Those coming from the Chazy formation at Alumette Island, left after calcination 61 % of fixed residue, consisting of :

Phosphate of lime	85 7
Carbonate of lime	11 7
Magnesia	2 6
	100 0

and analysis of the original material gave as follows :—

	Alumette.	Hawkesbury.	R. Ouelle.
Phosphate of lime	36.38	44.70	40.34
Carbonate of lime and some fluorine	5.00	6.60	5.14
Carbonate of Magnesia		4.76	9.70
Oxide of Iron and Alumina	7.02	8.60	12.62
Magnesia			
Insoluble	49.90	27.90	25 ,4
Volatile by heat	1.70	5.00	2.13
	100.00	97.56	95.37

We here observe an average of 40% of phosphate of lime. It would appear that our knowledge of the proportion of phosphatic element in similiar animal remains is very imperfect, so that upon further investigations, we may expect to meet with many other similar accumulated supplies of phosphoric acid.

Some authorities attribute a large portion of the phosphate of lime in the Charleston fields to such molluscs and principally *Lingula pyramidata*, which are found abundantly on the present coast.

CLASSIFICATION OF NATURAL PHOSPHATES.

I prefer for all practical purposes and from rational observation to modify the classification proposed by Dr. Penrose, thus :—

Apatites	Fluor-Apatites. Chlor-Apatites.
Mineral and Rock Phosphates	Phosphorites. Nodules, Coprolites. Concretions. Conglomerates. Phosphatic Limestone. Phosphatic Marls. Crust Guanos.