

derable, and hence durability and completeness are essential to the full realization of its benefits. It is well known that in England, since the repeal of the corn laws, and the giving of facilities by public grants and incorporated companies with suitable powers by the Legislature for drainage, the average yield of wheat (to say nothing of other crops) has been increased by at least ten bushels per acre; and that not only in this additional produce obtained, but that other and no less important advantages have been sensibly realized, such as the decreased expense of working the land, an improved climate, earlier maturity of crops, less dependence upon the variations of seasons, and a higher quality of grain, and several other benefits.

With these prefatory remarks, it is our desire to call the attention of our agricultural friends to the prospectus of the "General Drainage and Land Improvement Company of Upper Canada," by a careful perusal of which they will see that the same means which have effected so great an advance in the agriculture of the mother country will now be placed within the reach of the Canadian farmers. We have authority for saying that the government has expressed its unqualified approval of the undertaking, as one calculated to develop the agricultural resources of the country; and that all the necessary powers will be given in the act of incorporation, for which application is intended to be made during the present session of the Provincial Parliament. It is the intention of the Company, we understand, to commence operations next spring by establishing tileries in a few well-selected situations, in districts from whence applications have already been made to them for their services, and where they will, of course, have opportunities of showing the superiority of the modern system of drainage. From the high standing of the Directors, and the professional ability of the officers, we have every reliance that the powers entrusted to them will be carried out with a view to the permanent prosperity of the Province, and at the same time the establishment of the Company on such a basis as shall secure for it both the confidence of the agricultural interest, and the support of the public.

It is our intention in subsequent numbers to dilate more at large on the subject of drainage, in all its branches and bearings; and to press the claims of this Company upon the serious consideration of the land-owners of Canada. Meanwhile we say to them, "every mickle makes a muckle,"—give a helping hand—take a share, or as many more as you can, the money will not be called for all at once—your interest is identical with that of the Company, and in becoming shareholders in it you may be securing for yourselves a fitting preference in their operations.

THE managers of the Salisbury Iron Works say that from an experience of sixty years, they had ascertained the most profitable period for cutting timber for fuel was to cut once in about sixteen years, when every thing was removed of a proper size, and the wood left entirely to itself for renewed growth.

CORRESPONDENTS are requested to be particular in writing plainly the name, post-office, &c., of subscribers.

THE POWER OF DIFFERENT SOILS TO RETAIN WATER.—An experiment which any one may try for himself, will show much plainer than words the relative power possessed by different kinds of soils to retain water and its dissolved contents. Put on a paper filter (strainer) half an ounce of dry pulverized clay, and on another half an ounce of sand. Pour water over each, and weigh them as soon as the filtration has ceased. The clay will weigh three-eighths of an ounce, and the sand only one-eighth of an ounce, more than before. With very coarse sand, the increase in weight will be still less. Clay is insoluble in water, but, sponge-like, it can retain a large quantity of it. Hence the importance of underdraining cold, wet soils, in order to render them warmer and dryer.

Again: expose an ounce of thoroughly dried clay to the air for some weeks, when it will be found to have gained in weight. This increase in weight results from the absorption of water, carbonic acid and ammonia. The smell will convince you of the presence of ammonia. Or more satisfactory still, mix it thoroughly with quick lime and a few drops of water, when the smell of ammonia (or hartshorn) will be distinctly perceived. By this experiment is seen the utility of exposing clayey soils to the action of the frosts of winter, by throwing it up in ridges and letting it remain till spring; but the full benefit of that, or any other mode of tillage and pulverization, cannot be realized without systematic and efficient drainage.

PULVERIZATION OF SOILS.—A writer in the *London Agricultural Gazette* says that "you may talk to a boy by the hour on the advantage of stirring the soil and of deep cultivation, inasmuch as it admits the air more perfectly throughout the substance of the soil, and thereby facilitates the chemical processes by which the soil and its contents are fitted as the food of plants; but no quantity of verbal instruction will equal in its force, either upon the understanding or memory, the lesson on that subject which that same boy would receive, if, after having dug a hole in the hardened ground, he were told to put into it again all the earth he had just taken out of it. The heap remaining over, which he could not return to its place, would represent more distinctly to him the bulk of additional air thus introduced into the soil by its disturbance, than any argument unsupported by this simple experiment could do."

OLD HORSES.—At the New Hampshire State Fair, Gen. W. P. RIDDLE, of Manchester, entered the lists with a pair of white horses, one of which was twenty-six and the other twenty-eight years old. The way in which these *old chaps* came to the right about face at the end of the furrows without long rein or driver, evidently showed that they had been well drilled under the discipline of the General during the past quarter of a century, as they finished their task in nineteen minutes, with Doe's No. 5 plow, with a sharp-edged revolving cutter.

WE can furnish bound copies of the *GENESEE FARMER* for 1851 by the first of January, 1855. Those who wish them should send in their orders at once.