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SOME FORMS OF POWER ON THE FARM*

Anson Groh, Waterloo Co., Ont.

The Economy of Using Various Labor-Saving Devices and Machines in Place of Manual Labor—A Higher Type of Hired Man That is Worthy of His Hire.



Anson Groh

The most important power for any farm is strong, clear, self-reliant mental power. We once wrote, "Successful agriculture to-day does not depend so much upon muscle and endurance as it does upon capital and *gumption*. Particularly in recent years have the fields of opportunity and the scale of wages made it difficult for us farmers to employ needed help, and while we may mentally speculate on the causes and prob-

able outcome of the changed conditions, the conditions themselves are forcing a cure. A system of mechanical agriculture is being evolved whereby the farmer accomplishes more in one day than he did heretofore in two, and with greater ease." But this mechanical agriculture, with its increased physical and mechanical power accompaniment, requires to be manipulated and presided over by a higher grade of intellect or a broader experience than was the case with the old order, and this must be rewarded accordingly.

TWO VS. FOUR MEN.

My eight work horses are kept busy most of their time by two teamsters. Those men cost more money each than men can be hired for who are capable only of handling two horses at a time, but the two men are much cheaper at the better wages than four men who are only capable of keeping the same horses busy.

Mechanical agriculture calls for men of power and ability on the farm. Such men are more likely to be self-respecting and safe company to keep on a farm where it is necessary that the men become part of the family, and if the worth of manly and capable men were more appreciated and employed by the year, at fair wages ungrudgingly given, it would not be so difficult to get satisfactory help on our farms. By furnishing such men with the proper power and mechanical equipment, the ultimate cost of production and net profits will be more satisfac-

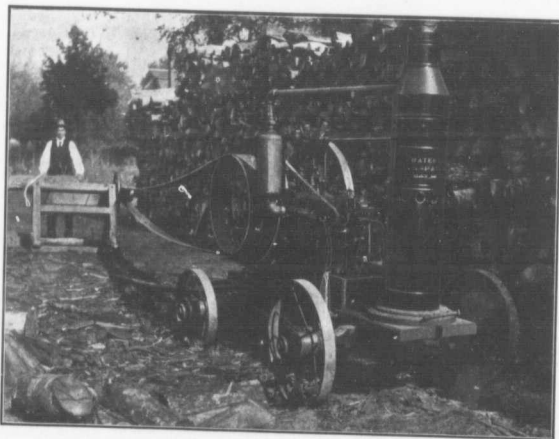
*This article is the second essay written by Mr. Groh, whose farm was a prize winner in the Dairy Farms Competition last year. Practical articles on practical subjects, by practical and highly successful prize winning farmers are now running in a series weekly in Farm and Dairy. Your neighbor would thank you for telling him about these articles, and inducing him to subscribe to Farm and Dairy.

tory than on farms where cheap men and lack of equipment prevail.

PLENTY OF HORSE POWER.

Having the farm supplied with good men, they will be entitled to, and your interests will demand, plenty of horse power of the right sort, to move the implements at an effective rate of motion. True, horses grow old and wear out, but that is not sufficient excuse for having nothing but imbecile equine power on the farm.

On our farms we are widening and increasing the scope of the implements with every new purchase. The plowing is all done with two-furrow plows. The harrowing is now done at the rate of 36 feet to the round. A 16-plate disc has taken the place of the old 12-disc implement. The drill



The Popular Farm and General Purpose Power of the Day

The gasoline engine in various degrees of horse-power is finding distinct favor on many farms where an all-round power is required. The illustration shows one of the medium sized engines at work in Brant Co., Ont.

sows two drills more than its predecessor. The spring tooth cultivator is now required to do work which at one time we did with the single furrow plow.

HUSBANDS THE POWER OF MEN.

At all stages of the labor of the farm, including manure spreading, tillage, seeding, harvesting and housing of crops, we prefer to husband the power of men and transfer the call for physical force on to horses and machinery. Side delivery rakes, hay loaders, slings, racklifters, and such like devices, we believe to be economical.

This question of power on the farm has, however, a different point from which it may be considered. Shall we require the hired man to take his rest on the pump handle, or on the bucksaw?

There are a number of things to do on the average farm that call into consideration the question of the most suitable power.

When first we came upon this farm it was evident how the first settlers had solved the water problem. The buildings were planted to the northwest side of a hill, where there was lots of water below. We could go down and carry up all the water needed for domestic use! The cattle could go down the gully to the water trough not very far away; but, when in winter after a thaw or rain it froze, then we had our troubles over the glassy hill!

SOLVING THE WATER PROBLEM.

This had to be remedied, and our first move was to put a pipe into the hillsides from a spring of water up to the kitchen of the house and from there to the barnyard; a pump at the spring forced the water up the hill, if we manipulated the handle. The next stage of the evolution was a ditch, a small dam, a home-made water wheel—about five feet in diameter—the necessary coupling and connections of wires to attach the power of that wheel to the pump by means of triangles. Then when the water was turned on to the wheel, we had rejoicing on top of that hill, for the water came full and free, all of itself. And this form of a pumping station should not be despised on any farm in this fair province, although all must be made secure against interference from frost.

Having water on the brain, however, we could not stop there. We had heard of the hydraulic ram as an automatic pump. We studied it and its requirements and next installed a number four hydraulic ram. After over 20 years' experience with this ram, I am convinced that where conditions are right, no better plant for pumping water can be put in than the hydraulic ram. The manufacturer's circulars give full instructions as to requirements, and anyone having a flowing stream of suitable water with several feet of fall available should get the manufacturer's circulars and study the problem.

CAPITAL FOR SATISFACTORY SERVICE.

Our next power problem for water pumping had to be worked out a few years ago when we purchased our Bunker farms. Through the greater part of the year the stock on a 200-acre farm had to be watered from one well by hand pumping. This we estimated took over one month of labor of one man each year, and that not very congenial labor either. Thirty dollars a year for pumping water ought to be capital enough for a more satisfactory service.

For pumping water only, wind power may be as economical as any and quite satisfactory if good and abundant storage capacity is provided.