

5. Beds of reddish and sometimes yellowish sandstones and conglomerates, containing green particles and very few shells. They are from two or three to twenty or thirty feet in thickness.

6. Loose siliceous or common sand, intercalated between some of the beds, but most abundant in the upper portion.

My efforts to collect a complete suit of the fossils of this interesting formation have not been successful, because of its presenting no good natural sections, and there being few or no excavations made therein. Our farmers, except in Cecil county, do not attach the same value to the green sand as is done in New Jersey.

The shells at the outcrops of the beds are usually too soft to bear handling.

Among those already collected are *exogyra* and *belemnites* in Cecil county, and *cucullea terminalis* in Prince George's.

Renewed efforts in this regard will be made hereafter.

This formation will be seen from the map occupies a considerable area within our borders, embracing parts of Cecil, Kent, Harford, Baltimore, Anne Arundel, and Prince George counties.

On the northwest its lowest clays rest upon the metamorphic rocks, (No. 5,) with a very irregular outline, whilst the subjacent rocks may be seen beneath them in the ravines and valleys of the water-courses down to the heads of tide-water, except at the Patuxent.

The southeastern limits where they pass under the tertiary formation are by no means yet determined. It is *provisionally* traced on the map in order to give a general idea of the geographical position of the formation.

The soils of the clays of this formation are variable. Those of the sandy clays with proper treatment are productive, whilst those of the stiff clays are expensive to cultivate.

FORMATION No. 23. TERTIARY.

This series formerly described as one formation has been latterly separated into three, called Eocene, Miocene, and Pliocene. Our work, however, has not progressed so far as to make the separation at the present time. I have, therefore, retained the name tertiary for the three groups.

They consist of nearly horizontal but intercepted strata of sands and sandy clays usually grayish or blueish in color. There are also numerous beds varying in thickness from a few inches to ten or fifteen feet made up in a great measure of marine shells. Corals are also found among them, and in some localities in such abundance as to indicate that they are the remains of elevated coral reefs or islands.

These groups contain some hundreds of species of shells,