THE CANADA FARMER

VOL. I. No. 22.] TORONTO, UPPER CANADA, NOVEMBER 15, 1864. [POSTAGE FREE

The Field.

Ridging Clayey Soils.

EVERY practical farmer is aware that when clay soils are ploughed while wet, they become compact and valueless for a number of years. This must be true in degree at every stage of humidity from moist to wet. Clay, as is proved by the manipulations of the potter, brick-maker, etc., is susceptible of being condensed into a much less bulk, even by moderate degrees of pressure. And when so condensed, many of its functions are destroyed. Clay, when in proper tilth, such as may be attained by the methods we shall indicate, has the curious property of receiving and retaining all organic proximates in solution, and will yield them up to water as a solvent where growing roots are present. After compression, however, this property of clay is materially diminished; yet it may be found in degree in baked olay, and in a less degree in clay not baked.

Clay soils, for the reason given above, retain manures, and not because they are impervious to filtration, for if the latter were true, they would be barren as well as impervious. It is well known thata clay soil, when once in heart and in good tilth, will continue to give large crops for a much greater length of time than a sandy loam. The experiments of Mr. Mechi and others in England, who have underdrained and subsoiled clay land, clearly establish this fact.

Admitting, then, the properties of clay before claimed, it is necessary to alter its unctuous condition, rendering it less adhesive and more missible; all of which may be done by purely mechanical means. This is generally performed in late summer by ridging and back furrowing, so as to leave the figure of the surface of the field like a succession of capitals AAVV along side of each other. In case the field has been surface-manured before this ploughing, then the manure will occupy a space like a small capital A in the centre of each large one, and all results consequent upon its fermentation will be absorbed and held by the clay Then run a small one-horse subsoil lifter in the bottom of each V, and so leave it for winter The fermentation of the manure, and the frequent freezings and thawings of the clay ridges (or letters A) will render them less plastic by spring, when the ridges A may be split by a two-way plough, throwing them into the V's on either side. A light surface cross-ploughing in spring perfects the tilth, and will render a clay soil thus treated much more kindly in texture than any other treatment. The eration of soils, clayey in texture, cannot be too highly recommended, for their great after-value, as compared with sandy soils, fully warrants the necessary expenditure. When clay soils are underdrained before the surface treatment we have recommended, they will maintain their free condition, while the continued decay of the root crops raised upon them will alter their colour, and, rendering them every year capable of receiving more heat, free them from surface baking or cracking, and render them more economically workable.—*Professor James J. Mapes.*

Sixty Acres of Cucumbers.

THE *Prairie Farmer* gives an account of a sixty-acre cucumber plantation belonging to Mr. L. H. Butler, who is extensively engaged in the manufacture of pickles.

The soil is part of it sandy and light, the rest is the common black prairie loam, in both of which the cucumbers grow well. The sandy land was warmer and earlier, and in a wet season suffered less, than the prairie soil, which, however, had the advantage in the past dry season, as it was less susceptible to drouth.

A few acres were planted about the fifth of May for the purpose of raising early cucumbers for the Chicago market, and for seed; but the main crop was not planted until about the tenth of June. The ground was prepared by ploughing it immediately before planting to the depth of ten inches, and upon this, without harrowing or rolling, the seed was planted in hills four feet apart in the row, and the rows six feet apart. Four or five plants are left in each hill.

One acre of this piece yielded 165 bushels, but this year the average of the whole sixty acres was only 57 bushels per acre. A good crop is 125 bushels per acre, but the severe drouth this summer greatly lessened the yield. A good picker will pick ten bushels in a day, and the picking season usually lasts four or five weeks. After the cucumbers were picked, they were assorted and packed in salt at the rate of half a bushel of salt to the 40 gallon cask, and in due time pickled in vinegar and put up for market. Mr. Butler was offered $16 per barrel for his cucumbers in the salt, which offer he declined.

We give these statements from the *Prairie Farmer*, for the purpose of showing that energy and skill expended in the production of even cucumbers meet their appropriate reward. Sixty acres, at the small yield of only 57 bushels per acre, give a crop of 3,420 bushels. If by $16 per barrel it is intended to say $16 for 10 gallons, or for every five bushels, then the crop is worth $10,944, or a little more than $182 per acre. From this must of course be deducted the cost of production. Mr. Butler estimates that his pickles cost him 23 cents per bushel when delivered in Chicago; for convenience we will say 25 cents.; this at the yield this year will be $14 25 per acre, so that his profits are at the rate of $167 per acre. If, however, the usual yield be 125 bushels per acre, then at the same rates the profits must be over $350 per acre.

How long shall we continue to raise wheat, oats, and barley, at an average yield of ten, twelve, or fifteen dollars, per acre, when we can reap $150 per acre from cucumbers?

A Chapter on the Canada Thistle.

To the Editor of THE CANADA FARMER:

SIR,—A correspondent of the *Country Gentleman*, vol. xxiv., page 80, has given the best and only feasible method, for farmers, of destroying the Canada thistle, (*Cirsium arvense.*) (By the way, what an unmeaning and senseless cognomen this Canada thistle is. It might be more appropriately termed the Confederate thistle. Acting, as it usually does, in confederation, and being not unlike the "Confederate States of America," tenacious of life, this term would not be utterly inapplicable.) He says: "Let your thistles grow as long as you can, and not have the seed mature enough to grow. Then mow them close to the ground. The next year they will be few and weak, and a second cutting will finish them. I do not think that a 'patch' of Canada thistles was ever subdued by ploughing or hoeing. I have tried both methods thoroughly several times, but always failed. Fields in which the Canada thistle has become troublesome, should be stocked down and mowed, and they will soon disappear."

In passing through the country, almost anywhere, no one can fail to observe the almost universal dissemination of the Canada thistle. It is impossible to estimate the influence wielded by this weed. Its injury to the cultivated cereals and crops of Canada is obvious, and need not be dwelt upon here. Its traces can be seen almost everywhere. And yet it cannot be doubted it has, in common with other weeds, a mission to perform—an honourable one, in my opinion, seeing that it is always a friend of poor farming and careless farmers. It will always succumb before a thorough system of management. It is never common to a proper rotation of crops, with good cultivation. In fact, it is an incentive to more careful culture; extra attention being given to the rotation of crops, more care to the selection and quality of the seed, and to a superior system of management throughout. The premises of a good farmer, one who is alive to every improvement of his profession, are comparatively free from this pest. We say comparatively, for it is well known it would be useless to attempt to keep them entirely so, with the adjoining land of his neighbour well stocked with the same weed. The only effectual remedy for this would be