

Australia, presented by Mr. R. Hall; two White-fronted Amazons (*Chrysotis leucocephala*) from Cuba, a Prince Albert's Curassow (*Crax alberti*) from Columbia, a Mexican Guan (*Penelope purpurascens*), obtained by purchase; a Herring Gull (*Larus argentatus*), British, presented by the Marchioness of Cholmondeley; a Tuberculated Iguana (*Iguana tuberculata*) from Brazil, presented by Mr. H. E. Blandford; a Chameleon (*Chamaleon vulgaris*), three Lacertine Snakes (*Cælopellis lacerlina*), and two Horseshoe Snakes (*Zamenis hippocrepis*) from Morocco, presented by Mr. Herbert E. White.

OUR ASTRONOMICAL COLUMN.

COMET 1888 *c* (BROOKS).—Dr. H. Kreutz has more recently computed for this comet more exact elements than those which he had obtained from the observations of August 9, 10, and 11. These later elements are based on observations made at Vienna on August 9, at Hamburg, August 14 and 24, and at Strassburg, August 19; aberration and parallax being corrected for.

T = 1888 July 31^h 25^m 11^s, Berlin M.T.

$\omega = 59^{\circ} 19' 25''$
 $\Omega = 101^{\circ} 32' 50''$ Mean Eq. 1888^o.
 $i = 74^{\circ} 12' 13''$
 $\log q = 9.955456$

Error of middle places (O - C),

August 14 ... $\Delta\lambda \cos \beta = - 3.5$; $\Delta\beta = - 3.2$
 19 ... + 3.3; - 3.4

Prof. A. Krueger (*Astr. Nach.*, No. 2855) has computed the following ephemeris for Berlin midnight from the foregoing:—

1888.	R.A.	Decl.	Log r.	Log Δ .	Bright- ness.
	h. m. s.	° ' "			
Sept. 21	14 57 40	21 13.7 N.	0.1084	0.2310	0.45
23	15 5 34	19 44.1			
25	15 13 7	18 16.4	0.1242	0.2456	0.39
27	15 20 22	16 51.0			
29	15 27 19	15 27.9 N.	0.1396	0.2611	0.34

The brightness on August 9 is taken as unity.

On August 11 the comet was observed at the Observatory of Algiers, and the nucleus was estimated as being about equal in brightness to a star of the tenth magnitude; the nebulosity was about 1' in diameter, and there was a faint tail in the direction of the diurnal movement. Prof. L. Boss, observing the comet at Albany, N.Y., estimated it on August 10 as of mag. 9, and on August 19, in bright moonlight, as mag. 11. The tail on August 10 was estimated as 10' in length, and was of the same breadth as the head.

DISCOVERY OF A NEW COMET, 1888 *e*.—Mr. E. E. Barnard, formerly of Nashville, Tennessee, now at the Lick Observatory, discovered a new comet on September 3 at oh. 33m. G.M.T., R.A. 6h. 52m. 16s., Decl. 10° 59' N. The comet is described as circular, 1' in diameter, of the eleventh magnitude, with tolerably well-defined nucleus, but with no tail. Dr. Kobold observed it at Strassburg on September 5 at 13h. 44' Im. G.M.T., R.A. 6h. 52m. 17s., Decl. 10° 49' 33" N.

COMET 1888 *d* (FAYE).—Placing the perihelion passage of this comet as 2.60d. later than given in Dr. Möller's elements, an alteration according well with the observations at Nice, August 9-17, Dr. H. Kreutz has computed (*Astr. Nach.*, No. 2856) the following ephemeris for it for Berlin midnight:—

1888.	R.A.	Decl.	Log r.	Log Δ .	Bright- ness.
	h. m. s.	° ' "			
Sept. 21	6 47 41	15 36 N.	0.2472	0.2244	1.33
23	6 51 59	15 16			
25	6 56 12	14 56	0.2489	0.2177	1.36
27	7 0 21	14 35			
29	7 4 24	14 14 N.	0.2509	0.2110	1.39

The brightness on August 9 is taken as unity.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1888 SEPTEMBER 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 September 23

Sun rises, 5h. 50m.; souths, 11h. 52m. 6.7s.; sets, 17h. 54m.; right asc. on meridian, 12h. 31m.; decl. 0° 20' S. Sidereal Time at Sunset, 18h. 6m.
 Moon (at Last Quarter September 28, 9h.) rises, 19h. 18m.*; souths, 2h. 0m.; sets, 8h. 54m.; right asc. on meridian, 2h. 9.5m.; decl. 7° 44' S.

