

(No Model.)

2 Sheets—Sheet 1.

E. B. NORTON.
POISON DUST DISTRIBUTER.

No. 468,685.

Patented Feb. 9, 1892.

Fig. 1.

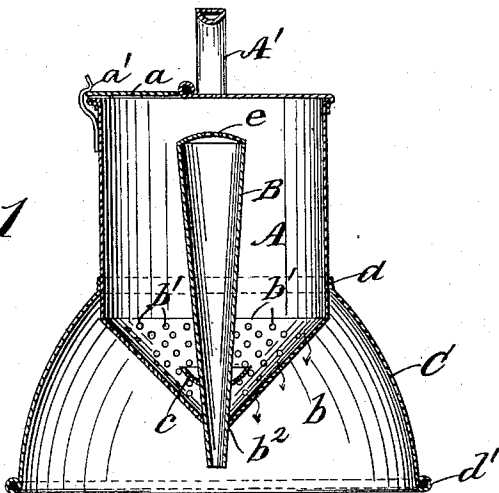
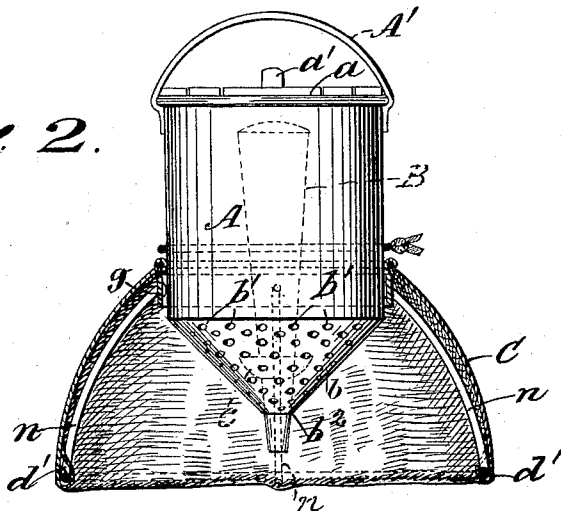


Fig. 2.



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ATTORNEYS.

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Fig. 3.

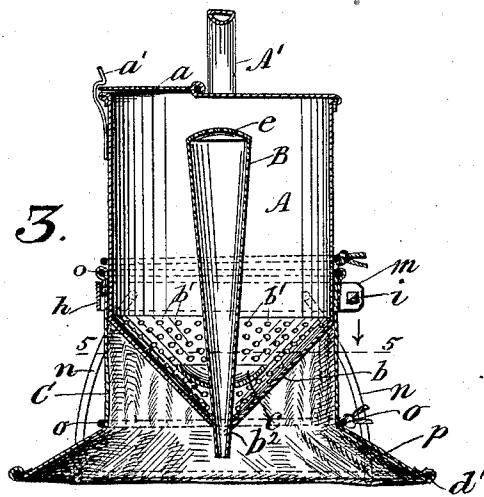


Fig. 4.

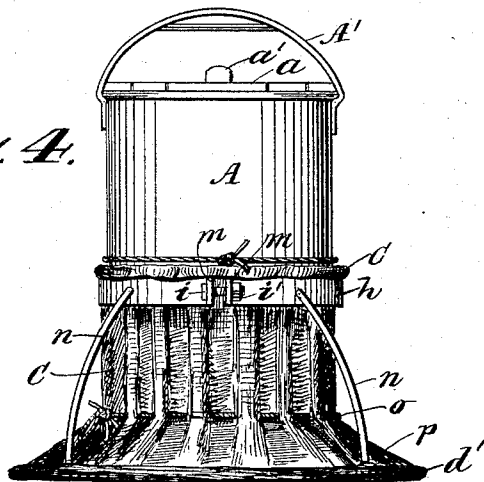
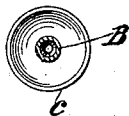


Fig. 5.



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UNITED STATES PATENT OFFICE.

ENOCH B. NORTON, OF HARTFORD, NEW YORK.

POISON-DUST DISTRIBUTER.

SPECIFICATION forming part of Letters Patent No. 468,685, dated February 9, 1892.

Application filed May 25, 1891. Serial No. 393,947. (No model.)

To all whom it may concern:

Be it known that I, ENOCH B. NORTON, of Hartford, in the county of Washington and State of New York, have invented a new and useful Poison-Dust Distributer, of which the following is a full, clear, and exact description.

The object of this invention is to provide a simple and effective device of the character indicated which may be readily manipulated to discharge a proper quantity of powdered poison—such as paris-green—upon vegetation to kill obnoxious insects that destroy the growing plants.

To this end my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

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

Figure 1 is a vertical axial section of the device in preferred form. Fig. 2 is a side elevation showing the exterior of the distributor dust-holder and an attached dust-guard in vertical section, differing from that shown in Fig. 1. Fig. 3 is a sectional elevation of a modified form. Fig. 4 is a side view showing the exterior of the device represented in Fig. 3; and Fig. 5 is a sectional plan view of the air-tube and an attached dust-spreading flange taken on the line 5 5 in Fig. 3.

