of combination may differ in which these substances are united to each other.

There is, therefore, almost every shade of difference in soils as to their texture; but goodness or badness will depend either on the proportions of the four substances named above, in certain limits, or the presence in certain quantities of other substances, the directly nourishing substances. A necessary knowledge of each of these can certainly be known by proper analytical examination and the goodness or badness of soils accurately determined.

These things being understood, I now proceed to give a short but accurate description of the principal soils composing the tide water section of the State, which are found in every part of it, unless the contrary be stated. In speaking of the soil by name in the several counties, the reader may refer to the general description here given.

First then we mention what is general known by the name of

White Oak Soils.

By this name is known a class of soils which form a large part of the tide water section on each side of its divisions.

"This class may readily be distinguished from all others by its white color, firm, compact texture, its level surface, its great retentiveness of moisture, by its softness and plasticity when wet, and by its firm and unyielding nature when dry. It is almost always in its original state, covered with white oak *timber*, from which it derives its name. Sometimes, however, pine grows abundantly on it, mixed with the white oak. The water which runs off from its surface is of a dirty white color, and even when it collects in pools, takes a long time to become clear; in other words, a long time must elapse before all the earthy matter from its extreme fineness, subsides to the bottom. The *sub-soil* is most usually a *true* white clay, (silicate of alumina and protoxide of iron,) unless on the points of land running into the rivers and ocean where red clay predominates. Occasionally, we find the sub-soil of a "mottled, marbled" character, being a mixture of the red and white clay in various proportions. The sand in these soils is always in a finely comminuted state, feeling but slightly gritty under the fingers, and receiving minute impressions when placed in contact with any uneven surface. It is from the extreme firmness of the sand, that this soil derives its compact texture and its power of retaining moisture. It is this which makes up for what would otherwise be a deficiency in the clay and iron."

The above was written more than fifteen years ago, in my first report to the House of Delegates of Maryland, since that time large tracts of this land in every soction where they are