

rather more vegetable matter, but its useful mineral constituents were in still smaller proportion.

#### LIGNITE.

This has not been usually ranked with manures, but some facts communicated to the French Academy a year ago have induced me to notice it. If the results of the experiments of M. Millot Brule be confirmed, it will prove valuable for a manure, as well as for protecting plants from insects.

Lignite, although much heavier, resembles charcoal in appearance, and in retaining the form of wood, from which it was derived. Carbon predominates in its composition, but there is a large proportion of soluble matters of vegetable origin, as well as some mineral matters. It contains sulphuret of iron or iron pyrites, which is readily decomposed and oxidated, when exposed to the air, producing copperas and also gypsum, if, as is usually the case, lime be present.

The large proportion of iron pyrites has occasioned the name of sulphur coal to be applied to it in Germany.

In the American Farmer of March last or May, I gave an abstract of the paper of M. Brule, with some remarks of my own in reference to the properties of Lignite. I also indicated its existence in a number of counties, and that it was readily accessible in several deep cuts on the line of the Washington & Baltimore Railroad. It was further stated that it found useful it might be collected, ground and sold at a low price in this State.

Numerous inquiries were made of me, (by those wishing to try it,) as to the means for procuring it, as it had not come into the market.

Mr. William Robinson, lime and guano dealer in Baltimore, having offered to grind up a small portion for gratuitous distribution, I had about a barrel of it sent to him, which has been ground and will be given in quantities of a few pounds to farmers and planters for experimental use. It is unnecessary to repeat the article in the Farmer, but I may state that M. Brule found it most effectual in destroying insects, after trying it in divers ways. In Saxony it is used as a preservative of timber, which is immersed for some time in a bath made up with powdered Lignite stirred up in water.

The chemical composition of Lignite is such that it cannot but prove a manure in the proper dose. What is the proper quantity to apply must be determined by experience. As some of it will produce more sulphate of iron than other samples, and as we should avoid an excess, I would try from five to ten bushels to the acre.

If my agricultural friends will give it a careful trial, both as an insect destroyer and a manure, I will, if it shall prove useful to them, make special examinations of the many localities where