

kind of work on the farm where power is used. It would require very little work so to adapt its power as to make the engine drive itself on common roads to the different farms where its work was required. This adaptation of steam is now a fixed fact at home. Many thousands of tons of goods are now moved by ordinary steam traction engines in England. When any heavy piece of timber, engine bed, cylinder, girder, or in fact any great load, has to be transported from the manufactory, or other locality, the contractor does not now necessarily send for his horses, but for his engine, and twenty tons is nothing uncommon for one load on English roads. At present our bridges and culverts would not generally bear such great weight, but they would all of them bear the light load of a small threshing machine, engine, and carriage—not as much weight as an ordinary two-horse load and team included.

The writer has seen several of these rotary engines at work, and they, so far, do their work well, and are, apparently, all that is claimed for them. One great advantage about them is, they are all warranted for one year, so there is little or no risk in buying and proving the article.

This is the age of improvement and progress. Everything that saves labour is of immense value to the farmer. Labour it is that "kills" profit on the farm. With cheap labour, farming would pay well, better indeed than any other application of the same amount of capital, and with much less risk; so, anything that will lessen labour, and facilitate the farmer's work, must be a very great advantage to the community at large.

C.

### The Turnip Fly.

There is no greater injury to the crops of the farmer than this insect—were it not for its ravages the Turnip Crop could be raised at far less expense than it now can. Human ingenuity has been taxed to the utmost to get rid of it, but hitherto without success, or at all events with a very partial degree of success.

Among the various methods which have been from time to time adopted are the following:—

ROLLING with a heavy roller at night.

ROLLING with a very light roller, to the front of which was fixed a sort of platform made smooth on the under side, and covered with bird lime or other glutinous matter, this being carried just above the surface of the ground and within the jump of the insect, so that when they are disturbed by the light roller and the screen coming over them, the insects jump up against the glutinous screen and are caught. Great numbers are taken in this way, but its efficacy as a remedy is very doubtful.

SOWING ASHES AND SOOT, or ashes alone, on the young plants during the time the dew is on them; this is one of the most efficacious

plans which has been tried. Strange as it may appear, the dust of dry earth or sand answers nearly if not quite as well.

SOWING RADISH SEED amongst the turnips. Many suppose that the insect has a preference for this kind of food over that of the turnip plant, and that as the radishes generally start before the turnips, the worst of the ravage is committed on the broad leaves of the radish rather than on the turnip, thus saving the latter.

SOWING ANY OTHER SEED OF THE SAME KIND OF PLANT, to which the insect is supposed to be particularly attached, such as ripe, the common kind of cabbage, or any other cheap seed; this is sown a little before the turnip crop, comes up before the turnips, and forms food for the fly.

SOWING THE TURNIPS AT TWICE, calculating for the first sown crop to be destroyed, while that sown a week later is to escape, the over sowed plants to be destroyed by the hoe.

All turnips are sown many times thicker than required; not more than one in twenty of the plants ever stand for a crop, the remainder being either destroyed by the fly, or hoed out in singling, to reduce the crop. If we could find some method of sowing the turnips so that they could be protected from the fly, and at the same time not require thinning out, it would most materially reduce the expense of the crop.

In one of our late English exchanges there was given the results of a most extended series of experiments made with various washes and substances, for the purpose of preparing turnip seed in such a manner as to resist the attack of the fly. All (some thirty or forty in number and extending half over the catalogue of substances within reach of the farmer) proved to be worthless, except the soaking of the turnip seed for from five to six hours in train oil, or linseed oil, the seed being afterwards dried in powdered dry earth, so as to enable it to be easily sown.

The effect of the oil was to render the growth of the plant far more vigorous than it was in either a natural or an otherwise prepared state; the seed leaf was darker, larger and fatter, than other seed leaves; the plant appeared to be nearly if not quite unmolested by the fly, it turned into rough leaf much sooner, the rough leaves being also in a great measure exempt from attacks of the fly, and the general growth continued afterwards to be superior. A long soaking in oil did not appear to be more beneficial than the six hours; it is a thing well worth trying, and is within the reach of all.

### Items of Agricultural Experience.

1. All soils are benefited by being under-drained, but the benefit is most apparent and lasting in those of a clayey nature, or having a subsoil retentive of moisture.

2. After drainage, subsoiling and good cultivation are necessary to ensure good crops on heavy soils.

3. Lime is the best manure to apply to strong clay soils. It renders them more pervious to light and heat, and also corrects their acidity, by combining with some of the chemical salts in the soil, making plant-food of plant-poison.

4. Summer-fallowing is the most efficient and profitable means of preparing strong soils for wheat, and of beginning a rotation after grass has been grown for a length of time.

5. Green crops ploughed under, when in the most succulent state, are powerful auxiliaries in rendering a light soil fertile, but if this is done too often successively, the soil becomes overcharged with carbonaceous matter.

6. Leached ashes applied in large quantities to sandy soils, or those containing too much vegetable humus, will greatly ameliorate their condition, and render them more compact.

7. There is no soil so poor or sterile but some mode may be found of ameliorating and enriching it.

8. Blowing sands may be gradually made productive by spreading six inches thick of straw over them, to remain till rotted. Then seed thickly with clover on the surface, without ploughing, and when the clover has taken hold and becomes established, pasture sheep upon the land for two or three years, preparatory to manuring and cultivating it.

9. Two successive grain crops on the same land leave it very foul.

10. Summer fallowing ameliorates a soil, and if properly done gets rid of most of the weeds and noxious plants infesting it.

### Hungarian Grass.

The trouble about Hungarian grass is, that it is not generally cut at the proper time. I have raised it several years, and consider it the very best hay for horses. They will keep fat on it where on timothy they will grow poor. I sow half a bushel per acre. It then makes fine hay, and on good land should yield from 2 to 3 tons to the acre. Cut it when in the blow, before any seed is formed; wilt in the swarth the same as clover and make in the cock. The stalk is nearly solid and the hay very heavy, and if made in this way will be as green as grass, and a horse will want little grain for ordinary farm work. I only feed grain in the spring when doing heavy ploughing. Give your horses all they will eat of it, and they will fat with decent usage. But if allowed to turn yellow and form seed it is the same as any other grain, and will, of course, injure a horse the same as if he were feed wheat in the bundle to excess. Any over-feed of grain is bad. It is better to rake it by hand, but on a good soil you will tumble up a big cock in a small space.

If cut at the time I mention, it will sometimes sprout up again and make good fall feed or a green crop to turn under. In one case I cut at the second time for seed, but it was short.—*Prairie Farmer.*