

A Unique Tillage Machine

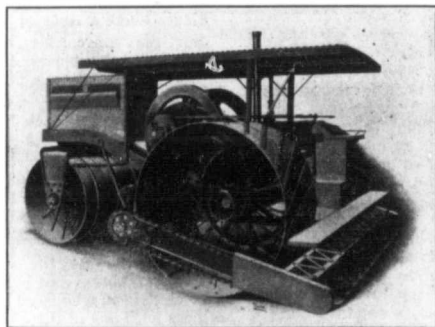
A Description of a Recent Invention in the field of Tillage Machinery by
the Inventor
PROFESSOR HOMER M. DEER



Homer M. Deer, Brookings, S.D.

With the success of the traction engine gang plow has come a need for greater capacity and efficiency in soil tillage implements. The necessity of maintaining a large number of horses to perform the farm work that could not be accomplished with the ordinary plowing engine has tended to reduce the real worth and practicability of traction farming.

Herewith is illustrated and described a new traction tillage machine that will in the judgment of its inventor as well as prominent agriculturists and manufacturers, create for itself a place in the development of the great northwest and revolutionize methods of tilling the soil.



Motor Soil Tillage Machine

It makes no difference how hot the weather, how numerous the flies, an engine will keep going at the maximum speed all day, every day, early and late, will plow the hardest ground, harrow and seed, cut the harvest, thresh the grain and haul it to market. Notwithstanding mechanical power is being used so successfully on the farm, there is one link in the chain of operations that has not reached the degree of perfection that it should. Up to the present time, there has been no other tillage operation that will begin to compare with that of the big engine gang plow for efficiency and thorough work; that is, for a given amount of energy expended, no operation in the preparation of a seed-bed following will result in so much benefit to the soil as the act of plowing itself.

Plowing done is only preparation of the seed-bed well begun. If horses be used in disking, harrowing or seeding, a large amount of their energy is consumed in moving their big clumsy bodies over the soft ground, leaving only a part of their effort to be utilized in actually pulverizing the soil. In the way that mechanical power has been used for the same purpose, not only is the weight of the engine so concentrated on its drive-wheels as to injuriously pack the soil, but there is a much greater loss of energy proportionally than if horses be used to draw the implements for tilling the soil.

At the Winnipeg agricultural motor competition last summer, it was conclusively demonstrated that the tractive effort on prairie sod of nine of the leading makes of gasoline and kerosene tractors and of six steamers, was on the average just a trifle over 62 per cent. of the delivered horse power of the engines. If 38 per cent. of the power of the engine is dissipated when pulling on a firm footing, how much more will go for naught drawing harrows and

seeders over plowed ground? It will be seen from the description of the functions of the various elements of the motor tilling machine shown in the cut, that the engine required to move its weight over soft ground is put to useful account, viz., that of firming the lower layers of the soil and putting the surface into such a condition that the action of the pulverizing spiral will be most effective, in contradistinction to that of the energy of the horse or usual form of tractor which is almost entirely dissipated, or at most results in only a few foot-prints or the uneven compacting of the soil by the engine drive-wheels.

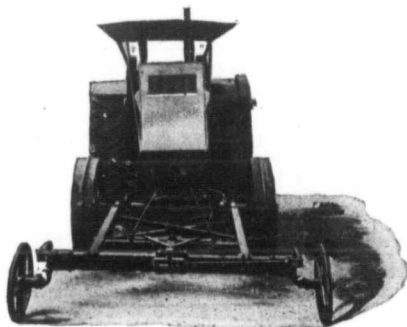
In order to prepare anything like a seed-bed and seed in a single operation with engine power, so many disk harrows, spike-tooth harrows, packers,

You Can't Make A Straight Furrow

AND KEEP IT SO, WITHOUT A Cuddy Steering Device

The CUDDY STEERING DEVICE is for use in steering a Traction Engine while plowing. It is also a self-steering device when the engine is being used for disking, seeding or harvesting. It is adaptable to any engine and will keep it so that perfect plowing is the result. It has been tried under all kinds of tests and conditions in various kinds of land—has been used in disking, breaking—and has proven a complete success. This is the only self-steering device on the market, which can be attached to ANY engine.

When a plowing engine is used without a steering device, the strain on the man standing at the steering wheel staring at the furrow and guiding his engine, for from 12 to 15 hours a day, can only be realized by a man who has actually had this experience.



The cut shows the CUDDY STEERING DEVICE attached to a 20 h.p. International Gas Tractor. At the Winnipeg Exhibition Trial Grounds in 1910, this device was demonstrated and was unanimously acknowledged to be the solution of all engine steering troubles.

Claims which you can Prove by Seven Days' Trial which we give to bona fide purchasers

1. It is a well-constructed, perfect steering device, is made of I beam steel, and is practically unbreakable.
2. It will follow the furrow and insure good plowing instead of continually cutting and covering. Front plows will cut full width always—thus the plowing will be straight and uniform.
3. ONE MAN is easily able to do perfect work as he has absolute control of engine at all times. He is enabled to fill oil and grease cups, and keep grease cups screwed down, tighten all nuts, which become loose on engine and plows, and still keep travelling.
4. It is easily and quickly manipulated, as the leverage is so arranged that the engine will respond to the impression of ONE FINGER on the steering wheel. With a few turns of the wheel the engine is at its shortest turning point, which will save from 4 to 6 rods in the average round. The operator can lift the plows at the ends without stopping.
5. It is no encumbrance to the engine, as it is only about five feet from the engine axle to truck axle, thus increasing instead of decreasing the efficiency of the engine.
6. It is a great saving on the engine as it is carried in a straight line, instead of being subjected to the continual twisting and jerking of the front end. The engine is therefore more steady in motion.
7. It is reasonable in price.

REFERENCES:—The International Harvester Co., Winnipeg.
A. G. Schreiber, Emmert Land Co., Oak Bluff, Man.

Always state type, make, H.P. and year of purchase of your engine when ordering.

Further information gladly furnished.

Responsible Agents Wanted among Agricultural Machinery Dealers

Manufactured and Sold by

The Western Steel & Iron Co. Ltd.
WINNIPEG CANADA