failed this autumn on the north and east coast, on account of the drift-ice, but they have been good on the south coast.

THE additions to the Zoological Society's Gardens during the past week include a Mongoz Lemur (*Lemur mongoz* δ), an Olive-gray Lemur (*Hapalemur olivaceus*) from Madagascar, presented by Capt. J. Bonnerville; an Anubis Baboon (*Cynocephalus anubis*); an Angolan Vulture (*Gypohierax angolensis*) from West Africa, presented by Capt. Augustus Kent; a Peregrine Falcon (*Falco peregrinus*), European, presented by Mr. J. G. Keulemans; a —— Scops Owl (*Scops* ——) from Balteitan, Himalayas, presented by Mr. John H. Leech, F.Z.S.; two Rough-scaled Zonures (*Zonurus cordylus*) from Robben Island, South Africa, presented by Mr. W. K. Sibley.

OUR ASTRONOMICAL COLUMN.

THE ASTRONOMICAL SOCIETY OF FRANCE.—The science of astronomy has become so increasingly popular in France within the last few years, and Frenchmen have done so much to aid its progress that there is ground for wonder that hitherto there has been no Society in France explicitly devoted to its interests. Such a Society, on lines very similar to those of our own Royal Astronomical Society, has at length been founded, and its first meeting was held on October 12, M. Camille Flammarion, the President, being in the chair. MM. Paul and Prosper Henry, General Parmentier, and M. E. L. Trouvelot are the Vice-Presidents; and MM. Gérigny and Gunziger the Secretaries; whilst Dr. Lescarbault, M. G. Secretan, and M. Ch. Trépied are amongst the members of Council. At the first meeting, M. Trouvelot read a paper on a remarkable double shadow of the first satellite of Jupiter, observed by him in 1877 when at Cambridge, U.S.; and M. Ch. Mousette exhibited a fine photograph of a sunspot, and some large-scale photographs of portions of the solar spectrum.

THE LICK OBSERVATORY.—The *Sidereal Messenger* for the current month states that Mr. E. E. Barnard, of Nashville, Tenn., and Mr. J. M. Schaeberle, of the Ann Arbor Observatory, both well known for their cometary discoveries, have been appointed as astronomers at this Observatory.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1887 NOVEMBER 20-26.

(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 November 20

Sun rises, 7h. 29m.; souths, 11h. 45m. 44·8s.; sets, 16h. 3m.: right asc. on meridian, 15h. 42·4m.; decl. 19° 42′ S. Sidereal Time at Sunset, 20h. 0m.

Moon (at First Quarter November 22, 11h.) rises, 12h. 15m.; souths, 16h. 43m.; sets, 21h. 18m.: right asc. on meridian, 20h. 41·0m.; decl. 17° 52′ S.

Planet.	Rises. h. m.	Souths. h. m.	Sets. h. m.	Right asc. and declination on meridian. h. m.	° ′
Mercury..	6 48 ...	11 22 ..	15 56 ...	15 18·5 ...	16 56 S
Venus ...	3 1 ...	8 48 ..	14 35 ...	12 44·5 ...	3 22 S.
Mars ...	1 6 ...	7 35 ...	14 4 ...	11 30·9 ...	5 1 N.
Jupiter ...	6 34 ...	11 10 ...	15 46 ...	15 6·7 ...	16 36 S.
Saturn ...	20 53*...	4 40 ...	12 27 ...	8 36·1 ...	19 0 N.
Uranus...	3 27 ...	9 2 ...	14 37 ...	12 58·2 ...	5 31 S.
Neptune.	15 8 ...	23 49 ...	7 30*...	3 47·4 ...	18 10 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).

Nov.	Star.	Mag.	Disap. h. m.	Reap. h. m.	Corresponding angles from vertex to right for inverted image. ° °
20 ...	B.A.C. 7202 ...	6 ...	16 46 ...	18 2	... 124 279
20 ...	B.A.C. 7209 ...	6½ ...	17 35 ...	18 32	... 159 259
20 ...	19 Capricorni ...	6 ...	20 30 ..	21 30	... 114 347
Nov.	h.		
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21 ...	1 ...	Mercury at least distance from the Sun.	
21 ...	6 ...	Neptune in opposition to the Sun.	
24 ...	10 ...	Venus in conjunction with and 1° 6′ north of Uranus.	
26 ...	23 ...	Mercury stationary.	

