OUR ASTRONOMICAL COLUMN

AN OBSERVATION OF NEPTUNE OCCURRING IN LAMONT'S ZONES.—Mr. Hind pointed out in the *Astronomische Nachrichten*, No. 712, two cases of observations of Neptune occurring in Lamont's zones, in which the planet was mistaken for a star. The dates of these two observations are respectively October 25, 1845, and September 7, 1846. Prof. Schönfeld, in No. 2716 of the same publication, draws attention to a third instance in which an observation of the planet occurs in these zones. The date of this observation is September 11, 1846. It will be remembered that Neptune was optically discovered by Galle on September 23, 1846. Prof. Schönfeld thinks it advisable to give publicity to his discovery, lest at any time an astronomer should be led to think that this object, which is entered as No. 3818 in the Catalogue in the Munich Supplementband xii. (generally designated Lamont 5), was a "temporary" star.

THE ARMAGH OBSERVATORY.—We are glad to learn from a report recently issued by Dr. Dreyer, that an equatorial refractor by Mr. Grubb, having an excellent object-glass of 10 inches aperture, and 10 feet focal length, has been installed in the "Robinson Memorial Dome," erected by the same artist. The instrument has already been brought into use, and a series of micrometric observations of nebulæ has been commenced. We trust therefore that, under Dr. Dreyer's superintendence, the Armagh Observatory is now entering on a career of observational activity which will restore it to the position which it has formerly held as one of the foremost institutions of its kind in the British Isles.

DISTRIBUTION IN LATITUDE OF SOLAR PHENOMENA.—M. Tacchini, in a note appearing in the *Comptes rendus*, vol. cii. No. 11, gives a table showing the distribution in heliographic latitude of the various classes of solar phenomena in 1885. The table is remarkable as still further accentuating the difference seen at the present time in the behaviour of sunspots and prominences (NATURE, Feb. 25, p. 398). Not only have the prominences shown little or no diminution in dimensions or frequency during the past year, whilst sunspots and faculæ have notably declined, but the prominences are still detected in every latitude from pole to pole, whilst spots, faculæ, and metallic eruptions are confined almost entirely, the spots entirely, to latitudes lower than 40°, and in the great majority of instances to latitudes lower than 20°. The zones showing the greatest frequency for prominences are placed considerably further from the equator. There is also a difference in the proportionate distribution of the different classes of phenomena between the two hemispheres, as the following table will show :—

	Northern hemisphere	Southern hemisphere
Prominences	0·478 ...	0·522
Faculæ	0·367 ...	0·633
Sunspots	0·336 ...	0·664
Metallic eruptions	0·325 ...	0·675

Thus whilst the southern hemisphere has been about twice as prolific in the last three classes as the northern, there has been a much smaller difference between the hemispheres in the matter of prominences. The result of the comparison, on the whole, tends to show that, whilst there is a close connection between spots and metallic eruptions, ordinary prominences are to a great extent independent phenomena; indeed whilst, as already mentioned, sunspots have declined during 1885, prominences have actually been more frequent in the zones in which sunspots have not been seen.

PROMINENCES AND MAGNETIC DISTURBANCES.—The connection between sunspots and magnetic disturbances having been clearly established, it would seem natural to infer from the preceding and other similar indications of the independence of sunspot and prominence activity that but little connection would be traced between individual prominence displays and terrestrial magnetism. A note by M. H. Wild, presented by M. Mascart, appearing in the *Comptes rendus*, vol. cii. No. 9, seems, however, to favour the idea of a somewhat close connection, four remarkable observations of prominence-changes made by M. Trouvelot having been found to synchronise fairly closely with magnetic disturbances. An examination of the magnetic traces at Greenwich has, however, shown that in only one case out of the four was there anything like a sharp disturbance, the movements in the other instances being of a very ordinary character. Further, M. Trouvelot has recently published a series of prominence-observations in the *Bulletin Astronomique* for January, and in no one of these instances was there anything like a magnetic disturbance to correspond to the great and remarkable prominence-change M. Trouvelot was observing in the sun.

