No. 728,247. PATENTED MAY 19, 1903.

H. E. KRUPKE.

POWDER BLOWER.

APPLICATION FILED NOV. 12, 1902.

NO MODEL.

Fig. 1.

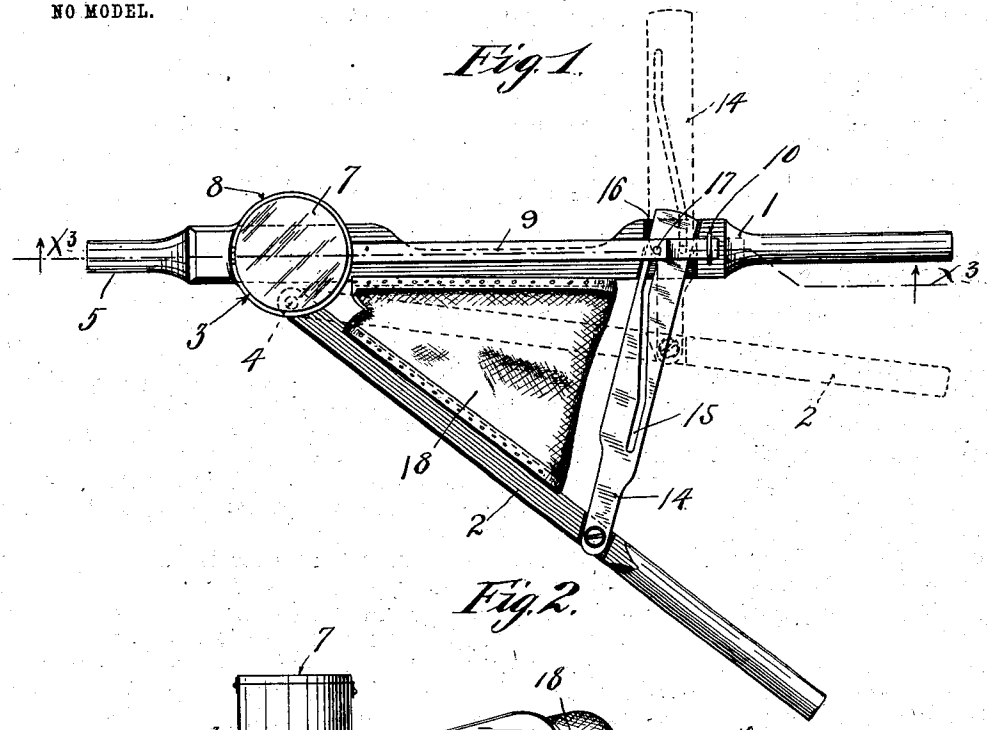


Fig. 2.

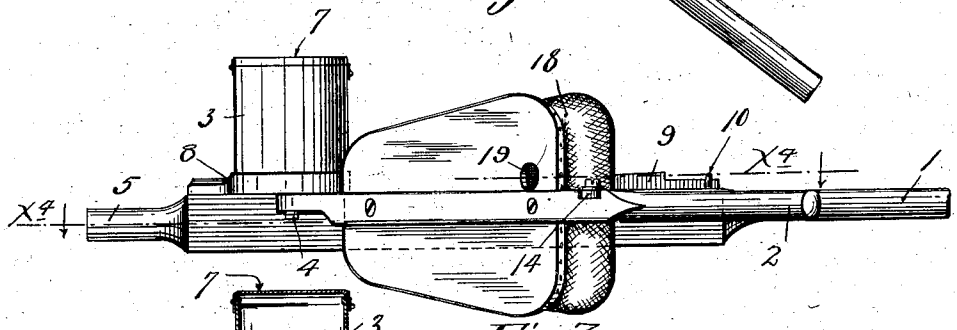


Fig. 3.

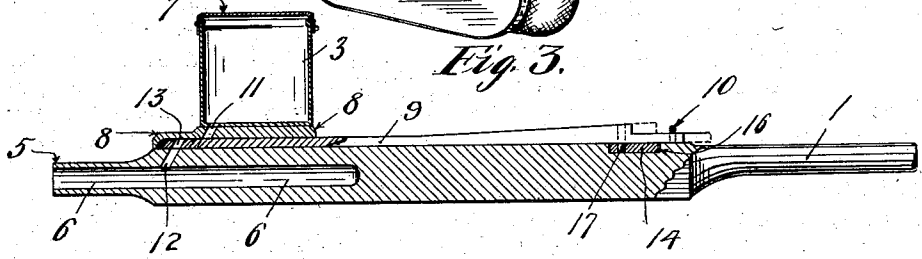
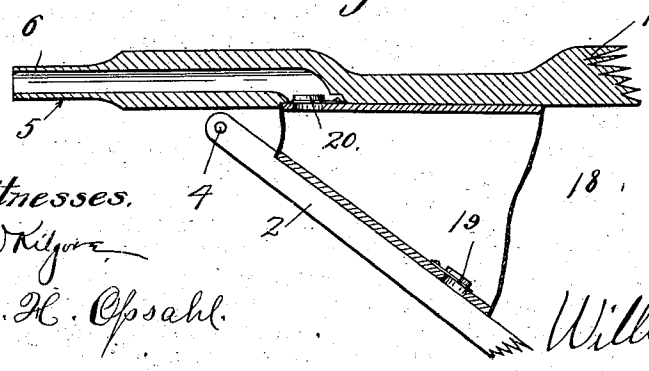


Fig. 4.



