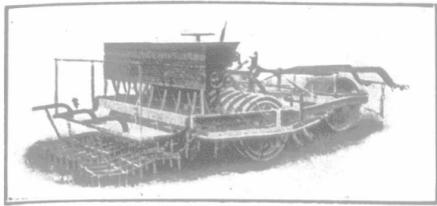


face, loosening at the same time the soil around them, thereby relieving them of their nourishment; and until we get rid of the weeds, a more economical system of conserving moisture in the soil cannot increase the yields to the extent that should accrue therefrom. We shall simply be affording the enemy better nourishment. The remedy lies in the farmers' hands; one and all must join in the onslaught or no permanent benefit will be achieved.



POWER SEEDER WITH ROLLER IN FRONT

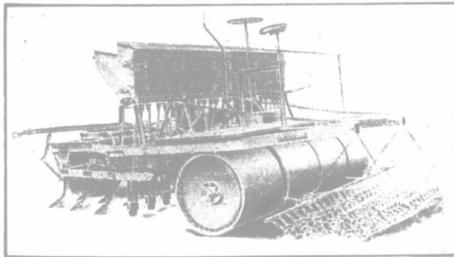
There is an old quatrain on this subject which, like most of our rural sayings, has more truth in it than poetry, and the farmer would do well to burn it upon his memory, that its influence may be felt whenever he sees weeds beginning to be rampant upon his land.

"One year's good weeding  
Will prevent seeding  
But one year's seeding  
Makes seven years weeding."

Then there is another old saw equally true. "An ill weed grows with speed." True enough, weeds require no care from the hand of man to make them grow, but an infinite deal of trouble to prevent them from getting the upper hand.

To assist in the conservation of moisture in the soil there are also steam driven implements now in extensive use in other countries.

Illustrations are here given of two combined implements, consisting of a light cultivator, consolidator, seeder and light harrow for roughing the surface, the packer in the one instance being in advance of the drills, whilst in the other a roller is shown following them. In some cases V shaped consolidators are made use of in place of the flat roller, and in the opinion of the writer give better results. Agriculturists differ in their opinions as to compression before and after the seeders; also the form of roller. There is, however, no difficulty in meeting their requirements.



POWER SEEDER WITH ROLLER BEHIND

I venture to suggest that an implement of this description would be found very valuable upon our vast prairies. Not only have we large tracts of land to be seeded yearly, but the sowing season is very limited—never perhaps has this been more realized than in the present year. The benefit from having all operations performed at the same time will be apparent and the use of this implement after a deep stirring will go far to assist in the conservation of the moisture in the soil.

It may be said, and justly so, that it will never do to run those monster traction engines over the finely pulverized soil. I have been and am looking to the light and powerful agricultural motor to furnish the tractive force for the seeding, packing, and roughing, and trust ere another spring, we shall see these small motors in extensive use upon the farm.

There may be many more, but at the moment there are two great wars we must wage, that of destruction (weeds) and that of conservation (moisture). Scientific theory will no doubt be a serviceable weapon, but I fancy scientific practice and lots of it will be needed to overcome the enemies.

"No farmer can plow a field by turning it over in his own mind."

Let us wed the system "Campbell"  
With dear old "Father Steam";  
Greater yields we will then handle;  
With far less weeds to screen.

Pardon me, but being a descendant of Robbie Burns, a sprinkling (ye'll say a sma' one at that) has been conserved in my sub-surface—perhaps with a little more cultivation, the yield might be increased and the quality No. 1 Hard.

A. BURNES GREIG.

Notes from Ireland.

At date of writing, we have in Dublin Sir Wilfrid Laurier, Canadian Premier, as guest of their Excellencies the Earl and Countess of Aberdeen. The distinguished visitor, accompanied by Lady Laurier, is making but a brief stay, and perhaps the most important item in his program was the pleasurable inspection he was able to make, on the 6th inst., of the International Exhibition, where the Dominion is represented by a most imposing display that is eliciting the highest praise and admiration from all sides.

THE CANADIAN GRAIN TRADE.

We have also had, within the past couple of days, a visit from the Royal Commission on the grain trade in Canada, consisting of Messrs. John Miller (Chairman), Indian Head, Saskatchewan; W. L. McNair, of Keyes, Manitoba; and George E. Goldie, of Avy, Ontario, with Mr. E. Weild, of Toronto, as Secretary. At the sitting held in Dublin on the 5th inst., Mr. Miller explained the object of the Commission, which was to inquire into certain complaints that had reached them in Canada, to the effect that Western grain had not been arriving in these countries in proper condition. He said that information he had already received showed that, although the grain was usually in good condition, occasionally it was not up to the mark, especially grain arriving through American ports which had received seaboard inspection. They hoped to make recommendations so that the law would be improved, and the grain generally would come in better condition. That would benefit the importers here, as well as the producers in Canada.

