

"Report of Progress" of the Geological Survey of Canada for 1851-52, by Sir Wm. Logan, are here given :—

On page 28, this eminent authority says : "Small black phosphatic nodules are mentioned by Mr. Murray as occurring at the base of the Chazy limestone. On the 33rd lot of the 7th concession of Lochiell, where they are sparingly disseminated in the rock, they occur in precisely the same stratigraphical place, on the rear of the 10th lot of the 1st concession of West Hawkesbury, where they are rather larger, but still in sparing quantity. As the nodules, however, when separated from the rock, hold, according to the analysis of Dr. Hunt, a large amount of the phosphate, they would probably render the limestone beds in which they occur of more than ordinary value, to be burnt for agricultural application when lime is required, as the phosphate can scarcely fail to be of additional service. Small black phosphatic nodules exist also in thin sandstone beds interstratifying green slates at Grenville. * * * * *

"Brown nodules of the same description, but larger in size, occur in a conglomerate, supposed to be of the same age as the Grenville beds, at Allumette Falls on the Ottawa."

It will be clearly seen, then, that *phosphatic nodules* are eminently characteristic of the Chazy throughout the entire length of the Ottawa Valley. I have observed them, not only in the calcareo-argillaceous and partly arenaceous shales of Hog's Back, in Nepean, to the west, but also in strata of the age at the lower Gatineau ferry's wharf.

The most practical question now seems to be the use to which the shales might be put in affording a fertilizer. Perhaps the Central Experimental Farm authorities might be induced to take the matter up and ascertain the practical value of the beds which hold these phosphatic nodules along with *Lingula*. A fair trial on a small scale would be of considerable interest, and the result on the crops would be looked forward to with much interest. An analysis of the Hawkesbury nodules gave Dr. Hunt the following result :—

Phosphate of lime (bone earth).....	44.70
Carb. of lime.....	6.60
“ magnesia.....	4.76
Per ox. of iron and trace of alumina.....	8.60
Insoluble silicious residue.....	27.90
Volatile matter	5.00

97.56

For further information respecting the minute descriptions given by Dr. Hunt, the reader is referred to the same "Report of Progress," pages 110, &c.

OTTAWA, June 21st, 1888.