

the determination at a number of points of the so-called magnetic elements, viz., the magnetic declination, the magnetic inclination or dip, and the horizontal component of the earth's magnetic force. These three elements completely determine the direction and intensity of the magnetic force prevailing at the points of observation. In addition to the far-reaching importance of this work in the future observations and determinations of the great rock masses contained within the state, the results will be of immediate practical benefit to all land surveyors, and from that standpoint alone will more than justify the undertaking.

The importance of magnetic surveys has been recognized for many years, the first survey of this kind having been made in England in 1837. Magnetic surveys have also been made in several of the other European countries, but little systematic investigation in this direction has as yet been undertaken in America. The State Geological Survey intends to make a thorough and systematic magnetic survey of Maryland, and this is to a large extent made possible by the fact that the costly apparatus in the possession of the United States Coast and Geodetic Survey has been placed at the disposal of the state. Already much work has been done in the carrying out of the plan.

In this connection attention should be called to the fact that an act of Assembly was passed at the session of 1870 (Laws of Maryland, Chapter 359) and codified in 1888 (Maryland Code, Article 25), in which it is stated that "it shall be lawful for the county commissioners of each county in the state, if they shall deem it expedient, to cause to be erected on some public spot adjoining the court house of each county two good and substantial stone pillars, 100 feet apart the one from the other, and upon the same true meridian line." Further directions for the establishment of these pillars are given, together with the provisions for their use by the surveyors in each county. As a result of the work already done by the State Geological Survey, combined with the fact that the necessary apparatus is at its disposal, it is now possible for the several counties of the state at a very small outlay to take advantage of this opportunity. Already several of the counties have co-operated with the State Survey in the establishment