

with him, as there was an alt-azimuth instrument in connection with the magnetometer. After a few stations had been occupied, the stand for the dip circle was also discarded, an extra head or top having been prepared instead, which when fitted on the magnetometer tripod permitted the placing of the dip circle on it. Thus but one tripod was needed for the making of the entire set of observations.

BASE STATION.

Linden was selected as the base station of the survey. In addition to being the home of the observer, it was nearly in the centre of the area over which the observations were to be made and was moreover only within a few miles of the Washington Magnetic Observatory and the Coast and Geodetic Survey office. After some preliminary investigations had been made at the base station, and the magnetic elements well determined, I was ready to start out on magnetic trips, returning to the base station at various times during the period of the survey.

ITINERARY OF MAGNETIC TRIPS.

In the table below *D* stands for magnetic declination, *I* for magnetic inclination, *H* for horizontal component of earth's magnetic force, and *TS* for time signals transmitted telegraphically at noon by the Naval Observatory at Washington over the Western Union telegraph wires. These time signals were used to obtain the rate of the chronometer.

Date. 1896.	APPROX. Distance, ¹ (Miles.)	Station.	Elements observed.	Remarks.
Sept. 1	..	Silver Spring,	TS	Two miles from Linden.
4	..	Linden,	I	The elements repeatedly determined during July and August.
7	..	"	D, H, TS	TS received at Silver Spring as before.
9	21	Upper Marlboro,	D, I, H	Fine, clear day, moderate wind.
10	23	La Plata,	D, I, H	" " " light wind.
10	14	Brandywine,	I	While waiting for train to Mechanicsville.
11	19	Mechanicsville,	D, I, H	While waiting for stage to Leonardtown.
11-12	11	Leonardtown,	D, I, H	Weather fine on 11th; light rain next morning.

¹ From station to station in a straight line; for example, La Plata is 23 miles from Upper Marlboro.