

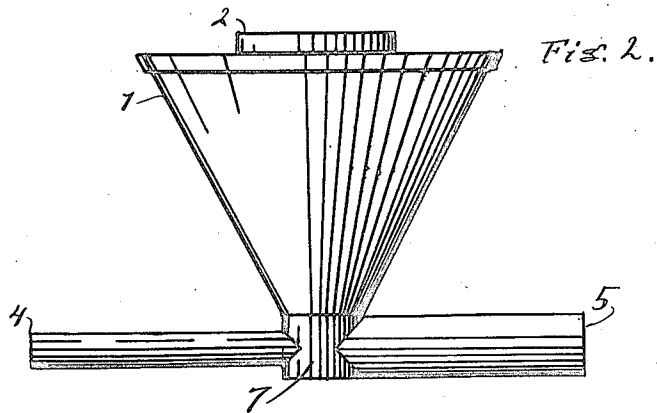
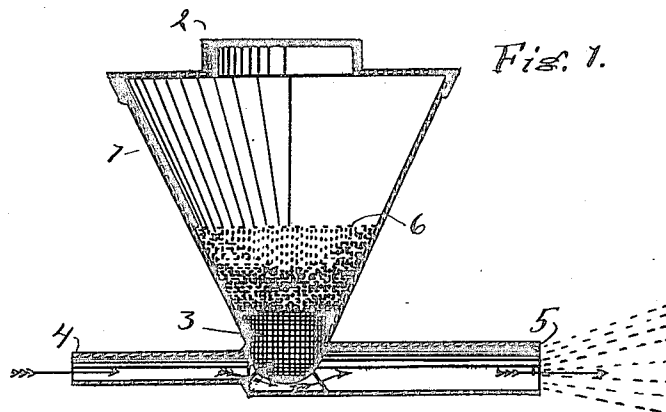
June 12, 1923.

1,458,341

H. E. HERBERT

POWDER SPRAYER

Filed Oct. 1, 1921



Inventor

Henry E. Herbert,

By

Chas. J. Kelley

Attorney

UNITED STATES PATENT OFFICE.

HENRY E. HERBERT, OF MARTIN, MICHIGAN, ASSIGNOR OF ONE-HALF TO JANS
M. HERBERT, OF MARTIN, MICHIGAN.

POWDER SPRAYER.

Application filed October 1, 1921. Serial No. 504,723.

To all whom it may concern:

Be it known that I, HENRY E. HERBERT, a citizen of the United States, residing at Martin, in the county of Allegan and State of Michigan, have invented certain new and useful Improvements in Powder Sprayers, of which the following is a specification.

My invention relates to improvements in implements for spraying shrubbery &c. with insecticide powders, and its objects are: First, to provide an implement of the kind named with which powder may be evenly and forcibly sprayed until the same is wholly exhausted from the chamber of the implement; second, to provide a means to avert the danger of packing the powder in the chamber of the implement, and, third, to provide a means whereby the danger of discharging the powder in unnecessarily large quantities, will be obviated.

I attain these objects by the construction shown in the accompanying drawing, in which Fig. 1 is a sectional elevation of the implement showing its internal construction, and Fig. 2 is an elevation of the same practically as it should appear, minus the air forcing element.

Similar reference numerals indicate similar parts throughout the several views.

In the construction of this sprayer I prefer that the chamber 1 be made in the form of an inverted cone, with a large direct opening downwardly into the barrel 7. In the bottom of the chamber 1, I place a fine wire screen, preferably a very fine strainer screen, as shown at 3, which is so arranged that there is a small space or air passage below the screen 3, so that air forcibly passed into the pipe 4 at the extreme end thereof, as indicated by the arrow at the left of Fig. 1, may have a chance to form a strong current through the pipe 5 and below the screen 3, so said air current will gradually draw the powder through the meshes of the screen without danger of packing it therein, as would be the case without this passage-way, thus keeping the powder in the chamber loose and easily removable at all times, no matter how forcibly the air may be made to pass through the pipes 4-5.

I find it a great advantage to make the intake pipe 4 considerably smaller than the

outflow pipe 5, as by this means a very strong current of air forced through the pipe 4 will form an eddy at the end of the pipe 5 immediately below the screen 3 that will keep the powder in the screen loose and constantly agitated, for some distance up into the containing chamber 1 and will insure an even and steady delivery of powder into and through the pipe 5.

In order to get satisfactory results from this implement it is necessary to make it as nearly air tight as is possible, especially at the top, and for this purpose I place an air tight cover, 2, upon it, with the opening beneath it of sufficient size to render it easy to refill the chamber whenever necessary, the cover 2 being readily removable, when desired.

In Fig. 1, 6 represents the powder within the containing chamber 1, and it will be noted that it appears to be much thinner and more fluffy in the center at the top than it is at the sides and below. This result is produced by the action of the air eddies below the screen 3 as the resistance of the air and powder passing forcibly through the pipe 5 causes a pressure upwardly through the powder and keeps it loose and fluffy, thus averting the danger of its becoming packed in the bottom of the screen, or elsewhere in the chamber 1.

Having thus fully described my invention, what I claim as new in the art, is:

In an implement for spraying powder, a conical containing chamber having a close fitting cover thereon, said chamber opening at right angles into a large outflow pipe, a small air inflow pipe entering the end of the outflow pipe longitudinally thereof near the line of connection between the lower end of the container with the end of the outflow pipe; in combination with a screen extending well down into the outflow pipe and so covering the end of the container within the outflow pipe as to form a narrow crescent formed passage way between the screen and the wall of the outflow pipe for the passage of a part of the air current below the screen.

Signed at Martin Michigan, September 24, 1921.

HENRY E. HERBERT.