have taken place with more uniformed force over large areas. The result is, therefore, that whilst elevations of more than 3000 feet have taken place in some of the ridges, the strata are not generally turned up at such high angles, nor are they so much plicated or broken as in the older rocks.

In describing the formations of our State, we shall commence with No. 5, and then notice the intrusive rocks Nos. 1, 2, 3, and 4, which occur within the limits of No. 5.

FORMATION No. 5.

Gneiss, Mica-slate, and Hornblende-slate, including the Intrusive Rocks 1, 2, 3, *and* 4, *and a portion of the Limestone No.* 11.

For the mineral character of these rocks, reference may be made to the description in Chap. II.

The southwestern limits of these rocks above the tide level, are at the head of tide-water upon most of the streams crossed by the old post road from Elkton via Havre-de-Grace and Baltimore to Washington. Along this line it passes under the cretaceous clays 21 and 22.

It constitutes a belt varying in width from 12 to 20 miles, and extending through portions of Cecil, Harford, Baltimore, Howard, and Montgomery counties, and is bounded on the northwest by Talcose slates, (6,) or more correctly speaking it seems to pass into that formation by insensible shades of difference.

It would be proper to describe the positions of each of the three rocks now included under No. 5 separately, because of the marked difference of soil they produce, but this cannot be attempted until a minute geological survey of them shall have been completed. In the present state of our knowledge they may be viewed as a somewhat confused assemblage, which it will require time and patience to unravel.

Nearest the southwestern limits the prevailing rock is gneiss, with occasional intercalations of mica-slate, and still more of hornblende-slate. The proportion of gneiss is greatest in Baltimore county.

Mica-slate increases in quantity as we proceed northwest, and in Montgomery county it is a prevailing rock. The intercalations of hornblende-slate are more abundant in the gneiss than in the mica-slate.

The accidental minerals in gneiss are few in number in this State, and insufficient in quantity to affect materially the character of the soils produced from this rock. There are numerous minerals, however, of much scientific interest that should be described in a final report. Those of industrial import-