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SPRAYER

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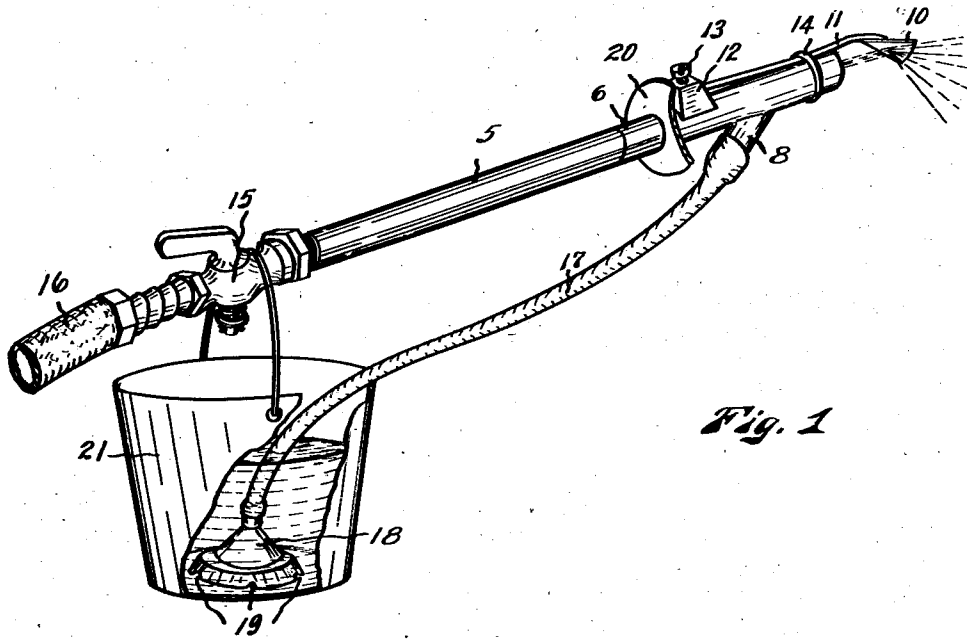


Fig. 1

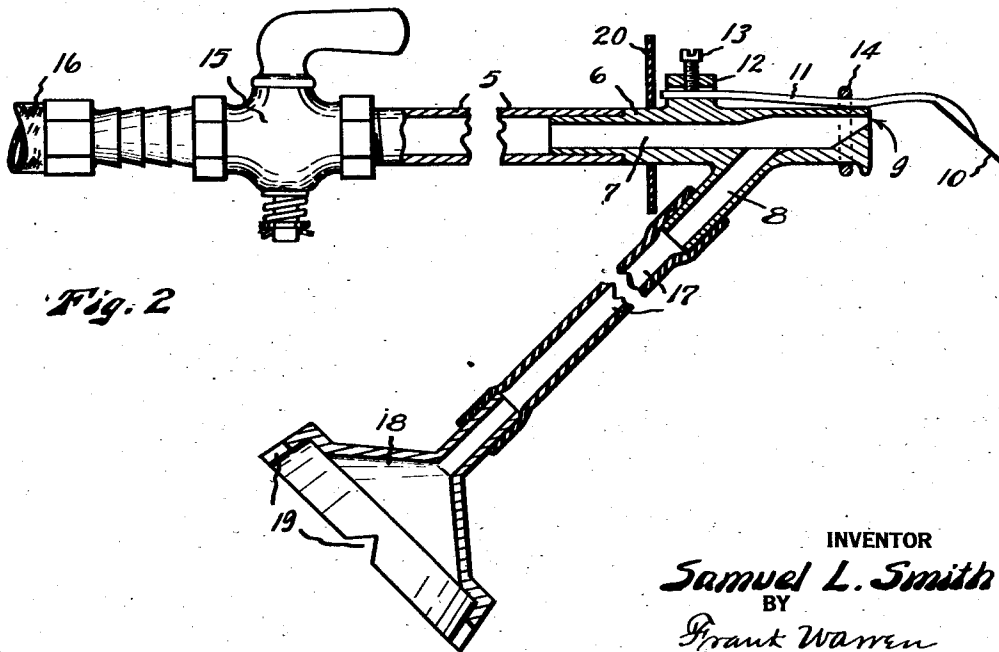


Fig. 2

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## UNITED STATES PATENT OFFICE.

