

(No Model.)

M. F. SALLADE.

ATOMIZER.

No. 359,288.

Fig. 1.

Patented Mar. 15, 1887.

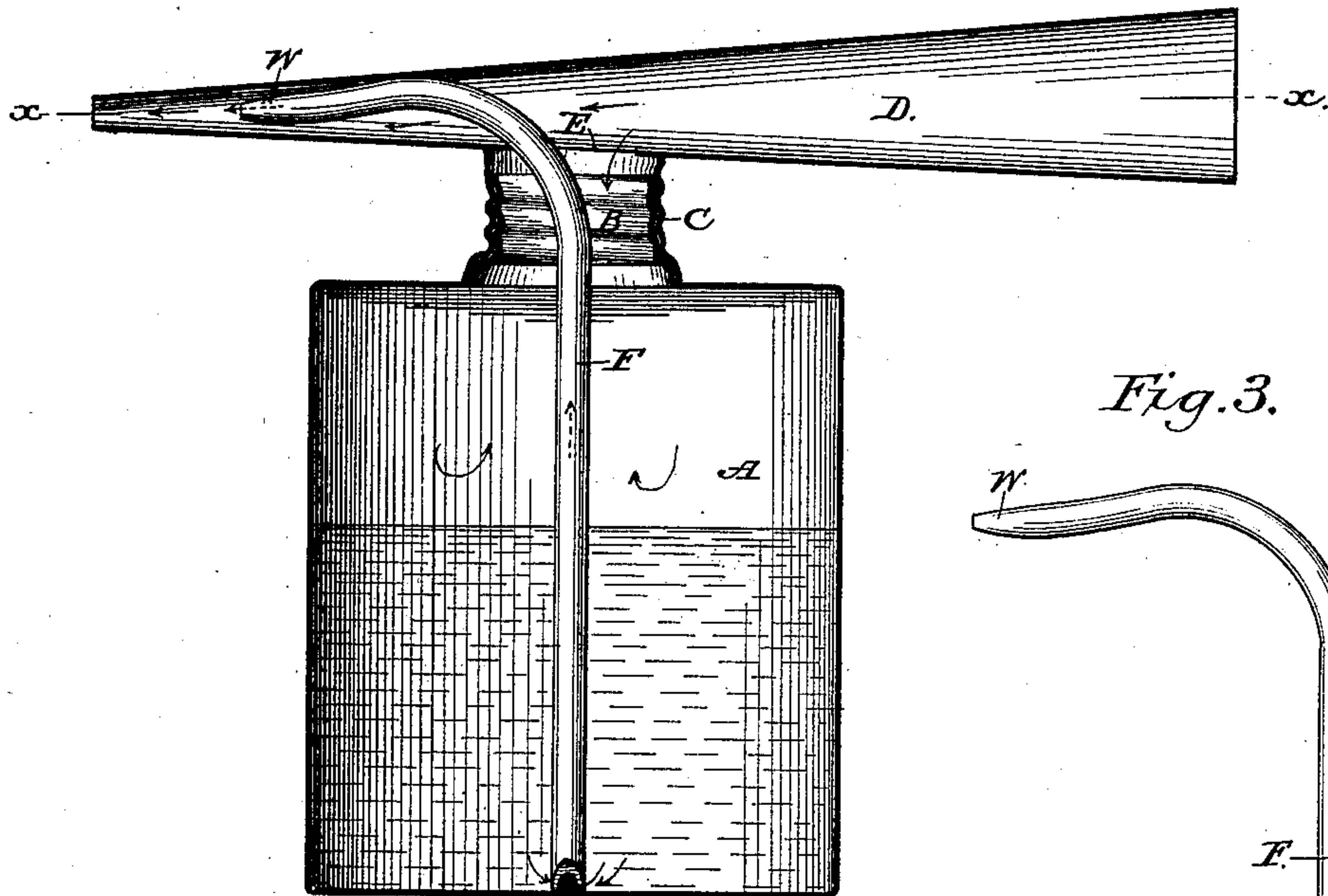


Fig. 3.

