

ble fact of the peculiar fertilizing agency of this Gypsum (especially to be found in some mines near Paris.) will be better understood by those who have examined the effect of Irrigation from water impregnated with Carbonic Acid Gas, derived from the Calcareous Strata or Cretaceous Rocks in which the Springs originated; a fact noticed by a writer whom Sir Charles Lyell styles the Father of British Geology; Mr. William Smith, the author of the first Geological map of England. (See his Treatise on water Meadows, written when constructing those of the Duke of Bedford, at Woburn, which are particularly described.) The dark slate color of the best Gypsum is also derived from the Carbon, this is evident in preparing the two varieties for cement or moulding; while the white pure Gypsum parts with the water of crystallization only, the dark slate color gives out a volume of smoke with strong smell of Carbonic Acid Gas; and both specimens become equally pure white by the process, and about equal in Specific Gravity.

Another general defect in the Reports is the absence of any glossary, the numerous scientific terms constantly recurring which are not to be found in any of the ordinary Dictionaries, must render the information intended to be conveyed entirely unintelligible to the great majority of readers, but few of whom have the means of referring to Lyell's or other standard works in which glossaries are to be found.

It was also expected to find occasional notices of rich veins of marl or soft Cretaceous sand,—substances of great value to the Agriculturist in particular sections, but the only notice to encourage us Farmers is, “that Gypsum *will be found* between the Saugeen and the present workings on the Grand River,” a distance not far short of one hundred miles! It was recommended that the Geological Survey should supply materials for a Geological Map, as in England, but I do not find any allusion in the Reports indicative of that object, which is much to be regreted.

I have now to state a few remarks on the expected development of Coal in Western Canada, to which allusion was made in a former communication. It was my intention to have made a personal inspection of the Ohio and Michigan Coal fields last Summer, but a poor state of health alone prevented; it is, however, intended in the ensuing Spring, and I confidently expect to find Geological Criteria, in associated mineral masses, mining characters and other facts hereafter to be explained, to warrant the conclusion that both belong to the same formation, and also supply indications for research in the intermediate space in Canada.

I have only to add a suggestion for developing our mineral resources with much more practical benefit and public satisfaction, than can be de-

rived from the present Survey; which is too much calculated to mystify a useful science. Let suitable medals or honors be offered for the best Essays on various subjects on which information is desired; this would lead many intelligent minds to enquiry, and the speedy acquisition of all the facts and local knowledge acquired by our neighbors, and might also serve as a nucleus for a scientific association of our own people, which is much to be desired, and would also impart a practical character to our Mechanics' Institutions.

I am, Sir,

Your obt. servt.

HENRY MOYLE.

Sheep Walk, near Brantford, Dec. 15, 1851.

[We agree with our Correspondent as to the desirableness of the Geological Reports being written in a style as easily to be comprehended by general readers as possible; but we despair of ever seeing purely scientific subjects so treated as to be understood by those who do not care to learn the meaning of scientific terms, which are in most instances, peculiarly concise and significant. The geological and mineralogical Survey of so new and extensive a country as United Canada is indeed a herculean task, and to be done thoroughly, it will require much time and labor. Haste, in such matters, is seldom real progress. The practical application and money value of these researches to our agriculture, mining, and other industrial pursuits are only just beginning to be seen. Sure we are that the work could not be in better hands. Mr. Logan's acknowledged scientific and practical skill, guided by observing and descriptive habits of the greatest accuracy;—qualities, we believe, also possessed in a distinguished degree, by his coadjutors, Messrs. Hunt and Murray, cannot fail to secure public confidence in the truth and accuracy of the Geological Survey; on which our respected correspondent, would, we are sure, be the last to insinuate even a doubt. We would like to see, as early as practicable, the materials in the hands of the Provincial Geologist, worked up into a convenient volume,—popular in its character, yet strictly correct in its science; accompanied with an outline geological map, and practical hints and instructions to miners, agriculturists, &c. Whether the Survey has yet extended far enough to warrant the attempt, we know not; but nothing ought, in our opinion, to be left undone towards facilitating so interesting and useful an object. We would further suggest the