

the wear of the trolley wire is proportional to the current collected. When no current is taken the wear is almost negligibly small. A curious anomaly in the treatment of railways with and without Parliamentary powers was pointed out. The former railways are not allowed to have more than a 7-volt drop on their rails, whilst the latter have sometimes more than a 100-volt drop for short periods. It seems to us that a careful search should be made in neighbouring pipes, etc., for electrolytic damage in the latter case. If the damage should prove to be inappreciable, then the limit of 7 volts might be raised for all railways, as this would appreciably lower the cost of electrification.

MESSRS. NEWTON AND WRIGHT, LTD., desire it to be known that their business will be carried on in future from their works address, 471-77 Hornsey Road, N.19, which is now the head office of the company. In furtherance of their policy of restricting themselves to a wholesale business, an arrangement has been concluded with Messrs. Allen and Hanburys, Ltd., by which this firm becomes selling agents in the London area for Messrs. Newton and Wright, and also in those parts of the United Kingdom where the latter is not specially represented. Messrs. Allen and Hanburys are taking over the electro-medical showroom at 72 Wigmore Street, W.1, until recently occupied by Messrs. Newton and Wright, who will, however, have free access to these showrooms, and one of their directors will always be glad to meet country and other customers by appointment who may not have time to visit the head office at Hornsey Road. The arrangements with Messrs. Allen and Hanburys are so framed as not to preclude Messrs. Newton and Wright doing business with other trade houses, and the firm will be pleased to continue supplying their specialities through whatever trade house a customer may select.

THE special catalogues of Messrs. J. Wheldon and Co., 38 Great Queen Street, W.C.2, are always of interest and value, and the latest (New Series, No. 90) is no exception. It is a well-edited, classified list of upwards of 1200 books and pamphlets on ornithology. The sections are British Islands, Europe, Asia, Africa, North America, Central and South America, Australasia, General Systems, etc., Economic Ornithology, Miscellanea, and Morphology. Many scarce works are included. In addition, particulars are given of many complete sets or long runs of scientific journals. The catalogue should be of service to purchasers of books of science.

MESSRS. H. K. LEWIS AND CO., LTD., 136 Gower Street, W.C.1, have just circulated the quarterly catalogue of new books and new editions added to their Medical and Scientific Circulating Library during the months April-June. It is a useful classified list of the works in science published in the period named, and should be found useful even to non-subscribers to the library. Messrs. Lewis have also issued a list of second-hand and surplus library books an agriculture, botany, chemistry, engineering, geology, physics, zoology, etc. Many of the volumes are offered for sale at greatly reduced prices.

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Our Astronomical Column.

A NEW COMET.—The second cometary discovery of the year was made at Nice by M. Schaumasse on July 18 at 13h. 37m. G.M.T., in R.A. 1h. 47m. 52s., south decl. $1^{\circ} 14'$, daily motion $+2m. 24s.$, S. $5'$, 11th magnitude.

The following positions have been deduced on the assumption of uniform motion:

		R.A.		S. Decl.	
		h.	m.	s.	
July	23	...	1	59 43	0 39
	28	...	2	11 43	2 4

The comet is a morning star, rising at 1 a.m. summer time. It is not very far from Tempel's comet, discovered at Kyoto at the end of May, but of which no further observations have come to hand.

Later.—M. Schaumasse now finds that his new comet is identical with Tempel's second periodic comet, the previous announcement by Mr. Kudara, of Kyoto, being erroneous. The time of perihelion now becomes 1920 June 9.67, a month earlier than the time deduced from Mr. Kudara's announcement.

The following is an approximate ephemeris for Greenwich midnight:

		R.A.		S. Decl.	Log r	Log Δ	
		h.	m.	s.	°		
July	15	...	1	40 4	1 14	0.1402	9.9674
	23	...	1	59 24	1 26	0.1488	9.9623
	31	...	2	16 40	1 53	0.1585	9.9577
Aug.	8	...	2	30 52	2 36	0.1693	9.9522
	16	...	2	42 32	3 33	0.1805	9.9467
	24	...	2	50 48	4 47	0.1920	9.9403

PUBLICATIONS OF THE DOMINION ASTROPHYSICAL OBSERVATORY, VICTORIA, B.C., VOL. 1., NO. 1.—This volume contains a full account of the inception of the scheme of constructing the great 72-in. equatorial, and demonstrates the immense amount of careful thought and consultation of experts, both opticians and astronomers, that preceded the adoption of the designs.

Before the site was settled, Mr. W. E. Harper tested the quality of seeing at a number of stations in different parts of Canada, using a $4\frac{1}{2}$ -in. Cooke photo-visual telescope. Victoria was finally selected, owing to the excellent seeing at night, though there was less sunshine than at Ottawa; the small diurnal range of temperature also favoured it.

The glass discs were cast at St. Gobain, the optical work was entrusted to the J. A. Brashear Co., and the mechanical work and dome to the Warner and Swasey Co.

The ball-bearings, in dustproof cases, prove very efficient, so that it is stated that when the clock is disconnected a $3\frac{1}{2}$ -lb. weight on a 26-ft. arm suffices to set the telescope in motion; a 400-lb. weight is found sufficient for the driving clock, which is wound automatically by an electric motor. The volume contains details of the zonal tests applied to the mirror, the results being very satisfactory. Temperature insulation, consisting of cotton-felt, is used round the mirror, and with the small temperature changes that take place at Victoria the definition will never be appreciably affected by this cause.

The comfort and convenience of the observers are studied, all the movements being carried out electrically. Details are also given of the powerful spectrograph, which is surrounded by a temperature-case. It is possible to use the instrument visually without removing the spectrograph, the image being displaced laterally by reflecting prisms.

Numerous large-scale photographs of the various parts make it easy to follow the descriptions.