stubble. At harvest I measured off and reaped separately, one acre of the ashed land, and one acre of the *unimproved* land. Upon the ashed land, I have raised seventeen bushels of grain, upon the unimproved only *seven* and one-half, an acre of nine and one-half bushels. The product of the limed acre was not measured, but as the eye could observe, there was a slight difference in favor of the ashes, but very little. The difference in the cost of improvement, however, was material; the ashed land cost $12.50 per acre, and the limed only $3.00. On the young wheat, in the spring, clover seed was sown upon the whole field, but the plants all died in the summer, except where the lime and ashes had been applied. And I may here add, that in every instance I had failed to raise clover where either lime or ashes had not been applied."

For more particular details, the reader is referred to a letter from Mr. Wallace, in the January number of the American Farmer. It is by far the most valuable practical paper yet published on this subject.

These analyses and experiments place the matter beyond cavil, as to the successful manuring of poor lands of this description. I have examined numerous specimens of this variety of soil in other parts of Dorchester, in Somerset, and Worcester, in Queen Anne's, Kent, and Cecil, and they all have the same general composition, and would be benefitted by the same cultivation, the same kind and quantity of manures.

RED AND YELLOW CLAY SOILS.

By this term I include all of those soils, having for their bases, red or yellow clay. The surface soil depends very much for its color, on the quantity of vegetable matter in it. Sometimes it is filled with course gravel, sometimes it is a fine dark grey sand, frequently of a light reddish color, owing to the presence of per oxide of iron, and very often the surface soil has nothing by which it can be so described as to be recognized. The sub-soil is, however, always characteristic, being a red or yellow clay, similar to that from which bricks are made. The clay differs in color from a bright brick red, in Cecil, to a pale fawn color, in Worcester county. The transition in color is gradual, from Cecil to the southern parts of the shore, becoming less red by almost insensible degrees, a fact due to the dimunition in quantity of the iron. These clays, also, are less strong as we proceed downwards; that is t, hey contain a less quantity of pure clay

The surface soils over these clays are deficient in alumina and per oxide of iron, in lime, magnesia, and the phosphates. The first two can be supplied by deep plowing.

The red and yellow clay sub-soils contain from eight and a half, to as much as twenty bushels of lime per acre, for every inch in depth. Hence, on those soils, with every inch of clay which is turned up, from eight and a half to twenty-five bushels of lime is brought into action. Besides this, they also contain magnesia, and sometimes potash. If there was no other reason but this,