Planet.	Rises.		Souths.		Sets.		Right asc. and declination on meridian.	
	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	
Mercury..	7 56	13 10	18 24	13 21.0	9 53	S.		
Venus ...	7 42	13 7	18 32	13 18.2	7 30	S.		
Mars ...	12 21	16 15	20 9	16 26.9	23 20	S.		
Jupiter ...	11 33	15 48	20 3	15 59.3	19 59	S.		
Saturn ...	1 34	9 6	16 38	9 16.4	16 40	N.		
Uranus... 7 18	12 51	18 24	13 2.0	5 57	S.			
Neptune.. 20 5*	3 52	11 39	4 2.0	18 57	N.			

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

Occultation of Star by the Moon (visible at Greenwich).

Sept.	Star.	Mag.	Disap.	Reap.		Corresponding angles from vertex to right for inverted image.
				h. m.	h. m.	
28	ζ ² Geminorum...	4	22 20	23 11	55 245	
Sept.	h.					
23	22					Mercury at greatest distance from the Sun.

Variable Stars.

Star.	R.A.		Decl.	h. m.
	h. m.	h. m.		
U Cephei ...	0 52.4	81 16 N.	Sept. 26,	4 33 m
ζ Geminorum ...	6 57.5	20 44 N.	" 24,	0 0 M
T Ursæ Majoris ...	12 31.3	60 6 N.	" 29,	4 0 m
R Boötis ...	14 32.3	27 13 N.	" 28,	m
δ Libræ ...	14 55.0	8 4 S.	" 27,	20 24 m
U Coronæ ...	15 13.6	32 3 N.	" 29,	20 31 m
U Ophiuchi ...	17 10.9	1 20 N.	" 25,	20 34 m
Z Sagittarii ...	18 14.8	18 55 S.	" 24,	19 0 M
β Lyræ ...	18 46.0	33 14 N.	" 24,	2 0 M
S Sagittæ ...	19 50.9	16 20 N.	" 27,	21 0 m
X Cygni ...	20 39.0	35 11 N.	" 29,	5 0 m
T Vulpeculæ ...	20 46.7	27 50 N.	" 28,	19 0 M
Y Cygni ...	20 47.6	34 14 N.	" 29,	20 0 m
δ Cephei ...	22 25.0	57 51 N.	" 23,	3 18 m
			" 26,	3 12 m
			" 27,	3 0 M

M signifies maximum; m minimum.

Meteor-Showers.

	R.A.	Decl.	
Near α Arietis ...	30	18 N.	
	105	50 N.	Very swift.
δ Draconis ...	290	70 N.	Swift.

THE INTERNATIONAL GEOLOGICAL CONGRESS.¹

I DEEPLY regret that, in consequence of his state of health, Prof. Huxley is unable to be present to-day to bid you welcome to England. But if one voice is here wanting, let me assure you that the unanimous voice of English geologists unites in the same sentiment, and also thanks you, gentlemen, our foreign colleagues, for having responded in a manner so flattering to the invitation of English geologists to meet this year in London. For in this assembly there are representative geologists from Germany, Austria, Belgium, Denmark, Spain, France, Holland, Hungary, Italy, Norway, Portugal, Roumania, Russia, Sweden, Switzerland, as well as from the United States, Canada, Mexico, the West Indies, the Argentine Republic, and Australasia. From all these countries eminent and illustrious men honour us with their presence, and are here to aid us by their

¹ Inaugural Address delivered by P. of. J. Prestwich, President of the Congress, on September 17, 1888. (Translated from the French.)