issued by Messrs. Palmer and Howe, of Manchester. It is called the *Chemical Trade Journal*, and is edited by Mr. George E. Davis. Two numbers have already appeared.

THE additions to the Zoological Society's Gardens during the past week include two Egyptian Jerboas (*Dipus ægyptius*) from Egypt, a Moorish Toad (*Bufo mauritanica*) from Tunis, presented by the Hon. Terence Bourke; a White-crowned Pigeon (*Columba leucocephala*) from the West Indies, presented by Lieut.-Colonel W. G. Dawkins; a Common Trumpeter (*Psophia crepitans*) from Demerara, presented by Mr. G. H. Hawtayne; a Crowned Horned Lizard (*Phrynosoma coronatum*) from Texas, presented by Mr. Claude A. Millard; two Egyptian Jerboas (*Dipus ægyptius*) from Egypt, deposited; two Cape Sparrows (*Passer arcuatus*), four Alario Finches (*Alario alario*) from South Africa, purchased; a Wapiti Deer (*Cervus canadensis*), born in the Gardens.

OUR ASTRONOMICAL COLUMN.

COMET 1887 *e* (BARNARD, MAY 12).—Dr. H. Oppenheim supplies the following improved elements for this comet in Dun Echt Circular No. 147:—

T = 1887 June 17·2209 Berlin M.T.

$\pi - \Omega$ = 15° 40′ 19″
Ω = 245 13 1 } Mean Eq. 1887·0.
ι = 17 31 52
log q = 0·14288

Ephemeris for Berlin Midnight.

1887.	R.A. h. m. s.	Decl. ° ′	Log Δ.	Log r.	Brightness.
June 13	16 13 43	7 50·3 S.	9·6006	0·1432	1·5
15	16 18 17	6 20·5			
17	16 22 51	4 53·9	9·6077	0·1429	1·5
19	16 27 26	3 30·8			
21	16 32 1	2 11·4 S.	9·6182	0·1433	1·4

The brightness on May 14 has been taken as unity.

MINOR PLANET NO. 266.—This object has received the name of Aline.

THE PARALLAX OF α TAURI.—Prof. Asaph Hall has published in the *Astronomical Journal*, No. 156, a determination of the parallax of this star deduced from measures of the position-angle and distance of the eleventh magnitude companion made with the Washington 26-inch refractor between October 2, 1886, and March 15, 1887. The resulting values of the relative parallax are: from measures of angle, $\pi = +0''{\cdot}163 \pm 0{\cdot}0409$, and from measures of distance, $\pi = +0''{\cdot}035 \pm 0{\cdot}0431$. The mean value of the parallax of α Tauri from these observations is therefore $\pi = +0''{\cdot}102 \pm 0''{\cdot}0296$. It will be remembered that M. O. Struve recently published a determination of the parallax of this star, referred to the same comparison-star, and found $\pi = +0''{\cdot}516 \pm 0''{\cdot}057$.

MADRAS MERIDIAN OBSERVATIONS.—A volume of Madras astronomical observations at last! In 1887 Mr. Pogson publishes the results of the meridian circle work during 1852, 1863, and 1864. A prefatory epistle addressed to Sir M. E. Grant-Duff, late Governor of Madras, speaks of "the removal of certain arbitrary and suppressive restrictions which have prevented me and my predecessors from attempting anything of the kind for considerably more than thirty years past," but gives the reader no more definite information as to the reason of this unparalleled delay in publication, nor why the Madras Observatory should have thus fallen from the high position which it formerly held. The instrument with which the observations now published were made is a transit-circle constructed by Messrs. Troughton and Simms, in consultation with the late Mr. Carrington. The object-glass is of 5½-inches aperture, and the circle of 42-inches diameter. It was brought into use in May 1862, and was devoted to the observation of stars down to the fifth magnitude, the moon and accompanying stars, Mars and comparison stars at successive oppositions, minor planets, and as many stars of more than 120° N.P.D. as could be found, not less than the eighth magnitude. The present volume contains star places only. The ledgers and catalogues of mean places for each year are given separately and take up much more space in printing than is necessary for mere annual results. Altogether 227 stars were observed in 1862, 782 in 1863, and 1000 in 1864. A comparison between the Madras places of time-stars and those of the Nautical Almanac (on the R.A.'s of which those of Madras depend) shows a good agreement in R.A., but in N P.D. a mean excess of the former of +0″·7, which "renders it certain that the Polar Distances will require some further small correction before being formed into a final general Catalogue."

