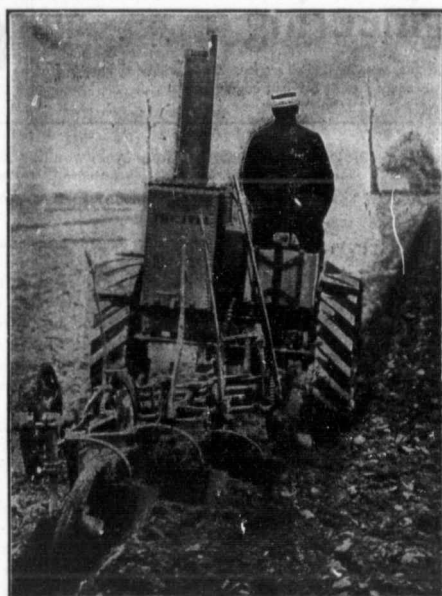




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IVEL Agricultural Motor

Every Farmer Should Have One

The Ivel Agricultural Motor is capable of hauling a 2, 3 or 4-furrow plough. It can also haul a cultivator, two reapers and binders, two mowing machines, or in fact any agricultural implement used for the cultivation of the land. Any existing agricultural machine can be attached to the Ivel Agricultural Motor.

For stationary work, such as driving a threshing machine, grinding mill, dynamo, etc., a pulley is fitted, which is coupled direct to the engine.

Will turn in less space than a wagon, and will travel where heavy tractors cannot go.

The machine complete weighs 3200 pounds, and as this weight is distributed over the three wide wheels the machine hardly makes any impression on the land.

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JAMES STUART ELECTRIC CO. LIMITED

322 Smith Street Dept. T. Winnipeg, Canada

too early or too late it makes a great difference as to the amount of power which you can get out of the machine. I always had my engine set about 40° off centre on gasoline and about 43° on coal oil. The coal oil however, differs with different lots. On some I had to time my engine a little early and on some I had to time it a little late, but this can be easily determined by just holding the fingers on the timers. If it then pulls its load without a hard metallic sound, it is all right to set it earlier. If not, time according to directions.

All parts that belong to the governor and the batteries must be kept clean and well looked after every day because if they are oily and dirty the spark will be made weak and you will have less power than in a bad running engine.

My experience during the 76 days that I ran my engine this past summer is that if one keeps the engine clean and all bolts tight and have it perfectly timed it will give very little trouble. I had some little trouble when I first started. I used coal oil when I was going to turn on the water, but I soon learned in doing this that the engine commenced to pound. I found, however, that by turning on the water slowly and if it still pounded I held one knife edge hooked up so as to hear which cylinder was pounding; but

towards the last I could tell with the knife edge down and if one cylinder pounded and I could not deaden it by turning on more water, I changed the governor so as to make the other cylinder take more load.

I have heard some gas engine owners complain about it being hard to start their engine when it was cold and frosty, but this can be overcome by taking the spark plugs out and cleaning them well, putting a little gasoline on them and setting fire to it. This will warm them up and give a better spark. When starting in cold weather, give the cylinders a little gasoline.

Hoping that this experience will be a benefit to someone, I am,

Yours truly

Bernhard Swanson,

Royholm P. O. Sask, Canada:

Noted Man Enters Agricultural Field.

Mr. George L. Cook, who has superintended the building of more gas engines than any other man, formerly General Superintendent of the Fairbanks-Morse Company, at Beloit, Wisconsin, later of the International Harvester Company, as General Manager of the Gas Engine plant at Milwaukee, from which plant there is today turned out, approximately, 30,000 gas engines every

year, and who has had full charge of and just recently completed such an efficient manufacturing organization in the E. M. F. plant at Detroit, Michigan, that an automobile can be turned out every five minutes, has now entered the employ of the M. Rumely Company, at LaPorte, Indiana, as Works Manager.

Mr. Cook intends, immediately to move his family to LaPorte and take up a permanent residence in that city and confine his efforts wholly to the interest of the M. Rumely Company.

The Gasoline Engine in Cold Weather.

GEORGE CORMACK.

During the winter months especially in the cold climates, there is probably no more frequent complaint, among the many hurled at the gasoline engine builder, than: "The engine is awful hard to start on cold mornings." Many cases come up where he has cranked the engine for ten, fifteen or even twenty minutes, before he got the first explosion. We all know that cranking an engine for even a few minutes is no joke, especially so when the lubricating oil has congealed with the cold and the engine turns hard. It is one of the most exasperating and temper trying ex-

periences that assail the gasoline engine operator. It is like the long, sharp thorns which Mark Twain tells of meeting in his travels through the Holy Land. In his inimitable way he tells how when the ordinary unregenerate mortal ran up against one of these thorns the mind could only find relief in profanity. So it is with most of us when we get up against a vigorous, prolonged spell of engine cranking. This strenuous cranking of the gasoline engine, even in the coldest weather, can, however, be very easily avoided, if the reasons for the hard starting of the engine in such weather are thoroughly understood, and the proper course pursued to overcome the unfavorable conditions.

Cold weather affects the gasoline engine in several different ways, preventing it from starting as easily as in more temperate weather. In the first place, there is not enough heat in the atmosphere to vaporize the gasoline. Secondly, the cold affects the dry cells in the battery, reducing the rate of discharge or the amperage, and lastly, the cold freezes the lubricating oil in the cylinder and bearings, making the engine hard to crank.

I do not know any method whereby these conditions can be overcome, and the engine started as quickly as in warm weather, but I can tell how the engine can be

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