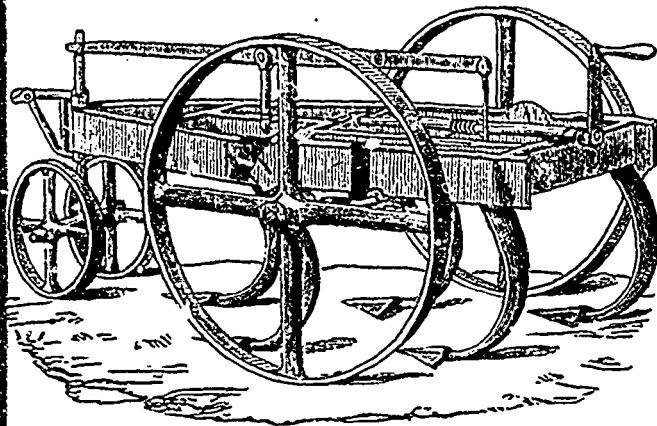
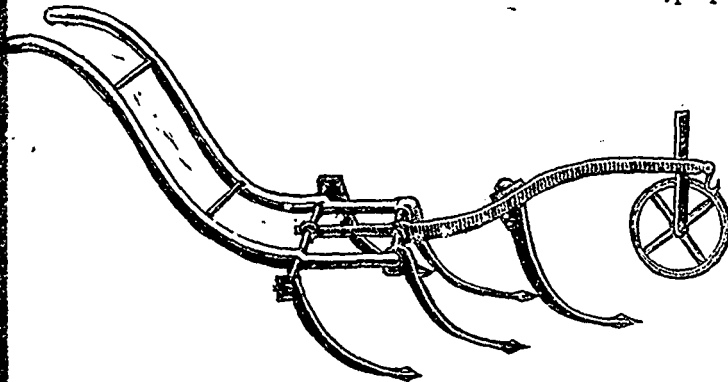


the summer fallow, viz., the extirpation of weeds. And thus, although the deep furrow took more time and horse-power in the fall, still this extra expense will be fully repaid in the spring by saving one operation in the busiest time of the year.

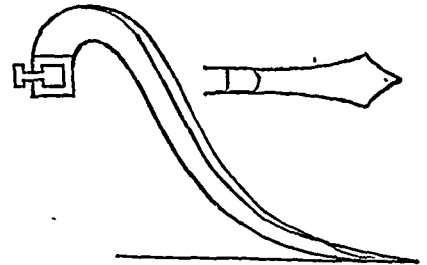
After this no further ploughing should be required. The grubber and harrow ought to be kept at work, and, if the land



Ducie Drag.



Tennant's grubber.



Goose-Neck Tine and chisel point of Tennant's grubber.

is cloddy, the roller may be occasionally used to break the lumps, but only when the soil is perfectly dry; for I find that rolling heavy land, when cloddy, has generally a tendency to embed the clods in the ground, rather than to break them into smaller pieces.

Nothing is gained by pulverising the land into a state of meal—on the contrary, land in that condition is very difficult to clean, as it runs together like mortar after a heavy shower. The great objects of summer fallowing, as I remarked before, are to expose fresh and fresh surfaces to the air, that its mineral constituents may be, so to speak, cooked into plant-food, while easy modes of entrance are afforded to the ever present ammonia, to expose the root-weeds to the full desiccating power of the sun, and to allow newly disinterred seeds to sprout to be subsequently destroyed by the alternate action of the different implements employed for the purpose.

If the land abound in grass, I should think twice before I undertook to cart it off the field for the formation of a compost. I believe nothing is more thoroughly unremunerative to the farmer than compost making. The amount of manual and horse labour (if computed, as they might easily be if farm accounts were carefully kept), expended on even a small compost-heap, would, if laid out on bones at present prices, go far to redeem many an acre from sterility. The best plan to adopt for the purpose of getting rid of grass, root weeds, &c., is, when they

are as dry as they can be made, to collect them in rows with the horse-rake (I speak of what is a common operation in my part of the world), throw them up in heaps, and burn them with as much of the earth as can be managed. The mechanical effects of burnt clay are yet to be proved in this country on a large scale. I have tried it on a small scale, and prefer it infinitely to the usual stable manure. In Gloucestershire, immediately after harvest, the whole country is filled with smoke from what is called *stifle-burning*. The wheat stubble is left longish on purpose, and with it the clay is charred, not burned, at the rate of fifty cartloads an acre, which are carefully spread. Barley is sown in spring, and the effects of the ashes are quite equal to a dressing of dung. The paring is done with a pair of horses and a *broad-share* at the rate of three acres a day—about $1\frac{1}{2}$ inches deep. The clay round St. Hyacinthe burus well, and it would be worth any one's while to give the plan a fair trial. And trials of this sort must be made, unless we are going to sit down satisfied with our present average crop of $8\frac{1}{2}$ bushels of wheat to the acre. Nothing is easier than for a prejudiced bystander to say of one who perseveringly brings forwards what he has seen of the improved practice of other lands, that he is not a *practical man*, not, observe, that the speaker has ever seen the man spoken of, or even read his writings, but he does not happen to be one of the objector's countrymen, or some other clanish reason acts on his mind and prevents him from seeing, that to

condemn on supposition without hearing is, particularly if the judge hold an influential position, rather unfair towards those who might otherwise be inclined to learn. I really thought, until lately, that the old proverb: "He who by the plough would thrive himself must either hold or drive," had vanished into the limbo of defunct sayings. One thing I know—in the whole of England you will not find one farmer who cultivates even so small an occupation as 250 acres who either *holds* or *drives*, or does any other sort of manual work on his land; but they would think it rather curious if they were told that they were not practical men, conceiving, as they do, that the wiser proverb is that "One head is worth two pairs of hands."

But to return: when the land has been thoroughly cleaned, which, in this scorching climate, it should be by the middle of July, it would be well to sow on the fallow some green crop for the purpose of ploughing it in. *Mustard* does well, but the seed is absurdly dear in Canada, and amounts to a good sum per acre, as 20 lbs. are required. *Rape*, on the other hand is cheap—8 lbs. an acre is enough, price, 12 cts. a pond—but it is more difficult to cover; still, with a chain and weight attached to the bridle of the plough, the difficulty may be overcome, but it must not be allowed to grow too old before it is interred. The field should, previous to sowing either of these green crops, be ploughed into ridges of the regular width, so that on reversing them, when ploughing he rape