

(No Model.)

C. W. NICHOLSON.
FERTILIZER DISTRIBUTER.

No. 471,884.

Patented Mar. 29, 1892.

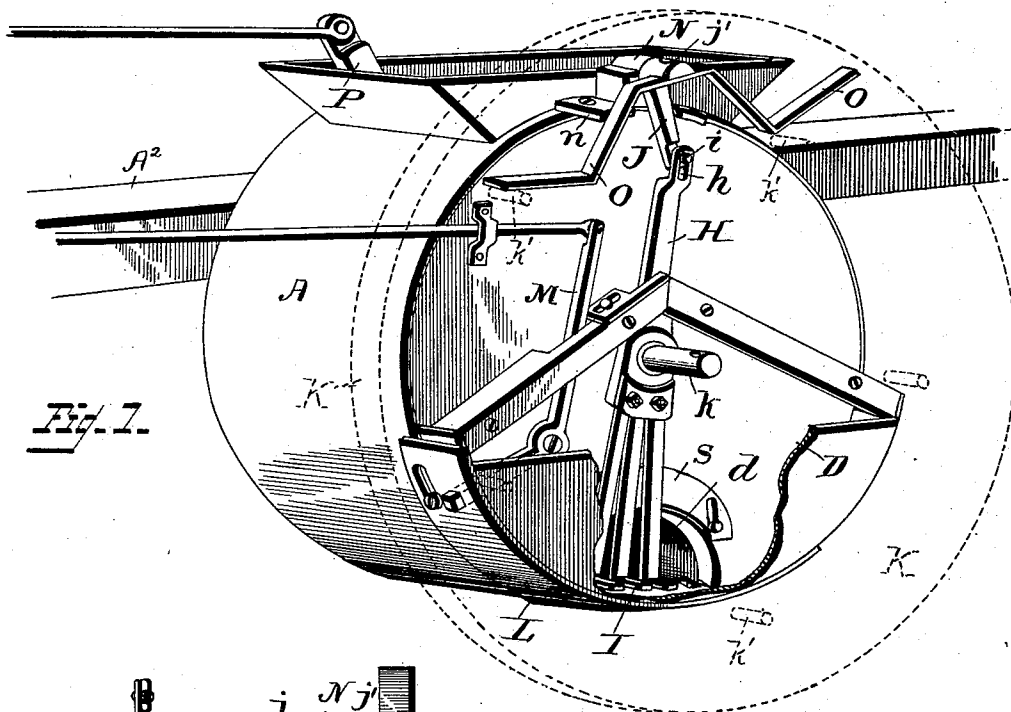


Fig. 7.

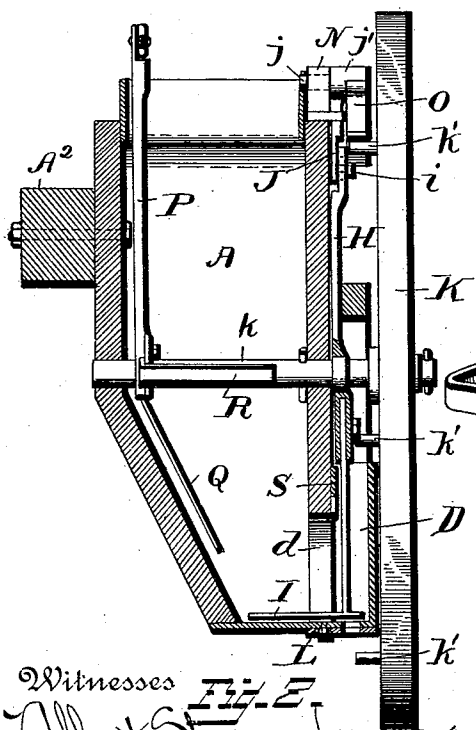


Fig. 8.

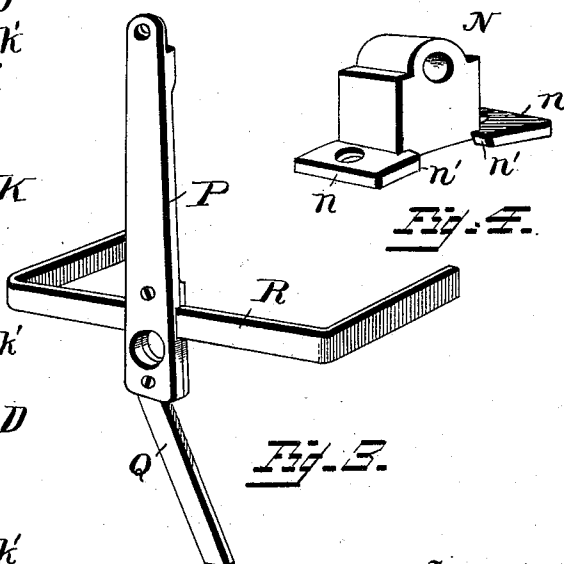


Fig. 9.

