THE report of the Clifton College Scientific Society for the year 1912–13 has been received. It contains information of the work done during the session by the various sections among which the work of the society is divided. We notice among the contents an interesting calendar of bird observations made near Clifton, from January to July, 1913, to which a note is appended, stating that the Royal Agricultural Show enclosures on Clifton Downs greatly interfered with birds and observers during the season.

WE have received from the Carnegie Institution of Washington two volumes prepared under the auspices of the department of historical research. One, by Mr. David W. Parker, is a "Guide to the Materials for United States History in Canadian Archives"; the other, by Prof. Herbert E. Bolton, is a similar guide concerned with materials for the same purpose in the principal archives of Mexico. Both volumes belong to a series, to which we have directed attention on previous occasions, representing a systematic endeavour by the department of historical research to make more easily available for authors and students the materials contained in foreign archives necessary in studying the history of the United States. Volumes have appeared already dealing with Cuba, Spain, Great Britain, Italy, and Germany, and others concerned with the archives of Paris, Switzerland, the Netherlands, and Sweden are in course of preparation.

OUR ASTRONOMICAL COLUMN.

COMET 1913*f* (DELAVAN).—Prof. H. Kobold communicates, in a Kiel Circular, No. 144, dated December 21, the elements and ephemeris of Delavan's comet (1913*f*), the former being based on observations made on December 17, 18, and 19. The elements are as follows:—

Elements.

$T = .914$ March $2{\cdot}3211$ M.T. Berlin.
$\Omega = 126^\circ\ 32{\cdot}6'$
$\omega = 7\ 40{\cdot}1$
$i = 13\ 4{\cdot}6$
$\log q = 0{\cdot}04526$

Ephemeris for 12h. M.T. Berlin.

	R.A. h. m s.		Decl. ° ′		Mag.
Dec. 31	2 54 5	...	−5 18·4		
Jan. 1	53 44	...	5 4·9		
2	53 28	...	4 50·8		
3	53 12	...	4 36·1		
4	53 1	...	−4 20·9	...	10·5

A note in *The Times* of December 24 states that the comet will approach the earth and sun for the next two months, and while its brightness will be considerably increased, the object is not expected to be visible to the naked eye. Its south declination will be maintained until about the middle of January. The positions of the comet are in the constellations of Eridanus and Cetus.

AN AID TO TRANSIT CIRCLE OBSERVERS.—Transit observers are only too well aware of the time occupied in reading off chronograph strips, the work involved, even when assisted by a writer, being equal to that of making the observations themselves. Any suggestion of a method of reducing the labour will be welcomed provided it can be thoroughly relied upon. Prof. E. Grossmann, in *Astronomische Nachrichten*, No. 4701, describes a very practical arrangement which seems very efficient and simple. He adopts the reading apparatus constructed by Th. von Oppolzer, and works this in conjunction with an ordinary typewriter. All the observer has to do is to place the movable thread on the observed signal on the tape and the press of a key is sufficient to write automatically the scale reading underneath. In the paper Prof. Grossmann describes the apparatus in some detail, and accompanies the text with two illustrations. Messrs. Favargar and Co. in Neuchatel were entrusted with the arranging of the complete apparatus.

STANDARD WAVE-LENGTH DETERMINATIONS.—No. 75 of the Contributions from the Mount Wilson Solar Observatory is devoted to the second paper by Messrs. St. John and L. W. Ware, entitled "Tertiary Standards with the Plane Grating: the Testing and Selection of Standards." In this paper the authors have examined the international secondary standards from $\lambda 4282$ to $\lambda 5506$ as to their consistency among themselves, and have determined the wave-lengths in international units of a series of 198 lines in the arc spectrum of iron from $\lambda 4118$ to $\lambda 5506$. The region from $\lambda 5371$ to $\lambda 5506$ is common to the 1912 and 1913 investigations, but an entirely new series of plates was made for the common region. The Pasadena plates were taken with the 30-ft. spectrograph, while the Mount Wilson plates were secured with the 75-ft. Littrow spectroscope used in conjunction with the 150-ft. tower telescope. The communication, which is published in considerable detail, is another example of the high accuracy attained in the Mount Wilson determinations. It is interesting to note that the difference between the heights above sea-level of Pasadena (244 m.) and Mount Wilson (1794 m.) is responsible for changes in relative wave-length determinations at the two stations. Numerous important conclusions are summed up at the end of the paper.

PRIZE AWARDS OF THE PARIS ACADEMY OF SCIENCES FOR 1913.

Geometry.—The Francœur prize to A. Claude, for the whole of his astronomical work; the Bordin prize was not awarded, no memoir on the question proposed having been received.

Mechanics.—The Montyon prize to M. Sauvage; the Poncelet prize to Maurice Leblanc, for his work in mechanics.

Navigation.—The extraordinary prize for the Navy is divided between Le Prieur (1800 francs), Geynet (1800 francs), Violette (1800 francs), and R. E. Godfroy (600 francs); the Plumey prize to M. Risbec, for his work on the propulsion and stability of ships.

Astronomy.—The Pierre Guzman prize is not awarded; the Lalande prize to J. Bosler, for his researches on the sudden variations of terrestrial magnetism and their connection with disturbances in the sun; the Valz prize to Prof. Fowler, for his researches in spectroscopy; the G. de Pontecoulant prize to M. Sundmann, for his researches on the problem of three bodies.

Geography.—The Tchihatchef prize to Col. Peter Kusmitch Kozlov, for his explorations and publications on Central Asia; the Gay prize to Dr. Mocquart, for his memoirs on tropical reptiles.

Physics.—The Hébert prize to Prof. Swingedauw, for his researches on explosive potential and electrotechnics; the Hughes prize to Jean Becquerel, for his work in magneto-optics; the De Parville prize to Prof. Rothé, for the whole of his researches in physics; the Gaston Planté prize to R. V. Picou, for his work in the field of electrical industry; the Kastner-Boursalt