

## CHAPTER X.

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### POLISHING MATERIALS.

The progress of manufacturing industry has created a very large demand for materials suited for giving smooth surfaces to metals and other articles. We find in our State materials applicable to such purposes which are worthy of notice.

#### 1.—EMERY.

This substance, which is a variety of corundum, and received the name of adamant from the ancients, is sufficiently hard to scratch every other known substance except the diamond.

The civilized world has long depended almost wholly upon supplies of this important article from the Island of Naxos, in the Grecian Archipelago.

As serious inconvenience would result from an interruption of our supplies of this indispensable material, it is well to know that it exists in Baltimore county, about twenty-one miles north by east from Baltimore, about one mile east of the Northern Central Railroad. It is more chrySTALLINE in structure, and purer than the Naxos emery, which always contains twelve to fourteen per cent. of oxide of iron and silica, in addition to mica and other minerals. The Maryland article is nearly pure corundum.

There is no doubt of its quality, but the question of quantity remains to be determined. I first discovered it on the farm of Mr. Shock in loose pieces upon the surface, near the line of separation between mica slate and steatite or serpentine.

#### 2.—TRIPOLI.

This material, which is extensively used in the arts, had the name *rotten stone* applied to it at a time when it was supposed to be a disintegrated stone, but the microscope has shown that it consists of the silicious remains of diatoms, and therefore has a vegetable origin.

Diatoms are minute vegetable organisms which float in water, and are so small as to be invisible to the naked eye. They exist in most streams, and constitute the food of oysters and many other mollusks. Upon the destruction of their vegetable constituents there remain minute skeletons, composed wholly of silica,