

- 1st. In the gneiss and mica-slates.
- 2d. In the western parts of the talcose-slates of Carroll and Frederick counties.

FORMATION No. 12.

Matinal series in the Pennsylvania reports, Hudson river Slates, Utica Slate and Trenton Limestone in the New York reports.

Not having had sufficient opportunity to investigate this formation in our State, I avail myself of the description given by Professor Rogers for the adjacent parts of Pennsylvania, which is as follows:

1. "A dark blue and blueish gray, soft argillaceous limestone, alternating near its upper limit, with blue calcareous shale." It contains many fossil shells.
2. "A blackish and dark blue fissile slate, usually very carbonaceous, and containing fossils."
3. "Blueish gray shales and sandy slates, containing in their upper portion especially, many beds of argillaceous sandstone, and some layers of a dark gray siliceous conglomerate." It has many fossils.

This formation occurs in Maryland only in the western side of the Hagerstown valley, and although the soil it produces is naturally less fertile than the adjacent limestone, it can be readily made productive if judiciously treated.

FORMATION No. 13.

Levant series of the Pennsylvania report, Oneida Conglomerate and Medina Sandstone of the New York reports.

This formation is divided by Rogers as follows:

1. A compact greenish gray massive sandstone.
2. A soft red sandstone and shale.
3. A hard white and light gray sandstone in thick massive beds, alternating in its upper parts with beds of greenish shales similar to the next formation above, (12.)

In the Pennsylvania report Professor Rogers includes the rocks of this division under the name of the Levant series. In the New York reports the gray sandstone is called Oneida conglomerate, whilst the red and the white sandstone beneath is named Medina sandstone.

These rocks form the summits of the North Mountain, Tonaloway Hill, and Will's Mountain, and from thence dip under Dan's Mountain, and do not again rise to the surface in Maryland.