2. Olive, brownish and gray Shales, in some localities containing thin beds of brown and gray sandstone.

3. A brownish and blueish Slate.

Among its fossils are remains of plants allied to those of the coal formation, and the lowest yet known of that kind.

## FORMATION No. 16b.

Vergent series in the Pennsylvania reports. Portage flags and Ithica and Chemung groups of New York reports.

It consists of-

1. A fine grained sandstone (more or less argillaceous,) in thin layers, parted by thin seams of shale, with marine fossils.

2. Blue gray and olive colored shales with occasional lay-

ers of brown and gray sandstones.

The rocks of this group, with those of 16a, are largely developed between Licking creek and Hancock, in Sideling Hill, and in all the ridges westward to Cumberland, where they crop out. They are again seen in Dan's Mountain, near its base, dipping westward, and do not appear again in Maryland.

## FORMATION No. 17.

Ponent series of the Pennsylvania reports. Catskill group of the New York reports.

This group is the equivalent of the old red sandstone of Europe, and which has been popularized, so to speak, by Hugh Miller. The name of old red shales would be more proper in our State, because it consists principally of rather soft red shales, with a very few beds of red, brown and gray sandstones. Like all the red shales in this State, it contains very few fossils, and these are in a few calcareous layers. It occurs in Sideling Hill and Town Hill, and again on the east flank of Dan's Mountain, under which it dips and re-appears on the west flank of Savage Mountain. It occupies a large portion of Allegany county, west of Savage Mountain, between the three coal basins, as will be seen by referring to the map.

## FORMATION No. 18a.

Vespertine series of the Pennsylvania Survey. (It does not occur in New York.)

This group consists of greenish and olive colored and blue-CHAP. III.