ART. LIX.—*Curve of Eccentricity of the Earth's orbit*; R. W. MCFARLAND.

THE diagram on the following page gives the curve of eccentricity as found in Croll's work, and also in Stockwell's. The former was computed with a view of explaining the climate of past time; the latter, in examining the moon's mean motion. It will be seen that the curves have the same general form, differing in the value of the ordinates, more than in the position of the maximum and minimum points. I have recomputed the values by Le Verrier's old formulæ, and find Croll's figures correct in most cases, and not in error to the amount of '001 except in one instance. My work extends over 1,100,000 years, and is for points nearer together than Croll's. Stockwell's is doubtless nearer correct than the other, but there is substantial agreement. The two curves for the last 40,000 years, and for the next 30,000, are almost identical; so nearly is this the case, that only one line is drawn in the figure for those periods.

Curve of eccentricity of the Earth's Orbit. The upper line Croll's; the lower, Stockwell's.

The following table gives the difference between perihelion and aphelion, the sun's mean distance being 92,000,000 miles.

Before 1850. years.	Croll. miles.	Stockwell. miles.
175,000	8,400,000	6,750,000
160,000	6,700,000	5,150,000
140,000	6,360,000	4,910,000
120,000	7,920,000	6,590,000
100,000	8,700,000	7,400,000
80,000	7,320,000	6,290,000

At 40,000 the difference disappears.

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