

IT has been suggested that, as the writer has reached the place in his gas engine experience where he is fully convinced he doesn't know a gas engine from a hole on the ground, that he conduct a service department for the benefit of the readers of "The Canadian Thresherman and Farmer."

Service Department

Conducted by G. WHO

All right, fellows, send in your questions.

Q.—The motor in my tractor acts funny. It will run for about

the side of the second one, and, at some time, the third one has struck some extra hard work and the bolts which hold it to the second one have all been strained, allowing it to settle below the other two. After the plow had passed through this hard spot, the first and third plows found a level and raised the second one too high. This trouble can be overcome by replacing all the bolts which hold the third plow, with new ones and putting a piece of heavy angle iron or two pieces of flat iron on edge, across the three beams and clamping it down tight.

Q.—I have a ——— 12-25 tractor, and it hasn't been any good to me since I first bought it. It has good compression and plenty of spark and fuel, but it won't run. What's the matter?

A.—Nobody knows. Give us a little more definite information, and we'll try to fix you up. I know your engine and it's a good one.

Q.—Have a ——— tractor and



J. J. Rogers (Plenty, Sask.), with Minneapolis tractor breaking sod, June, 1915

You know tractor operators all go through certain stages. Some stop longer in one stage than another, while some go chasing right through pretty fast. At first a fellow don't know anything about a gas engine and wishes he did; then, almost all of a sudden he knows all about them and knows it; next, he knows too much about them and wishes he didn't; then he begins to think he doesn't know very much about them after all and that's when he begins to learn. His past graduate training consists in being sure he doesn't know anything about them—that's me.

In conducting this service department the big idea is to help owners and operators of power farming machinery through these different stages, and, if possible, to answer any questions they may ask as to the practical use and care of their power farming machinery.

We are fully convinced that, if people will come out and ask what they want to know, this department will become very interesting and be a help to practically everybody who reads it.

However, there are a few things about asking questions that it might be a good idea to mention. When you want to know why a tractor won't run, it isn't enough to ask why it won't run. The man whom you are asking about it has to know something about how it acted before it stopped. He wasn't there when it stopped, and it's up to you to tell him all you know about it. Then, your Uncle Dudley here, will try to answer your questions in a safe and sane manner.

an hour and then starts to miss bad, but if I stop for 20 or 25 minutes it will run all right again. The spark seems to be all right and she has good compression. The fuel lines seem to be clear,



A young man of sixty-seven—F. C. Kempfield, Pretty Valley, Sask.—good for another quarter of a century.

but the fuel doesn't run free when the motor stops, although it runs out pretty free when I start up again. It's a ——— 10-20 tractor.

A.—Probably the kerosene slopped out through the vent hole in the tank filler cap and you plugged the hole. The vent hole is placed there to allow air to enter the tank and replace the fuel which has been taken out. If the hole is plugged, no air can get in and a vacuum is caused which holds the fuel in the tank. Keep the vent hole clear.

Q.—I have a ——— three-bottom plow. The center plow hasn't cleaned or plowed the same depth as the other two since the fall of 1917. The land here is very black, heavy clay.

A.—The trouble is with the make which you have is hung on third plow. The third plow on the

A.—You have a choice of almost any speed in your type of tractor. Four plows are an overload, and you have to travel very slowly in order to pull them. Throw off one plow and travel at about $2\frac{3}{4}$ to $2\frac{7}{8}$ miles per hour and the regular general purpose bottom will clean in your land.

"AS GOOD AS 10 HORSES"

Pretty Valley, Sask.
Feb. 8th, 1919.

I HAVE had considerable experience with steam plowing, having owned at one time a 20 horse-power engine and a six-bottom plow, which I found a very cumbersome and expensive rig for plowing. Expense of labor was too heavy; also noting that my neighbors plowing with heavy tractors (whether steam or otherwise) have not been getting as good returns as they should, I have decided that heavy tractor plowing is not profitable, except for the first breaking of the sod.

I am now an old man of sixty-seven years, and have not been able to handle an outfit of horses for some years; but last spring, on hearing such a cry for bread and food for a starving world, the question came to my mind: What can I do to help in this awful crisis? I finally decided I could handle a small tractor; so I purchased from the Food Board one of the "Fordson" tractors put out by them, and a two-bottom Oliver.

This I found a good investment, as I could ride this all day, plowing eight acres a day and drawing one section of harrows, so at night my plowing had one stroke of the harrows which kept the soil from drying out. This I did with less than $2\frac{1}{4}$ gallons of kerosene per acre, and about one gallon of engine oil per day.

These light tractors do not pack the soil and are very cheaply operated. I consider my little plow outfit as good as any ten horses. It will do just as much and do it well. I intend doing a lot more this year.

F. C. Kempfield.



J. A. Maynard (Cluny, Sask.), with his mates—neither of whom had run an engine before they came to work on his farm, but can now handle an engine as they can wind their watches.