

Short abstracts of various papers read before the society are given in the *Transactions*.

A MISSION of thirteen youths, belonging to the best families in Cambodia, has arrived in Paris for the purpose of study. They have been placed under the care of M. Pavie, who has constructed a line of telegraphs between Siam and Cambodia. This is the first time since 1864 that Cambodians have come abroad for purposes of education.

THE additions to the Zoological Society's Gardens during the past week include a Vervet Monkey (*Cercopithecus lalandii* ♂) from South Africa, presented by Mr. George E. Crisp; a Malbrouck Monkey (*Cercopithecus cynosurus* ♂) from West Africa, presented by Miss Ethel O'Donoghue; a Kinkajou (*Cercoleptes caudivolutulus*) from Demerara, presented by Mr. John Carder; four Common Squirrels (*Sciurus vulgaris*), six Common Dormice (*Muscardinus avellanarius*), British, presented by Mr. Thomas Weddle; a Tennant's Squirrel (*Sciurus tennanti*) from Ceylon, presented by Miss Maude Bovill; two Vulpine Squirrels (*Sciurus vulpinus*) from North America, presented by Capt. E. E. Vaill; a Coypu (*Myopotamus coypus*) from South America, presented by Mrs. Amelia Appleton; a Robben Island Snake (*Coronella phocarum*) from South Africa, presented by the Rev. G. H. R. Fisk, C.M.Z.S.; two Sly Silurus (*Silurus glanis*), European, presented by the Marquis of Bath, F.Z.S.; a Red Lory (*Eos rubra*) from Moluccas, an Alexandrine Parrakeet (*Palæornis alexandri*) from India, deposited.

OUR ASTRONOMICAL COLUMN

PERIODICAL COMETS IN 1886.—Of the now somewhat numerous list of comets of short period, two will be due at perihelion in the ensuing year:—(1) The comet Tempel-Swift, or 1869 III. and 1880 IV., which is likely to return under circumstances that will render observations impracticable, so far at least as a judgment can be formed without actual calculation of the perturbations. (2) Winnecke's comet, last observed in 1875, its track in the heavens near the perihelion passage in December 1880 not allowing of the comet being seen at that return; the perturbations may be very sensible during the present revolution: neglecting their effect, the mean motion determined by Prof. Oppolzer, for 1880, would bring the comet to perihelion again about August 24<sup>th</sup>, under which condition its path would be as follows:—

	R.A.	Decl.	Distance from Earth
July 25 <sup>th</sup>	177 <sup>h</sup> 5 <sup>m</sup>	+10 <sup>o</sup> 2'	1 <sup>h</sup> 17'
Sept. 13 <sup>th</sup>	241 <sup>h</sup> 7 <sup>m</sup>	-24 <sup>o</sup> 9'	0 <sup>h</sup> 9 <sup>m</sup> 8'
23 <sup>th</sup>	246 <sup>h</sup> 1 <sup>m</sup>	-30 <sup>o</sup> 2'	0 <sup>h</sup> 6 <sup>m</sup> 4'
Oct. 3 <sup>th</sup>	264 <sup>h</sup> 8 <sup>m</sup>	-35 <sup>o</sup> 6'	0 <sup>h</sup> 6 <sup>m</sup> 4'
23 <sup>th</sup>	305 <sup>h</sup> 0 <sup>m</sup>	-36 <sup>o</sup> 0'	0 <sup>h</sup> 7 <sup>m</sup> 7'

The actual orbit of Winnecke's comet approaches very near to that of the planet Jupiter in heliocentric longitude 110<sup>o</sup>, at which point the comet arrives 720 days or 1<sup>h</sup> 97 years before perihelion passage, the distance between the two orbits is then less than 0<sup>o</sup> 06' of the earth's mean distance from the sun.

It is very possible, however, that the comet which may most interest astronomers in 1886 will be that observed in 1815, and known as Olbers' comet, which, according to the elaborate calculations of Dr. Ginzle, will again arrive at perihelion in December 1886. The most probable date that can be inferred from the observations of 1815, and the computation of planetary perturbations in the interval is December 16, but unfortunately the observations did not suffice to determine the mean motion in 1815 with precision, and consequently Ginzle found for the limits of the period of revolution 72<sup>h</sup> 33' and 75<sup>h</sup> 68 years, hence the comet may reach its perihelion many months earlier or later than the date given by calculation. Extensive sweeping ephemerides have been published, and it may not be too soon to direct attention to a search for the comet at the beginning of the next year, or as soon as the region in which its orbit is projected at the time can be advantageously examined.

