

ASTRONOMICAL PHENOMENA FOR THE WEEK 1887 OCTOBER 9-15.

(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 October 9

Sun rises, 6h. 15m.; souths, 11h. 47m. 20'os.; sets, 17h. 19m.; decl. on meridian, 6° 15' S.; Sidereal Time at Sunset, 18h. 31m.

Moon (at Last Quarter October 10, 5h.) rises, 21h. 6m.*; souths, 5h. 6m.; sets, 13h. 9m.; decl. on meridian, 19° 54' N.

Planet.	Rises.	Souths.	Sets.	Decl. on meridian.
	h. m.	h. m.	h. m.	° ' S.
Mercury ...	8 10	12 58	17 46	14 30
Venus ...	4 9	10 5	16 1	1 34
Mars ...	1 32	8 48	16 4	13 49
Jupiter ...	8 27	13 19	18 11	13 52
Saturn ...	23 31*	7 20	15 9	19 16

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

Occultations of Stars by the Moon (visible at Greenwich).

Oct.	Star.	Mag.	Disap.	Reap.	Corresponding angles from vertex to right for inverted image.
			h. m.	h. m.	° ' "
11 ...	ζ' Cancrī	...	4 ½	3 48	343 299
12 ...	π' Cancrī	...	6 ½	5 57	near approach 323 —
13 ...	Regulus	...	1 ½	4 44	5 50
14 ...	χ Leonis	...	5	5 15	near approach 305 —

Oct.	h.	
10 ...	13	Venus stationary.
11 ...	15	Saturn in conjunction with and 1° 20' north of the Moon.
13 ...	8	Mars in conjunction with and 0° 19' north of the Moon.
14 ...	8	Mercury in conjunction with and 2° 58' south of Jupiter.
14 ...	14	Venus in conjunction with and 7° 52' south of the Moon.

Variable Stars.

Star.	R.A.	Decl.	h. m.
	h. m.	h. m.	h. m.
U Cephei ...	0 52'3	81 16 N.	13, 4 32 m
ζ Geminorum ...	6 57'4	20 44 N.	9, 21 0 m
S Canis Minoris ...	7 26'6	8 34 N.	13, M
S Herculis ...	16 46'8	15 8 N.	14, M
U Ophiuchi ...	17 10'8	1 20 N.	12, 3 11 m
		and at intervals of 20	8
X Sagittarii ...	17 40'5	27 47 S.	13, 0 0 m
			15, 21 0 M
U Sagittarii ...	18 25'2	19 12 S.	11, 0 0 m
			13, 23 0 M
η Aquilæ ...	19 46'7	0 43 N.	12, 21 0 m
S Sagittæ ...	19 50'9	16 20 N.	11, 22 0 m
			14, 22 0 M

M signifies maximum; m minimum.

Meteor-Showers.

	R.A.	Decl.	
	h. m.	h. m.	
Near γ Persei ...	44	55 N.	Slow.
,, 41 Arietis ...	45	26 N.	Swift.
,, τ Geminorum ...	103	33 N.	Swift; streaks.
	135	80 N.	Swift; streaks.

GEOGRAPHICAL NOTES.

M. SERRANO's recent expedition, and the second expedition which was organized by the Chilian Government in order to determine the watershed between the east and west coast of South America, have settled the most interesting fact that the high chain of the Andes in these regions does not form the watershed between the Atlantic and Pacific Oceans, but that it lies somewhat further east of it, on a plain about 500 metres high. The rivers which rise here and flow towards the Pacific have their source in small lakes, and pass through the Cordilleras in narrow gorges very difficult to penetrate. The land

from the eastern slope to the watershed which forms, according to Chilian reckoning, the boundary between Chili and the Argentine Republic, is pampa, and well adapted for cattle-breeding.

CONSUL PLUMACHER, of Maracaibo, in his last report says that the peninsula of Goajira, which forms the extreme north-western part of Venezuela, is chiefly remarkable for its entire abandonment into the hands of the Indians of the same name, who have succeeded up to the present day in preserving their absolute independence, recognizing no authority except that of their own chiefs. They are divided into different clans, or tribes, all, however, being of the same race, with similar language and customs, and the different divisions now existing are developments of individual families of the same general stock. The Venezuelan Government has contented itself with placing a military post on the frontier for the protection of the whites who, attracted by the fine grazing country, have established cattle-farms and small settlements in the neighbourhood. In spite of this precaution, the Indians at times combine in numbers of several hundreds, and make a raid into the civilized territory, retreating to their own domain with the plunder. The Indians know but little of agriculture, but engage largely in the breeding of cattle. Maize and vegetables are cultivated on a small scale, and cotton, which grows wild in some localities, gives exceptional returns when any attention is paid to its culture. The customs of the Goajiras are singular and interesting, and it is noticeable that their laws and usages have remained the same from time immemorial. One of their most striking customs is a complicated system of what is called by them "payment of tears and blood," and this is the principal cause of conflict between the clans. Among all savages revenge is a sacred duty, and as, according to Goajira ethics, an entire tribe is supposed to be responsible in the aggregate and individually for the acts of one of its own members, a trifling affair in the beginning may produce grave consequences ultimately. This is one of the reasons why it is dangerous for white men to enter the Goajira territory, as the Indians make no distinction of nationality, but consider all who are not of themselves as belonging to one great family, all the members of which are responsible for a real or fancied outrage committed by an individual, and any of whom are to be considered to a certain extent as a hostage for the conduct of the rest. By the payment of the compensation of tears and blood, any injury inflicted may be condoned, it being noticed that it is not the aggrieved individual who demands this payment, but his relatives, especially those on his mother's side, who are supposed to be of closer relationship than the family of his father. If an Indian accidentally wounds himself, breaks a limb, or meets with any similar accident, his mother's family immediately demand of him the "payment of blood," on the theory that, as his blood is also their own, he has no right to shed it without compensation. The relatives of the father also claim the payment of their tears, which is of less value. Even the friends who may have witnessed the accident are entitled to compensation for the grief into which they are plunged at seeing their companion suffer. To such an extreme is this system carried out, that should a child die in the absence of one of its parents, the one can demand from the other payment for the tears supposed to be shed over the occurrence.

MUCH attention has been attracted in Australia by the results achieved by Mr. Theodore Bevan in his recent exploring expedition in New Guinea (see NATURE, August 11, p. 351). From a letter addressed to the Times by Mr. Thomas Bevan (September 27) we learn that the New South Wales Government have placed at Mr. Theodore Bevan's disposal a suitable steam-launch for further investigation, while the Queensland Government have allowed him the services of a thoroughly competent surveyor, and have offered the use of the steamship Albatross to tow the launch over to New Guinea waters. An influential committee has been formed at Sydney for the purpose of promoting Mr. Bevan's work. It was expected that the new Expedition would start in the course of September. Mr. Bevan will carry on his investigations between 200 and 300 miles to the north-west of Port Moresby, and at a still greater distance from the site of the explorations now being made on the Owen Stanley Range by the Victorian branch of the Royal Geographical Society.

ANOTHER advance has been made by Australia towards the fitting out of an Antarctic Expedition. The Agent-General for