The scheme of inspection and grading, as carried out by the authorities at Winnipeg, was detailed by Mr. Goldie, and, in reply to a question from a Dublin factor, he stated that the mixing of grades were practically an impossibility, without deliberate fraud. Another Irish witness said he had few complaints to make as to "certificated" Canadian wheat coming from Canadian ports, and he took good care to buy none through American ports. Yet a third, while confirming this statement, added that, in his opinion, the quality of the wheat had fallen off within the past few years. It contained more soft grains than formerly; seven or eight years ago they were receiving No. 1 Northern which would be fully equal to No. 1 Hard. In a discussion which followed on this alleged deterioration, it was suggested that it might possibly be due to exhaustion of the land. It was also stated that the charge applied to California produce, and other countries, but not to Australia. The Canadian winter wheats were declared by one importer as not fit to be compared with the corresponding stuff of ten to fifteen years ago. A south of Ireland witness brought forward the fact that Irish millers would desire regular and uninterrupted shipment all the year round, which could not be obtained from ice-bound ports.

Passing to the question of barley, Mr. Goldie informed the company that the trade in malting barley was increasing, and the Chairman added that a special feeding barley, suitable to Irish needs, could be offered by Canada. After further discussion, the Chairman concluded the proceed-

ings by hoping that the visit of the Commissioners would give Irish traders greater confidence in the future. At Belfast, another sitting was arranged, a few days later, to meet northern importers and millers.

A UNIQUE SEASON.

The newspapers tell us that in the Arctic region the inhabitants are experiencing most temperate, if, indeed, not actually warm weather. If this be so, judging by the atmospheric conditions in the British Isles this "summer," there is a serious derangement somewhere in climatic orthodoxy. We are now in the beginning of July, and there has been a dull monotony of cold, rainy days for the past few months, with but occasional flitting appearances of improvement. The wonder of it all is that the country looks even as promising as it does. Things are pretty backward, and the potato crop, in many places, has shown signs of the dreaded blight already. This, of course, was the inevitable result of the record rainfall of June, and farmers are now being urged, by their own past experiences, and by the precepts of their instructors and well-wishers, to lose no time in spraying their crops with either the Burgundy or Bordeaux mixture, which have proved so effective in preventing the ravages of the noxious fungus. Haymaking was much delayed until a lot of the grass became over-ripe and past the most profitable stage for cutting. In brief spells of better weather, a good amount of mowing has been accomplished, and in many places the unsettled atmospheric conditions have led many farmers to consider the advisability of concocting the grass, not into hay, but into ensilage. This plan does not find general popularity in Ireland, though, during such a season as this, the conviction must be borne home on many minds that good ensilage is much to be preferred to badly-saved hay. Turnips were very late in being sown, but are coming on well.

Dublin, July 8th, 1907. EMERALD ISLE.

Light Agricultural Motors.

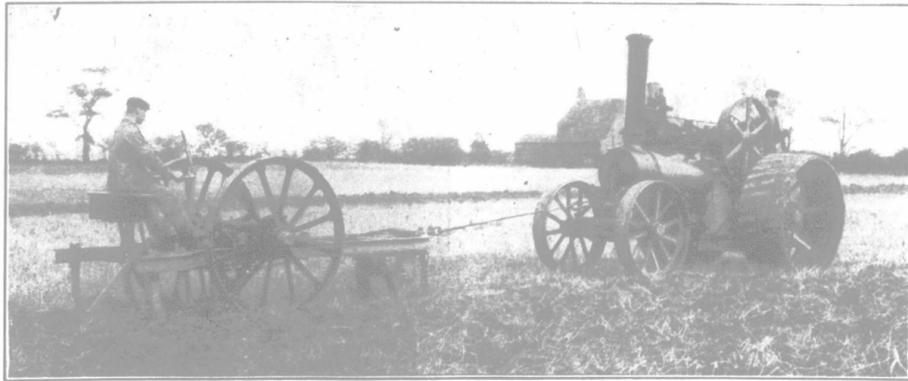
EDITOR FARMER'S ADVOCATE:

Mr. Greig in his article on light agricultural motors says it is for the farmer to settle what he wants to do with these motors. For my part, I think they must at least take the place of three four horse teams—for threshing I shall use my present traction engine which is a 32 horse power.

I don't think these small motors are going to be much good for breaking; they don't get over enough in a day, and if they're going to cost anything like \$3,000, well, I reckon that it's better to stick to the big engine, for you can buy a 32-horse engine for that money and it will break with a ten furrow plow from 20 to 30 acres a day.

I believe Mr. Greig is right about steam being the best. I don't know much about gasoline engines, more than I see them always doing something at them. They don't get a proper spark or something, and they seem a long time finding out what is the matter. Most men know something about a steam engine and if it does go a bit out of shape the fault is soon located, or it will run as it were on three legs till it gets to its destination.

I can see many uses for these small engines, but we must have them so that when we go out in the morning we shall get a full day's work out of them. How should we look in harvest time if they give out? Why, it would mean stopping three binders—a serious matter. Why don't some of the makers get busy and let us see what they can do this harvest? If it does go wrong, what of that? We have our horses ready. They would get to know something about it, and we should have a better notion of what sort of



CULTIVATING WITH TRACTION ENGINE TO BREAK UP A HARD PAN.