A CATALOGUE OF 1000 SOUTHERN STARS.—Vol. iii. of "Publications of the Washburn Observatory" is to contain a

catalogue of 1000 stars between 18<sup>o</sup> and 30<sup>o</sup> of south declination, formed by Rev. Father Hagen and Prof. Holden from the observations of Prof. Tacchini at Palermo during the years 1867-69, which were printed in the *Bulletino* of that observatory between April, 1867, and July, 1869, and with which Prof. Holden says he became acquainted through M. Houzeau's *Vade-Mecum*. The stars observed are from the 6th to the 9th magnitudes, and the magnitudes appear to have been very carefully noted, while it is remarked that the positions are excellent. They are reduced to the year 1850, but the mean epoch of observation of each star is appended. The copy before us is a reprint from the above-named volume. Tacchini's observations were made with the Palermo meridian circle fully described in the *Bulletino*.

ASTRONOMICAL PHENOMENA FOR THE WEEK, 1885, NOVEMBER 1-7

(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 1

Sun rises, 6h. 56m.; souths, 11h. 43m. 40<sup>o</sup> 9s.; sets, 16h. 31m.; decl. on meridian, 14<sup>o</sup> 35' S.; Sidereal Time at Sunset, 19h. 15m.

Moon (two days after Last Quarter) rises, 0h. 13m.; souths, 7h. 20m.; sets, 14h. 14m.; decl. on meridian, 9<sup>o</sup> 37' N.

Planet	Rises	Souths	Sets	Decl. on meridian
	h. m.	h. m.	h. m.	
Mercury ...	7 57	12 22	16 47	18 <sup>o</sup> 25' S.
Venus ...	11 11	14 46	18 21	25 50 S.
Mars ...	23 54*	7 13	14 32	14 20 N.
Jupiter ...	2 55	9 9	15 23	2 2 N.
Saturn ...	19 45*	3 53	12 1	22 18 N.

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

Phenomena of Jupiter's Satellites

Nov.	h. m.	Nov.	h. m.
1 ...	6 48	6 ...	5 18
5 ...	5 1	7 ...	2 39
6 ...	3 0		

The Phenomena of Jupiter's Satellites are such as are visible at Greenwich.

Saturn, Nov. 1.—Outer major axis of outer ring = 44<sup>h</sup> 0'; outer minor axis of outer ring = 18<sup>h</sup> 9'; southern surface visible.

Nov.	h.	
1 ...	4 ...	Mars in conjunction with and 4 <sup>o</sup> 16' north of the Moon.
3 ...	7 ...	Mercury at greatest distance from the Sun.
3 ...	9 ...	Jupiter in conjunction with and 0 <sup>o</sup> 52' north of the Moon.
7 ...	21 ...	Mercury in conjunction with and 6 <sup>o</sup> 16' south of the Moon.

THE SCOTTISH METEOROLOGICAL SOCIETY

AT the annual meeting of this Society the Report of the Council stated that thirty-eight new members had been added to the Society during the year, and the membership now numbered 698. A new station had been established on the island of Fidra, at the mouth of the Firth of Forth, and that observations had been made for the Society at San Gorge, Central Uruguay. A large number of naturalists and others had availed themselves of the facilities for research offered by the Scottish Marine Station during the summer, there being thirteen working at the laboratories at the present time. Communications were now going on between the Council and several influential gentlemen in Glasgow, which it was hoped would result in the establishment of a permanent station for marine research on the Clyde. Mr. H. N. Dickson, of the Marine Station, communicated the results of experiments and observations which, during the past two months, he had been conducting at Granton, with the view of collecting data from which to determine the corrections to be applied to the readings of thermometers exposed in the ordinary Stevenson screen, in use in many places over the world. Having referred to the errors to which the ordinary screen gives rise, consequent on the varying atmospheric motion and radiation, he proceeded to say that his investigation was carried on chiefly by means of improved screens designed by Mr. John Aitken of Darroch, and that the dew points from the dry