

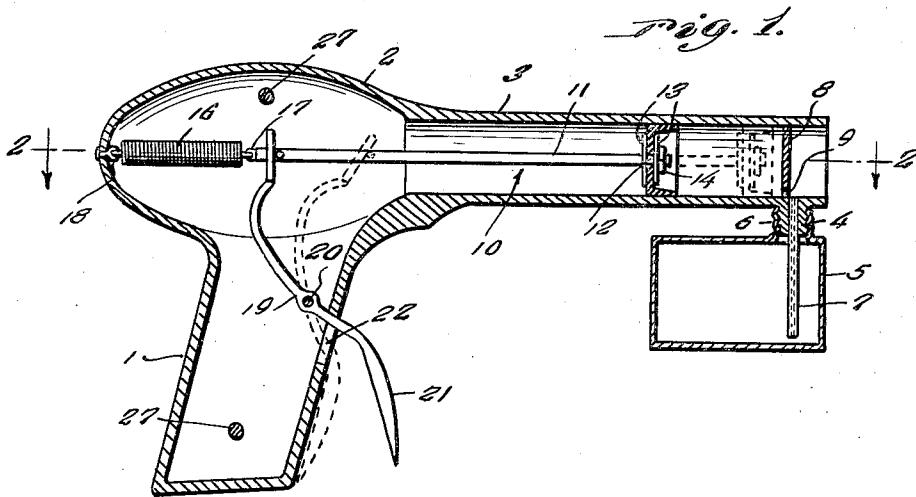
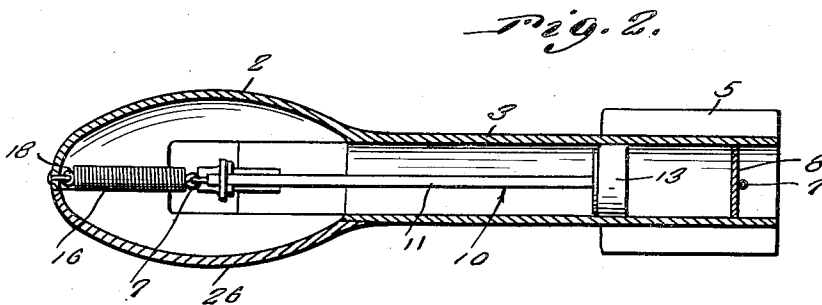
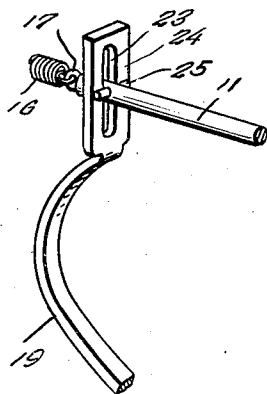
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SPRAY GUN

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SPRAY GUN

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3 Claims. (Cl. 299—88)

Our invention relates to improvements in spray guns for use in injecting insecticide on shrubbery, trees and the like.

The primary object of the invention is the provision of an efficient device of this character which may be easily grasped by one hand and operated by a finger thereof to eject a thick or thin spray as desired.

Another object is to provide a device of the character and for the purpose above set forth which is simple in construction, strong and durable, yet light in weight, and inexpensive to manufacture.

To the accomplishment of the above, and subordinate objects presently appearing, a preferred embodiment of the invention has been illustrated in the accompanying drawing, set forth in detail in the following description, and defined in the claims appended hereto.

In said drawing:

Figure 1 is a view in longitudinal vertical section of a spray gun constructed in accordance with our invention,

Figure 2 is a view in horizontal section taken on the line 2—2 of Figure 1 looking in the direction indicated by the arrows, and

Figure 3 is a fragmentary view in perspective of a trigger and plunger rod with which the gun is equipped.

