ashes underneath. It appears by a letter from Mr. Greene, "that a gentleman brought two Indian snakes to Ballinrodan, both of which escaped six or seven years ago ; one of them was found half eaten by a pig shortly afterwards, and this might be the other, though how it lived through the winters I do not know."

It would be interesting to ascertain whence the snake came and how it found its way to the proscribed island.

London, Sept. 28   J. FAYRER

Origin of the Numerals

IN the novel "David Elginbrod," by George Macdonald, p. 45, is a suggestion of the origin of the forms of the numerals in daily use, very similar to that indicated by Mr. Donnisthorpe in last week's NATURE, p. 476. The disposition of the lines in some of the figures is very ingenious.   G. W. WEBSTER

Chester, Oct. 4

IF your correspondent will refer to Leslie's "Philosophy of Arithmetic," p. 103 *et seq.*, he will find that very much is known respecting the origin of the numerals. By referring to p. 107, same work, he will find that the numerals he gave are wonderfully like the Sanskrit.

Newcastle-upon-Tyne, Oct. 4   WM. LYALL

Scalping

MR. CHARLES C. ABBOTT, in NATURE, vol. xii. p. 369, wishes to learn what other men, if any, besides the North American Indians, have the practice of scalping among them. The question is answered in Southall's "Recent Origin of Man," chap. ii. p. 40. "In this connection we may mention that the custom of *scalping* is not peculiar to the American Indians. Herodotus mentions that it was one of the most characteristic practices of the ancient Scythians. But this is not all ; it is stated that the practice prevails at this day among the wild tribes of the frontier in the north-eastern district of Bengal. The *Friend of India*, commenting on this statement, adds : ' The Naga tribes use the scalping-knife with a ferocity that is only equalled by the American Indians, and the scalps are carefully preserved as evidences of their prowess and vengeance over their enemies. On the death of a chief, all the scalps taken by him during his warlike career are burned with his remains.'"   G. PEYTON

University of Virginia, U.S.A., Sept. 22

OUR ASTRONOMICAL COLUMN

THE DOUBLE STAR Σ 2120.—As mentioned last week, M. Flammarion advocates the binary character of this star, identifying it, as Sir John Herschel had already done, with H. III. 89. Sir W. Herschel's observation runs thus :—

" III. 89. Ad 63ᵃᵐ Herculis. In linea per δ et ε ducta.
1782 Nov. 26. Double. About 4 degrees from δ towards ε Herculis, near the 63rd. Very unequal. L. r. ; S. r. Distance 11" 53". Position 47° 48' n. following."

There is a contradiction here ; a position "4 degrees from δ towards ε Herculis," which pretty well agrees with that of Σ 2120, would not be near 63 Herculis, which is little more than 1° s.p. δ.

The formula given in NATURE, vol. xii. p. 147, assigns for the position of the small star at Sir W. Herschel's date—

               Angle ... 36° 39' ... Distance 10"·72
The observation has ,,   ... 42 12 ...   ,,   11 ·18

It is by the difference between these positions, which however it may be remarked is not larger than we occasionally meet with on comparing Sir W. Herschel's measures with recent ones, in cases of stars which there is reason to suppose merely optically double, that the binary nature of the object is considered to be proved by M. Flammarion, as it had been by Sir John Herschel in the paper upon his father's measures, which appears in vol. 35 of the "Memoirs of the Royal Astronomical Society." Until that single observation is supported by curvature in the path of the small star subsequent to its nearest approach to the primary, which if this be really a binary system must probably become sensible within a few years from the present time, the suspicion of rectilinear motion of the small star as the cause of the change of position, representing as it fairly does the measures between 1829 and 1873, is not one perhaps that can be legitimately abandoned. The apparent fixity or nearly so of the principal component to which reference was made in our former remarks, is supported by Dr. Engelmann's comparison of the place deduced from meridian observations at Leipsic in 1867, with Struve's position in "Positiones Mediæ," for which the mean date is 1836·1 ; for secular proper motion he found $\Delta a = + 0s'192$, $\Delta \delta = + 2''\cdot40$—very insignificant quantities, and showing that if proper motion, as we have surmised, enters into the question, it is mainly the smaller star that is affected by it. M. Flammarion, relying as stated upon Sir W. Herschel's measure of 1782, concludes : " C'est donc un système orbital très-incliné, et c'est peut-etre celui dont l'aspect ressemble le plus aux systèmes de perspective." We leave it for the measures that may be made during the next few years to decide between these opinions.

THE NEBULA IN THE PLEIADES.—In No. 5 of " Publicazioni del Reale Osservatorio di Brera in Milano," Herr Tempel has laid down the stars in the Pleiades, from the " Durchmusterung," and traced the outline of the nebula near Merope as it appeared to him with a magnifying power of twenty-four on a telescope of four inches aperture. The outline is shown to be elliptical, one extremity of the longer axis, the northern one, at Merope, and the inclination of this axis to the circle of declination about 18°, so that as referred to Merope, the angle of position of the longer axis is 198° ; the greatest and least diameters of the ellipse are roughly 35' and 20'.

M. Wolf, of the Observatory of Paris, observing with the telescope of 0ᵐ·31 aperture in March 1874, perceived two nuclei, one almost concentric with Merope, the other and brighter of the two at a distance of about seven seconds, on the same parallel, following. From the month of November 1874 to the end of February 1875 the nebula could not be seen notwithstanding the very favourable atmospheric conditions, and at the same time M. Stéphan was unable to detect it with the telescope of 0ᵐ·80. M. Wolf concludes that the nebula is certainly variable, and that its period is pretty short.

Herr Tempel remarks that generally the nebula has been much more readily seen with small telescopes than with large ones, and doubt has been expressed as to any real variability of light ; yet it is not easy to understand, except upon this supposition, why the nebula should be visible at certain times in a particular telescope and invisible at others, the circumstances of sky appearing to be about the same in all cases.

This nebula was first remarked by Herr Tempel, at Venice, on the 23rd of October, 1859.

THE SATELLITES OF URANUS AND NEPTUNE.—An elaborate and highly interesting investigation of the elements of these satellites from observations with the 26-inch equatorial of the United States Naval Observatory, Washington, and of the masses of the primaries thereby indicated, has been received from Prof. Newcomb during the past week ; it forms an appendix to the Washington Observations for 1873. The most probable value of the mass of Uranus derived from these observations is $\frac{1}{22600}$, with a probable error of 100 in the denominator of the fraction. For Neptune the value of the mass by satellite-observations is $\frac{1}{19380}$; the mass deduced by Prof. Newcomb from the perturbations of Uranus