

of each, for the purpose of introducing a powerful stream of water: this washed out the Peroxide of Iron in large clots. It was necessary to repeat such an operation occasionally, as fresh quantities soon accumulated.

This is not the place to enter into many chemical details respecting the action of air and water upon the soil; the combinations which are broken up and entered into, would be too complicated, even in the present imperfect state of our knowledge respecting them, and too purely scientific for a mixed audience. I will therefore at once proceed to give some information as to the manner in which drains should be made, of what materials, and how far apart they should be placed.

In many parts of New England, stones are so abundant, that even the recourse of walls, almost unexampled in magnitude, proves insufficient for their entire disposal. In such cases it may be advisable to employ stones for drains, even where other materials can be obtained at cheaper rates. Stone drains, when properly constructed, are as durable as any others. Smith, of Deanston, the great originator of the present system of thorough draining, says that the stones should be small, none much above the size of a hen's egg. The bottom of the drain should be about six inches across; and from six to eight inches in depth of these small stones, should be thrown in. Turfs cut thin and very carefully, so as exactly to fit, should be laid on the top, overlapped each other, and the earth rammed down hard, as the object is to prevent entirely the access of water from above; it should all filter in at the sides, for if it finds an entrance at the top, sand and small stones will wash down, and eventually choke the drain. On most farms in this section, a sufficient number of small stones may be found on the surface of the fields. If large stones are employed, the sides are much more liable to breaking, and such drains also become the resort of rats and mice, whose holes greatly increase the danger of obstruction. The water from a well made stone drain, should run nearly or quite clear after heavy rains.

[To be continued.]

MODEL FARM—MR. BUCKLAND.

It is time we think to commence the discussion of the question, whether we are to have a MODEL FARM and School of Agriculture in the neighborhood of this city or not. We have heard from very good authority, that it is in contemplation not to establish a Chair of Agriculture in the University. That Institution will no doubt be remodelled at the next meeting of Parliament, and it is a matter upon which we in common with all others, who assume to speak on behalf of the public, have a right to express our opinion. We, as the organ of the farmers of this part of Canada, imagine ourselves to have a peculiar right to be heard by the members of a Legislature, the majority of whom are emphatically the representatives of farmers, and who so recently at the Polls were lavish of their promises, and during their canvass of the townships, grew eloquent on the importance of guarding and fostering the interests of agriculture, the one great object before a Canadian Government, in comparison of which all others sank into insignificance! Let us see that these pledges, these considerations are not lost sight of. We cannot believe that they will be. We have great confidence in the belief, that several of those M. P. P.'s, who will in all probability form the Government for the next four years, have not simulated a desire to see the Legislature assist in developing the agricultural resources of the country. Having a direct interest in farming, as is the case with some of those alluded to, we cannot believe that they will neglect or postpone unnecessarily the consideration of all measures for its improvement of a legitimate kind, which the present and future wants of our country demand.

Of these measures, one of the first, if not the first in importance, is the making provision for the establishment of at least one MODEL FARM on a respectable scale, with an annual appropriation sufficiently large to enable those who have charge of it, to make thorough experiments in all cases of a general character. The experimental department does not necessarily belong to a model farm, but in Canada it must form one of the chief, as it will be one of the most useful features of the undertaking. We have here no great landlords, who have both public spirit and illimitable means, to incur the expense always attendant upon experiments in agriculture, the results of which

are often of NATIONAL importance. We have no great opinion of the practical benefit which a Chair of Agriculture in the University would confer upon the country, and therefore should not feel disposed to find fault with its omission, but if that be given up we must have something better in its place, and we must have a portion of the funds yielded by the University endowment to sustain that something. Our public revenue is in so precarious a state, our public lands have been so recklessly squandered, all the other means at the disposal of Government, are so much needed for meeting claims already in existence, that we are obliged to look to the revenue of King's College, for the funds to establish and support an institution for the improvement of agriculture, and for the teaching of its principles. The division of the endowment among three or four religious sects, may be considered given up, but the appropriation of a portion of its revenue for the support of agricultural objects and interests is not given up. It was even promised by the division scheme, but the friends of agriculture expect it now.

We give below a communication from Mr. Buckland, of whom we have spoken before. Probably a more suitable person than Mr. B. could not be found, either on the other or on this side of the water, to take the management of such an Institution. We believe he has been somewhat disappointed in coming to this country; not finding things in the state of forwardness he was led to expect, and unless some prospect opens for the employment of his services in those branches to which he has devoted his attention, he will return to England. We should consider such a circumstance a calamity for more reasons than one. We hope our cotemporaries who profess to feel an interest in the improvement of agriculture, will give publicity to Mr. Buckland's letter, in order that the views of intelligent farmers throughout the country may be expressed on the subject. We must not allow Mr. Buckland to leave our country.

To the Editors of the Agriculturist.

GENTLEMEN,—

Will you allow me through the medium of your useful and widely circulated Journal, to state the objects for which I was induced to come out to this country, in order that public attention may be directed towards them? I have as yet had no opportunity of giving publicity to my views, nor have I received that degree of encouragement to attempt their practical realization, which I had fondly anticipated before I left England. What I now more particularly wish is—before I finally abandon the scheme—to ascertain, if possible, the feeling of the public in regard to it. I will endeavour to state my views in as concise a manner as possible.

1. My object was to procure an extensive and suitable farm, where youth and young men intended for farming might be thoroughly instructed, and trained in the theory and practice of the most approved systems of agriculture.

2. That such pupils might obtain in the many and important advantages of a higher knowledge, now demanded alike by the spirit of the age, and the actual wants of an advancing agriculture; and looking at the peculiar situation of this Colony, I considered that it would be highly desirable to connect such an enterprise with some Collegiate Institution, with a view that the undertaking might be made thoroughly efficient, and have the confidence not only of this Colony but also of the mother country. I have good reason to believe, that the Council of King's College are fully disposed to give all the aid which that important Institution has at its command, in its various literary and scientific appliances, to such an undertaking.

3. A small portion of the farm might be advantageously devoted to objects purely experimental. Such as trials in different modes of culture—the relative power and value of various substances employed as manures,—the introduction of new plants and improved varieties, &c.:—with a view to test their suitability for general cultivation in this climate. This department would no doubt be attended by a certain pecuniary loss,—which, however, would be more than coun-