Referring to the drawing by numerals, the improved gun of our invention has the form of a pistol of any suitable light metal and comprising a hollow hand-grip 1, a hollow breech portion 2 and a barrel 3 extending from said breech portion 2. The barrel 3 is provided adjacent the muzzle end thereof with a depending nipple 4 to which is detachably secured a preferably cylindrical insecticide container, or tank, 5 provided adjacent one end thereof with a threaded collar 6 by means of which the container 5 is secured to the nipple 4 to extend parallel with the barrel 3. A tube 7 suitably secured at one end in the nipple 4 with its other end extending into the container 5 provides for discharge of the insecticide from said container 5 into the front end of the barrel 3. Immediately in the rear of the tube 7 the barrel 3 is divided by a transverse partition 8 having an air port 9 formed therein slightly above the adjacent end of said tube. Slidably mounted in the barrel 3, in the rear of the partition 8, is an ejector 10 comprising a plunger rod 11 having a reduced front end 12 on which is secured, as by washers 13 and the nut 14, a cup-like piston 15 of resilient material such as rubber. The rear end of the plunger rod 11 extends into the breech

portion 2 and is attached to the rear end of said portion by means of a compression spring 16 having one end secured to said rod as by an eye portion 17 on the latter and its other end similarly secured, as at 18, to the rear end of said breech portion 2. The spring 16, as will be understood, establishes the normal position of the ejector 10 in which the piston 13 is spaced sufficiently to the rear of the partition 8 to provide for an operating forward stroke of said ejector against the tension of said spring. The ejector 10 is moved forwardly by means of a trigger 19 pivoted, as at 20, in the hand-grip 1 and having a finger-grip end 21 extending through a slot 22 in the front wall of said hand-grip 1. The other end of the trigger 19 is slotted, as at 23, to straddle the rear end of the plunger rod 11 and provided with a flat portion 24 for engagement with a transverse pin 25 extending through said rod 11 whereby when the finger-grip end 21 is pulled toward the hand-grip 1 the ejector 10 is moved forwardly against the partition 8 and in opposition to the spring 16 as will be clear. Upon release of the finger-grip end 21 of the trigger 19 the ejector 10 and trigger 19 are returned to normal position under the urge of said spring 16.

Referring to the operation of the device, under the forward stroke of the ejector 10 air between the partition 8 and piston 13 is displaced through the port 9 in jet-like form over the end of the tube 7 with the result that the insecticide in the tank 5 is sucked up from said container 5 through tube 7 in the form of spray and ejected as such from the muzzle end of the barrel 3. By varying the degree of movement of the trigger 19, and consequently that of the ejector 10, either a thick or thin spray may be ejected as will be clear.

If desired the hand-grip 1 and breech portion 2 may be provided with a side cover plate 26 suitably secured thereto as by studs 27 for removal therefrom so that access may be had to said hand-grip and breech portion for convenience in assembling the parts of the device.

The construction, operation and advantages of our invention will, it is believed, be clear from the foregoing without further explanation.

Manifestly, the invention as described is susceptible of modification without departing from the inventive concept and right is herein reserved to all such modifications falling within the scope of the claims appended hereto.

What we claim is:—

1. A spray gun for ejecting insecticide comprising a hand-grip, a barrel extending from said hand-grip, a container for insecticide secured to

- the front end of said barrel, a tube extending from said container into said barrel, a partition in the barrel in the rear of and contiguous to said tube and provided with an air port immediately adjacent said tube, an ejector slidably mounted in the barrel for reciprocation there in the rear of said partition and including a piston, and means for reciprocating said ejector including a trigger pivoted in said hand-grip and extending therefrom.
2. A spray gun for ejecting insecticide comprising a hand-grip, a barrel extending from said hand-grip, a container for insecticide secured to the front end of said barrel, a tube extending from said container into said barrel, a partition in said barrel in the rear of and contiguous to said tube and provided with an air port immediately adjacent said tube, an ejector slidably mounted in said barrel in the rear of the partition for reciprocation therein and including a plunger rod, a piston fast on said rod, and means for reciprocating said ejector including a trigger mounted in said hand-grip and operatively connected with

said rod to move the same in one direction, and a tension spring for moving the rod in the other direction.

3. A spray gun for ejecting insecticide comprising a hand-grip, a barrel extending from said hand-grip, a container for insecticide secured to the front end of the barrel, a tube extending from said container into said barrel, a partition in the barrel in the rear of and contiguous to said tube and provided with an air port immediately adjacent said tube, an ejector slidably mounted in the barrel in the rear of said partition for reciprocation therein and including a plunger rod, a piston fast on said rod, means for reciprocating said ejector including a trigger mounted in said hand grip, and operating connections between said trigger and rod including a slotted end on said trigger straddling said rod, and a pin on the rod engaged by said slotted end of the trigger.

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