R. E. CLARK & J. L. ZEIGLER.
INSECT POWDER DUSTER.
No. 392,314. Patented Nov. 6, 1888.
To all whom it may concern:

Be it known that we, ROBERT B. CLARK and JESSIE L. ZEIGLER, of Fort Motte, in the county of Orangeburg and State of South Carolina, have invented a new and useful Improvement for Distributing Poison Upon Plants, of which the following is a full, clear, and exact description.

Our invention relates to an improved apparatus for distributing poison over plants, and has for its object to provide a simple and inexpensive apparatus, whereby poison may be distributed in a dry form upon cotton and similar plants, wherein the apparatus may be attached to any wheeled vehicle or used alone as desired.

The invention consists in the construction and combination of several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

In the several boxes 19 a transverse shaft 24, is journaled, which shaft projects outward over each of the drive-wheels, and upon the extremity of said shaft a disk 25, is keyed, which disks are adapted, when the implement is in operation, to bear upon the periphery of the drive-wheels and take motion therefrom.

Near the base of the several standards 18, the lower ends of the beams 26 are rigidly attached, which beams project outward and upward to the rear, being braced by a strap or bar, 27, attached, respectively, to the said standard 18 and the beams 26, as best shown in Fig. 1.

In the several boxes 19 a transverse shaft 24, is journaled, which shaft projects outward over each of the drive-wheels, and upon the extremity of said shaft a disk 25, is keyed, which disks are adapted, when the implement is in operation, to bear upon the periphery of the drive-wheels and take motion therefrom.

A rod 28, is passed through the upper ends of the several beams 26, from which rod a carrying-receptacle 29, is suspended, the said receptacle having closed sides and ends and open top, the bottom being covered with fine wire or bolting cloth 30, as best shown in Fig. 3. This receptacle is divided into several compartments by means of vertical transverse partitions 31, and upon the bottom at one side, as illustrated in Fig. 5, horizontal brackets 32 are attached, which bracket, extending longitudinally of the receptacle, is grooved to receive a slide 33, the said slide being purposed when the implement is not in operation to cover the screen-bottom, being supported when in position by a catch or catches 34, attached to the lower edge of the receptacle. The said receptacle 29 is preferably suspended from the shaft 28 by means of a series of bails 35, consisting of stout wire attached to opposite sides of the receptacle and bent around the rod 28 to turn freely thereon. We do not confine ourselves to this means of suspension, as other suitable devices may be employed, it simply being necessary that the movement of the receptacle be free upon the said rod.
The ends of the receptacle 29 are attached to the disks 25 by means of a wrist-pin 36, secured upon the outer face of the disks near their periphery, and a pitman 37, which pitman is pivoted to the wrist-pin and also to the ends of the receptacle. That end of the pitman which is connected to the receptacle is provided with a longitudinal slot, 38, whereby, when the disks 25 are in contact with the drive-wheel 17, the motion communicated from said disk to the receptacle through the pitman 37 may be an uneven reciprocating motion.

A lever, 39, is pivoted to the inner side of each beam 26, which levers are attached to the drive-shaft 21, and project forward at each side of the driver's seat, as best shown in Fig. 2, to a contact with vertical racks 40. Thus if the levers 39 are pressed downward by the driver, the boxes 19 are also pressed downward, which causes the disk 25 to be brought in engagement with the peripheries of the drive-wheels 17, and when said levers are carried upward the boxes are allowed to rise, and the said disks are consequently automatically elevated from their connection with the drive-wheels.

As a means of raising or lowering the powder-receptacle 29 to adapt the same for use in connection with plants of different heights, rods 41 are secured to the bar 28, one rod near each beam 26, which rods are carried forward, preferably, over the drive-shaft 24 and pivotally connected to the members of an essentially U-shaped lever, 42, which latter lever is pivoted upon a rear slat, 19, of the frame or platform 13, which slat is supported upon the axle 10.

