HOME MADE FARM TRACTOR

I have a small gasoline engine and use it for running all kinds of light machinery on the farm. It was originally placed on two wheels and had to be pushed around like a wheel barrow, which was not an easy thing to do over rough ground.

Having some old wheels and discarded parts of machinery I decided to mount the engine as a tractor so it could move about under its own power. The frame is made of two 2 x 6 ins. pieces of scantling, 8 feet long and placed 16 ins. apart. The driving wheels are old mower wheels put on with ratchets and pawls reversed and in this way they act as a differential. When turning a corner the inside wheel does the driving while the ratchets on the outside wheel slips, allowing it to turn faster. A pipe fits over the rear axle and serves as bearings, also making it more rigid. Holes drilled in the top of the pipe serve as oil holes for the rear axle. Old plow wheels are used for front wheels and are steered by means of a chain, shaft, bevel gears and wheel on the same principle as most large tractors. The wheels are driven by a mower gearing connected with the engine by a belt and pulleys.

The tractor is eight feet long and three feet wide and weighs about 700 pounds. It can travel from one and a half to five miles an hour.

The engine is 1½ H.P. and will climb any hill and go through deep mud or snow. The engine was primarily mounted for the sole purpose of transporting itself from place to place to do various kinds of work but will do many one horse pulling jobs, such as pulling a loaded farm wagon, a one horse cultivator, lawn mower, garden plow, etc. A six year old girl can run this tractor around with ease and it furnishes a source of amusement as well as being a great time and labor saver. The outfit is made of parts of a mower, binder, plow, threshing machine and a lawn mower. For an engine over five horse power binder wheels make satisfactory drive wheels and mower wheels can be used as front wheels.

This engine is used for operating a fanning mill, emery wheel, pump, cream separator, churn, etc.

Any farmer who has a small gasoline engine, a mechanical turn of mind and a little spare time can greatly increase its usefulness by mounting it as a tractor and he will find it one of the biggest time and labor savers on the farm. The parts that go to make up such a machine with the exception of the engine can all be obtained from discarded machines and the cost is practically nothing.

CLIFFORD J. COON.
Smithville, Ont.

A GASOLINE ENGINE CONVERTED INTO A TRACTOR
The mounting of the engine was the work of an 18-year old boy. It moves by its own power from one job to another, and will even do light pulling jobs.

Sir Horace Plunkett, chairman of the Irish convention, at a luncheon given in Cork on September 25, said that the convention had made him hope as he had never hoped before that he should live to see a change of heart out of which a new Ireland would be born. This, said Sir Horace, had been made possible by the utmost frankness and expression of opinion between the members in attendance at the convention. The absence so far of any hostile demonstration by Sinn Feiners who opposed the convention, is believed by many to augur well for its ultimate success.

CANADA'S 1916 BUTTER MAKE

The total production of creamery butter in 1916 in Canada, according to a bulletin issued by the census and statistics office, was 82,584,130 pounds, valued at $26,966,355. The production was slightly less than in 1915, when 83,991,453 pounds represented the output of the Dominion. The value of the 1915 production, owing to the lower range of prices then prevailing was considerably less, being placed at $24,385,652.

Ontario and Quebec together produced about 70 per cent. of the creamery butter of Canada, their joint production being to the value of approximately $20,000,000.

The total production of factory cheese in 1916 was 192,968,597 pounds, of the value of $35,512,622. During the previous year 183,887,837 pounds, valued at $27,997,176, were produced. Ontario took the lead in production, with a total quantity in 1916 of 126,015,870 pounds, of the value of $23,312,935. Quebec was second with 51,906,750 pounds, valued at $11,246,104. These two provinces together account for 98 per cent. of the total production of factory cheese. The production and value of factory cheese in the other provinces in 1916 were as follows:

Prince Edward Island, 2,121,735 pounds, valued at $409,495; New Brunswick, 1,185,664 pounds, value $210,693; Manitoba, 880,728 pounds, value $158,931; Alberta, 745,122 pounds, value $154,453; Nova Scotia, 94,727 pounds, value $17,651; British Columbia, 18,000 pounds, value $3,960. The average price per pound for factory cheese for all Canada works out to 21 cents in 1916, as compared with 17 cents in 1915.

