

## LIME FROM INDIAN SHELL BANKS—NO. 2.

Sand,.....	2.00	per cent.
Lime as carbonate,.....	95.15	"
Lime as phosphate,.....	2.20	"
Clay and iron,.....	.60	"

## LIME FROM INDIAN SHELL BANKS—NO. 3.

Sand,.....	6.25	per cent.
Clay and iron,.....	.15	"
Lime as carbonate, i. e., air-slaked,.....	91.20	"
Lime as phosphate, i. e., bone dust,.....	2.30	"

N. B. The numbers 1, 2, 3, affixed to the "Lime from Indian Shell Banks," "Schuylkill Lime," and "Susquehanna Lime," only denote the order in which they were examined.

## NORTH RIVER LIME.

Specimens obtained from Worcester county.

Water,.....	7.00	per cent.
Sand, clay and iron,.....	11.90	"
Lime,.....	56.00	"
Magnesia,.....	25.00	"

## GAS HOUSE LIME—NO. 1.

Water and free sulphur,.....	9.20	per cent.
Sand,.....	4.00	"
Clay and iron,.....	1.00	"
Lime as carbonate,.....	80.00	"
Lime as sulphate, i. e., gypsum,.....	3.00	"
Lime as phosphate,.....	2.00	"

## GAS HOUSE LIME—NO. 2.

This specimen had been exposed to rain.

Sand,.....	6.00	per cent.
Sulphur, (free,).....	.90	"
Water,.....	13.00	"
Lime as carbonate,.....	68.75	"
Lime as sulphate, (gypsum,).....	9.30	"
Lime as phosphate,.....	1.90	"

Gas house lime is obtained from oyster shells, and is used to cleanse the carburetted hydrogen, (the gas used for light,) from sulphuretted hydrogen, (that which is easily recognized by its smell, in the neighborhood of the gas house.) This lime always contains a portion of sulphuretted hydrogen, depending on the quantity of sulphur in the coal from which the gas is made.

When exposed to the atmosphere, the sulphuretted hydrogen, (hydro-sulphuric acid,) loses one of its elements, and becomes converted into sulphur. The sulphur thus formed, by further exposure to the air becomes changed into sulphurous acid, and whilst