Witnesses.
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By his Attorneys.
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THE NORRIS PETERS CO. PHOTO-LITHO., WASHINGTON, D. C.

No. 728,247. Patented May 19, 1903.

UNITED STATES PATENT OFFICE.

HERMAN E. KRUPKE, OF PAYNESVILLE, MINNESOTA.

POWDER-BLOWER.

SPECIFICATION forming part of Letters Patent No. 728,247, dated May 19, 1903.

Application filed November 12, 1902. Serial No. 130,983. (No model.)

To all whom it may concern:

Be it known that I, HERMAN E. KRUPKE, a citizen of the United States, and a resident of Paynesville, in the county of Stearns and State of Minnesota, have invented certain new and useful Improvements in Powder-Blowers; 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.

My invention has for its object to provide an improved powder blower or distributer for use in the extermination of noxious insects; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a plan view of the complete blower. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical section on the irregular line x^3 x^3 of Fig. 1; and Fig. 4 is a horizontal section on the irregular line x^4 x^4 of Fig. 2, some parts being broken away.

The numerals 1 and 2 indicate a pair of levers, the former of which is provided with a powder box or receptacle 3, to which the latter lever is pivoted, as shown at 4. The lever 1 is provided at its forward end with a nozzle 5, having a bore 6, which extends back a considerable distance into the said arm. The powder-box 3 is shown as provided with a hinged top 7, and it is rigidly supported from the lever 1 by means of a base-piece 8, which is recessed to form a seat, in which works the forward end of a long bar-like slide-valve 9, the outer end of which works through a keeper 10 on the rear end of the said lever 1.

A feed passage or port 11 opens through the bottom of the box 1 and through the upper portion of the base-bracket 8. A similar perforation 12 opens into the upper portion of the nozzle-bore 6 through the overlying portion of the lever 1. These perforations 11 and 12 are located out of line with each other, the latter being preferably located forward of the former. A port or perforation 13 opens through the inner end of the valve 9 and is adapted to be moved alternately into registration with the perforations or ports 11 and 12.

A cam-bar 14, provided with a cam-groove 15, is pivoted to the lever 2 and at its free end works below the outer end of the valve 9 in a suitable seat 16, formed in the lever 1. The said valve 9 is provided with a pin 17, which works in the cam-groove 15 of said cam-bar 14.

The numeral 18 indicates a bellows, the upper and lower boards of which are rigidly secured to the levers 1 and 2, respectively. This bellows 18 is provided with a valved inlet-port 19 and with a valved outlet-port 20, the latter of which opens into the inner extremity of the nozzle-bore 6.

When the levers 1 and 2 are forced together, as indicated by dotted lines in Fig. 1, the cam-groove 15 of the bar 14 acting on the pin 17 of the valve 9 moves the said valve rearward, so that its port 13 registers with the port 11, and hence becomes filled with powder. Then when the levers are drawn apart, as shown by full lines in Fig. 1, the said valve is so moved that its loaded port 13 is brought into registration with the port 12, thereby dropping a small amount of the powder into the nozzle-bore 6. Then as the levers 1 and 2 are again forced together, air from the bellows, which is blown outward through the nozzle-bore, will take up the small deposit of powder and blow the same in a finely-divided spray from the nozzle 5.

The above device may be made in different sizes for different purposes. It will be found extremely serviceable for blowing paris-green onto potato-plants to destroy potato-bugs, and it will also be found serviceable for house use for distributing insect-powder to kill flies and other insects.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination with a bellows involving a pair of levers, one of which is formed with a discharge-nozzle, of a powder-box provided with a discharge-port leading to said nozzle, a valve for opening and closing said discharge port or passage, and a cam-bar attached to one of said levers and operating said valve, substantially as described.

2. The combination with the bellows 18 and the levers 1 and 2 for operating the same, said lever 1 having the nozzle 5 with bore 6, and said bellows having the valve-ports 19

and 20, of the powder box or receptacle 3 carried by said lever 1 and opening into said nozzle-bore 6 through the offset ports 11 and 12, the slide-valve 9 provided with the port 13 registering with said ports 11 and 12 in alternate order, and the cam-bar 14 attached to said lever 2, guided by said lever 1 and provided with the cam-groove 15 engaging a projection of said valve 9, said parts operating substantially as described.

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

HERMAN E. KRUPKE.

Witnesses:
FRED. C. NEHRING,
SARAH NEHRING.