

for this remark. On December 21, according to Halley's elements, the distance of the comet from the earth was only 0.14; on January 3 it had increased to 0.42.

The fact that the place of the ascending node of the comet of 1698, as it is printed in Halley's "Synopsis of Cometary Astronomy," is 180° in error, or, in other words, the place of the descending node has been given for that of the opposite one, furnishes a hint that it is not safe to accept a single calculation of the orbit of any of the earlier-computed comets without examination.

ASTRONOMICAL PHENOMENA FOR THE WEEK, 1885, AUGUST 30 TO SEPTEMBER 5

(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 August 30

Sun rises, 5h. 11m.; souths, 12h. om. 23'os.; sets, 18h. 49m.; decl. on meridian, 8° 52' N.; Sidereal Time at Sunset, 17h. 26m.

Moon (at Last Quarter on Sept. 2) rises, 20h. 28m.*; souths, 3h. 15m.; sets, 10h. 12m.; decl. on meridian, 8° 11' N.

Planet	Rises h. m.	Souths h. m.	Sets h. m.	Decl. on meridian
Mercury ...	6 1	12 17	18 33	2 28 N.
Venus ...	8 7	13 57	19 47	2 47 S.
Mars ...	0 36	8 48	17 0	22 50 N.
Jupiter ...	5 48	12 28	19 8	7 6 N.
Saturn ...	23 43*	7 52	16 1	22 25 N.

* Indicates that the rising is that of the preceding day.

Occultations of Stars by the Moon

Sept.	Star	Mag.	Disap.	Recap.	Corresponding angles from vertex to right for inverted image	
					h. m.	h. m.
1 ...	θ ² Tauri ...	4½	22	1	22 52	62 0
1 ...	θ ¹ Tauri ...	4½	22	2	22 51	82 227
1 ...	B.A.C. 1391 ...	5	23	1	23 32	117 189
1 ...	81 Tauri ...	5½	23	9	near approach	333 —
1 ...	85 Tauri ...	6	23	21	0 1†	20 284
2 ...	Aldebaran ...	1	1	40	near approach	154 —
2 ...	117 Tauri... ..	6	22	34	23 20	84 221
3 ...	B.A.C. 1728 ...	6	0	13	0 48	9 288
4 ...	26 Geminorum ..	5½	4	57	near approach	146 —
5 ...	68 Geminorum... ..	5½	0	58	near approach	323 —

† Occurs on the following day.

The Occultations of Stars are such as are visible at Greenwich.

Sept.	h.	Event
2 ...	18	Mercury in inferior conjunction with the Sun.
4 ...	3	Saturn in conjunction with and 4° 17' north of the Moon.
5 ...	7	Mars in conjunction with and 5° 33' north of the Moon.

GEOGRAPHICAL NOTES

SAD news has been received from the Dutch African Expedition; its leader, Mr. D. D. Veth, died from disease on May 19, in the camp on the banks of the Kala-Kanga River, between Benguella and Humpata. This is a real loss for science as well as to his venerable father, Prof. P. J. Veth, who has given his whole industrious life to scientific work.

THE Austrian Government, with the consent of the Porte, has undertaken to make a geographical survey of the Albanian coast, with a view to preparing new maps. Two Austrian gunboats have accordingly left for Corfu with officials of the Chart Department on board. Here they will be joined by the Turkish officers, under whose superintendence the survey will be made.

It is stated in the latest *Ergänzungsheft* to *Petermann's Mittheilungen*, that there are in Peking four institutions at which astronomical and meteorological observations have been made for a number of years: (1) the Chinese Observatory, called *Kuan sang tai*, which has existed for about six centuries. In 1674 the Jesuits provided it with new astronomical instruments, without lenses, which are well preserved to this day. It is situated on the eastern wall of the Manchu town. (2) Bethang, or the

