

A FRENCH translation of Prof. Romanes's "Mental Evolution in Man" is in course of preparation in Paris.

THE *Oesterreichische Botanische Zeitschrift*, now in its thirtieth year, is edited, from the commencement of the present year, by Dr. Richard R. von Wettstein.

AT the annual meeting of the Governors of Aberdare Hall, University College, Cardiff, which took place this month, the Executive Committee were able to submit a most satisfactory report. Several students had distinguished themselves by gaining scholarships both at the College and Hall; two had taken the B.A. degree (London); others had passed the Intermediate in Arts and matriculation examinations, among whom was Miss Moss, who took the twelfth place in Honours division, matriculation examination.

THE additions to the Zoological Society's Gardens during the past week include two Chinese Mynahs (*Acridotheres cristatellus*) from China, presented by Mrs. Rigby; a Rose-crested Cockatoo (*Cacatua moluccensis*) from Moluccas, presented by Miss Liming; a Long-tailed Copsychus (*Copsychus macrurus*, ♂) from India, two Silky Bower-Birds (*Ptilonorhynchus violaceus*, ♂ ♀) from Australia, a Blue and Yellow Macaw (*Ara ararauna*) from South America, deposited; two Squirrel Monkeys (*Chrysotrrix sciurea*) from Guiana, a Four-horned Antelope (*Tetracerus quadricornis*, ♂) from India, a South American Flamingo (*Phenicopterus ignipalliatu*s) from South America, purchased; a Gayal (*Bibos frontalis*, ♀), a Vulpine Phalanger (*Phalangista vulpina*), born in the Gardens.

OUR ASTRONOMICAL COLUMN.

OBSERVATIONS OF JUPITER.—An excellent series of eighty-four drawings of the planet Jupiter at different periods during the years 1881-86, made with the reflector of 3 feet aperture at Birr Castle Observatory by Dr. Boeddicker, has just been published in the form of a communication to the Royal Dublin Society (vol. iv. series 2, March 1889). Twenty-two of the drawings were made during the opposition of 1881-82, thirty-one during 1882-83, twenty-one during 1883-84, eight during 1884-85, and two during 1885-86. The drawings made at the telescope have been exactly reproduced by a photo-mechanical process in order to avoid the errors which might have arisen by the employment of the ordinary lithographic process. Throughout the descriptive notes a very convenient notation has been employed for reference to the various features. Dr. Boeddicker draws attention to the three observations of March 16, 1883, showing remarkable changes in the appearance of one of the belts during the course of an hour. The first drawing shows two detached patches, which, in the succeeding drawings, become the shadows of large cumulus-like clouds lying across the Jovian surface. It is suggested that these apparent changes may be simply due to the combination of the more obvious details with the finer ones after prolonged examination, and that the discrepancies between drawings made at the same time by different observers may thus be accounted for. Photography may be expected in the near future to overcome this difficulty.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1889 MARCH 31—APRIL 6.

(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 31

Sun rises, 5h. 38m.; souths, 12h. 4m. 8.2s.; sets, 18h. 30m.; right asc. on meridian, oh. 40.3m.; decl. 4° 21' N. Sidereal Time at Sunset, 7h. 7m.

Moon (New on March 31, 12h.) rises, 6h. 12m.; souths, 12h. 13m.; sets, 18h. 28m.; right asc. on meridian, oh. 49.2m.; decl. 0° 7' S.

Planet.	Rises.		Souths.		Sets.		Right asc. and declination on meridian.	
	h.	m.	h.	m.	h.	m.	h.	m.
Mercury..	5	17	10	47	16	17	23 23.3	6 35 S.
Venus....	6	4	14	16	22	28	2 52.9	22 52 N.
Mars.....	6	16	13	22	20	28	1 58.3	12 1 N.
Jupiter...	2	1	5	57	9	53	18 31.9	22 57 S.
Saturn....	12	49	20	28	4	7*	9 5.7	17 53 N.
Uranus ...	19	16*	0	42	6	8	13 16.3	7 21 S.
Neptune..	7	33	15	17	23	1	3 53.7	18 37 N.

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

April. h.  
2 ... 2 ... Mars in conjunction with and 5° 7' north of the Moon.  
3 ... 5 ... Venus in conjunction with and 11° 7' north of the Moon.

Variable Stars.

Star.	R.A.		Decl.		h.	m.
	h.	m.	h.	m.		
U Cephei ...	0	52.5	81	17 N.	Apr. 1,	4 15 m
Algol ...	3	10	40	32 N.	Mar. 31,	19 50 m
ζ Geminorum ...	6	57.5	20	44 N.	Apr. 4,	1 0 M
R Canis Minoris ...	7	2.6	10	12 N.	„	5, m
R Canis Majoris ...	7	14.5	16	11 S.	„	5, 19 47 m
and at intervals of 27 16						
U Monocerotis ...	7	25.5	9	33 S.	Apr. 6,	M
U Geminorum ...	7	48.5	22	18 N.	„	6, M
W Virginis ...	13	20.3	2	48 S.	„	2, 1 0 m
X Boötis ...	14	18.9	16	50 N.	„	1, M
δ Libræ ...	14	55.1	8	5 S.	„	2, 2 0 m
U Coronæ ...	15	13.7	32	3 N.	„	4, 4 30 m
8 Lyræ... ..	18	46.0	33	14 N.	„	3, 0 0 m <sub>2</sub>
R Lyræ ...	18	52.0	43	48 N.	„	5, m
δ Cephei ..	22	25.0	57	51 N.	„	2, 23 0 M

M signifies maximum; m minimum; m<sub>2</sub> secondary minimum.

Meteor-Showers.

	R.A.	Decl.	
Near γ Libræ ...	233	15 S.	Swift; long paths.
From Delphinus ...	305	12 N.	Slow; bright.

GEOGRAPHICAL NOTES.

AT the meeting of the Geographical Society on Monday two papers were read, both dealing with the Caucasus, midway between Kazbek and Elburz. Here the chain towers up in two great parallel crests, containing within a few square miles at least half a dozen peaks over 16,000 feet in height, an elevation probably reached nowhere else by the summits of the crystalline crest. Two of these peaks are recognized as the second and third summits of the Caucasus—Koshtantau, 17,091 feet; and Dychtau, 16,924 feet. One of the papers, by Mr. A. F. Mummery, described his ascent last summer of Koshtantau, while Mr. H. W. Holder dealt with the peaks of the neighbouring Bezingi Glacier. From Mujal, on the south-west of the Zanner Glacier, Mr. Mummery and his companion made their way round by the Thuber and Gvalda passes to Bezingi in order to make the ascent from that side. The arrangement of this part of the chain, Mr. Mummery states, is, from an Alpine point of view, very curious. There is a lofty ridge with occasional *aiguilles*, from the southern slopes of which stretch the great ice-fields of the Thuber, and there is a second and rather less lofty ridge to the north and parallel to it, from the northern flank of which flow the Basil-su and its various affluents. In the narrow trough between these two ridges lies the head of the Gvalda Glacier. Though seldom so clearly marked as in this instance, the same system of short parallel ridges may be traced throughout the whole central group, with the result that the upper and middle basins of the great glaciers are nearly always parallel to the main ridges, and it is only when the drainage from these catchment basins reaches the head of the lateral valleys that the ice sweeps round and flows away at right angles from the watershed. The Gvalda Glacier is probably the most important on the south side of the Caucasus, and far exceeds in size any on the south slope of the Alps. Its basin probably exceeds in extent that of the Glacier du Géant, to which it is not without a resemblance. The Caucasian glaciers in this part of the chain are