the aid of which it has been possible to give in a convenient tabular form, for various points in Maryland, the figures enabling the surveyor to obtain the difference in the direction of the magnetic meridian between any two dates for the eighteenth and nineteenth centuries.
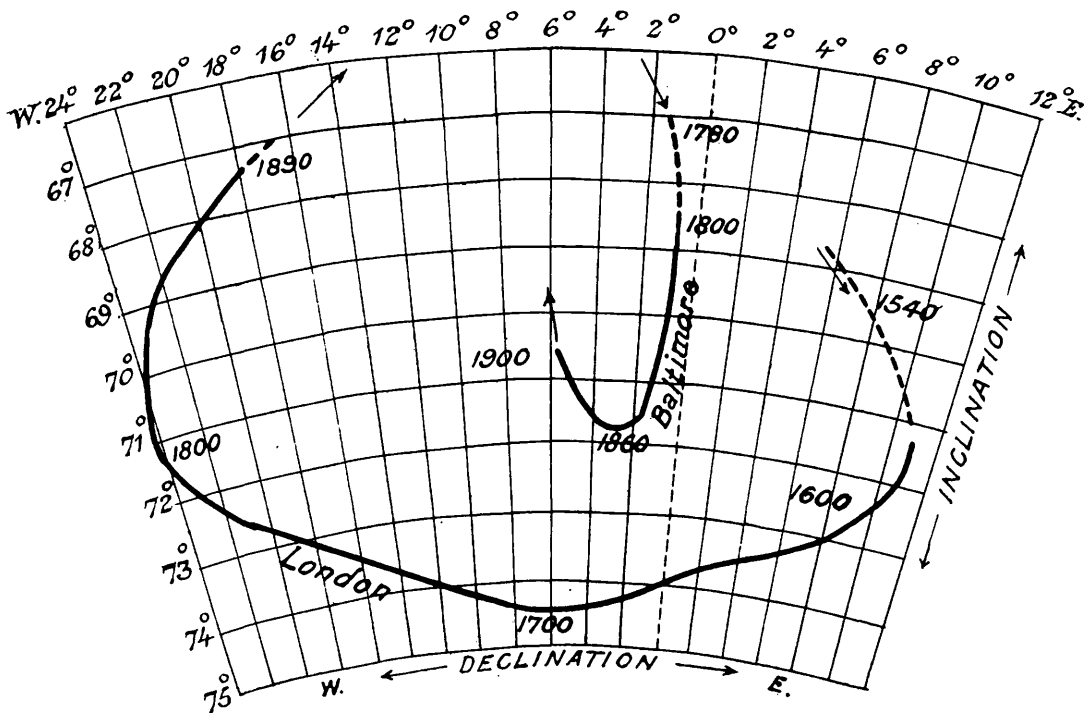

FIG. 5.—The curves described at London and Baltimore, in consequence of the secular variation of the earth's magnetism, by the north end of a freely suspended magnetic needle 40 inches (101.6 cm.) long. The curves were constructed supposing the observer to be standing at the centre of suspension of the needle and looking toward the north end. It will be noticed that as far as they can at present be drawn, they both proceed in the same direction as the hands of a clock.

The observations, next page, can be represented very closely by the following formula deduced at the Coast and Geodetic Survey office:

$$D = + 3°.38 + 2°.72 \sin (1°.4\ m - 22°.3), \qquad (1)$$

where D stands for magnetic declination, plus when west, and m is the time interval in years and decimals of between date of observation, t, and the year 1850. We have $m = t - 1850$. The coefficient of m,