

Turnip Field Cleaners.

An implement that would accomplish the work of stirring the soil, and tearing out the weeds between rows of turnips, or other root crops, and at the same time not move the soil so much as to smother over the young plants with it, as is too often done by the



drill cultivators at present in use, would be a great help to our farmers. Such a machine has been invented, and brought into use in Great Britain, where it meets with great favour. We give a cut of this machine, from which it will be seen that it is a sort of barrow and cultivator combined, cleaning out four rows at a time, the spaces between the barrows being kept exactly over the turnip drills by means of the handles shown in the cut. It is called Dickson's New Patent Double Drill Turnip Cleaner, and is worked by one horse. It is patented in Britain, but not here, that we know of, and might be made by our own implement makers to advantage. It need not be costly. Major Greig, of Beachville, has imported one of them, and we were told it only cost \$25, including freight and all charges from Scotland. Such an implement would greatly lessen the labour and cost of the turnip crop, and could doubtless be so constructed as to enable the cultivator to use it between drills set closer together than it is possible to use a horse hoe or drill cultivator in. It is made only by Thomas Hunter, Maybole, Ayrshire, Scotland, from whom Major Greig obtained his implement.

Buckwheat.

We have never grown this crop, although we confess to a partiality for the griddle cakes made from it in winter. Our land has been generally kept in too high a state of cultivation to make it worth while to resort to growing buckwheat.

But there are many farms on which there are patches of neglected or over cropped soil that can be turned to little use, and on them buckwheat will grow and produce a remunerative crop when any other would fail. It delights in a warm dry sandy soil, and as it acquires much of its plant food from the atmosphere, will often produce fifteen or twenty bushels of seed per acre, where nothing else would produce a crop worth harvesting. From the last week in June to the second week in July, sometimes later, buckwheat may be sown, requiring usually a bushel and a peck of seed to the acre. If sown early the blossoms are apt to become unfruitful from the effect of the scorching sun during the last of July,

while if sown too late the frost may destroy the crop before the seed is matured. It will produce good crops on almost any soil, but is not in sufficient demand to make it worth while to grow it except a little for home use, and to feed to the fowls in winter, or a patch from which the bees may gather a store of late honey for their own use, after the hives of good honey they have laid up for their master have been removed. Buckwheat honey, though good enough for bees, is neither wholesome nor agreeable for the use of man. Buckwheat is often sown on summer fallows to keep down the weeds, and its dense growth, together with perhaps some unknown noxious quality inherent in the plants, makes it so completely master of the ground that even the Canada thistle has been got rid of by sowing the land with successive crops of buckwheat. It makes a good green crop for turning under on poor soils, to enrich them by the decayed vegetable matter of its leaves and stalks. No stock of any kind like to feed on it, and we have seen it stated that cattle and horses have been lost through being compelled to eat it, which they will not do except when pressed by hunger.

BEEF ROOT SUGAR.—Professor Voelcker thinks that the application of sewage at the early period of growth to mangold and beet root would promote the development of saccharine qualities, and also that the withholding to a great extent of ammoniacal manure, fresh barn yard manure, guano, and such like, and substituting super-phosphate of lime or similar phosphatic manures that promote early maturity, would produce a much larger percentage of sugar in the roots.

TOBACCO.—A subscriber, who is growing a small quantity of tobacco for home use, wishes to know how to dry and preserve it. We are sorry for him, and all others who indulge in the pernicious practice of smoking, or imbibing tobacco in any form; but desiring to be impartial, and set aside all personal predilections and antipathies, we would tell him just to hang up the stalks by the butts in any convenient room to dry. Our correspondent will find fuller information in the number of the CANADA FARMER for March 2, 1868.

CORN FOR FODDER OR SOILING.—Those who intend to give their cows good feeding through the summer drought by a little soiling, or keep up the supply of rich milk for butter-making till Christmas, should sow an acre or two of corn in drills. Make the land rich, plant the drills far enough apart to enable the drill cultivator to be freely used to destroy the weeds and mellow the soil. Strew the grains of corn along, about an inch apart, in lightly made plough furrows, and cover by harrowing lengthwise once. If to be used for soiling, the earlier sown the better. If to be saved and cured for fall and winter feed, sow about the first two weeks in

A machine has been invented and put in operation in California which, it is said, has cut, thrashed, cleaned and sacked the wheat from 20 acres in 10 hours, with only three men to work it.

HOW MANY PLANTS TO AN ACRE.

1	foot	by	1	foot.	43,560
2	"	by	2	"	10,890
3	"	by	1	"	14,520
3	"	by	2	"	7,260
3	"	by	3	"	4,840
4	"	by	4	"	2,722
6	"	by	6	"	1,210
10	"	by	10	"	435
12	"	by	12	"	302
15	"	by	15	"	194
18	"	by	18	"	134
20	"	by	20	"	103
25	"	by	25	"	70
30	"	by	30	"	48

The Weekly Press, in speaking of beet sugar manufacture, says: "In France and Germany they have found it so cheap, that cane sugar is scarcely in the market. The experiments on this continent have shown that a greater percentage of sugar is obtained from the same weight of beets than in Europe; and this, with a small tariff put on foreign sugars, in order to counterbalance the pauper labor of Europe, ought to make the beet sugar a very profitable article of manufacture, and beet raising a highly remunerative farm crop."

BUCKWHEAT is a good crop to sow on summer fallows in June or July, to keep down the weeds while haying and harvesting are distracting labour and attention from them. Sow about a bushel of seed per acre. If sown early, it will bloom in time to allow of the bees taking a good store of honey for their own winter use from the plants, before the time comes for wheat sowing. When harvest work is over, and the plants are in full vigour, they can be turned under with the plough as green manure, or if that is not thought desirable (and some, we know, are prejudiced against turning in green crops for wheat) set a mowing machine at work to cut the buckwheat, rake it up with a horse rake, and cart it to the barnyard to mix with the manure heap, before ploughing the land for wheat.

WHEN TO CUT GRASS.—Some one wants to know which field of grass should be cut first. This matter is not easily decided till near haying time. A good deal will depend on the soil and the kind of grass grown. Orchard grass, ryegrass, clover, or blue grass can be cut before timothy, in the order named. Red top can remain till the last. Usually, the hay crops on light, dry, warm soils, are fit to cut before those on heavier and more clayey ones, and newly seeded meadows before older ones. Those seeded down last year will be fit to cut before those that have already been mowed once or twice. It is better to cut too early than too late, and to make really good hay the grass should be cured in cocks rather than dried out in the sun.