

periodical. Among the plates is a coloured representation of the deerskin mantle, ornamented with-shell work, recorded to have belonged to the Virginian Chief, Powhattan. Dr. E. B. Tylor contributes, in English, an account of this interesting object, which forms one of the treasures of the Ashmolean. It belongs to the Tradescant collection, which was the nucleus of the museum of Elias Ashmole. It seems that there were in use among the Powhattans three kinds of mantles, viz. of dressed skins embroidered with beads (including shells), of furs, and of feather work. In the original collection of Tradescant there were specimens of all three kinds. Of these, the shell-embroidered mantle alone remains. It measures about 2·2 m. in length by 1·6 m. in width. The two deerskins forming it are joined down the middle; no hair remains. The ornamental design consists of an upright human figure in the middle, divided by the seam; a pair of animals; thirty-two spirally formed rounds (two in the lowest line have lost their shells); and the remains of some work in the right lower corner. Dr. Tylor says that the decorative shell-work is of a kind well known in America. The shells used are *Marginella*; so far as Mr. Edgar A. Smith is able to identify them in their present weathered state, *M. nicosa*. Among the other contents of the number are some notes, in German, on the ethnography of Mexico, by Carl Breker, and an attempt, by M. Messikommer, to describe some elements of what may have been the intellectual life of the inhabitants of ancient lake-dwellings.

IN the new number of the Transactions of the Leicester Literary and Philosophical Society, there is a useful and interesting paper, by Mr. Montagu Browne, Curator of the Town Museum, Leicester, on "Evidences of the Antiquity of Man in Leicestershire." He begins with objects of bone and horn, then examines the remains of pottery, and finally deals with articles in bronze and stone. Palaeolithic implements have not yet been discovered in Leicestershire, but Mr. Evans, in a passage quoted by Mr. Browne, is of opinion that they may be found there. "It is by no means impossible," writes Mr. Evans, "that you may succeed in finding them. It is a little far north, but I doubt whether the glaciers persisted so long in that part of England as they did in the Lake District, and in Wales."

MESSRS. CASSELL AND Co. are issuing, in monthly parts, a popular edition of "The Story of the Heavens," by Sir Robert S. Ball, the Royal Astronomer of Ireland. The work, which is well printed on good paper, will be completed in eighteen parts. With Part I., which we have just received, a star map is given.

THE "Educational Annual" for 1889, compiled by Edward Johnson, has been issued. Messrs. G. Philip and Son are the publishers. The work is designed to place within reach of the general public a concise summary of authentic information, drawn from official or other trustworthy sources, relative to primary and secondary education, in a form convenient for reference. Information relating to training colleges for teachers and teachers' associations has been included.

A BOOK, entitled "Rides and Studies in the Canary Islands," by Mr. Charles Edwardes, has just been published (Fisher Unwin). The author quaintly explains that it is written "for the entertainment both of those who visit the Canary Islands and those who do not." A considerable part of the book has already appeared in the form of articles in magazines and journals. Those who have already read these fragments will not object to find them again among Mr Edwardes's lively and pleasant sketches.

WE have received a diary called "The Perennial Diary," which a good many people may find useful. It is not intended to supersede ordinary diaries. Each page is devoted to a single day of the year, and events occurring on that day in different

years may all be entered on the same page. The volume is issued by Mr. John Heywood, of Manchester and London.

THE Free Libraries Committee of Manchester are able to give, in their thirty-sixth Annual Report, a most favourable account of all departments of the institutions under their charge. The number of the buildings in which the work of the Committee is carried on has been increased to ten by the establishment of the Hyde Road Reading Room, which was opened some time ago by the Mayor, in the presence of a large and enthusiastic meeting of the inhabitants of the district. In the course of the last twelve months the number of readers at the various libraries and reading-rooms (*i.e.* the number of visits they have made) reached an aggregate of nearly four millions and a half, or about a quarter of a million more than in the previous year. There has been an increase also in the number of books read. The number used for home reading and for perusal in the reading-rooms has been 1,606,874, against 1,462,028 volumes read in the preceding twelve months. The daily average of volumes used in all the Libraries was 4464.

IN the letter on "Nose-blackening as preventive of Snow-blindness," by Mr. A. J. Duffield (vol. xxxviii. p. 172), for "New Zealand" read "New Ireland."

THE additions to the Zoological Society's Gardens during the past week include a Common Kestrel (*Tinnunculus a'audarius*) captured at sea, presented by Mr. Thomas Austin; a Pyxis Tortoise (*Pyxis arachnoides*) from Durban, Natal, presented by Colonel J. H. Bowker, F.Z.S.; a Rat-tailed Snake (*Trigonocephalus lanceolatus*) from St. Lucia, W.I., presented by the West Indian (Natural History) Exploration Committee; two Concave-casqued Hornbills (*Buceros bicornis*) from India, deposited; a Squirrel (*Sciurus* sp. inc.) from Burmah, two Ceylonese Hanging Parrakeets (*Loriculus asiaticus*) from Ceylon, purchased.

OUR ASTRONOMICAL COLUMN.

DETECTION OF NEW NEBULÆ BY PHOTOGRAPHY.—Prof. Pickering gives a brief account, in No. 6 of the Annals of Harvard College Observatory, vol. xviii., of some experiments he has recently conducted as to the advantages of a photographic doublet over an ordinary astronomical object-glass for astronomical work, and especially in photographing nebulae. A number of plates were exposed upon the region of Orion, the instrument used being the Bache telescope, which has a photographic doublet with an aperture of 8 inches and a focal length of 44 inches; each plate covered a region 10" square, the definition being good within 3rd of the centre of the plate. The result of the experiments was the detection of twelve new nebulae; fourteen nebulae were seen on the photographs that were also given in Dreyer's Catalogue, and four nebulae in the Catalogue were not represented on the plates. A similar proportion of discovery over the entire sky would mean some 4000 or 5000 new nebulae, and 400 plates would be sufficient for a complete survey, provided there was no overlapping, and no plates proved defective.

COMETS FAYE AND BARNARD, OCTOBER 30.—The following ephemeris for Faye's comet is in continuation of that given in NATURE (vol. xxxix. p. 186). The ephemeris for Barnard's comet is by Herr Spitaler (*Astr. Nach.*, No. 2871). Both are for Berlin midnight:—

Comet 1833 <i>d</i> (Faye).				Comet 1838 <i>t</i> (Barnard, Oct. 30).					
1888.	R.A.			Decl.	h. m. s.	R.A.			Decl.
	h.	m.	s.			h.	m.	s.	
Jan. 4	...	7 58 38	...	0 11'7 N.		10 25 49	...	4 42'3 N.	
		6	...	0 14'2		10 24 55	...	5 45'1	
		8	...	0 17'7		10 23 51	...	6 49'1	
		10	...	0 22'3		10 22 40	...	7 54'4	
		12	...	0 27'9		10 21 22	...	9 0'6	
		14	...	0 34'5		10 19 58	...	10 7'6	
		15	...	0 42'1 N.		10 18 24	...	11 15'2 N.	

Both comets are slowly diminishing in brightness.