

and the present time the needle bore west all the time and did not at any time point due north or east of north as surveyors frequently assume to be the case for this part of Maryland. Looking over the figures we find that at Baltimore the compass needle pointed about $6^{\circ} 06'$ west in 1670 and that in about 1802 it pointed the least amount west, namely, $39'$; hence, in an interval of 132 years, the needle changed its direction by $5^{\circ} 27'$. *A street a mile long laid out in Baltimore in 1670 so as to run parallel to the compass direction would have its north terminus 504 feet, or about $\frac{1}{10}$ of a mile, too far to the west in 1802!* This is a fact especially interesting because in some of the old towns of Maryland the streets were laid out by the compass, or prominent public buildings, such as court houses, erected so that the front face would run parallel to a cardinal direction as given by the compass. For example, while establishing a meridian line for the use of surveyors at Chestertown, the county-seat of Kent county, I found that High street, the main street, ran very nearly magnetically northwest and southeast. Assuming that the street was originally laid out with the compass so as to run northwest and southeast, and knowing from the data at Baltimore and some other stations that the needle bore the same amount west in the early part of the eighteenth century that it does at present, the conclusion to be drawn was that the town of Chestertown was laid out in the early part of the last century. Upon looking up the records, the assumptions made and the conclusions drawn were verified. The town was laid out in 1702 and the streets run with the compass northwest and southeast and at right angles thereto.

The table likewise gives the change in the compass direction at some stations in the Southern Hemisphere. One fact at once noticeable from this table is, *that during a given interval of time the compass direction changes not only by different amounts in different parts of the earth, but, likewise, the changes occur in some parts in opposite directions.* Let us compare, for example, the changes which have occurred between 1800 and 1890 at the various stations.