

TO OUR SUBSCRIBERS.

The readers and friends of this Journal will, no doubt, be surprised, when we announce to them that the Editor has removed to his farm, in Whit church, a distance of twenty-six miles from this city. There can be no question but that this change will have a highly-favourable influence upon the character of the work, inasmuch as many of the suggestions and improvements recommended to others will be practised by its Editor and Compiler.

We wish it to be distinctly understood, that the *British American Cultivator* is now, beyond a doubt, established; and that it will continue to improve, both in matter and appearance, until it exceeds, in intrinsic excellence, any Magazine of a similar description published on this Continent. So far as the accomplishment of this object is concerned, no effort shall be spared, on the part of the Editor, to render this Journal worthy the patronage of an enlightened and liberal public; and the hope is confidently entertained that all those who appreciate the enterprise will extend their aid, and exert their influence with their neighbours and friends, to increase the circulation of this useful periodical.

In future, all orders and communications must be sent to the address of the Publisher, Mr. JOHN EASTWOOD, Junr., Toronto.

M A R L.

But few of the Canadian farmers have any correct knowledge of the benefits that would result, were they liberally to use calcarious manures, as a dressing upon their land. In many sections of the country, where lime would be most efficacious to the crops, the absence of the limestone-rock would prevent the use of this substance in a caustic state. A bountiful Providence has, however, so wisely distributed His blessings, that, in many instances, in those sections of country where calcarious manures are most wanted, and the limestone-rock most scarce, there are inexhaustible mines or beds of carbonate of lime deposited, for the use of man, in a state that requires no further preparation or expense for the land further than the labour attendant upon leading it to their fields.

As some of our readers may fancy this, above all others, a dry and any ro-

storable subject, we would embrace this opportunity to inform them, that, to us, it was equally so, until we were convinced of the necessity of obtaining a knowledge of the science, as well as the practice of Agriculture. Upon inquiry and experiment, we found, that, in order to carry out farming operations successfully, it was absolutely necessary that lime, in some shape or other, should be mixed with vegetable matter. After considerable study and observation, we came to the conclusion, that, in a large proportion of cases, where lime was most wanted, it was abundantly intermixed with the subsoil, which lies directly below the surface mould, and only requires the operation of deep ploughing to give as ample a dressing of lime to the soil as could be given were the most expensive sorts used.

It is only within a few years past that chemistry has been brought to bear upon Agriculture, with any degree of certainty or profit: but since the food necessary for maturing plants and vegetables has been correctly ascertained, by men of science and deep research, the farming community would give evidence of their wisdom, by adopting such a method of farming operations as would secure to them large returns for the capital and skill employed.

To ascertain whether the subsoil contains any considerable amount of carbonate of lime, we would recommend, that, when the ploughing operations are being carried on, specimens of the subsoil should be dried, and reduced into a powdered state, after which it should be put into a state of solution with water, and if, upon the application of a small quantity of muriatic acid (or strong vinegar will answer nearly the same purpose), it produces a state of effervescence, or fermentation, it is a sure indication that the subsoil may be brought to the surface, by the operation of deep ploughing, with favourable results to the following crops, and with permanent advantage in improving the texture of the soil.

It should, therefore, be a matter worthy the closest attention of the intelligent cultivator, to ascertain whether the peculiar soil which he cultivates is based upon a stratum of calcarious earth, or whether both soil and subsoil is deficient in this essential substance. If both be deficient, it is obvious that it must be brought to the soil by artificial means. The expense of procuring kiln-burnt lime, for Agricul-

tural purposes, is so great, that it is only under very favourable circumstances that its use could be recommended. There are, however, hundreds of cases within our knowledge where lime might be brought into very profitable use.

So sanguine are we that great and permanent benefits will ultimately accrue to the Canadian farmers from the use of Marl alone, that no opportunity shall be lost, or trouble spared, in bringing the subject before the Agricultural community, in such a style as will, we trust, ensure their attention.

Marl is found in a variety of combinations, but that which may be brought into most general use is to be found in a decayed fossil state, at the bottom of marshy grounds, in the neighbourhood of small lakes and stagnant ponds of water, and in the bottoms of ash and cedar swamps. The purest kinds have a soapy-like appearance, and are very unctious to the feel; others appear like a mass of leached ashes, with the exception of the colour, which is most generally white, or cream-coloured. Let its colour be what it may, its richness, in lime, will be most readily ascertained by applying the acids previously recommended; and it should be remembered, that its value as a fertiliser chiefly consists in the calcareous particles that it contains. So little value has been placed upon this the best of all fertilisers, that a score of instances have come under our own observation, where farmers have extensive beds upon their estates, and have not known its worth sufficient to value this kind of property at a farthing per acre more, than if no such substances were upon it; whereas, if only a single experiment had been made, upon either wheat or grass lands, it would have added one hundred per cent, to the value of the property, in the eyes of every discriminating individual.

In a part of the country which we lately passed through, and in which there has been a failure in the wheat crops for the past few years, owing to the baneful influence of mildew or rust; we discovered a bed of marl, covering an area of twenty acres; which to all appearance averaged a depth of fifteen feet: the owner of the property, as well as the surrounding neighbours, were not aware that the substance, which we call carbonate of lime, was of any practical use, further than that of making a whitewash for plastered walls, for which purpose it is in very extensive requisition. Upon analysis this