The dust-holder A is given a cylindrical form, and is made of proper dimensions to contain the poison, which is preferably mixed with powdered plaster or other powdered fertilizing substance. A hinged lid *a* is provided for the chamber or dust-holder A, and a bowed handle *A'*, secured across the top near its center, the lid being held detachably closed by a spring-catch *a'*. A conical or dished bottom *b* is secured by its peripheral edge to the lower edge of the dust-holder, said bottom having its wall foraminated, as at *b'*, the perforations therein formed being of a proper diameter to discharge the powdered material when the device is agitated.

At the inverted apex *b²* of the conical bottom *b* a vertical air-escape tube B is secured, which passes through the wall of the bottom a short distance, this tube being preferably made tapering from above downwardly

and of such proportionate length as will locate its upper end near to the lid of the dust-holder A.

Upon the body of the air-escape tube B a preferably dished radial flange *c* is affixed near the bottom *b*, but separated from it a sufficient distance to allow dust to pass out through the bottom below the flange, as well as above it, when the distributor is in use. The top edge of the air-escape tube B is capped with a perforated disk *e*, which may be flat; but for the proper dislodgment of powder that may rest upon it the disk or cover *e* is given a concavo-convex form with the convex surface above.

There is an enveloping dust-guard C, secured upon the lower portion of the dust-holder A, preferably made of sheet metal, which may be rigidly attached or be held by a clamping-band at its upper edge, and is stiffened at its lower edge by a wire ring *d'*. The dust-guard C, if made of sheet metal, is preferably given a semi-spherical form, as shown in Fig. 1, the lower portion thus flared being considerably larger in diameter than the top edge *d*, that may be soldered or otherwise permanently affixed upon the dust-holder A. It is also contemplated to employ a dust-guard of flexible material, which can be held upon the lower portion of the dust-holder A by a band, as at *g* in Fig. 2, which band has brace-rods *n*, projected from it outwardly and downwardly to receive the wire ring *d'* at their lower ends, the dust-guard C being stretched upon the frame. In Figs. 3 and 4 the dust-guard C is slightly changed in form and is made of fibrous material held by a clamping-ring *h*. The clamping-ring *h* is of a proper diameter to encircle the dust-holder A, as a hoop, and is retained in place by a screw-bolt *i*, which is inserted through the outwardly-bent end portions *m* of the band, which are oppositely perforated to receive it, a binding-nut *i'*, serving to draw the band on the material of the dust-guard C, binding it on the dust-holder when adjusted upon the bolt end. The ring *h* is of greater diameter than the band *g* and is thereto attached by the rod-braces *n*, that are suitably bent to allow their ends to be affixed to the pieces named, as before explained with regard to Fig. 2, and in a casing formed in the fibrous

material of the jacket C a gathering-string *o* is inserted and drawn up to contract the cloth of the jacket and form an outwardly and downwardly extending petticoat *p* as an integral lower portion of the dust-guard C, or the cord *o* may be inserted at intervals in the material to retain it in connection therewith at a proper point, so that by shortening the cord or string the jacket C will be drawn into a smaller diameter and form the flaring petticoat *p*, as shown in Figs. 3 and 4.

In use the device is carried along the rows of potatoes, corn, or other plants that are to be powdered, and an upward jolting movement given to the powder-holding chamber A, this being effected above the hills of corn or potatoes in a manner that will cause the dust-guard C to project over each hill successively, so that the dust thrown out of the device by such an agitation of its contents will be confined and directed upon the leaves and stalks of the plants operated upon. At each quick vertical jolt given to the entire device by the proper handling of the same the contents will be thrown upwardly and the confined air in the upper portion of the dust-holder A be forced to pass down through the air-escape tube B out of the chamber. When the powdered material falls back after its agitation, as just explained, it will strike upon the inclined perforated wall of the conical bottom *b*, and also upon the dished flange *c*, which latter will form its position, direct the powdered mixture outwardly, so that a copious and equal distribution of the poison-dust and material it is mixed with will be discharged upon the plants that are treated to kill bugs or similar insect-pests that infest and destroy them.

It is claimed for this powder-distributor that it will prevent loss of the powdered material by confining it laterally to fall on the plants and thoroughly dust the growing crop requiring such treatment, each impulse given to the dust-holder effecting such proper dis-

charge of the poison-dust as may be desired directly above and upon the plants that are to receive the same.

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

1. A poison-dust distributor comprising a dust-holding chamber having a securable lid on top, a bail-handle above on the chamber, a foraminated bottom, and a concentric air-escape tube attached to the bottom and terminating above within the chamber, substantially as described

2. A poison-dust distributor comprising a cylindrical dust-chamber, a foraminated bottom, an upright air-escape tube within that intersects the bottom and has its upper end covered with a screen, a bail-handle above, and a lid on the chamber, substantially as described.

3. In a poison-dust distributor, the combination, with a cylindrical dust-holder having a hinged lid provided with a spring-catch and a foraminated conical bottom, of a vertical air-escape tube having a perforated top, a radial flange on said tube near the bottom within the dust-holder, and a dust-guard projecting downwardly from the lower part of the dust-holder and enveloping the plant while being dusted, substantially as described.

4. In a poison-dust distributor, the combination, with a cylindrical dust-holder having a lid, a bail-handle thereon, and a spring-catch for the lid, of a conical foraminated bottom for the dust-holder, a central vertical air-escape tube on said bottom, a radial flange on the tube near said bottom, and an enveloping dust-guard depending from the dust-holder and clamped or otherwise secured thereon, substantially as described.

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Witnesses:

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