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SPRAY NOZZLE

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Fig. 1.

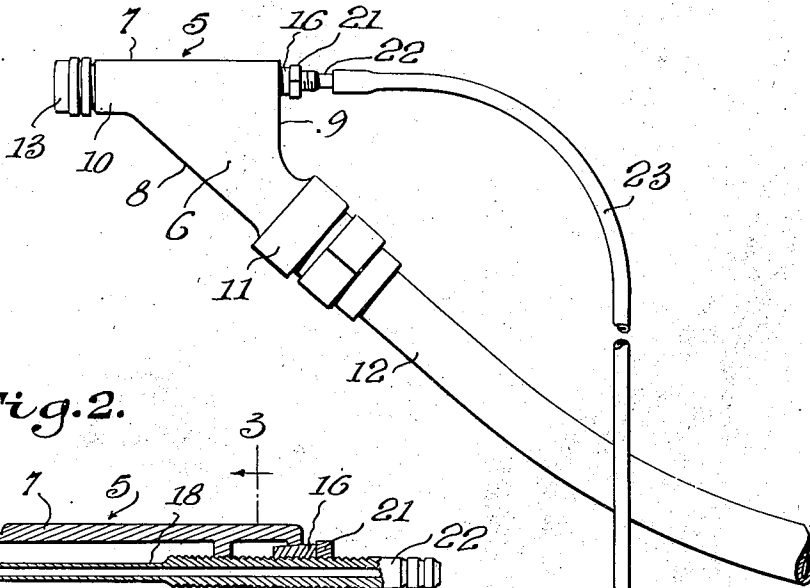
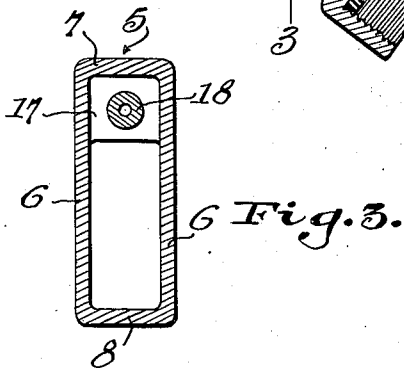
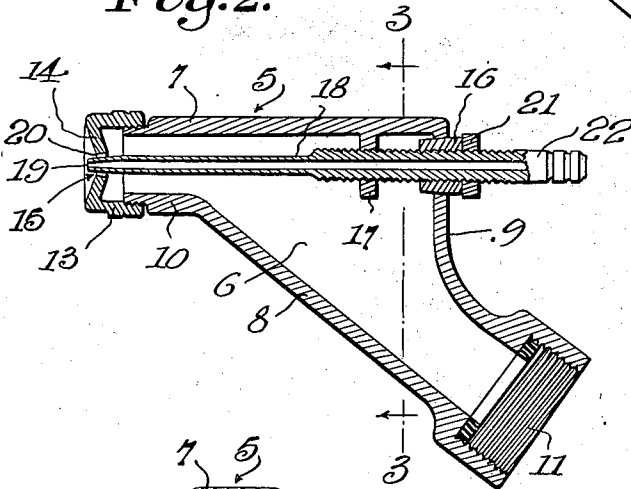


Fig. 2.



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SPRAY NOZZLE

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2 Claims. (Cl. 299-140)

The invention relates to devices for spraying insecticides, fungicides and disinfectants in the control of bugs, insects, worms and fungae, and for disinfecting hen-houses or other buildings, soil, etc.

The object of the invention is to provide a new and improved and a simple and inexpensive spray nozzle readily attachable to an ordinary garden hose and so constructed that the discharge of water from the nozzle will draw a spray liquid from a suitable container, mix it thoroughly with the water, after the latter has left the nozzle to form a spray of desired strength and discharge this spray where desired with unusual force and with no danger of any resins, fats, oils or other substances in the insecticides or the like being used, clogging any part of the nozzle to interfere with proper performance of the spraying operation.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, description being accomplished by reference to the accompanying drawing.

Figure 1 is a side elevation showing the nozzle connected with a garden hose and with a suction hose leading from a quantity of spray liquid in a container.

Figure 2 is a central vertical longitudinal sectional view through the nozzle.

Figure 3 is a transverse sectional view on line 3-3 of Fig. 2.

