

wealth have been made known, while in the Colonies the discovery of similar objects has been neglected.

In all new countries, the progress of mining is slow. This arises from the want of capital and the practical science and skill required in all the operations connected with such pursuits. It is, therefore, necessary to direct the attention of individuals abroad, to these resources, that they may be opened and rendered useful to the Province.

There is no science except chemistry more capable of introducing improvements in agriculture than geology; as it includes within its range the true history of all soils, and the substances by which they may be improved. All the different kinds of soils have had their origin in the solid rocks, which by the operations of the atmosphere, water, frost, &c. have been disintegrated and reduced to that pulverised condition, whereby they are rendered capable of producing plants. Geology, as connected with mineralogy and chemistry, discovers the constituent elements of every kind of soil and the substances whereby it may be made fertile. In reference to this part of the subject, I beg to introduce a letter from JOSEPH WALTON, Esquire, of Saint Andrews, a most respectable and intelligent farmer.

*Saint Andrews, June 19th, 1841.*

DR. A. GESNER;

*Dear Sir.*—In compliance with your request, I herewith give you a brief statement of the effect of the application of the Marl, found by you on my farm in the fall of the year 1839.

I opened a pit of the Marl and hauled eighty cart loads on hay land, which remained in small heaps during winter, and was spread in the spring, then ploughed, and sowed with oats: it produced a fine crop. I sowed a piece adjoining without marl, and the difference in the two crops was very great. I ploughed the stubble ground in the fall, and planted potatoes the following spring: the difference, in appearance, of the two crops, to my disappointment, was this season greatly in favour of the piece without marl—the vines being much larger and more thrifty; but I was agreeably surprised on digging the potatoes, to find that the small vines on the marled piece produced one third more potatoes than the others, and of much larger size.

In the fall of 1839 I put ninety loads of marl on one acre of potatoe ground, which I spread in the spring, and sowed with oats and grass seed; the produce was nearly double that of an acre adjoining; and this spring the difference in the grass is visible, as far as it can be seen—the one piece being covered with sorrel and white weed, and the other with beautiful clover and herds' grass. I may here observe, that the soil on which the foregoing partial experiments have been made, is dry and gravelly.