

west of Baltimore and extends thence as far south as Laurel. The gabbro is a rather fine-grained aggregate of hypersthene, diallage, plagioclase (bytownite) and magnetite, with varying amounts of apatite and brown hornblende. The unaltered gabbros are usually massive, heavy and dark colored. With the alteration the color changes through a pale buff to the characteristic deep reddish brown. By an increase in magnesia the gabbros pass by transitions towards the peridotites and pyroxenites; or in alumina, to highly feldspathic rocks; or in silica, to others which have free silica forming blue grains.

The action of pressure which has caused the recrystallization of the gneiss and marble is also well marked in the gabbros. It has caused the iron constituent, pyroxene, to change to another green mineral called hornblende; and has in some cases left the rock as massive as at first or in other cases rendered it schistose. The resulting rock is called *gabbro-diorite*. The change has always been most complete where the mass of gabbro is smallest, as in the narrow beds which connect the larger areas. This change is well shown along the Belair road near Baltimore.

The gabbro offers great resistance to the ordinary processes of decomposition, and hence it is strewn abundantly all over the area, which it occupies, in the form of boulders. It is at the same time so hard, so heavy, and so jointed that it could not be quarried to any advantage as a building stone. The loose blocks are much used for constructing stone walls or foundations, and occasionally whole buildings are erected of them.

THE PERIDOTITE AND PYROXENITE.—The second type of eruptive rock which penetrates the gneiss complex near Baltimore is younger than the gabbro, but it is genetically closely allied to it. These two types are connected by many intermediate varieties; and the more basic rocks, which break through the gabbros as well as through the gneiss, may be regarded as having resulted from a gabbro-magma which had become relatively poor in alumina, or in alumina and silica. The absence of alumina would prevent the formation of feldspar, and hence in the first case crystallization produced an aggregate of pyroxene (bronzite and diallage) called *pyroxenite* (websterite); while in the