DISPLACEMENT OF LINES IN SOLAR PROMINENCES.—The observations of M. Trouvelot above referred to deserve a very careful and detailed examination, as, if confirmed, they will go far to utterly overthrow the views at present held as to the significance of the displacement of lines in the spectra of sunspots and prominences. M. Trouvelot records displacements so extraordinary, that an entire prominence more than 3′ in height was rendered visible when wholly outside the (tangential) slit, which was nearly closed! Other similar phenomena are also recorded, only less astonishing. It is of the utmost importance that, if other spectroscopists have witnessed similar phenomena, they should not delay to publish their experiences, as it seems impossible that displacements of so peculiar a character can be due solely to the motion in the line of sight of the gases under examination. In the meantime it would seem more reasonable to suppose that M. Trouvelot had made some extraordinary error in his observations.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1886 MARCH 28—APRIL 3

(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 March 28

Sun rises, 5h. 46m.; souths, 12h. 5m. 6·6s.; sets, 18h. 24m.; decl. on meridian, 3° 4′ N.: Sidereal Time at Sunset, 6h. 48m.

Moon (one day after Last Quarter) rises, 2h. 19m.; souths, 6h. 48m.; sets, 11h. 19m.; decl. on meridian, 17° 54′ S.

Planet	Rises h. m.	Souths h. m.	Sets h. m.	Decl. on meridian ° ′
Mercury ...	5 53 ...	13 0 ...	20 7 ...	12 13 N.
Venus	4 11 ...	9 30 ...	14 49 ...	8 45 S.
Mars	15 16 ...	22 20 ...	5 24* ...	11 41 N.
Jupiter... ...	17 27 ...	23 38 ...	5 49* ...	1 23 N.
Saturn... ...	9 33 ...	17 45 ...	1 57* ...	22 49 N.

* Indicates that the setting is that of the following morning.

March h.
30 ... 2 ... Mercury stationary.

Variable-Stars

Star	R.A. h. m.	Decl. ° ′		h. m.	
U Cephei	0 52·2 ...	81 16 N. ...	Mar. 28,	19 14	*m*
R Sculptoris ...	1 21·7 ...	33 8 S. ...	,, 29,		*M*
S Ursæ Majoris ...	12 39·0 ...	61 43 N. ...	,, 30,		*m*
R Bootis	14 32·2 ...	27 14 N. ...	,, 28,		*m*
δ Libræ	14 54·9 ...	8 4 S. ...	,, 28,	5 10	*m*
			Apr. 1,	20 52	*m*
U Coronæ	15 13·6 ...	32 4 N. ...	Mar. 30,	0 11	*m*
W Herculis... ...	16 31·2 ...	37 34 N. ...	Apr. 3,		*m*
U Ophiuchi... ...	17 10·8 ...	1 20 N. ...	Mar. 29,	5 26	*m*
		and at intervals of		20 8	
X Sagittarii... ...	17 40·4 ...	27 47 S. ...	Mar. 31,	0 0	*m*
			Apr. 2,	21 30	*M*
W Sagittarii ...	17 57·8 ...	29 35 S. ...	,, 3,	2 20	*m*
U Sagittarii... ...	18 25·2 ...	19 12 S. ...	Mar. 30,	4 50	*m*
			Apr. 2,	4 50	*M*
β Lyræ	18 45·9 ...	33 14 N. ...	Mar. 31,	21 30	m_2
R Lyræ	18 51·9 ...	43 48 N. ...	,, 28,		*m*
η Aquilæ	19 46·7 ...	0 7 N. ...	Apr. 1,	2 20	*M*
R Sagittæ	20 8·8 ...	16 23 N. ...	,, 1,		*m*
δ Cephei	22 24·9 ...	57 50 N. ...	Mar. 28,	4 50	*m*

M signifies maximum; *m* minimum; m_2 secondary minimum.

Meteor Showers

Meteors from the following radiants may be looked for :—Near δ Ursæ Majoris, R.A. 180°, Decl. 60° N.; near β Bootis, R.A. 223°, Decl. 40° N.; near β Libræ, R.A. 226°, Decl. 8° S. Fireball date, April 2.

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