In the drawing above briefly described, a preferred construction has been illustrated and while this construction will be specifically explained minor variations may, of course, be made within the scope of the invention as claimed.

The nozzle includes a casing 5 comprising two parallel substantially vertical side walls 6, a longitudinal top wall 7, a forwardly inclined bottom 8, a substantially vertical back wall 9, a forwardly projecting neck 10 at the front acute corner of the casing, a rearwardly open water inlet socket 11 at the rear acute corner threaded for connection with an ordinary garden hose 12, a cap 13 threaded on the neck 10 and having a front wall 14 formed with a water discharge orifice 15, a boss 16 carried by the upper portion of the back wall 9, and a lug 17 projecting downwardly from the top wall 7 and extending between the side walls 6.

A spray liquid tube 18 is threaded through the boss 16 and lug 17 and is disposed throughout the greater part of its length within the

casing 5, said tube 18 having a reduced front end 19 which projects forwardly a slight distance, preferably about one-sixteenth of an inch, through the orifice 15, said tube end 19 being spaced from the wall of said orifice to leave a water discharge space 20. The effective size of this space may be varied by adjusting the tube 18 forwardly or rearwardly and such adjustment will also vary the distance which the tube end 19 projects forwardly beyond the cap wall 14. A locknut 21 is threaded on the tube 18 to abut the boss 16 and lock said tube in adjusted position. This tube projects rearwardly at 22 beyond the casing 5 for connection with a suction tube 23 leading from a quantity of spray liquid 24 in a jar 25.

The discharge of water through the orifice 15 creates suction in the tubes 18 and 23, thus drawing the spray liquid 24 and causing discharge thereof from the front end of the tube 18 into the water after the latter has discharged through said orifice 15. The spray liquid and water are thoroughly mixed to form a spray of desired strength and this spray may be deposited wherever desired. By having the spray liquid mix with the water after the latter has left the casing 5, it is insured that any resins, fats, oils or other substances in the spray liquid shall not clog any part of the nozzle. Moreover, the improved nozzle will discharge a much more forcible spray than prior art nozzles in which internal suction and mixing occur and the force of the water is expended somewhat before discharge.

From the foregoing taken in connection with the accompanying drawing, it will be seen that a simple, inexpensive and efficient device has been provided, one which will be long-lived and trouble-free and one which will be advantageous from all standpoints. While the device has been described in one position, it may of course be used in any desired positions to reach the zones to be sprayed. The novel casing structure and the rearwardly projecting tube portion 22 cooperate in forming a pistol-grip formation which may be conveniently held in one hand.

I claim:

1. In a spray nozzle, a casing comprising two spaced triangular substantially vertical side walls, a longitudinal top wall, a substantially vertical back wall, a forwardly inclined bottom, a forwardly projecting neck at the front acute corner of the casing, a rearwardly open water inlet socket at the rear acute corner threaded for connection with an ordinary garden hose, a cap threaded on said neck and having a front wall

provided with a central water discharge orifice, and a boss on said back wall having an opening alined with said orifice; a spray liquid conducting tube threaded adjustably through said opening and projecting rearwardly from said back wall for connection with a suction hose leading from the liquid spray, said tube extending forwardly through said casing and projecting a slight distance through said water discharge orifice in spaced relation with the wall of this orifice, whereby the discharge of water through said orifice will draw the spray liquid into the water after discharge of the latter from said casing and will mix the spray liquid with the discharged water, and a lock-nut on said tube abutting said boss, the construction of said casing and said rearwardly projecting portion of said tube cooperating in forming a pistol-grip formation which may be conveniently held in one hand.

2. In a spray nozzle, a casing comprising two spaced triangular vertical side walls, a horizontal top wall, a substantially vertical back wall, a forwardly inclined bottom, a water inlet socket at the rear acute corner of the casing and opening in a rearward and downward direction for connection with an ordinary garden hose, and a closure for the front acute angular end of said casing and having a water discharge orifice; and a spray liquid conducting tube passing through the upper end of said back wall and terminating in operative relation with said orifice, said tube having a portion projecting rigidly rearward from said back wall; the construction of said casing and the association of said rearwardly projecting tube portion cooperating in forming a pistol-grip formation which may be conveniently held in one hand.

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