(No Model.)

G. M. DITTO.

FORCE FEED BROADCAST SEED SOWER.

No. 525,339. Patented Sept. 4, 1894.

Fig.1.

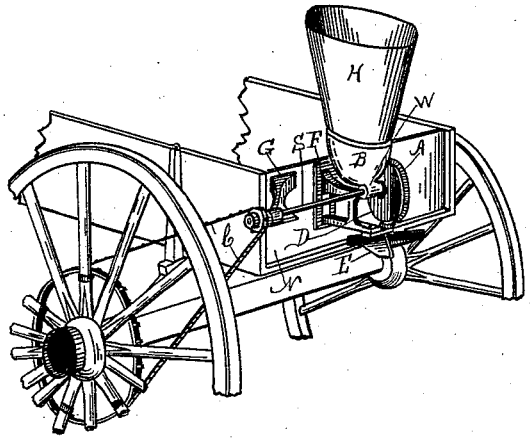


Fig.4.

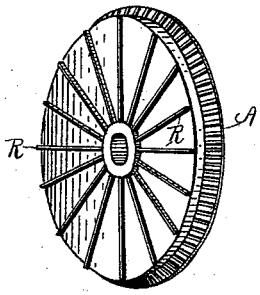
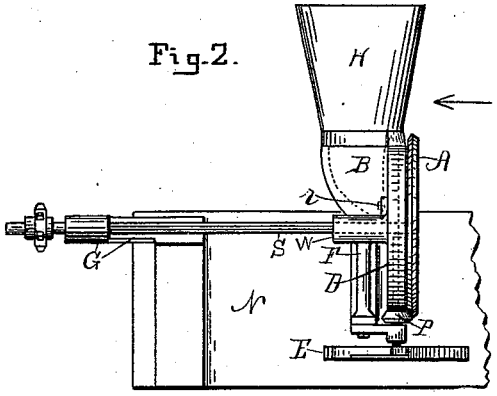


Fig.5.

Fig.2.



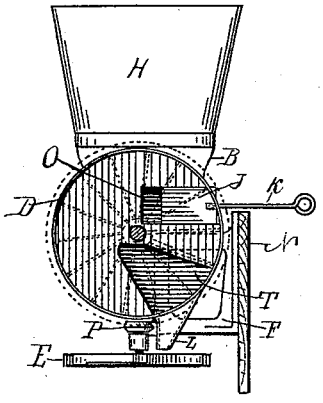


Fig.3.

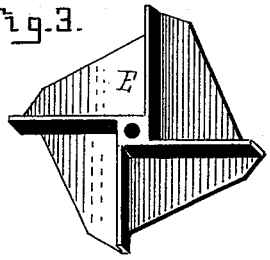
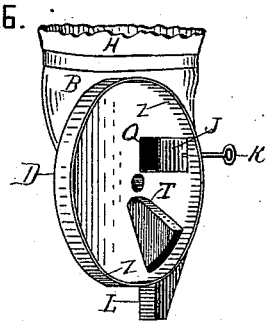


Fig.6.



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UNITED STATES PATENT OFFICE.

GENERAL M. DITTO, OF JOLIET, ILLINOIS.

FORCE-FEED BROADCAST SEED-SOWER.

SPECIFICATION forming part of Letters Patent No. 525,339, dated September 4, 1894.

Application filed June 2, 1894. Serial No. 513,226. (No model.)

To all whom it may concern:

Be it known that I, GENERAL M. DITTO, a citizen of the United States of America, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Force-Feed Broadcast Seed-Sowers, of which the following is a specification, reference being had therein to the accompanying drawings and the letters of reference thereon, forming a part of this specification, in which—

Figure 1. is a perspective view of the seed sower applied to an ordinary wagon. Fig. 2 is a side elevation of the seed sower looking toward the rear end of a wagon, and showing a portion of the rear end board of a wagon to which it is attached. Fig. 3. is a perspective view of the rotary distributer, detached from the remainder of the machine. Fig. 4. is a perspective view of the drive gear showing its inner side provided with radial force feed ribs. Fig. 5 is an end view of Fig. 2 looking at it in the direction shown by the arrow, the drive gear being removed, to show the inner side of the flanged stationary plate for receiving the drive gear and Fig. 6. is a perspective view of said flanged plate, and its discharge spout, and a portion of its integral hopper.