ASTRONOMICAL PHENOMENA FOR THE WEEK 1887 JUNE 12-18.

(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 June 12.

Sun rises, 3h. 45m.; souths, 11h. 59m. 29·5s.; sets, 20h. 14m.; decl. on meridian, 23° 9′ N.: Sidereal Time at Sunset, 13h. 37m.

Moon (at Last Quarter on June 13) rises, 0h. 5m.; souths, 5h. 13m.; sets, 10h. 30m.; decl. on meridian, 10° 32′ S.

Planet.	Rises. h. m.	Souths. h. m.	Sets. h. m.	Decl. on meridian. ° ′
Mercury ...	4 46 ...	13 16 ...	21 46 ...	25 12 N.
Venus	7 4 ...	15 6 ...	23 8 ...	21 21 N.
Mars	3 2 ...	11 9 ...	19 16 ...	22 7 N.
Jupiter... ...	14 57 ...	20 16 ...	1 35* ...	8 51 S.
Saturn... ...	6 6 ...	14 11 ...	22 16 ...	21 49 N.

* Indicates that the setting is that of the following morning.

Variable Stars.

Star.	R.A. h. m.	Decl. ° ′		h. m.	
U Cephei	0 52·3	81 16 N.	June 13,	0 55	*m*
			,, 18,	0 35	*m*
R Crateris	10 55·0	17 43 S.	,, 15,		*m*
U Virginis	12 45·4	6 10 N.	,, 13,		*M*
R Hydræ	13 23·6	22 42 S.	,, 12,		*m*
R Boötis	14 32·2	27 14 N.	,, 18,		*m*
δ Libræ	14 54·9	8 4 S.	,, 18,	1 26	*m*
U Coronæ	15 13·6	32 4 N.	,, 14,	21 31	*m*
U Ophiuchi... ...	17 10·8	1 20 N.	,, 15,	1 0	*m*
W Sagittarii ...	17 57·8	29 35 S.	,, 13,	1 0	*M*
R Scuti	18 41·5	5 50 S.	,, 18,		*m*
β Lyræ...	18 45·9	33 14 N.	,, 17,	2 0	*M*
R Delphini	20 9·5	8 45 N.	,, 18,		*M*

M signifies maximum; *m* minimum.

Meteor-Showers.

	R.A. °	Decl. °	
Near β Lyræ	282	32 N.	
ζ Cygni	320	32 N.	
β Piscium	345	0	Very swift.

GEOGRAPHICAL NOTES.

IT may interest our readers to know that a full account of Baron Nordenskjöld's narrative of, his very interesting journey across Greenland has been published in German by Brockhaus, of Leipzig, with numerous maps and illustrations. Doubtless, like the same explorer's previous narratives, it will soon appear in an English dress. We are assured that Nordenskjöld will not undertake any Antarctic expedition before 1888 or 1889, if, indeed, he undertakes it at all, which is highly doubtful. He has much to do still before the publications connected with the *Vega* Expedition are complete, and he has a variety of other work in hand which must be finished before he enters on any new undertaking.

THE paper read at Monday's meeting of the Royal Geographical Society was one of unusual novelty and interest. It described the exploration which Mr. H. E. M. James, of the Bombay Civil Service, in company with two friends, made last spring and summer in Manchuria. The region explored extends from the Yellow Sea to beyond 45° N., and between 122° and 130° E. long. A considerable section of the journey was over virtually new ground, and as Mr. James is a careful observer, and, we believe, a botanist, and an accurate describer, his paper is of some scientific value. He has at least been able to add some precise features to our maps of the region. The paper contains