

tigation, to be pursued for the Eastern shore of Maryland, in so far as its agricultural interests are concerned is a very simple one. It must consist—1st, in ascertaining and then delineating upon a map, the extent and limits of each class of soils; and 2dly, in discovering the position and ascertaining the extent and nature of the deposits of shell-marl.

In reference to the latter subject of investigation, it must be borne in mind, that, as already stated, the value of this marl as an amendment to the soil will depend upon the species of shells which it encloses, the facility with which those shells are susceptible of disintegration, and the nature of the cement by which they are sometimes held together, or the nature of the mineral deposits with which they are associated. Thus it has been found, that those beds, which consist principally of *Clam-shells* usually associated with numerous varieties of other smaller bi-valve and many uni-valve shells, and containing very little admixture of foreign ingredients, yield a marl which exhibits its beneficial effects upon the soil in a very short time; because the calcareous particles are derived from shells which are very prone to disintegrate when exposed to the atmosphere. Marl-beds, composed entirely or principally of *oyster shells*, are much less valuable, because of the slow disintegration and decomposition of this species of shell. *Scallop-shells*, which are a species nearly allied to the oyster, resist such decomposition still more obstinately than do oyster-shells, and when they occur, as they have been observed to do, in extensive beds firmly agglutinated by an argillo-ferruginous cement, they are useless in all soils, and may be positively injurious to some. The undersigned have had abundant opportunities of ascertaining, that beds of shell marl, thus constituted, occur in various localities, on the Eastern shore of Maryland—sometimes as distinct uniform deposits, but more generally in alternating strata, which might be described as so many varieties of shell-marl; the indiscriminate use of which has given occasion to some mortifying disappointments.

These general remarks, concerning the extent and nature of the shell-marl deposits on the Eastern Shore of Maryland, are predicated upon the facts contained in the following extracts from notes taken upon several spots which were carefully examined by the undersigned, or about which the information received was deemed satisfactory.

“At the Frederick-ferry, on the Sassafras river, there is a partial formation of a ferruginous sand-stone rock, with