Northern Church, the *Collegium Gallorum*, near the Imperial palace. Here in the middle of the eighteenth century the Jesuits erected an observatory, and made many astronomical observations, amongst them the transit of Venus of June 3, 1769. Besides these Père Amiot made meteorological observations for six years, from 1757 to 1762. (3) The Russian Legation, near the southern wall of the Manchu town. The astronomer Fuss, who made a great journey between 1830 and 1832 from St. Petersburg to Eastern Siberia, and by Kiachta to Peking, at the orders of the Academy of Sciences of St. Petersburg, spent seven months here, and organised astronomical, geographical, magnetic, and meteorological observations. (4) Beguan, about 300 metres from the north-eastern corner of the wall surrounding the Manchu city. Here the members of the Russian missionary body, and the native Christians under their direction, carried out a series of magnetic and meteorological observations between 1841 and 1860. In 1864 this Observatory was separated from the missionary establishment, and in 1867 the St. Petersburg Academy of Sciences selected Dr. H. Fritsche for its director, a position which he held for sixteen years. For twelve of these he lived in Peking, while the other four were spent for the most part in journeying through the Chinese Empire and Siberia, in order to inspect the meteorological stations and the three magnetic observatories at Ekaterinburg, Barnaul, and Nerchinsk, to establish new stations, and specially to obtain astronomical, geographical, and hypsometric observations in as large a number of places as possible. His investigations into the meteorology of Eastern Asia were published by the Academy in 1877, and he now publishes in the *Ergänzungsheft* above alluded to the results of his sixteen years' observations in other departments. He describes his numerous journeys in China, Mongolia, and Manchuria, and gives a mass of data with regard to the latitude and longitude of places, and their heights above the sea-level. There are also, in the second part of the paper, a large number of measurements connected with earth magnetism. The title of the paper, which is a long one, and represents a vast amount of travel and labour, is "Ein Beitrag zur Geographie und Lehre vom Erdmagnetismus Asiens und Europas," von Dr. H. Fritsche, *Petermann's Mittheilungen Ergänzungsheft*, No. 78.

IN the current number of *Petermann's Mittheilungen* the principal article is an account, historical and geographical, of "a lava desert in the interior of Iceland," and the largest lava area in Europe. The "desert" in question is situated in that part of the plateau in the interior which lies between the Vatnajökull and the rivers Skjálfaðaffjót and Jökulsá. It is known to the inhabitants of the neighbouring coasts as Odáðhraun. The author, Th. Thoroddsen, describes his journey from Myvatn in detail.—Prof. Neill explains Fischer's perspective projection for maps, and gives a map of Asia on this system; while Herr Flegel describes his journey in 1879 with the Henry Venn expedition to the Pico Grande from the Cameroons.

THE *Zeitschrift* of the Gesellschaft für Erdkunde at Berlin (Band 20, Heft 3) is almost wholly occupied with an account by Herr Schmidt of the travels of the friar Rubruk between 1253 and 1255 into the heart of Central Asia, and to the borders of China. This remarkable journey is described and explained with much painstaking learning. The only other contribution to the number is a table of lengths of the principal Russian rivers from General Tillo's survey.

FROM the latest reports the Australian New Guinea expedition appears to have progressed satisfactorily so far. The Government of Queensland had offered to hold frequent communication with the party by means of the steamer *Atvance*, with a view of obtaining information of the progress of the work of exploration. A branch of the Geographical Society of Australasia is to be formed at Brisbane.

A PARLIAMENTARY blue-book (Corea, No. 3, 1885) lately published contains the report of a journey made by Mr. Carles, the Vice-Consul at Seoul, from that place to Ph्योंg Kang, where some gold mines exist. These lie to the west of the main road between Seoul and Gensan, and were stated to be of greater extent than any existing in Corea. They are in the Ph्योंg Kang district, in the neighbourhood of the town of Pai-namou-tjang, about 100 miles from the capital. Part of the road lay across a vast lava-field, which appears to exceed in extent even the largest in Iceland. Between Chhöl-wón and Pai-namou-tjang, a distance of 40 miles, there is only one break in its bed, which Mr. Carles attributes to the action of