

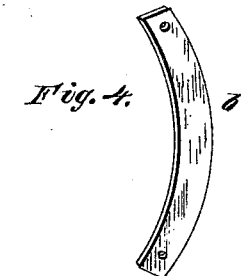
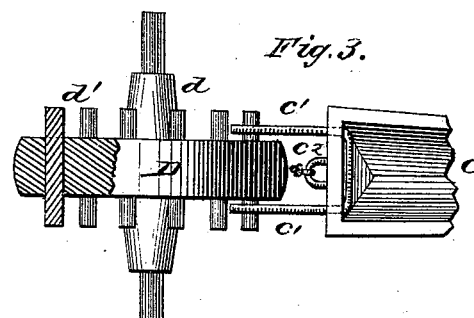
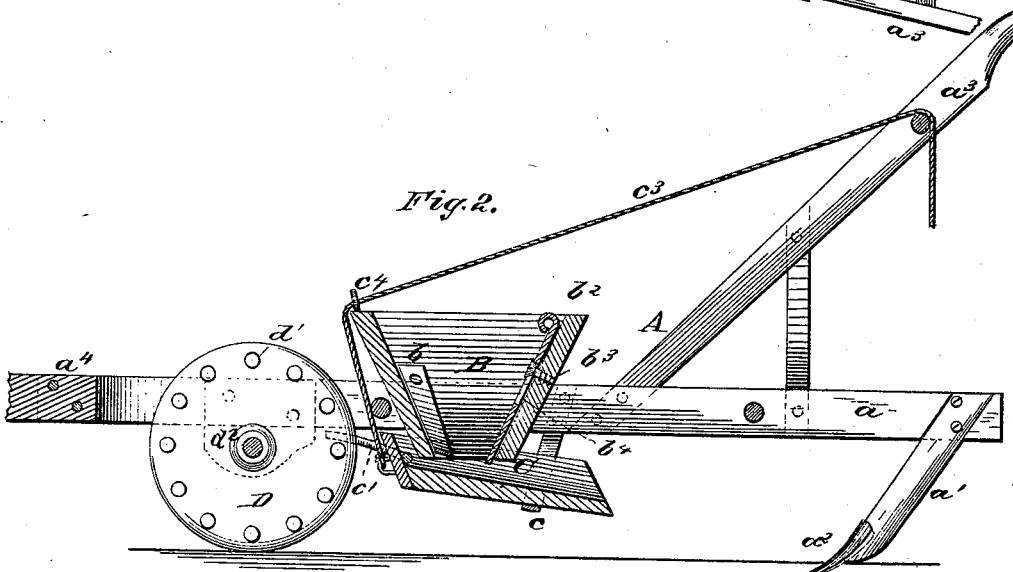
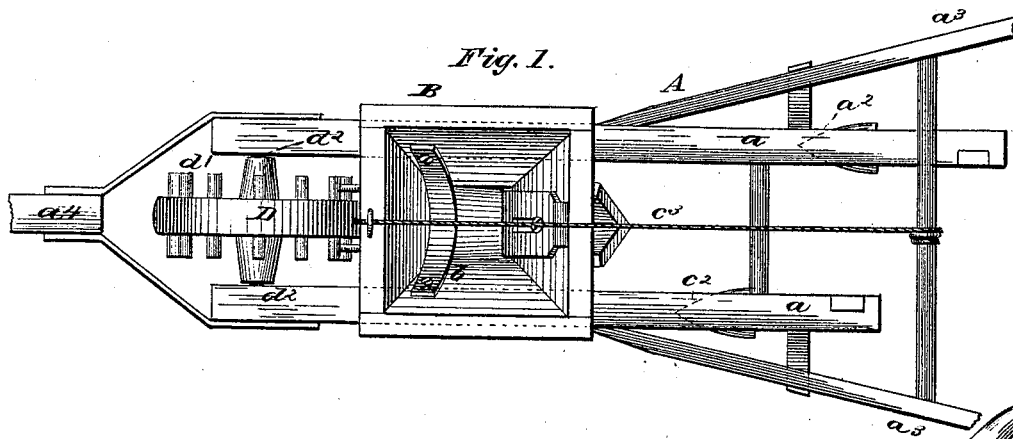
(No Model.)

J. L. FARMER.

GUANO DISTRIBUTER AND COVERER.

No. 250,351.

Patented Dec. 6, 1881.



WITNESSES

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JAMES L. FARMER, OF TOWNVILLE, SOUTH CAROLINA.

