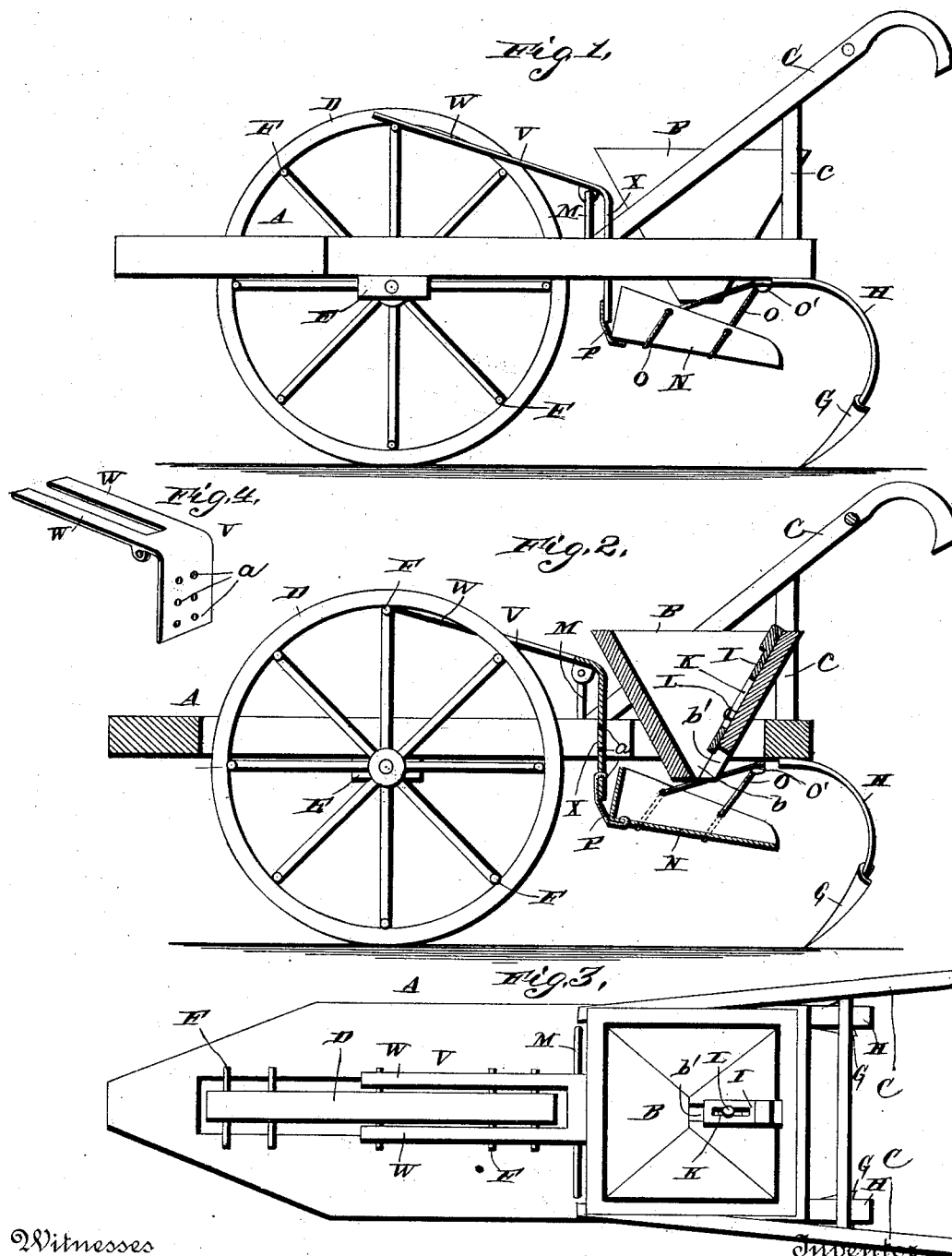


(No Model.)

J. L. DEW.
FERTILIZER DISTRIBUTER.

No. 375,052.

Patented Dec. 20, 1887.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN LANE DEW, OF FREE STATE, SOUTH CAROLINA.

FERTILIZER-DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 375,052, dated December 20, 1887.

Application filed October 6, 1887. Serial No. 251,666. (No model.)

To all whom it may concern:

Be it known that I, JOHN LANE DEW, a citizen of the United States, residing at Free State, in the county of Marion and State of South Carolina, have invented a new and useful Improvement in Fertilizer-Distributers, of which the following is a specification.

My invention relates to an improvement in fertilizer-distributers; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claim.