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## SPRAYER.

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My invention relates to improvements in spray forming devices and the object of my invention is to provide a spray forming device of simple, cheap and efficient construction that may be connected with a hose or conduit through which water under pressure is supplied.

Another object of my invention is to provide means for governing the spray that is delivered from the end of this spray forming device.

Other and more specific objects will be apparent from the following description taken in connection with the accompanying drawings.

In the drawings Figure 1 is a view in perspective of a spray forming device constructed in accordance with my invention showing the same as it may appear when in operation.

Fig. 2 is a view partly in section and partly in elevation on a larger scale of the same, certain portions being broken away.

Referring to the drawings, throughout which like reference numerals designate like parts, 5 designates a tube connected at one end with a nozzle member 6 having a tubular passageway 7 that terminates in a discharge orifice 9 of restricted area. A triangularly shaped spray forming member or baffle plate 10 is supported in front of discharge orifice 9 by a wire 11 that extends through a suitable hole in a lug 12 on nozzle member 6 and is adjustably secured to said lug 12 by a screw 13. A slip collar 14 on nozzle 6 and movable longitudinally thereof, serves to adjust wire 11, thereby governing the position of spray forming plate 10 and thus regulating the spray that is formed by said plate from the liquid discharging from orifice 9.

The inlet end of pipe 5 is connected with a valve 15, which may be connected with a hose or conduit 16 through which water under pressure may be supplied.

Nozzle member 6 has a tubular branch conduit 8 extending therefrom and inclined toward the rear end of said nozzle, the conduit 8 being connected by a flexible connector or hose 17 with a bell shaped suction member 18 that is arranged to be placed within a liquid container, as a pail 21, in which liquid, as chemical for forming a suitable spray may be contained. The suction member 18 has notches 19 in its peripheral portions around the bottom edge so that

when it is placed on the bottom of container 21, liquid may enter through the notches 19, it being practically impossible to obstruct the entrance of such liquid.

A disc 20, preferably of rubber, is provided on nozzle 6 just to the rear of lug 12 to prevent liquid from the spray nozzle from flowing backwardly down nozzle 6 and pipe 5 and getting onto the hands or person of the operator of the device.

In operation, the device may be connected with a hose 16 as shown, the bail of container 21 may be placed over the valve member 15 or pipe 5 whereby the container will be supported, and the suction member 18 may be placed in the container. Flow of water under pressure through nozzle 7 will cause solution from container 21 to be drawn upwardly through hose 17 and passageway 8 into nozzle 7 where said solution will be mixed with the water thereby forming a proper spray. The solution and water being discharged from orifice 9 will strike forcibly against spray forming member 10 thus breaking the said water and solution up into a finely divided spray and directing it outwardly in the proper manner.

The position of spray forming member 10 may be quickly and easily regulated by slip ring 14 which is movable toward and away from lug 12 and which serves when so moved to bend or flex wire 11 thereby varying the angular position of spray forming member 10. Wire 11 may also be adjusted by loosening screw 13 and moving said wire within lug 12 to bring spray forming member 10 closer to or farther away from orifice 9.

It will be obvious that by attaching the spray member 10 with a wire 11 to the lug 12 the spray may be raised by the movement of the ring 14 toward the left for in doing so the wire 11 is thereby made more resilient and when the force of the water and solution strikes the member 10 it will cause a coarser spray than the member 10 will when in the position shown in Fig. 2.

The foregoing description and accompanying drawings clearly disclose a preferred embodiment of my invention but it will be understood that this disclosure is merely illustrative and that numerous changes may be made within the scope and spirit of the following claim.

I claim:

In a spraying device, a nozzle, a lug on said nozzle, a wire adjustably secured to said

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lug in spaced relation to the body of said nozzle and extending beyond the discharge end of the nozzle, a spray forming member on the outer end of said wire and supported solely thereby, and a slip collar disposed on said nozzle and over said wire and adapted to be moved longitudinally on said nozzle, said collar being of an internal diameter substantially equalling the diameter of the nozzle plus the thickness of the wire. 10

In witness whereof, I hereunto subscribe my name this 9th day of January A. D. 1925.

SAMUEL L. SMITH.