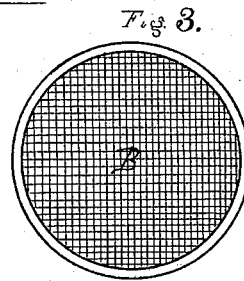
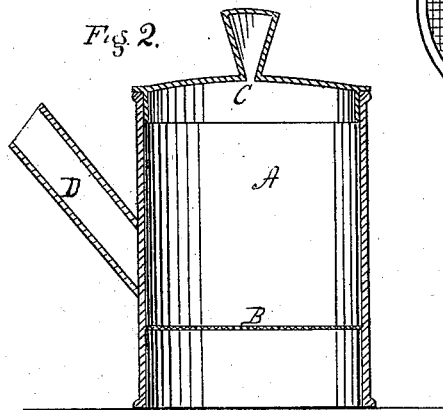
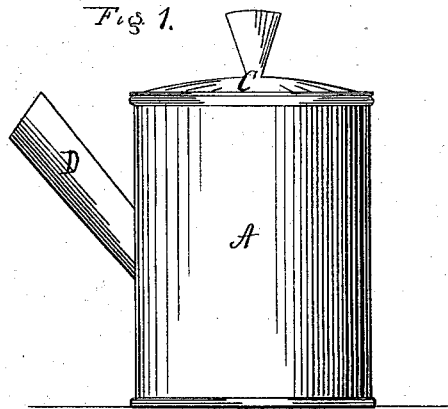


O. S. WARNER.

Device for Applying Poisonous Compounds to  
Plants for Destroying Insects.

No. 162,781.

Patented May 4, 1875.



WITNESSES  
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Attys

# UNITED STATES PATENT OFFICE.

OLIVER S. WARNER, OF AKRON, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT  
TO ALEXANDER M. VAN LIER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN DEVICES FOR APPLYING POISONOUS COMPOUNDS TO PLANTS FOR DESTROYING  
INSECTS.

Specification forming part of Letters Patent No. **162,781**, dated May 4, 1875; application filed  
June 29, 1874.

*To all whom it may concern:*

Be it known that I, OLIVER S. WARNER, of Akron, in the county of Summit and State of Ohio, have invented a new and useful Improvement in Devices for Applying Compounds to Plants for Destroying Potato-Bugs, &c.; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is an elevation of my improved device. Fig. 2 is a vertical section of the same, and Fig. 3 is a bottom view, showing the perforated bottom.

Like letters refer to like parts in the several figures.

My invention relates to devices intended for applying powders or similar material to potato vines and plants for the destruction of bugs and other vermin inimical to said plants; and it consists in a magazine having a perforated or sieve-like bottom within the magazine proper, a cover or similar means for filling and closing the magazine, and a socket for a handle attached to the magazine at such an angle as will enable the operator to stand erect while using the device.

The various compositions employed for the destruction of the potato-bug or Colorado beetle, and other vermin which infest potato-vines and various plants, are all more or less poisonous in their nature and injurious to persons using the same, if inhaled; and the devices heretofore employed for applying the same to plants are generally of the crudest kind, in the use of which, when the wind is high or the circumstances at all unfavorable, much danger is liable to arise.

The object of my invention is to provide a suitable device for applying said powder without the liability of danger to persons using the same.

In the drawing, A indicates the receptacle or magazine, which may be of any form desirable, and of dimensions that will hold from a pint to a gallon, more or less, according to the number of vines to be treated and the

amount of the material to be used. This magazine has an open bottom, as shown, and is provided with the sieve or screen B, placed a short distance within the magazine, sufficiently far to prevent the air or wind from striking directly upon the bottom of the screen—say, from one to three inches above the lower edge of the magazine. This perforated or sieve bottom B is made from wire-cloth, of variable-sized mesh, or may be a disk or plate of sheet metal, punctured or perforated to permit the free passage of the contents of the magazine when the device is shaken; and it may be soldered directly to the magazine, or may be supported upon shoulders within the same, the exact method of construction not being material to the spirit of the invention. The principal part of the magazine or cylinder A is closed by a lid, C, of the form shown, or any approved form which will permit of a free opening, for the purpose of filling the magazine, and will enable the magazine to be closed tightly above after having been filled, and may be, therefore, an ordinary flanged lid, a screw-cap, or other device deemed desirable. To the side of the magazine I attach a socket or handle piece, D, for the reception of the handle, by which the device is carried and agitated when distributing its contents, preferably attached at an angle of about forty-five degrees from the perpendicular or in any analogous position, so as to enable the operator to stand in an erect position at the time the device is used, as thereby the head and face is kept farther from the material being used, and the person is not liable to inhale any of the injurious material.

The powders commonly used for the destruction of the potato-bug and similar vermin are composed of about one part paris-green and twenty-four parts of common lime-plaster, thoroughly and intimately mixed, and reduced to a fine pulverulent mass, and is preferably applied when the vines are wet with dew or rain, but under any circumstances is an effective protection of the vine until washed off by the heavy rain. Such a compound may be used in my device, although it is equally

well adapted for the application of ashes, lime, soot, or any well-known material used by farmers in the treatment of plants for the destruction of vermin.

In using my device, I first remove the lid or other opening on top of the magazine to uncover the opening and fill the magazine with powder or the material to be used, closing it again tightly and carefully by the application of the lid to prevent the displacement of the powder except downward through the sieve. Having fitted a handle of light wood to the socket, which handle may be from three to five feet in length, according to the height of the person using it, I proceed between the potato-hills, applying the mixture to the plants by one or more light shakes downward, so as to discharge a small quantity of the mixture upon each vine. If the vines are low this can be done by striking the apparatus against the ground over the vine.

While moving from hill to hill, if the apparatus be carried steadily and lightly none of the material will pass through the bottom. Too great care cannot be used in applying any of the mixtures containing paris-green or other poisonous material. If the operator stand nearly erect, which this implement en-

ables him to do, there will be little danger under ordinary circumstances of inhaling any of the mixture; and the sieve-like bottom, being within the magazine a short distance above the end of the device, prevents the wind from scattering the mixture, directing it downward upon the plant.

The advantages of this device are, first, that it applies the mixture evenly, and consequently without waste economizing the material; and, secondly, a child of ten years may be entrusted with the application of mixtures of paris-green, &c., to the vines, as it can be done easily and safely.

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

The magazine A, having the sieve-like or perforated bottom situated within the magazine proper, near the lower end thereof, and provided with the cover C and socket D, substantially as and for the purpose specified.

In testimony whereof I, the said OLIVER S. WARNER, have hereunto set my hand.

OLIVER S. WARNER.

Witnesses:

E. F. PFLUEGER,  
CHAS. RINEHART.