This invention relates to certain improvements in force feed broadcast seed sowers of the class designed to be attached to the rear part of a wagon, and driven by means of a sprocket chain from a sprocket wheel attached to one of the wagon wheels, and relates more particularly to the mechanism for force feeding the grain to the rotary distributer, which improvements are fully set forth and explained in the following specification and claims.

Referring to the drawings D represents a circular plate having a laterally projecting peripheral flange Z, and designed to be cast so as to have a portion of the hopper B integral therewith, and the remaining portion of said hopper being cast so as to have a bracket F and box *w* integral therewith, and the two parts of said hopper connected by means of bolts *r* as shown in Fig. 2.

S is the drive shaft having a sprocket wheel on its outer end for the sprocket chain C, and having on its inner end the drive gear A provided on its inner side with the radial ribs R. Said shaft has its inner end next said drive gear journaled in said box *w* of bracket F, and its opposite end journaled in a box of the bracket G, both brackets being intended to be attached to the rear end board N of a wagon as shown particularly in Fig. 1. Said drive gear A is designed to be inclosed within the recess of plate D formed by its projecting flange Z, in such manner as to leave its teeth exposed to mesh with the pinion P on the vertical shaft of the rotary distributer E, and in such manner that its radial ribs R will be in close contact with the plate D. Said plate D is provided with a feed opening O. opening into the hopper B, and controlled by a slide valve J having an extending handle *k* for operating it to control the quantity of grain to be conducted to the distributer.

T is a recess or port formed in the side of plate D a short distance below the feed inlet O, the space between them being a little greater than the space between two of said radial ribs, so that grain will not begin to be discharged from the chamber between said ribs before it is filled from the feed opening.

L is a discharge spout leading from said port T to the rotary distributer E through which grain discharged into said port is conveyed to said distributer to be scattered rearward broadcast on the field as the wagon advances and drives the distributer.

It will be observed that the drive gear located on the drive shaft performs the double duty or service of driving the distributer, and force feeding the grain thereto simply by means of the use of the flanged plate D, and the radial ribs R moving in close contact therewith, thus dispensing with the use of additional mechanism for force feeding the grain to the distributer.

In operation, grain is placed in the extension hopper H leading to the hopper B. As the wagon to which the device is attached moves forward, the force feed drive gear A is driven as stated, and in turn drives the distributer E. The valve J being moved so as to open the feed inlet O admits grain to the chambers between the radial ribs R consecutively as the wheel A rotates, and consecutively discharge their contents into the port T from whence it is conveyed to the distrib-

uter E by means of the spout L, which rotating distributer scatters it rearward over the field. The quantity of grain sown is controlled by said valve and grain cannot run through when the machine is still, and will be sown faster or slower according to the speed the wagon travels and drives the machine.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. In a force feed broadcast seed sower, the combination of the drive shaft S, drive gear A having the radial ribs R and secured on the inner end of said shaft, hopper H. B., flanged p'ate D forming a recess for receiving said drive gear, and having the grain inlet O and a valve J for controlling said inlet, and having the discharge port T located as far distant from said inlet as the space between said radial ribs, the discharge spout L, and the rotary distributer all arranged to operate substantially as and for the purpose set forth.

2. In a force feed broadcast seed sower the combination of the drive gear A having the radial ribs R, and secured on the drive shaft S, plate D having the laterally projecting flange Z forming a recess for receiving said drive gear in such manner that said radial ribs will be in close contact therewith and form radial grain pockets between said ribs, said plate having the grain inlet O controlled by a valve, and having the discharge port T all arranged to operate substantially as and for the purpose set forth.

3. In a force feed broadcast seed sower the combination of the drive shaft S having the drive gear A secured thereon, the drive gear A having the radial ribs R, and the means for forming pockets of the spaces between said ribs and for feeding grain to and discharging it from said pockets all arranged to operate substantially as and for the purpose set forth.

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