Variable Stars.

Star.	R.A. h. m.	Decl. ° ′		h. m	
U Cephei	0 52·3 ...	81 16 N. ...	Nov. 22,	1 48	*m*
R Arietis	2 9·7 ...	24 32 N. ...	,, 25,		*m*
λ Tauri...	3 54·4 ...	12 10 N. ...	,, 25,	5 40	*m*
U Ophiuchi	17 10·8 ...	1 20 N. ...	,, 22,	5 27	*m*
		and at intervals of		20 8	
β Lyræ...	18 45·9 ...	33 14 N. ...	Nov. 22,	6 0	*m*
η Aquilæ	19 46·7 ...	0 43 N. ...	,, 24,	22 0	*M*
S Sagittæ	19 50·9 ...	16 20 N. ...	,, 22,	19 0	*m*
			,, 25,	19 0	*M*
δ Cephei	22 25·0 ...	57 50 N. ...	,, 20,	21 0	*M*

M signifies maximum; *m* minimum.

Meteor-Showers.

	R.A. °	Decl. °	
The Andromedes ...	24 ...	44 N. ...	Very slow; with trains.
Near μ Ursæ Majoris.	155 ...	40 N. ...	Swift; streaks.

GEOGRAPHICAL NOTES.

THE Owen Stanley Range of New Guinea, which has been so long known at a distance, has at last been ascended. Mr. E. H. Martin, of Queensland, in August last, reached the summit of the range, which he found to be 13,205 feet high. He reports the north side of the range to be a paradise with great tree-ferns, palms, and other magnificent tropical vegetation. Mr. W. R. Cuthbertson, the leader of the Australian Geographical Society's Expedition, started for Port Moresby on July 20 last, with Mr. G. Hunter as interpreter. Mr. Cuthbertson has not yet succeeded in ascending to the highest point of the Owen Stanley Range, as he intended, but ascended Mount O'Bree, 10,240 feet.

IN No. xi. of *Petermann's Mitteilungen*, Dr. Paulitschke describes Captain Stuart King's journey into the country of the Ejssa and Gadabursi Somali, some 70 miles to the south of Zeyla, in 1886. The paper is accompanied by a map. Dr. von Jhering and P. Langhans conclude their long and elaborate memoir on the southern colonial region of Rio Grande do Sul. Dr. Hans Schinz, who has been so long in the Lake Ngami region, criticizes severely Mr. Farini's narrative of his journey to the Kalahari Desert, the conclusion being very adverse to the trustworthiness of Mr. Farini's narrative. Perhaps the most important contribution to this number is a beautiful map of the Russo Afghan frontier region, based upon the work of Colonel Holdich's Commission. It is remarkable that while Colonel Holdich's work is carefully locked up in the India Office as "confidential," so far as English geographers are concerned, it should be accessible to the geographers of other countries.

HERR KRAUSE has returned to the German settlement of Togo, on the Gold Coast, from his journey from Salaga through Dahomey. He has collected from 600 to 800 specimens of plants and seeds, a large number of insects, and numerous specimens of prehistoric articles found between Mosi and Timbuktu.

THE principal paper in the third part of this year's *Bulletin* of the Paris Geographical Society is an account of a journey made in 1881 by Count de Chavagnac, from Fez to Morocco, north-east to Mekenessa, and eastwards across the numerous wadis that run south into Wed Mellouja, and as far as Ajda. There is also a paper containing a good deal of useful information, and accompanied by an excellent map, on the ports of Tonquin, by M. J. Renaud. M. Dutreuil de Rhins concludes his useful summary of our knowledge of Eastern Tibet.

THE session of the Royal Geographical Society began on Monday, with a paper on Siam, by Mr. J. McCarthy, Superintendent of Surveys in Siam. Mr. McCarthy has been at work for seven years on the survey of Siam, and some of the results he described in his paper, and embodied in the map by which