



FARM AND DAIRY & RURAL HOME



We Welcome Practical Progressive Ideas.

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

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The Oil-Gas Farm Tractor, Its Advantages and Possibilities

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THE possible impending crisis in the world's supply of foodstuffs, compels every good citizen to a serious consideration of the numerous problems, the solution of which have material influence upon the world's future supplies. Amongst these, the question of an adequate supply of labor is for the moment predominant. If an adequate supply be not forthcoming, then the only possible solution would appear to be the employment of such machinery as will give the desired results, with a less expenditure of the labor at present available. Hence it is that the possibilities attending the intelligent use of the small oil or gas farm tractor has become of economic interest and importance.

Up to within the last few years, the aim of the manufacturer of farm implements has been the production of horse-drawn implements, requiring the attendance of one man, which would in one day do more work than could be done by the man using only manual labor. Implements such as mowing machines have replaced the scythes, harvesters have replaced the sickles, raking machines the hand rakes, hay loaders the pitch forks, etc., etc. The saving in man power thus made was large, and as time passed, was greatly increased through the perfecting and through the increase in the size and capacity of the machines, until the limits of horse power traction in each case, would seem to have been reached. At one time it was usual not to hitch up more than a pair of horses to a machine. Later on three horses to a machine became common. Lately to certain machines, four horses have been hitched. These, for Canadian conditions, seem to be the limit, although in the veteran states of the United States, teams of six horses, driven by one man, are used for plowing.

The long winters of Canada are a handicap to horse traction, through the impossibility of providing remunerative or useful work for all the horses during the winter months. Even with this handicap, much may be said in favor of horse traction. Yet certain disabilities that cannot be removed, because they are caused by the "nature of the beast," limit its profitable employment. As the binder harvester is the perfected successor to the reaping hook, so will the oil-gas farm tractor be, within certain easily defined limitations, the successor to the horse in agricultural work.

A Practical Machine.

It is not claimed that the oil-gas farm tractor now being produced is a perfected machine, but the best examples, although not perfected, have become of economic importance, and if they could be purchased at a reasonable cost, would become of immense industrial consequence. Hence it is that the action of the Dominion Minister of Finance, in refusing to remove the tariff on farm tractors, is so unexplicable. Nearly one-third of the present selling price of a tractor in Canada is duty paid to the Dominion Government. It would

appear as if the Minister of Finance thought less of the possible starvation of the human race than of squeezing out of Canadian farmers an extravagant import duty.

No wise man will adopt a new method or replace a method long in use by a new one, unless he be entirely satisfied that the new method is preferable or that its adoption will conduce to his profit or well being. To be so satisfied, it is necessary to compare the merits and demerits of the two. Certain conditions peculiar to the practice of agriculture, make an intelligent yet correct comparison of the comparative costs of horse and motor traction for agricultural purposes a matter of considerable difficulty. The quality and depth of soil vary so greatly, the methods now practiced of plowing and cultivating are often so widely different, the character of the country farmed is so various, that it is impossible to make comparisons that apply to all the several possible conditions. Therefore, the comparison herein made, will be confined to the plowing and cultivation of land composed of heavy loam with

a good depth of soil, free from stumps and rocks, fairly well drained and not hilly, such land to be worked for crops of four-year rotation, the labor used being that of the farmer and of his family. There is no reason why an intelligent farmer, and a farmer intelligent enough to acquire a tractor will probably be intelligent enough to learn how to use it properly, should not arrive his own tractor.

Horse Traction.

It is assumed that the farmer, first thing in the morning, feeds, waters and cleans his horses, also that he cleans the stable, all being done before breakfast. It is assumed that he plows with a team of four horses. The above mentioned chores will require at least one hour. To harness the four horses, drive them to the field to be plowed and hitch them to the plow, will consume the better part of half an hour, so that it is safe to assume that the farmer works one and one-half hours before plowing commences. After plowing four hours, the horses are driven back to the stable, and are given hay and water, and afterwards a feed of oats. The horses are then driven back to the field, are re-hitched to the plow and draw the plow for four hours more. The time occupied in going from field to stable, from stable to field—in feeding and in re-hitching, will exceed half an hour. At night the teams are unhitched, are driven to the stable, are unharnessed, are rubbed down, fed and watered, the whole occupying more than one and a half hours, so that for eight hours of plowing the farmer works from 11½ to 12 hours, eight hours of which is work of a most arduous description. But the horses do not work the whole eight hours, because, whilst plowing, it is usual to give the horses a rest at the end of each half hour. If this rest be five minutes, then from the eight hours apparently spent in plowing, no less than over one hour will have to be deducted for rests, leaving the actual plowing done in a full day's work less than seven hours. Yet the farmer works 12 hours.

It is true that when only three horses are used instead of four horses, the time lost in feeding, watering, cleaning, harnessing and hitching up will be lessened, but it has been advanced that an average three-horse team cannot plow sod, as it should be plowed, for eight hours per day, even with rest stops, and keep in condition. Either the quality of the plowing suffers or else the horses suffer. Corroborating this statement, the following extract from a publication of the Dominion Department of Agriculture is quoted: "More horse power is necessary for the use of large machinery, which in turn does farm work more thoroughly and at a lower cost per acre or per ton crop. More horses, heavier horses and horses in better condition, all through the working season, will lower cost production."

Farmers appreciate the difference in the time

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In the Hands of the Farmer.

IF the war lasts beyond this summer, it will be the American farmer who will win or lose the war, who will overcome militarism and autocracy, or who will be them to spread and control the world, ourselves included.

This is no fanciful picture, but sober fact. Many a man will make light of it until he comes to think it over, but I venture to say that few will treat it lightly after careful thought. It is no more impossible than the great war itself appeared to be, only a few days before it began.

It is true that we can greatly increase the available food supply out of grain now used in making liquors, and by reducing household waste. But when these two things are done, and done thoroughly, they will not be enough. The final decision will still rest in the hands of the men who raise our food in the first place.

The clear duty of the Nation is to guarantee the farmers a fair price for their crops when grown, and a reasonable supply of labor at harvest. The clear duty of the farmer is to raise food enough to win the war for democracy against Kaiserism.

No such responsibility has ever rested on any class of men since the world began as rests to-day on the farmers of America.—Gifford Pinchot.