

this place the crystals were so minute and few in number as to require the use of a microscope to be seen distinctly. The moist marl when warmed in the hand exhales a strong phosphoric odor, a fact which it is believed has not been hitherto remarked."

The general appearance of the *Green marl* in *Charles county*, is pretty well represented in the name which it bears. This, however, may be owing to its having been observed so far only on the dry banks. The particles of the so called green sand which it contains answer exactly the description given of them, "they are easily recognized by their want of lustre, the ease with which they may be bruised with the point of a knife, and the bright green stain which they then produce." Some of the fossils supposed to be characteristic of the formation, were also observed, especially the fossil shell called the *Gryphæa*, described as "having one valve very deep and convex, and the other flat;" and *lignite*, or carbonized wood. In two localities, at Mr. Brent's and Mr. Digges's groups of crystalized selenite, or gypsum, are found in the green marl; but as they occur always in the upper portions of the deposit, at a uniform elevation, and as it were in a continuous stratum, (the marl being covered with a thick coat of ferruginous sand and gravel containing iron pyrites,) it is presumed that the selenite is only an accidental constituent of the *Green marl* of these localities, produced by the decomposition of the pyrites and the action of the resulting acid upon the lime of the marl beneath. A similar formation of selenite, was described in the former report as observed in the shell-marl deposit at the mouth of St. Inigo's creek, on the St. Mary's, and this, as previously stated, does not belong to the green-sand formation. The phosphoric odor recognized by Professor Rogers in the marls of New Jersey, was not perceived in ours. But the foregoing points of similitude are sufficient to identify the deposits on the Potomac with the green sands of New Jersey and Virginia. On the other hand, a very usual accompaniment of the green marls of Charles county, is that of spheroidal masses of indurated marl, in shape resembling a gourd—whence they are sometimes called by the uninformed petrified gourds—and varying in size from the larger to