THE CANADIAN THRESHERMAN AND FARMER

farm. There is no farmer who owns a traction engine but what at some time or other or at some place on his farm encounters soft spots and these soft spots gauge the load. A comparison of fuel consumptions for work done in 1910 and 1911 will show that the fuel consumption in 1911 was considerably higher and yet so far as the brake tests-go, higher and it shows that there has been a considerable advancement made in fuel economy in so far as the engines themselves are concerned. It takes power, however, to move an engine over soft ground and it takes fuel to produce power.

The 1911 plowing field also furnished an opportunity for a very close study of different types of wheels and a great many lessons were learned by the manufacturers themselves.

For a more detailed explanation of the Plowing Contest see the table.

What does the Motor Contest mean viewed from the stand-point of the farmer? This question has given rise to a great deal of speculation and the farmer is very apt to say that an engine in the hands of an expert operator is not an engine in the hands of the average farmer. A horse on the race track True. in the hands of a skilled driver will develop speed that he will not develop in the hands of the average man. Yet the speed is in that horse and we recognize his proficiency in what he produces. The engines as they go through the competition are worked for all that there is in them and standards are made which the average farmer may not reach but which he can al-ways approach. It brings home to him a great many things that he might not otherwise think of. Take for example the matter of fuel economy. The average far-mer buys an engine. He pours or shovels fuel into it regardless of how much he uses. All this fuel costs money and it is just as essential to save money on this end of the game as it is to save it on the first purchase price of the engine, in fact, more so. It gives him a comparison between steam and oil engines as regards fuel consumption. It shows up the difference between gasoline and kerosene fuel consumption under the same conditions. It gives him an approximate idea of the number of plows that he can reasonably expect to pull and regardless of what any traction engine salesman may tell you, as a farmer, about the load that his particular engine will draw in the plowing field, just look up the figures on the Winnipeg Motor Competition and see how many plows they pull.

It is true that the plowing field in 1911 was not an average field. If anything it was unusually soft. But what farm is there upon which there are not several soft spots and these soft spots gauge the load. Power farming is a business.

Power farming is a business. It requires the expenditure of a large amount of money in order to secure an equipment, and if the farmer who purchases such equipment is going to make the most out of it, he must of necessity give attention to the smallest detail.

Would it not be a good proposition for you as a power farmer when working your engine to take note of such things as fuel consumption per acre plowed or per one thousand bushels



The Goold Shapley & Muir 30-45 Gas Tractor and a 6-bottom Cockshutt Engine Gang.

There is one thing from your standpoint, however, that a motor competition does not and never can bring out, which is the durability of the engine. This is a matter that can only be determined by long service in the field. Motor contest engines have no repair bills because it is not possible to work them long enough so that any appreciable



The Flour City 30 pulling a 6-bottom John Deere Engine Gang (Bronze Medal Winner Class

threshed. You know what your gasoline, kerosene or coal costs you and you know what you are getting out of the work you do. Get into the habit of keeping data sheets. It is not presumed that you will go into the matter to anything like the same extent that the judges go into it, but it will pay you to go into it a little more carefully than you do.



The Rumely 30 b.p. "Oil Pull" Tractor marking its start in the Plowing Test with 8 John Decre bottoms (Winner bronze Medal Kerosene Class). wear and tear is noticed, but you as a farmer can handle these repair bills, and in doing so, can work out data for your own satisfaction that no motor competition can ever work out.

The motor competition, however, does do one thing for you that you mustn't lose sight of. A manufacturer puts his engine into this competition in comparison with all the others that are entered. He is thus enabled in a great many cases to determine the strong and weak points of his engine in comparison with those of his competitors. He sees different designs and it enables him to apply these designs to his own engine in order to better it. for all of which the farmer receives the benefit.

It is the desire and the business of every manufacturer to turn out just as god an engine as is possible and there is nothing like the motor competition to enable him to strengthen weak parts. As one manufacturer was heard to remark, who has been in the motor competition ever since it has started, "I wish that I did not have any of my 1908 engines in the field. If it were possible for me to replace them with my 1911 engines I would feel a great deal better satisfied. I have been enabled to accomplish more in the way of engine construction through what I have learned at the motor competition than from what I have learned through any other one source."

The plowing field this year as has been stated before was of an unusually hard type to regotiate, and a great deal was learned by the manufacturers as regard height of wheels, drive cleats, weight of engines, etc., and it is quite probable that some important changes will be made before another year.

It is up to you as a farmer to study the results as given in the judges' tables carefully. Practically all of the data with the exception of the points on the design and construction, are worked out from the actual records of the engine. The points on design and construction are, of course the judges' opinions, and these opinions can only be verified by the actual workings of the engines in the field over a considerable period of time.

The motor competition means much to you as a farmer. It means better constructed engines. It means more economical engines. It means engines of a more uniform type which will give you more standard results.

In going over the tables as submitted by the judges, there is doubtless a mass of information that is hard for the average farmer to digest; consequently a little explanation may not be out of place. Let us begin with the Two Hour Economy Brake Test and take the headings in their regular order.

Total Time Running. This means the total time in which the engine was on the test.

Average Horse Power Developed means the averge of the different horse powers developed by the engine during the entire time of the test. At certain times it runs above and at other times below a certain mark.

Fuel Used in Pounds means the total amount of fuel used during the entire time of the test. In the