tion, but not in its original condition. I believe the following table correctly expresses its composition:

Neutral phosphate of lime	87.95
Sulphate of lime	4.21
Lime combined with organic matter	1.47
Organic matter	2.29
Phosphate of iron	0.35
Phosphate of magnesia	0.61
Chlorine	trace
Sand	0.63
Moisture	2.34
	100.85
The phosphoric acid is equivalent to bone phosphate of lime	100.14

After the publication of these results Drs. Higgins and Bickell published a paper on the same subject. They pointed out some interesting facts which had escaped my observation. It will be remembered by every one who has seen this guano in its natural state, that it has a glazed surface of a mammillated form which is a mere shell-covering, of a dark brown compact mass. The latter was the portion I examined. They studied the surface also, and found that in it, the phosphate of lime exists in the form of bone phosphate, while they arrived at the same conclusion with myself in reference to the body of the rock.

The first guano of this kind was found upon the surface of primitive rocks on Monk's island, in the gulf of Maracaibo. Afterwards, it was discovered on El Rogue. A substance closely resembling, but not identical with it, has been recently brought in from El Monita. The cargoes of this guano do not come up to the samples, because they contain a large proportion of the rocks of the islands. Still, they furnish the largest amount of phosphoric acid in a given weight of material, and that, too, in a remarkably soluble form. The only difficulty is, that this variety is scarce.

Sombrero Guano.

This guano is the most abundant and uniform source of phosphoric acid now known to commerce. It is incorrectly called a guano, as it has evidently not originated from the excrements of birds, but is clearly a submarine deposite. I am inclined to think, that it is made up of the bones of marine animals, and the excrements of fish and mollusca that feed among the coral reefs. It is composed of phosphate of lime, mixed with some carbonate of that earth, as well as the phosphates of magnesia, iron, and ammonia. It contains