

A. LIMA.
 DEVICE FOR DESTROYING BUGS.
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973,359.

Patented Oct. 18, 1910.

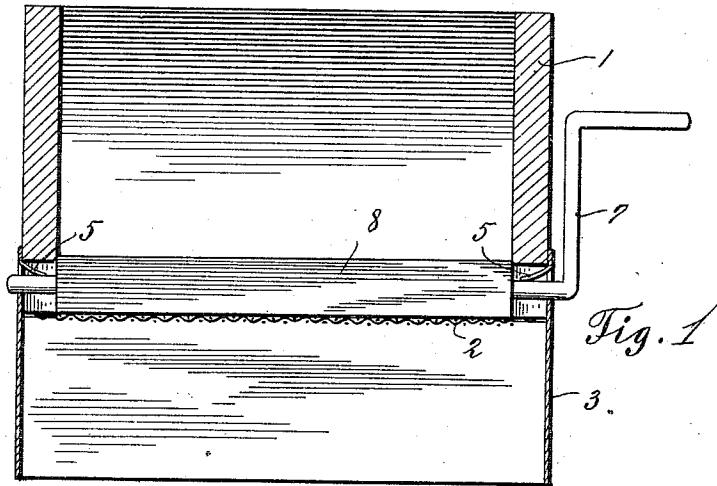


Fig. 1

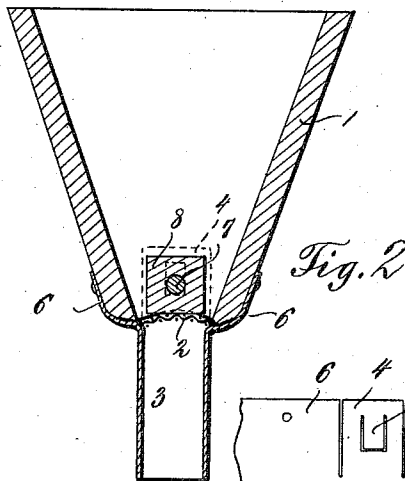


Fig. 2

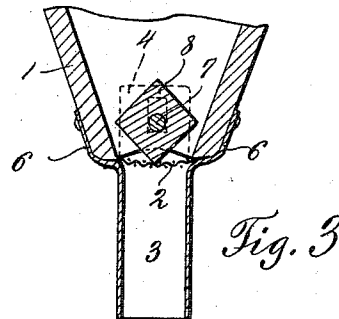


Fig. 3

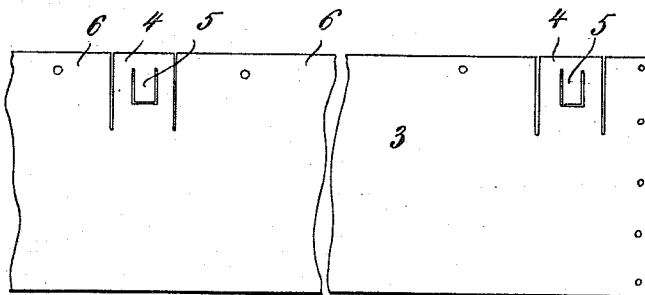


Fig. 4

Witnesses

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DEVICE FOR DESTROYING BUGS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARNE LIMA, a citizen of the United States, residing at Hannaford, in the county of Griggs and State of North Dakota, have invented certain new and useful Improvements in Devices for Destroying Bugs, of which the following is a specification.

This invention relates to insect destroyers and primarily to powder dusters with which the powder poison, such as paris green, may be distributed and sifted on plants having insects thereon, such as potato plants.

It is especially designed to provide a device of the above nature which may be cheaply and yet durably constructed and which will prevent the powder poison from clogging and hindering the even distribution of the same.

With the above and other objects in view, this invention consists of the construction, combination and arrangement of parts all as hereinafter more fully described, claimed and illustrated in the accompanying drawings, wherein:

Figure 1 is a vertical longitudinal section disclosing the present invention; Fig. 2 is a vertical cross section illustrating the agitator in its normal position; Fig. 3 is a similar view illustrating how one of the corners of the agitators strikes against the foraminous material for sifting the powder. Fig. 4 is a view of a blank from which the spout is formed.

Referring more particularly to the drawings, 1 indicates a hopper which may be of any suitable material having two opposite sides converging. Covering the bottom of the hopper is a piece of screen or other foraminous spring material through which the poison is sifted. This screen is upwardly convex for the purpose hereinafter to be fully described.

The spout 3 is secured to the bottom of the hopper for guiding the sifting poison of the plants and serving as a wind guard also. This spout is made from a single strip of metal, preferably spring metal, having one longitudinal edge cut into from a pair of bearings 4 as illustrated in the accompanying drawings. From each bearing is stamped a tongue 5 oblong in shape having an integral connection with the bearing at the top of the oblong opening thus formed. The ends of this strip 3 are riveted together

after the spout is formed, to correspond to the shape of the hopper. The portions 6 intermediate the bearings or journals are flanged outwardly to receive the converging sides of the hopper 1. The hopper may 60 then be secured by tacks or any other suitable means.

A crank shaft 7 which is journaled in the bearings 4 carries an agitator or pulverizer 8 which is preferably square in cross section 65 for pulverizing any lumps which may come in the poison and for aiding in the sifting of the same. The tongues or spring members 5 are adapted to bear downwardly upon the shaft 7 and normally hold the agitator 70 close to the foraminous material. Of course it will be seen that the straight or perpendicular ends of the hopper will have to be notched so as to receive the crank shaft 7 and permit the same to reciprocate. 75

In operation, the desired poison powder is put into the hopper 1 and by working the crank shaft 7 with the hand the agitator 8 is put into motion, pulverizing any lumps which may occur in the powder and at the 80 same time sifting the same to the screen. It will be observed that on rotating the agitators the corners of the same will strike against the convex screen and tend to force the same downwardly and at the same time 85 cause the agitator to rise upward, the latter motion being only resisted by the spring member 5. Upon rapidly rotating the agitator the foraminous material 2 is made to vibrate as often as the corners of the agi- 90 tator strike the former. By this simple and yet useful construction the powder is prevented from clogging and the lumps of the same are prevented from accumulating, thus hindering the distribution of the same. 95

Having thus described my invention, what is claimed as new is:

1. In an insect destroyer, the combination with a hopper having an opening in its bottom, of foraminous material covering 100 said opening, a spout having flanged edges to receive said hopper, elongated bearings formed in said spout and having integral spring members, and an agitator journaled in said bearings and adapted to move away 105 from and toward said foraminous material, said agitator being retained in normal position by said spring members, as set forth.

2. In an insect destroyer, the combination with a hopper having an opening in the 110

bottom, of foraminous material secured thereto and covering said opening, a spout having flanged edges to receive said hopper, said spout being provided with bearings 5 having integral spring members, and an agitator, square in cross section, journaled in said bearings and adapted to move away from and toward said foraminous material to vibrate the latter, said agitator being re-

tained in normal position by said spring 10 members, as set forth.

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

ARNE LIMA.

Witnesses:

SEVAL FRISWOLD,
C. P. KELLY.