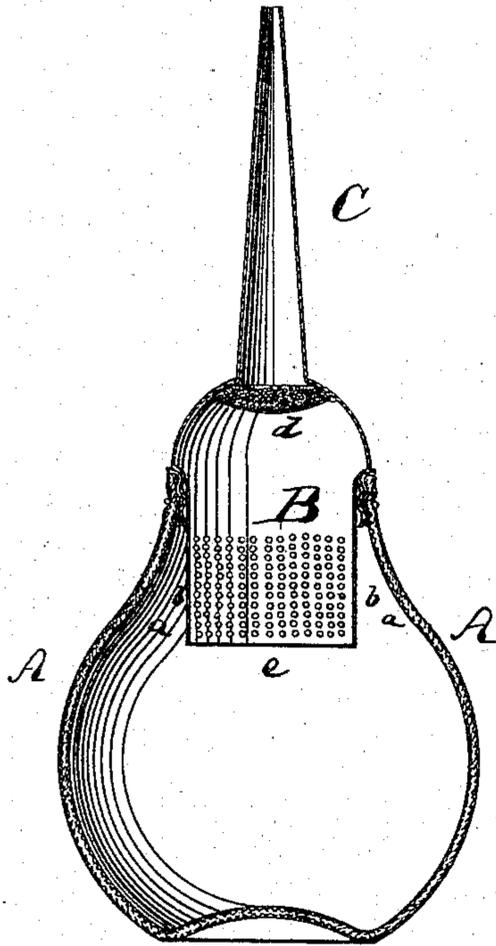


W. W. FICHTENBERG.

Insect Destroyers.

No. 156,696.

Patented Nov. 10, 1874.



Witnesses:

A. Moragas
E. C. Webb

Inventor:

W. W. Fichtenberg
by his attorney
A. V. Briesey

UNITED STATES PATENT OFFICE.

WERNER W. FICHTENBERG, OF NEW YORK, N. Y.

IMPROVEMENT IN INSECT-DESTROYERS.

Specification forming part of Letters Patent No. **156,696**, dated November 10, 1874; application filed September 8, 1874.

To all whom it may concern:

Be it known that I, WERNER WOLF FICHTENBERG, of the city of New York, in the county and State of New York, have invented new and Improved Powder-Bellows, of which the following is a specification:

The drawing represents a vertical central section of my improved powder-bellows.

This invention relates to an improvement in apparatus for blowing noxious or other powder through a tube or nozzle; and consists in the arrangement, within the bag or bulb of the bellows, of a pair of sieves at right angles to each other, as hereinafter more fully described.

In the drawing, the letter A represents a bag or bulb, made of rubber, leather, or other elastic material, of suitable size and shape. Into the open end of this bag or bulb is screwed or otherwise fitted a vessel, B, from which the nozzle C of the bellows projects outwardly. The vessel B enters the bag or bulb in such way that a space, *a*, is formed around it within the walls of the bag. The sides *b* of the vessel B are perforated, as shown in the drawing. A fine wire-gauze, *d*, is secured within the nozzle at right angles to the perforated sides *b b*. The bottom *e* of the vessel B is not perforated.

When this apparatus is to be used the bulb A is partly filled with the powder to be projected, which is admitted by unscrewing or

otherwise unfastening the vessel B, that carries the nozzle. After the vessel B has been reapplied the bulb is gently compressed, and the powder thereby forced through the perforated sides *b* into the vessel B, and thence through the gauze *d* and the nozzle C into the air. The apertures in *b* permit the powder to reach the gauze, although the solid bottom *e* of the vessel B prevents the powder from falling out when the bellows are inverted. In this respect my invention differs from the powder-bellows heretofore in use, in which the bottom *e* of the vessel B was perforated, causing a great waste of powder whenever the nozzle was pointing downward.

It will also be observed that in my improved bellows the powder can never clog the openings in the sides *b* of the vessel B, as it will never rest on these perforated sides. The gauze *d* serves to prevent lumps that may be in or be formed of the powder from entering the nozzle.

I claim as my invention—

The combination, in the powder-bellows A, having the nozzle C, of the vessel B, which has a closed bottom and perforated sides, with the gauze *d* placed parallel to the closed bottom of B, substantially as specified.

WERNER WOLF FICHTENBERG.

Witnesses:

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