OUR ASTRONOMICAL COLUMN

THE BINARY STAR α CENTAURI.—Mr. E. B. Powell, to whose observations and calculations we are largely indebted for our present knowledge of the orbit of this celebrated binary, has recently published new elements giving the period as 87·438 years, the time of periastron passage at 1875·447, and eccentricity = 0·544. These elements appear to satisfy fairly the recorded equatorial measures made from 1834 to 1885 (as well as most of the ancient observations), with which Mr. Powell has compared them; but all the available observations have not been used—for instance, the Sydney measures subsequent to 1877 have been omitted, as some influence appears to have operated to throw out these measures from accord with those taken at other observatories. Mr. Powell considers that the evidence is tolerably strong against the period of α Centauri being only some seventy-six years (as given by the Downing-Elkin orbit), but thinks that in six or eight years, if careful measures be taken, the point will be settled as to whether the period is about seventy-six years or exceeds eighty-six years.

A NEW BELGIAN OBSERVATORY.—The Cointe Observatory, attached to the University of Liége, has been founded at the instigation of M. Folie for the purpose of affording instruction to the students in astronomy and geodesy, as well as of furnishing original observations. M. Folie is Director of this Observatory, as well as of the Royal Observatory at Brussels. The Cointe Observatory is furnished with a meridian circle by Cooke, the object-glass of the telescope of which is of 6 inches aperture, and the circle 0·8 metre in diameter. The Observatory also possesses a 10-inch refractor by Cooke, of the optical qualities of which M. Folie speaks in the highest terms. The astronomers attached to this institution are MM. L. de Ball and P. Ubaghs, the former of whom observes with the 10-inch equatorial, and the latter with the meridian circle. The Observatory is destined, we hope, to do good work in both these departments of astronomy.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1886 *MAY* 23–29

(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 May 23

Sun rises, 3h. 59m.; souths, 11h. 56m. 29·6s.; sets, 19h. 54m.; decl. on meridian, 20° 37′ N.: Sidereal Time at Sunset, 11h. 59m.

Moon (at Last Quarter on May 25) rises, 23h. 33m.*; souths, 4h. 8m.; sets, 8h. 48m.; decl. on meridian, 16° 38′ S.

Planet	Rises	Souths	Sets	Decl. on meridian
	h. m.	h. m.	h. m.	° ′
Mercury ...	3 25 ...	10 37 ...	17 49 ...	13 12 N.
Venus	2 35 ...	9 4 ...	15 33 ...	5 4 N.
Mars	12 10 ...	18 54 ...	1 38* ...	7 54 N.
Jupiter... ...	13 24 ...	19 42 ...	2 0* ...	2 53 N.
Saturn... ...	6 13 ...	14 25 ...	22 37 ...	22 48 N.

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

May	h.	
23 ...	20 ...	Jupiter stationary.
29 ...	13 ...	Venus at greatest distance from the Sun.

Variable Stars

Star	R.A. h. m.	Decl. ° ′		h. m.	
U Cephei	0 52·2 ...	81 16 N. ...	May 25,	3 18	*m*
U Monocerotis ...	7 25·4 ...	9 32 S. ...	,, 28,		*M*
U Ophiuchi... ...	17 10·8 ...	1 20 N. ...	,, 26,	2 16	*m*
			,, 26,	22 24	*m*
X Sagittarii... ...	17 40·6 ...	27 47 S. ..	,, 26,	2 25	*m*
			,, 29,	0 0	*M*
U Sagittarii... ..	18 25·2 ...	19 12 S. ...	,, 26,	2 25	*M*
			,, 29,	21 40	*m*
β Lyræ...	18 45·9 ...	33 14 N. ...	,, 28,	21 30	*m*
R Lyræ	18 51·9 ...	43 48 N. ...	,, 28,		*m*

M signifies maximum; *m* minimum.

Meteor Showers

The *Draconids*, radiant R.A. 280°, Decl. 54° N., and the *Cygnids*, R.A. 301°, Decl. 37° N., are due this week. Meteors from radiants near α Ursæ Majoris, R.A. 175°, Decl. 64° N.; in Lyra, R.A. 273°, Decl. 34° N.; and in Lacerta, R.A. 329°, Decl. 48° N., have also been observed at this season.

