

class is urged most strongly in an appendix to this Circular, as being far more dangerous in the United States, where custom exerts no check. Since the danger is equal to the whole Union, while the burden of meeting it falls so heavily on certain States, it is again strongly urged that a part of the expense should be met by national taxation.

THE writer of the second Circular of Information published this year by the United States Bureau of Education trusts that the Shorthand Society of London will throw light upon the history of their art, as the material is quite inaccessible to the American student. Yet his industrious researches there enable him, after speaking of the shorthand invented by Cicero's freedman, and of its revival by Dr. Timothe Bright in Queen Elizabeth's time, to append the names and dates of more than 400 authors of English systems; a catalogue, 100 pages long, of writers and their works on the subject, and 112 alphabets of various dates, from 1602 to 1882. He is able also to quote thirteen monthly publications in the United States and Canada on this subject. It is to be hoped that, in this art as in nature, the result will be the survival of the fittest (Mr. J. Pitman's system already counts its 810th thousand of copies issued), and one is inclined to wonder whether some full and skilful system of denoting sounds might not be worked out, which would render unnecessary the more partial working of phonetic spelling.

THE culture of the tea-tree in Transcaucasia, which has been recently advocated by Dr. Woeikoff, has already been successfully carried out on a small scale for several years—as we learn from a recent communication of M. Zeidlitz to a Russian newspaper. It was an Englishman, Mr. Marr, who has inhabited Transcaucasia since 1822, who brought to a flourishing state the Crown garden at Ozurghety, and embellished it with a number of lemon, orange, and tea trees, these last numbering more than two hundred. After the Crimean war only twenty-five tea-trees were growing in this garden, and according to Mr. Marr's advice they were transplanted to a private estate at Gora, close to Tchakhatour. Since the estate has changed its proprietor, only two tea-trees have remained, but still they continue every year to flower and to give fruit, and M. Zeidlitz is sure that if the culture be seriously tried it might be successful in the valleys of the Koura and Rion.

THE additions to the Zoological Society's Gardens during the past week include a Ring-tailed Coati (*Nasua rufa* ♂) from South America, presented by Miss K. M. Battam; two Patagonian Cavies (*Dolichotis patachonica*) from Patagonia, a Hairy-rumped Agouti (*Dasyprocta prymnolopha*) from Guiana, a Ring-tailed Coati (*Nasua rufa*) from South America, two Rufous Tinamous (*Rhynchotus rufescens*) from Brazil, two Tuberculated Iguanas (*Iguana tuberculata*) from the West Indies, two Huanacos (*Lama huanacos* ♂ ♀) from Bolivia, presented by Mr. Frank Parish, C.M.Z.S.; a Gray Parrot (*Psittacus erithacus*) from West Africa, presented by Mr. E. T. Holloway; a Vulpine Phalanger (*Phalangista vulpina*) from Australia, presented by Mr. H. Livermore; two Smooth Snakes (*Coronella levis*), European, presented by Mr. W. H. B. Pain; a Two-streaked Python (*Python bivittatus*), a Reticulated Python (*Python reticulata*), a Two-banded Monitor (*Varanus salvator*), a Fringed Tree Gecko (*Ptychozoon homalcephala*), a Javan Porcupine (*Hystrix javanica*) from Java, presented by Dr. F. H. Bauer, C.M.Z.S.; two Mountain Ka-Kas (*Nestor notabilis*) from New Zealand, a Three-coloured Lory (*Lorius tricolor*) from New Guinea, a Severe Macaw (*Ara severa*) from Brazil, deposited; ten Common Chameleons (*Chameleon vulgaris*) from North Africa, two Brazilian Carimas (*Cariama cristata*) from Brazil, purchased; a Somali Wild Ass (*Equus somalicus* ♂) from Somali Land, received in exchange.

