

and Lord Baltimore in 1732, stipulating that their boundary line should be drawn across the peninsula of Maryland from Cape Henlopen (wrongly located by the Penns 15 miles too far south!) and from its central point a meridian should be followed to a circle drawn with a twelve mile radius about New Castle, Del. From the tangent point this meridian was to be followed to a parallel of latitude fifteen miles south of the southern boundary of Philadelphia, and this parallel was to be the E. W. boundary between the two colonies. To this deed was attached a small map with the boundaries indicated in red, known as "Lord Baltimore's Map." This map was printed by Franklin.

After twenty-eight years of further controversy, a second and final deed was executed in 1760. In 1763 the Penns and Lord Baltimore secured the services of two London surveyors, Mason and Dixon, who, between November 15, 1763, and September 29, 1767, continued the survey as far west as Dunkard's Creek, within 36 miles of its western limit. Here they were stopped by the Indians. The bounding parallel was fixed by this survey as N. $39^{\circ} 43' 26''$, instead of 40° , as was stated in Lord Baltimore's original patent of 1632. Mason and Dixon's map, with the final award of the Joint Commission and with their report on parchment, is in the Maryland Historical Society's library.¹

EARLY GEOLOGICAL INVESTIGATIONS IN THE PERIOD BETWEEN THE REVOLUTION AND THE ORGANIZATION OF THE FIRST STATE GEOLOGICAL SURVEY.

This period witnessed the gradual development of the modern science of geology. At first the methods were crude, but already some years before the organization of the first survey of the state,

¹ For the history of the Mason and Dixon Survey, with the controversies which led to it, see J. Dunlop, "Mem. on the Controversy between W. Penn and Lord Baltimore," Penn. Hist. Soc., Mem. 1, 1826; "History of the Mason and Dixon Line," by J. H. B. Latrobe, address before Pa. Hist. Soc., 1854, Philadelphia, 1855; "Mason and Dixon's Line—A History," by James Veech, Pittsburg, 1857.

This description is taken from Williams' "Maps of the Territory included within the State of Maryland," etc.