GEOGRAPHICAL NOTES

THE Kermadec Islands, which have during the past week been occupied by the orders of the Home Government by Admiral Tryon, Commander-in-Chief on the Australian station, are a group of rocky islets about 600 miles to the north-north-east from the North Island of New Zealand, and lying on the steamer route from Christchurch or Wellington to Fiji. They are due east of Norfolk Island. The principal islands of the group are Raoul or Sunday Island, the position of which is put at 29° 12′ S. and 178° 15′ W. It is described as about 12 miles in circumference, rugged and very steep, without an anchorage. It is said to be covered with wood, and to be uninhabited except for a few white men, waifs and strays from the ocean, shipwrecked sailors, deserters, &c. The other islands of the group are Macauley, the Curtis Islands, Havre, and Espérance.

AT the last meeting of the Geographical Society of Paris a letter was read from M. Borelli, who is at present travelling in that part of Eastern Africa where M. Barral has been murdered. M. Brettes, referring to his explorations of the Grand Chaco between the Argentine Republic, Bolivia, Brazil, and Paraguay, said he had discovered a great salt lake which he proposed to call Lake Crevaux, and three rivers, hitherto unknown, the most important of which would be called Rio Lesseps. M. de la Grye stated the propositions adopted by the committee appointed to study the reforms necessary for the adoption of a common international orthography for maps. These were—(1) any change for European countries is recognised as impossible; (2) in Asia, Africa, and America it is proposed that the French *u* should be replaced by the diphthong *ou*, the value of the French vowels *a*, *e*, *i*, *o* remaining unaltered; (3) in the geography of the Far East the sound of the *u* with a diæresis is represented by *oe*, *g* and *l* are always hard, *ch* is reproduced by *sh*, amongst the gutturals the soft ones are represented by *gh*, the hard by *kh*; (4) as far as possible, by the aid of this common alphabet, the most generally used pronunciation of places, towns, rivers, mountains, &c., shall be reproduced. Prof. Ersler of Copenhagen described the results of his investigations into the cartography of Denmark from the time of Ptolemy.

THE French staff officers are busy with the continuation of the Paris meridian to Laghouat, about 4° south of Algiers. When this work is finished this line will be measured with precision from the Orkneys to this locality. The length determined will not be far from 30°, or about three times its original extension, which was 10°, from Dunkirk to Formentera.

TWO Finnish *savants*, Drs. Hammarström and Ehnberg, have just returned to Helsingfors from a scientific journey in Eastern Siberia and China, whence they bring valuable scientific collections.

NEWS received from Baron Schwerin, the Swedish scientific explorer on the Congo, informs us that he landed from the Liverpool steamer in December last at the mouth of the River Chiloango, whence he proceeded on foot through the districts of Cacongo and Cabinda to Banana. During the journey along the coast the Baron succeeded in making many valuable observations of the shore-lines or terraces on the gradually-rising coast, and of the effects of the tide on the plastic formation of the sandy fore-shore. He also paid special attention to the study of the great influence which ocean currents exercise on the direction of the flow of rivers in their lowest course.

COUNT SAMUEL TELEKY is organising, at Pesth, an Expedition for the exploration of Central Africa; the fitting out will be completed by the end of May, and 100 well-armed men will reach Zanzibar in the course of June. Capt. Hähnel, of the Austrian Navy, will take part in the Expedition, and two boats will be taken out in pieces. It is believed here that the Expedition will not confine itself to scientific explorations only.

THE three numbers of the *Journal* of the Geographical Society of Tokio for last year which have been recently published do not contain much of special interest to English students of geography, although the papers could hardly fail to instruct a Japanese audience, which can hardly be expected to be as familiar with the colony of Victoria, or with the progress of Russia to the southward, as Western readers. The report of the Japanese delegate to the Prime Meridian Conference at Washington is also printed. Of special papers there are two: one on the Bonin Islands, called Ogasawarajima by the Japanese; another on the area within which Mount Fuji is visible.