OUR ASTRONOMICAL COLUMN

SCHMIDT'S VARIABLE-STAR IN VIRGO.—Prof. Schjellerup, writing from the Observatory, Copenhagen, on August 9, thus expresses himself with reference to a note which appeared in this column on his identification of the above object:—"On the article that is to be found in NATURE, July 31 last, about this star, allow me to make some essential remarks. The author entirely misconceives the sense of my note in Sûfi. It does not at all concern No. 19 Ptol., but only sets out that Lalande 25086 takes that place where must have been the star which Sûfi saw; and I may yet maintain the correctness of the note. I only ask the author to look at Bremicker's map, Hora XIII.; he will find there that Lalande 25086 has just equal distances from Spica and from δ Virginis (Ptol. 17), and, what is more, that this distance is nearly one and a half times the distance between Spica and δ Virginis, very conformably to Sûfi's remark in the text: 'Entre elle (19) et al-simâk (α Virginis) vers le sud-est, il y a environ une coudée et demie, et entre elle et la 17^e il y a la même distance. Avec al-simâk et la 17^e elle forme un triangle isocèle, cette étoile étant au sommet.' It is also to be remarked that Sûfi has before declared the distance between No. 17 and Spica as 'environ une coudée,' that is, nearly 2' 20". What is here said about 19 (Sûfi) does not at all agree with the position of No. 19 by Ptolemy, which is also pointed out by Sûfi himself as follows: 'La latitude de cette étoile, indiquée dans le livre de Ptolémée, se trouve erronée, parce que, au ciel, elle se fait voir autrement qu'elle ne tombe sur le globe.'" We are glad to print Prof. Schjellerup's explanation of the purport of his note; it is quite possible that others may have interpreted it as we did.

THE NEW COMET.—Several orbits for this comet have been published in the *Astronomische Nachrichten*, founded for the most part upon the position obtained on the night of discovery, July 16, and on M. Trépiéd's observations on July 23 and 29, where there appears to have been at first some doubt as to the comparison-star. The middle observation is not well represented by any of these parabolic orbits, and Prof. Weiss conjectures that there is considerable ellipticity, at the same time remarking that a certain general resemblance exists between the elements of the present comet and those of the lost short-period comet of De Vico, observed in 1844, but not found since that year. In the uncertainty which seems to have attached to the observations at Algiers, it would not be safe to speak confidently as to the nature of the orbit, though it may be decided in a very short time.

Prof. Tacchini has kindly communicated the following observation made at the Observatory of the Collegio Romano:—

Rome M.T.	Right Ascension	Declination
h. m. s.	h. m. s.	h. m. s.
August 9, at 8 31 56 ...	16 51 20.14 ..	-36 56 25.5

The comet was very faint, and the observations, by Prof. Millosevich, are a little uncertain.

The best parabola, according to Prof. Weiss, has the following elements:—

Perihelion passage, August 17.5109 G.M.T.		
Longitude of perihelion	301° 57' 24"	} M. Eq. 1884.0
" ascending node	357 45 51	
Inclination	7 2 31	
Logarithm of perihelion distance	0.147982	
Motion—direct.		

The most reliable elements of De Vico's comet of 1844 are those given by Brünnow in the Ann Arbor *Astronomical Notices*.

BROSEN'S COMET.—From a note of Prof. Krueger's in the *Astronomische Nachrichten*, it seems that Dr. Schulze has not been able to undertake the calculation of the perturbations of this comet since its last appearance in 1879, and accordingly the rough ephemeris lately given in NATURE is transferred to that journal.

THE FORESTS OF NORTHERN EUROPE

A VERY recent report has appeared on this subject in the shape of a small Blue-Book which deals with the various aspects of the forestry question in certain of the more northerly States of Europe, such as Germany, Russia, Norway, Sweden, Coburg, and Gotha. The Report, which contains matter of great interest in many ways, is the outcome of the proposals of Dr. Lyon, M.P., to rehabilitate the ancient forest system in Ireland; and although the greater part of it deals with the