At the center of the lever 42 a yoke, 43, is formed, which yoke is extended upward to form a handle, 44, the purpose of the yoke being to span a rack, 45, secured upon the said rear beam or slat of the frame or platform, as best shown in Fig. 2. The handle 44 is provided with a proper spring-actuated catch, 46, adapted for engagement with the said rack 45. Thus in operation, as the implement is driven forward, the disks being in contact with the wheel, an irregular reciprocating motion is imparted to the powder-receptacle 29, and through said motion the powder is sifted down upon the plants.

I desire it to be understood that, although a specific construction has been described other equivalent construction may be used without departing from the spirit of the invention.

The drive-shaft 21 may, if found desirable, be made in two sections, as illustrated in Fig. 2, whereby the said shaft may be adjusted to implements of different widths.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a shaft, drive-wheels, a frame supported upon said shaft, arms projected upward and pivoted upon the same, and spring-actuated boxes held to slide in the upper end of said arms, of a drive-shaft journaled in said boxes, provided with disks at the extremities adapted for engagement with the drive-wheels, rearwardly and upwardly extending beams projected from said arms, a powder-receptacle suspended from said arms, and a pitman-connection between the powder-receptacle and the disks, as and for the purpose specified.

2. The combination, with the shaft, drive-wheels, a frame supported upon said shaft, arms pivoted upon the same, and spring-actuated boxes sliding in the upper end of said arms, of a shaft journaled in said boxes, provided with attached disks at the extremities, beams rearwardly and upwardly projected from said arms, a bar held in said beams, a powder-receptacle suspended from said bar, provided with an attached screen at the bottom, and means, substantially as shown and described, for reciprocating the receptacle from the drive-shaft, as and for the purpose specified.

3. The combination, with the shaft, drive-wheels, a frame supported upon said shaft, arms pivoted upon the same, and spring-actuated boxes sliding in the upper end of said arms, of a drive-shaft journaled in said boxes, provided with attached disks at the extremities, beams rearwardly and upwardly projected from said arms, a bar held in said beams, a powder-receptacle suspended from said bar, provided with an attached screen at the bottom, a pitman connecting said disk and receptacle, levers pivoted to said beams and attached to said drive-shaft, and a rack supported upon the body, adapted to engage the inner end of said levers, as and for the purpose specified.

4. The combination, with the shaft, drive-wheels, a frame supported upon said shaft, arms pivoted upon the same, and spring-actuated boxes sliding in the upper end of said arms, of a drive-shaft journaled in said boxes, provided with attached disks at the extremities, beams rearwardly and upwardly projected from said arms, a bar held in said beams, a powder-receptacle suspended from said bar, provided with an attached screen at the bottom, rods attached to the receptacle-supporting bar, an essentially U-shaped lever pivoted upon the frame and to said bar-rods, a spring-actuated catch attached to the U-shaped lever, and a rack secured to the frame, adapted to receive said catch, whereby the powder-receptacle may be elevated or lowered, as desired, as and for the purpose specified.

5. The combination, with the shaft, drive-wheels, a frame supported upon said shaft, arms pivoted upon the same, and spring-actuated boxes sliding in the upper end of said arms, of a drive-shaft journaled in said boxes, provided with attached disks at the extremities, beams rearwardly and upwardly projected from said arms, a bar held in said beams, a powder-receptacle suspended from said bar, a drive-shaft journaled in said boxes, provided with disks at the extremities adapted for engagement with the drive-wheels, rearwardly and upwardly extending beams projected from said arms, a powder-receptacle suspended from said arms, and a pitman-connection between the powder-receptacle and the disks, as and for the purpose specified.
divided into compartments and provided with a screen at the bottom, brackets attached to the rear of said receptacle at the base, a slide carried by said bracket, adapted to cover the screen, a pitman connecting said receptacle and disk, and means, substantially as shown and described, for throwing said disks in and out of contact with the drive-wheels, as and for the purpose specified.

ROBERT E. CLARK.
JESSIE L. ZEGLER.

Witnesses:
W. S. MURRAY,
E. W. JONES.