The Eclipse of Archilochus.

(*Extract from a letter from Professor E. Millosevich.*)

In the important paper on ancient eclipses of the Sun, by Mr. Nevill, *Monthly Notices*, vol. lxvi. No. 7, speaking (on p. 410) of the eclipse of Archilochus, identified by Oppolzer, by myself, and by Cowell with that of −647 April 6, total at Thasos, he says, "But this is considerably later than the date usually assigned to this poet."

The age in which Archilochus lived is determined by the fact that he mentions King Gyges of Lydia, and the catastrophe of Magnesia which occurred towards the *end* of the reign of Gyges or a *little later*. Gugu (Gyges) is mentioned as a contemporary in an inscription of the Assyrian king Assur-bani-pal, who reigned *circa* 668 to 626 B.C. The inscription is later than B.C. 662. Archilochus therefore cannot have lived before the middle of the seventh century. This is the opinion of Julius Beloch, the eminent historian of ancient Greece, from whom I had the above information.

Star Reductions. By W. Ernest Cooke, B.A.

The reduction of star places from apparent to mean positions, and *vice versa*, occupies such a large portion of observatory routine that no apology is needed for bringing before the notice of the R.A.S. a new method of attacking this troublesome matter.

If the formulæ of reduction (*Nautical Almanac*, 1906, p. 305) be examined it will be found that they may conveniently be divided into two parts :

(1) Functions of ☉ and L, and therefore of t

(2) ,, ,, ☊

and a few terms which may for most work be considered as negligible.

I propose that

(3) Tables be formed, giving the values of

$$A^\circ a + B^\circ b + C^\circ c + D^\circ d = K_a \text{ say}$$

and $$A^\circ a' + B^\circ b' + C^\circ c' + D^\circ d' = K_{a'} \text{ ,,}$$

for each degree of N.P.D. and every 10^m of R.A., and for each tenth day throughout the year, commencing with $t = 0$ or $L = 280^\circ$.

In this case C° and D° are computed with the elimination of terms in ☊ and 2☊, also ☾, &c.