Farm Experiences and Problems

Continued from Page 8

Brought forward	$9.00			
It costs		.25	per acre	to harrow.
" "	1.00	"	"	for sowing.
" "	2.50	"	"	for thinning.
" "	1.50	"	"	for cultivating.
" "	—	"	"	topping by cattle.
" "	.25	"	"	for seed.
" "	—	"	"	for harvesting.
" "	16.00	"	"	for harrowing and storing.
Total	$30.50			

I am allowing for board in above figures. Returns per acre handled this way has been close to 700 bushels on sod. I am allowing $1.00 per day for horse and $2.00 per day for men. I have always taken the chance of a break-down in bad weather when threshing, and put my crew to digging turnips. They prefer it to laying around—at less than threshing wages. Seven hundred bushels at $30.50—about four and one-half cents per bushel. Wages this year have been higher than before.—A. S. F., Mazepa, Alta.

GRAIN GROWERS

Wheat prices are fixed but service is not. The best is assured you when you consign your

Wheat, Oats, Barley, Flax or Rye

to the old reliable grain commission merchants

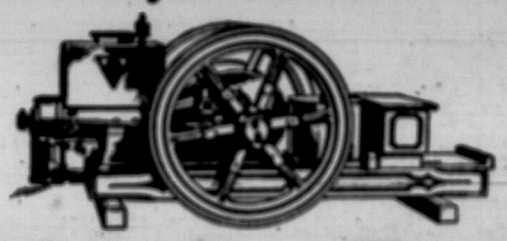
James Richardson & Sons, Ltd.

Sixty years of satisfied customers. Careful checking of grades. Liberal advances. Prompt adjustment.

WRITE FOR INFORMATION

WESTERN OFFICES	LONG DISTANCE PHONES
Grain Exchange, Winnipeg	Main 8522
Grain Exchange, Calgary	Main 2263
Canada Building, Saskatoon	3241

HARD JOBS MADE EASY
if you have an



Alpha Gas Engine

THE farmer who goes on doing all his work by hand is wasting a lot of time and energy. He could accomplish a great deal more work, and do it more quickly and more cheaply, if he had a good gas engine.

For some reason, many farmers who without hesitation will buy a mowing machine that they can use only seven or eight times a year, will balk at buying a gas engine with which they could save time, money and labor every day. They seem to regard it as a luxury, when as a matter of fact it can be put to many different uses that it will save its own cost more quickly than any other machine on the farm.

Go in and see the local Alpha agent. Let him show you for how many different purposes you can use the Alpha, and why it is the most economical engine to buy, and the most satisfactory to own. If you don't know who handles the Alpha in your neighborhood, write us for his name.

The sooner you get an Alpha, the sooner it will pay for itself.

Ask for catalogue, prices and complete information. Made in eleven sizes, 2 to 28 H. P. Each furnished in stationary, semi-portable or portable style, and with hopper or tank cooled cylinder.

THE DE LAVAL COMPANY, Ltd.

LARGEST MANUFACTURERS OF DAIRY SUPPLIES IN CANADA.
Sole manufacturers in Canada of the famous De Laval Cream Separators and Ideal Green Feed Silos. Alpha Gas Engines, Alpha Churns and Buttermakers. Catalogues of any of our lines mailed upon request.

MONTREAL PETERBORO WINNIPEG VANCOUVER
50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

Cardiff KING

Intense in heat, easy to ignite. King Coal has won a big reputation for cleanliness and economy. No dust. No clinkers. Prompt delivery guaranteed. Ask for our monthly picture calendar, free.

THE CARDIFF COLLIERIES, LIMITED
EDMONTON, ALTA.