The Importance of the Farm Tractor on the Farm

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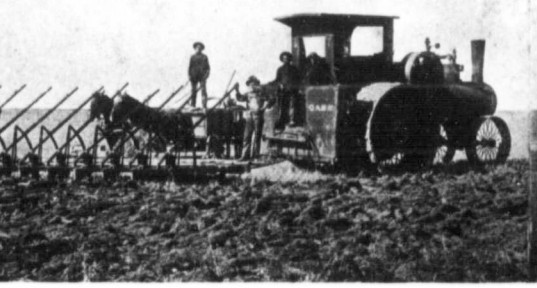
THOSE having the good fortune to be still in the springtime of life in this, the beginning of which will surely be the most progressive century in the history of the earth, may rest assured that, if Providence is kind and we attain our four-score years, we will behold the advantages of the coming great and distinct era of mechanical power, which era, in relation to agriculture, is just commencing to emerge from its state of repose to bloom in brilliant splendor, and in due time be crowned king of farm power.

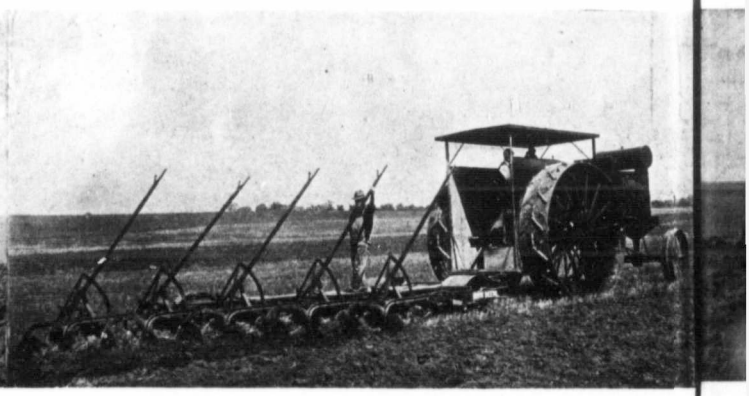
The past decade has certainly seen more real progress and improvement in agricultural pursuits than any period of twice the duration preceding the dawn of the twentieth century and, in consequence of this change, the farmer wins the necessary bread for humanity more through the cultivation and application of mental abilities than, as was formerly, by almost total physical exertion. However, inasmuch as the former is true, we now find that the perfection of labor-saving devices, applicable to either grain-growing or mixed farming, which tends towards the production and improvement of either commodity, are demanding increasing, careful, and intelligent study.

Not a great amount of education was necessary, or mental ability required, to operate in order to fulfil the complete function of the primitive hoes, rakes, and spades used as agricultural implements by Lord Selkirk's first settlers, who colonized at Point Douglas in 1812. Nor yet was deep brain work required to manipulate the crude plows which displaced the former tools in 1819. These plows were considered by all at that time to be wonderful machines and most important for the welfare and advancement of agriculture in Western Canada. As the coming and going of a breeze, they have passed into oblivion, not answering at all for the ever-advancing methods of tillage, being supplanted by a larger, more complicated machine, clearly illustrating the fact that to the same extent as the change of cultivation, our soil is demanding the improvement of farm machinery has kept pace, the present day finding the importance of farm machinery greater than it has ever been in previous history.



Even twenty years ago internal combustion tractors or steam engines were not used in Western Canada for field work, as plowing, etc., yet the present day finds them quite common upon both the old and new fields of Manitoba and Saskatchewan. With such progress to look back upon, it would not be safe to predict that, in twenty years hence, even a machine that would cut, thresh, plow and harrow all at one time would still be in a state of infancy.

To say that such a machine would either be practical for Western Canada or efficient from an economic standpoint would be speculation, yet, as the present-day farm motor which tends in the direction of amalgamating the smaller operations into larger ones, has had a fair trial, I shall in this article endeavor to render my conclusions as nearly as possible gained from a slight experience with different outfits in actual field work. These outfits collectively represent four powers and three manufacturing houses. My conclusions are that, although internal combustion tractors are not out of the experimental stage, they have clearly demonstrated that they are not only going to hold their recently-obtained grip upon farm work, but increase it many fold during the decade. In another ten years I am satisfied that there will be fifty used for every one in use to-day.



A Case 32 h.p. Steam Tractor Pulling a 10 Bottom 14 in. Cockshutt Engine Gang.

A Flour City Gas Tractor Doing a Nice Piece of Plowing with a 10 Bottom 14 in. John Deere Engine Gang

At present, for certain work, steam has, and always will have, advantages over internal combustion engines, but for farm traction work, which this article is purposed to deal upon, the latter appears to be answering the call of the West and is pushing its way towards the goal of dominating power. They have great and ever-increasing advantages over steam, of which the principal are:—Their readiness for work; a couple of hours are not required every morning steaming up, which certainly is a great factor on the farm. The time is not only wasted, but the fuel taken to get steam to the working point is a dead loss. The internal combustion motor would be merrily going up and down the field turning every molecule of fuel into motive energy, and immediately the work is done the expense stops, having no large fire to burn out. They have no ponderous boiler to make a load within itself, so are much lighter to propel and also they are much safer as there is no danger of disastrous explosions. A boiler explosion, if by mere chance does not cause death, at least shatters the owner's bank account so badly that for a few years he is reluctant to purchase another.

The water problem also confronts the operator of a steam outfit and while we find a large number of localities in which there is practically no water obtainable, we find equally as many in which the water is unfit for boiler use. In such districts it is either totally impossible or in the least very expensive, for steam motive power to be practical.

Not only does the operator of the internal combustion engine dispense with the services of a man and team or, as occasion requires sometimes, two tanking outfits, but requires only one man in operation. The tractor does not require a skilled engineer, but the operator should have a good general understanding of both the theoretical and practical problems of the running of his engine and as well, should be a naturally handy man.

As to practicability in actual work, where every necessity is furnished, results show that at the Winnipeg Exhibition in 1908 a fifteen horse power tractor won the sweepstakes prize in the plowing test, fuel and expenses considered, in open competition, steam included, and from experiments conducted by Prof. C. A. Ocock, of Wisconsin University, he determined a day ratio of expenses of twenty dollars for steam, as against twelve seventy for gasoline, while the steam outfit lost twenty-four per cent. of the working time in the replenishment of fuel and water.

The steam engine is more perfect in construction, being much older, thus having had more research work done upon its improvement and it certainly has almost been phenomenal in the development and improvement of humanity, by bringing countries together, opening up new territories that would have remained unexplored for a considerable time; has reduced the cost of transportation greatly, and for all these we pay our honor to it. I cannot and do not predict that the internal combustion engine is going to completely supersede steam for large work, but the former, especially from the fact that it is more practical and economical, is going to be within a short time king of power on the farm at least.

The tractor is also more economical than horses at the present time for a part of the farm work. I do not mean to infer that our friend the horse is to lose in popularity or that the intrusion of mechanical power is going to retard the horse breeding industry of Western Canada, but I do mean that there are certain parts of farm work which are better handled by engine power.

Does it not appear logical that engine power should be practical on farms from even the one fact that it is altogether superior to horses in factories? Fifteen years