

## CALCAREOUS MANURES.

In my previous Reports this class of manures has been so fully described and their mode of action so thoroughly explained, that I deem it unnecessary to repeat here what I there said of them; the more is this unnecessary that in the particular description of soils the kind of lime and mode of applying it is specially recommended. I shall therefore only mention in this place gas-house lime, give its analysis, and a few suggestions as to its use. I do this because inquiries have of late been frequently made of me in relation to it. The following is an analysis and report of the gas-house lime sold in Baltimore by B. S. Holt, and delivered on board of vessels at any wharf for five cents per bushel:

At your request I selected a specimen of the gas-house lime which you sell, in order to procure a sample that might not be liable to the objection of being unfairly taken. The examination was undertaken to determine the fitness of this article for agricultural purposes.

I herewith forward you an analysis of the sample taken, and also some practical information for the use of this variety of lime. The analysis of a sample of gas-house lime shows its composition to be as follows:

*Per centage composition of Gas House Lime.*

Hydrate of lime, (water-slacked lime,).....	41.17
Hydrate of magnesia.....	1.02
Carbonate of lime, air-slacked lime,).....	28.48
Hydrated sulphate of lime, (plaster of Paris,).....	4.93
Hydrosulphate of sulphuret of calcium,.....	3.79
Hydrosulphate of sulphuret of iron,.....	4.67
containing of sulphureted hydrogen, 5.03	
Phosphate of lime, (bone-earth,).....	0.26
Sand.....	2.94
Water.....	12.74
	100.

By reference to my first Report to the House of Delegates of Maryland, you will perceive that I then published the result of several examinations of this lime, and recommended its use under certain conditions. Since that time I have carefully watched the effects of this lime, and collected all the facts attending its application, and am confirmed in the belief, that not only is this lime free from injurious effects, when properly used, but that on certain soils it is preferable to every other variety.

It can be properly used wherever oyster shell lime or stone lime, free from magnesia, is indicated; and moreover, is especially applicable to all soils where plaster of Paris can be beneficially used.