This invention is an improvement on the fertilizer-distributer for which Letters Patent of the United States, No. 340,217, were granted to S. W. Jackson April 20, 1886.

In the drawings, Figure 1 is a perspective view of a fertilizer-distributer embodying my improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a plan view. Fig. 4 is a detail view of the lever V.

A represents the frame. B represents the hopper mounted on the rear end of the frame, and C represents the handles which are secured to the frame and strengthened by brace-arms c.

D represents the drive-wheel, which has its shaft journaled in bearings E on the under side of the frame, near the front end of the latter. From opposite sides of this drive-wheel, near the periphery thereof and at suitable regular distances apart, project tappet-pins F.

G represents a pair of covering-shovels, which are attached to the lower ends of standards H, which standards are secured to the under side of the frame, near the rear end thereof.

The hopper has a contracted discharge-opening, b, in its bottom, and in the rear side of the hopper is a vertical opening, b', which communicates with the said opening b.

I represents a cut-off plate, which is arranged on the rear side of the hopper, is adapted to close the openings b and b' to any desired extent, and is provided with a longitudinal slot, K, through which extends a screw, L, that enters the rear side of the hopper.

M represents an inverted-U-shaped yoke, which spans the space between the sides of the frame at a point slightly in advance of the hopper.

V represents an operating-lever, which is

bent substantially at right angles, as shown, and is pivoted or hinged to the horizontal portion of the yoke. The front longer portion of the operating-lever is bifurcated to form arms W, which are arranged on opposite sides of the driving-wheel, and are adapted to be successively engaged by the tappet-pins F when the wheel rotates. The rear portion, X, of the operating-lever extends downward in advance of the hopper and is provided with a number of openings, a.

N represents a delivery spout or shoe, which is arranged under the discharge-openings of the hopper and is disposed longitudinally and in a slightly-inclined position, the front end of the spout or shoe being higher than the rear end thereof. This spout or shoe is suspended below the hopper by means of a flexible endless strap, O, of any suitable material, which strap is attached to pins O' on the under side of the frame, as shown. It will be observed that the loops of the strap O are connected to the spout or shoe near the front and rear ends of the latter, and thereby the said spout or shoe is supported at different points of its length, and consequently is enabled to swing or oscillate in a longitudinal direction. These loops pass through openings in the sides of the spout or shoe and pass around the lower side thereof. By shifting the strap O on the pins O' one of the loops may be lengthened and the other shortened, as will be readily understood, and thereby the spout or shoe may be adjusted to any desired inclination, so as to regulate the quantity of fertilizer distributed by the machine. The front end of the shoe or spout is connected to the lower end of the arm X of the operating-lever by means of a flexible strap or link, P, which is secured in one of the openings a, according to the position in which the spout or shoe is arranged.

Owing to the fact that the spout or shoe is suspended in an inclined position by loops attached to the spout or shoe at different points of its length, the normal tendency of the spout or shoe is to swing rearwardly, as will be readily understood.

The operation of my invention is as follows: The fertilizer is placed in the hopper, the cut-off plate is caused to open the opening b and the opening b' to the desired extent, and the machine is driven across the field. The rota-

tion of the driving-wheel causes the tappet-pin to successively engage the lower side of the front portions of the operating-lever, and thereby rock the same upon the yoke M, and consequently the lower arm, X, of the said operating-lever is caused to oscillate in a longitudinal direction, as will be readily understood. The said arm X of the operating-lever, being connected to the front end of the spout or shoe by a flexible strap or link, imparts oscillating motion to the said spout or shoe, and the latter distributes the fertilizer which falls upon it from the hopper onto the ground, where it is covered up by the shovels G. By arranging the spout or shoe in an inclined position, as shown and hereinbefore described, and by suspending it from the frame by the flexible looped strap O and attaching it to the operating-lever by the flexible strap, the oscillating or swinging motion of the spout or shoe is very materially increased, and the same is thereby adapted to distribute fertilizer in greater quantities and with a much

greater certainty and regularity than heretofore.

Having thus described my invention, I claim—

The combination, in a fertilizer-distributor, of the hopper, the spout or shoe, the flexible endless strap O, attached to the frame and having the loops attached to the said shoe at different points of its length and suspending the same in an inclined position below the hopper, said strap being adapted to be shifted at the points of its connection to the frame, for the purpose set forth, the operating-lever X, the flexible strap P, connecting the front end of the shoe or spout to the lever, and the wheel to actuate the lever, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN LANE DEW.

Witnesses:

CHESLEY DANIEL EVANS, Jr.,
WILLIAM AIKEN WALL.