GUANO DISTRIBUTER AND COVERER.

SPECIFICATION forming part of Letters Patent No. 250,351, dated December 6, 1881.

Application filed September 14, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. FARMER, a citizen of the United States, residing at Townville, in the county of Anderson and State of South Carolina, have invented certain new and useful Improvements in Guano Distributers and Coverers; 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, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a top-plan view of my guano distributor and coverer. Fig. 2 is a central vertical section of the same. Fig. 3 is a detailed view of the front end of the distributing-shoe and of the jarring-wheel. Fig. 4 is a detailed view of the strip of iron, tin, or leather used to enlarge or diminish the opening in the bottom of the hopper.

This invention has relation to improvements in fertilizer distributers and coverers; and it consists in the construction and novel arrangement of parts, as hereinafter shown, described, and particularly pointed out in the claims.

In the accompanying drawings, A designates the frame-work of my device, having side beams, *a a*, plow-standards *a' a'*, wide enough apart to throw dirt from either side of the furrow to cover the guano when distributed, plow-points *a² a²*, handles *a³*, and beam *a⁴*. One of these standards is placed about a foot in advance of the other, so that in covering the guano the laps of earth will not form a ridge, but lap each other.

B represents the hopper, having four walls, so cut that it is much larger at the top than bottom. This hopper is secured between the two side beams, *a a*, just in rear of the jarring-wheel D and a foot or two in advance of the plow-standards *a' a'*. The bottom of the box extends three or four inches below the two beams, that it may be encircled by the walls of the shoe, hereinafter described. This hopper is also provided with a detachable feed-slip, *b*, cut circular in shape, so that when fitted to the inside of the front wall of the hopper, with its shorter edge against the wall and either end secured to the side walls, its bottom will form

an inclined plane from the front to the opening in the hopper, thus facilitating the movement of the guano as it slides to the opening and through it into the shoe. This detachable strip is secured in place by tacks or screws, and may be detached and replaced by one broader or narrower, as the consistency of the fertilizer being distributed may require. This hopper is also provided with a slotted slide-gate, *b²*, extending vertically from the top to the bottom thereof, and secured to the inside of the rear wall by a screw, *b³*, passing through slot *b⁴*, and is designed, in conjunction with detachable feed-strip *b*, to regulate the flow of the fertilizer from the hopper into the shoe.

Immediately in rear of and under the hopper is a shoe, C, swung to the side beams, *a a*, by means of a strap, *c*. This strap is attached at either end of said beams and to the bottom of said shoe, and in rear of its gravity-center, so that its rods *c' c'* will rest on the pins of jarring-wheel D. This shoe has front and side walls, within which the lower end of the hopper hangs. This shoe is also provided with two iron rods, *c'*, extending five or six inches from its front end, and are about three or four inches apart and rest on pins *d'*.

From a staple, *c²*, in the front end of the shoe, a cord, *c³*, is extended, passing through a staple, *c⁴*, in the upper edge of the front wall of the hopper, thence to the handles in easy reach of the operator.

Immediately in front of the hopper, secured on an axle, *d*, is the jarring-wheel D, journaled in bearings *d² d²* in the side beams, *a a*, of the frame-work A. This jarring-wheel D is provided with a row of pins, *d'*, about from four to six inches apart and one or two inches from its peripheral edge, passing transversely through the wheel and extending about three or four inches from either face, thus making a row of pins on both faces of the same.

This distributer and coverer is operated as follows: Motion is imparted to the jarring-wheel by its own traction as it is drawn along in the furrow. As it is thus rolled along the pins *d'* engage rods *c'*, extending from the front end of hopper, and as the wheel rolls forward the rods slip off of the advancing pins and fall upon the rising pins, and so on continuously, thus constantly jarring shoe C and keeping it

in motion, which causes the guano to work out at its rear end and fall into the furrow. The two plow-points then come along and cover it up.

5 The cord c^3 is used to hold up the front end of the shoe and keep the pins d' from engaging rods e' , thus stopping the flow of guano in turning at the end of a row or in passing from one piece of ground to another.

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

1. In a guano distributor and coverer, detachable feed-strip b , cut circular, adapted to

be used in the hopper B, substantially as shown 15 and described.

2. The combination of frame-work A, hopper B, slotted slide-gate b^2 , and detachable feed-strip b , cut circular and adapted to fit against the inside of the front wall of said hopper, sub- 20 stantially as shown and described.

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

JAMES L. FARMER.

Witnesses:

J. B. LE ROY,

J. L. O. BRANYAN.