

J. I. Case traction engine. We therefore purchased a Cockshutt six bottom plow.

I was a little skittish at opening the throttle as a number of our wise neighbors had been telling us that we would soon have no engine left. However, I picked up courage and cut her loose, and away we went, I was watching my engine pretty closely and never thought of looking around to see what the plows were doing, but we didn't go far when I heard the plowman calling, and on looking around, I saw the plows raised out of the ground and clogged so full of pea-vine that it took us about half an hour to clean them out.

We made another attempt, the plowman trying to keep the plows clean with the poker of the engine. But try as we might, it was no use.

We saw we could do nothing with the pea vine in our way, so made up our minds to mow the prairie and burn it, which we did, and after that we had no more trouble. However, if I had it to do over again, I think I would try rolling coulters to cut the vine.

As to the number of men employed. We had three, engineer,

I can assure you. I could not give an exact amount of the cylinder oil used as we got it by the barrel and never kept count of what we took out. The only help we hired was the tankman who was paid \$30.00 a month.

My opinion is that if a man has a half section or more he can make a steam rig pay for itself, in that he can get his work done much better and quicker than with horses.

Yours truly,

Alex. and Dave Bird,
Treherne, Man.



Dont Work too Long a Shift.

I have had three years' experience with steam breaking. The first year we started out with a triple made-over horse plow. We tied this behind a 25 h.p. Case engine with a lot of chains and draw-bars. Sometimes we would run up against a rock and then there would be something doing, leaving a pile of scrap iron, broken chains, draw bars and a general mix up which would take half a day to straighten out. The first year nearly finished the plows and near-

I could break 15 acres a day, using one and a half tons of coal which cost me, laid down here, \$2.60 per ton. I paid my men \$1.50 per day, and I ran the engine myself and had my own team. I figure my own wages \$3.00 per day.

I figure my expenses ran about as follows:

2 men @ \$1.50 per day ..	\$ 3.00
Engineer @ \$3.00 per day ..	3.00
Team @ \$1.50 per day ...	1.50
1 1/2 tons coal @ \$2.60 per ton	4.00
Oil @ \$1.50 per day	1.50
Board for men @ \$1.50 per day	1.50
Interest, \$1.50 per day ..	1.50
Repairs \$1.00 per day	1.00

Total..... \$17.00

15 acres @ \$3.50 per acre—\$55.00, minus \$17.00—\$38.50.

I used five tanks of water per day. I do not try to go fast; have got over that. Go steady and keep going is what counts. I tried going fast and putting in eighteen or twenty hours per day. Some will say you have to do this to make it pay. Twenty hours per day is all right if one is not going to work

gumbo, which was very hard on the engine. We broke 12 acres of this land per day.

After that we had better plowing in clay loam soil with quite a few stones, which would often turn the plow points up, making it necessary for us to change shares frequently. In this soil we averaged 17 acres per day.

As we are thirty miles from the railway, I think that gasoline is ahead of steam for fuel, as steam engines using straw fuel are liable to scatter foul seeds over the land. Our season's work was 500 acres of raw prairie.

We operated the rig ourselves, doing our own blacksmithing, as we take our own blacksmith shop along with us.

We broke for \$3.50 per acre and board with the farmer, but intend taking a cook car along with us next season as so much time is lost is going to and from the house. Our expenses per day were as follows:

Kerosene, 45 gal. @ 18c. \$ 8.10



A Nichols and Shepard Plowing Engine pulling a 10 bottom 14 inch Cockshutt Engine Gang near Stonewall, Man.



A Sawyer and Massey Combination Plowing Engine pulling the 8 bottom 14 inch John Deere Engine gang Outfit of Jones Bros., Whitewater, Man.

plowman, and tankman. The tankman also drew the wood, it being already cut. We used four tanks of seven barrel capacity per day, and as to the wood, I could hardly say how much we used, as it was just old stuff that was picked up around the farm.

We broke about 100 acres in about 12 days, and then stopped for harvest, and after harvest we went at the fall plowing with the steam outfit. We plowed 75 acres in six and a half days. We fired with straw and my opinion is that straw is away ahead of wood as far as steam plowing is ahead of horses. I made a rack and fastened it on the engine in such a way that it would swing clear of the plow levers turning at the ends. This I used for carrying my straw. I could put enough straw on it to carry me a mile.

Some seem to think that plowing is harder on their engines than threshing, but I might say that I haven't hurt my engine plowing yet. I watch it closely, and don't spare the grease. I used about 60 pounds of gear grease while plowing the 175 acres and needed it all,

ly finished the owners financially.

We then purchased a four bottom plow. Sometimes they were in the ground and sometimes they were out. They generally went in good and deep though, especially when we were near a soft place and then they would go down just leaving the levers out of the ground. The engine would slip the drivers and having the plows fastened to it, we would have a time getting out. We would chain a tie to the drivers, and sometimes we would stay moving a lot of earth by pulling the ties under the engine.

This, I will say, is hard on the engine. If we had not had a good engine, I would be out of the breaking business. But it was always ready when we were, and never balky and is as good as ever, with the exception that the gear is worn. In February, 1909, I bought a Cockshutt engine plow which did not arrive until June first. I pulled the seven plows with ease, and figured on working ten hours per day. I had two men besides myself, a fireman and a tankman. The fireman attended to the plows at the end.

the next day, but I don't think there are very many men that can stand that and look after his engine as he should. The next day he will fall asleep in the afternoon, and if it is a hot day he is all in.

I always do my own steering and nearly always have a hand on the throttle, and be on the lookout at all times. If an engineer is a good man he will not wear his engine plowing any more than threshing with the exception that the gear will be worn more.

Yours truly,
Eugene Waite,
Midale, Sask.



Uses More Fuel When Plowing.

We have not had much experience in traction plowing, having only plowed and threshed one season, but think it a decided advantage over horses if a man has a lot of land to work.

We have a 22 h.p. Hart-Parr gasoline engine, which pulls six bottoms, John Deere engine gang.

Our first piece of work was breaking raw prairie, a piece of

Gasoline for starting, 2 gal. @ 20c. per gal.	.40
Sundries	1.00
Gas engine oil 1 1/2 gal. at 70c.	.85
Machine oil, 1 gallon @ 25c.	.25
Our own time	6.00
Total—	\$16.62

We commenced threshing September 1st, 1909. We found it easier on the engine than plowing. We have a 32-54 Advance separator, fully equipped. Our best day's run was 1500 bushels of wheat.

The quantity of kerosene consumed for plowing is far beyond that needed for threshing. What is needed in this part of the country is a separator that will handle flax successfully, as there are large quantities grown here and it is very tough grain to thresh. Our thresh-er did very clean work and we had a good run with only one breakdown. We pulled home on October 20th.

Yours truly,
J. M. Martin,
Ratcliffe,
Sask.