Fig. 10.

Witnesses
Albert Spiden
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By his Attorneys
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UNITED STATES PATENT OFFICE.

CHARLES WESLEY NICHOLSON, OF ASSAMOOSICK, VIRGINIA.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 471,884, dated March 29, 1892.

Application filed January 8, 1892. Serial No. 417,380. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WESLEY NICHOLSON, a citizen of the United States, residing at Assamoosick, in the county of Southampton and State of Virginia, have invented certain new and useful Improvements in Fertilizer-Distributers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to fertilizer-distributers, and is designed especially as an improvement on Patent No. 443,864, which was granted to me December 30, 1890.

The object of the invention is to dispense with wearing parts and improve the general construction of the machine, whereby its efficiency and durability is increased.

The improvement consists of the novel features and the peculiar construction and combination of the parts, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a perspective view of the invention, having parts removed and with parts broken away to more clearly illustrate the details and the relative arrangement of the parts. Fig. 2 is a cross-section of the invention. Fig. 3 is a detail view of the stirrer for loosening and preventing the banking up of the fertilizer in the hopper. Fig. 4 is a detail view of the bearing which supports the lever that is in connection with the lever having the agitator-fingers.

The hopper A, having side compartment D and opening *d* between the hopper and the said side compartment, the wheel K, loosely mounted upon the cross-bar or axle *k*, which extends through the sides of the hopper, the regulating-slide L for controlling the size of the discharge-openings in the bottom of the hopper, and the lever M for operating the said slide, are all of well-known construction and operation, being substantially the same as the corresponding parts shown in my previous patent, No. 443,864. The lever H, mounted on the cross-bar or axle *k* to oscillate freely thereon, is provided at its lower end with a series of agitator-fingers I, and its upper end is

slotted at *h* to receive a pin or screw *i*, which is carried by the lever J and which forms the connection between the said levers J and H. The lever J is provided on one side with journal *j*, which has its support in the bearing N, and on the opposite side with head *j'*, to which the lever O is secured. The pin or screw *i* at the lower end of lever J extends through and works in slot *h* in lever H, and causes the two levers to work together. The lever O extends equally on each side of the head *j*, and is actuated by pins or rollers *k'*, projected from the side of the wheel K. The bearing N has a flanged base *n*, by means of which it is secured to the hopper. The flange *n* is cut away to give clearance for the lever J and form shoulders or stops *n'*, which limit the movements of the said lever. The stirrer mounted on the cross-bar or axle *k* is composed of lever P, which is conveniently operated by the driver to actuate the stirrer and prevent the fertilizer from clogging up in the hopper, and the arms Q and R, which are connected with the said lever P. The arm Q is slightly deflected to conform to the slanting side of the hopper, and the ends of the arms R are bent at about right angles to extend across the space between the sides of the hopper. The attachment is secured to the beam A² of a plow in any desired manner, and as the plow is drawn over the field the wheel K is rotated and the pins or projections *k'* engage with and vibrate the lever O, and through the instrumentality of the levers H and J actuate the agitator and cause the fertilizer to be distributed. The stirrer P Q R is actuated occasionally by hand to prevent the fertilizer banking up in the hopper. The cut-off S is provided to regulate the size of the opening *d*.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a fertilizer-distributer, the combination, with the hopper having a side compartment which is in communication with and receives its supply from the said hopper, of an agitator composed of lever H, having agitator-fingers at its lower end, and lever J, having connection with the said lever H, and means for actuating the said lever J, substantially as described.

2. In a fertilizer-distributor, the combination, with the hopper having a side compartment which communicates with and receives its supply from the said hopper, of lever H, 5 pivoted between its ends and having agitator-fingers at its lower end, lever J, having connection with lever H, lever O, secured between its ends to lever J, and the wheel K, having projections *k'* to engage with and operate lever O, substantially as set forth. 10

3. In a fertilizer-distributor, the combination of the hopper, lever H, having agitator-fingers, lever J, having engagement with lever H, and bearing N, supporting lever J and 15 having shoulders *n'* to limit the movements of the said lever J, substantially as described.

4. In a fertilizer-distributor, the combination, with the hopper, of a stirrer composed of lever P, and arms Q and R, connected with 20 the said lever P, the arm Q extending an equal distance on each side of the lever P and hav-

ing its ends bent at right angles, substantially as and for the purpose described.

5. In a fertilizer-distributor, the combination of the hopper having a side compartment which is in communication with the said 25 hopper, a cut-off to regulate the size of the opening between the said hopper and compartment, lever H, having agitator-fingers, lever J, having journal *j* and head *j'*, bearing 30 N, having shoulders *n'*, lever O, secured to the said head *j'*, and the wheel K, having projections on one side to engage with and actuate lever O, substantially as described, for the purpose specified. 35

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES WESLEY NICHOLSON.

Witnesses:

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E. L. JOHNSON.