(No Model.)

A. W. WHITE.

SPRAY NOZZLE.

No. 498,599. Patented May 30, 1893.

Fig. 1.

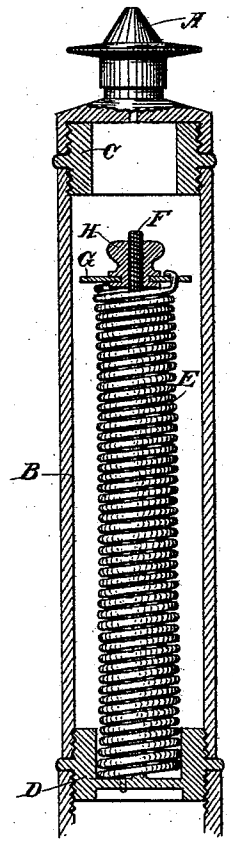
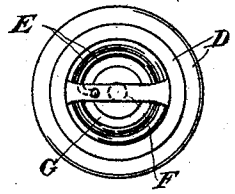


Fig. 2.



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UNITED STATES PATENT OFFICE.

ARCHIBALD W. WHITE, OF SAN JOSÉ, CALIFORNIA.

SPRAY-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 498,599, dated May 30, 1893.

Application filed December 8, 1892. Serial No. 454,499. (No model.)

To all whom it may concern:

Be it known that I, ARCHIBALD W. WHITE, a citizen of the United States, residing at San José, Santa Clara county, State of California, have invented an Improvement in Spray-Nozzles; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in spray nozzles of that class which are employed to discharge a spray upon trees, vines and plants for the purpose of destroying noxious insects or parasites; and it consists in the combination with the device of a strainer by which any solid matter may be held back and kept from passing into the nozzle, and also in a means for adjusting said strainer, and in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a longitudinal, sectional view of my spray showing the strainer. Fig. 2 is a bottom view of the same.

Spray nozzles of that class which are employed for discharging a solution upon vines or trees for the purpose of destroying parasites, are made to throw an extremely fine spray, and for this reason they become easily clogged by any small particles which may pass into them, requiring frequent stoppages for the purpose of cleaning.

In my invention A is the discharge nozzle proper which may be of any suitable or known description, and it is removably attached to a tube B. In the present case I have shown it attached by means of an intermediate tubular screw plug C, one end of which screws into the end of the tube B, and the other is threaded to fit the internally threaded socket of the nozzle. At the opposite end of the tube B is a correspondingly shaped threaded screw plug D to which the supply pipe from the pump or other source of supply is connected, and through which the liquid solution is delivered into the interior of the tube B. In order to strain this solution, and prevent any particles passing into the nozzle to clog it, I employ a strainer E. This strainer extends nearly the whole length within the tube B, and may be of any suitable construction. In the present case I have shown it consisting of a closely wound spiral, the coils of which are wound so as to leave a very small space between them. At the lower end this spiral is attached at some convenient point to the plug D. Within this spiral is a rod F, one end of which is attached within the plug D, and the rod extends up through the spiral E, which has its upper end closed by a plate G.

H is a thumb-nut having a groove or channel into which the inner edge of the plate G is fitted so that the nut may turn loosely within it.

The upper end of the rod F is screw-threaded as shown and the nut H fits these screw-threads. When the nut is turned in one direction, it closes the coils of the spring shaped strainer as closely together as may be desired, and when turned in the opposite direction it draws the plate G outward, and extends the coils of the strainer so as to enlarge the openings or spaces between them, and thus the size of the strainer may be regulated to suit the conditions of the nozzle, the character of the solution and the rapidity of discharge. Whenever the strainer becomes clogged by an accumulation of sediment within it, it is only necessary to remove the nozzle A from the screw plug C, and to disengage the screw plug D from its connection with the source of supply, and then reverse the tube B connecting the end of the plug C with a source of supply, or with a fresh water supply which will force the liquid in the reverse direction through the strainer, and thus wash any sediment which may have collected in its interior, after which the apparatus can be again reversed and ready for operation.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A spray nozzle having a tubular chamber connecting it with the pump or source of supply, a strainer consisting of a spiral with narrow interstices between its coils, one end of said spiral being open and fixed to the inlet end of the chamber and the other closed, in combination with a support and an adjusting screw H on said support engaging the strainer whereby the coils may be separated or closed to enlarge or diminish the interstices of the strainer upon adjusting the screw, substantially as herein described.

2. A spray nozzle having a tubular chamber connecting it with the pump or source of supply, a strainer consisting of a spiral with narrow interstices between its coils having one end open and fixed to the inlet end of the chamber and the opposite end closed, a rod F extending into the coil and having a nut H turning upon screw-threads on the rod and loosely connected with the end plate of the coil whereby the movement of the nut upon the rod opens or closes the interstices of the coils, substantially as herein described.

In witness whereof I have hereunto set my hand.

ARCHIBALD W. WHITE.

Witnesses:
S. H. NOURSE,
J. A. BAYLESS.