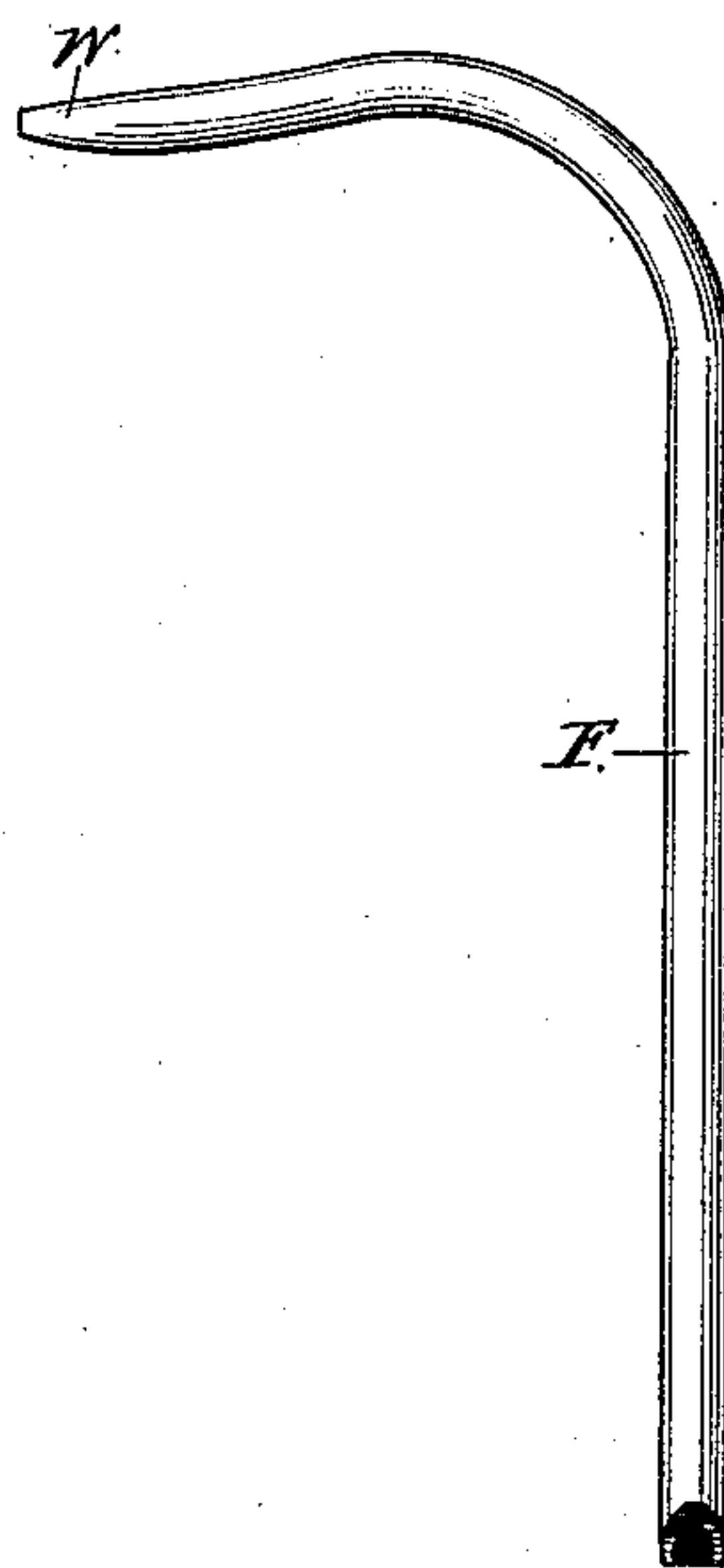
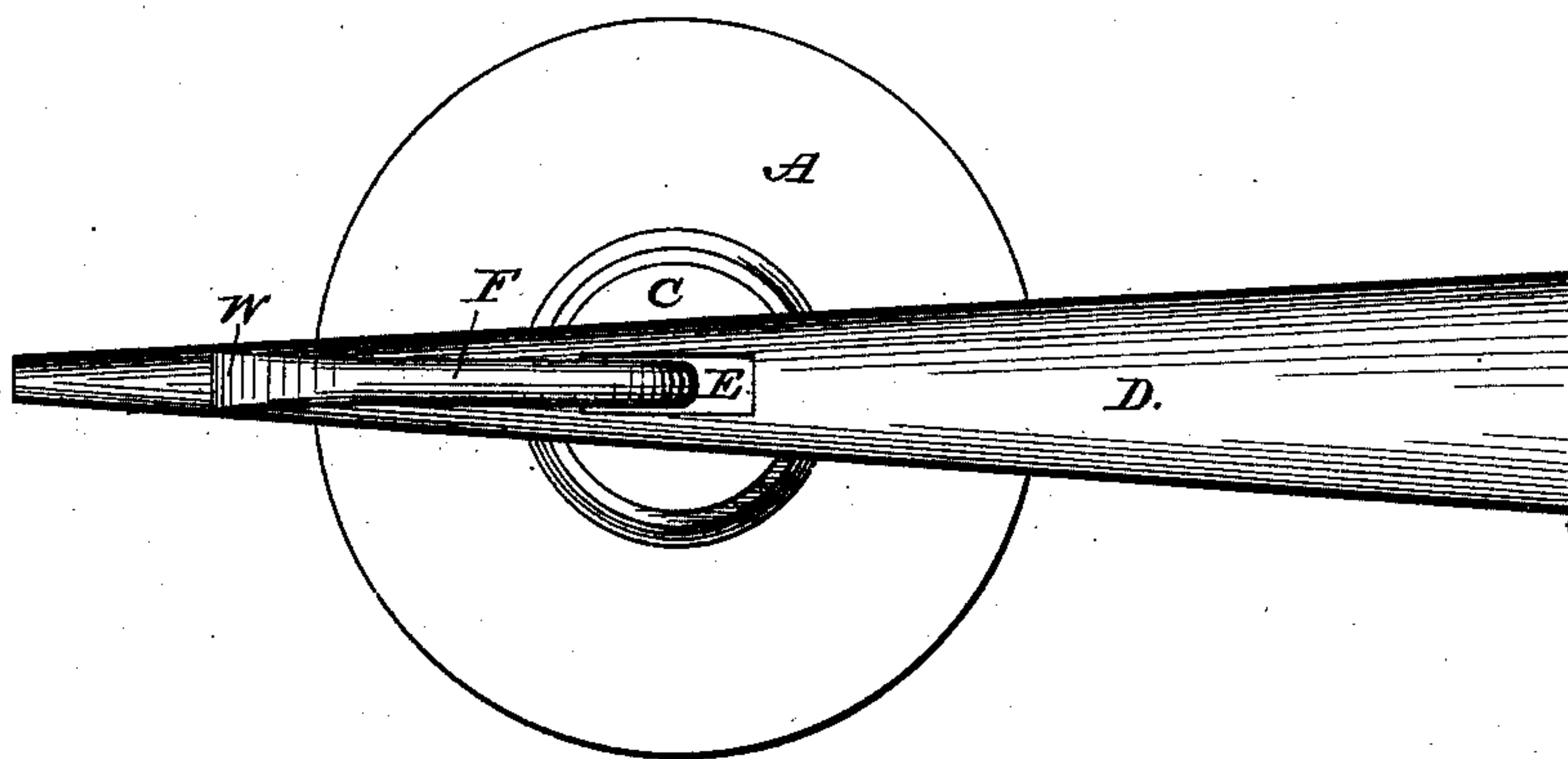


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

MARY F. SALLADE, OF NEW YORK, N. Y.

ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 359,288, dated March 15, 1897.

Application filed August 10, 1886. Serial No. 210,586. (No model.)

To all whom it may concern:

Be it known that I, MARY F. SALLADE, of the city, county, and State of New York, have invented a new and useful Improvement in Atomizers for Distributing Insect-Destroying Liquids; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a vertical central section of my improved spraying device for destroying insects by means of liquids; Fig. 2, a longitudinal section through the blowing-tube in line *xx* of Fig. 1, and Fig. 3 an elevation of the supply-tube detached.

My invention relates to that class of atomizers in which the jet of liquid is produced by a pressure of air upon the contents of the reservoir or vessel containing the same, in connection with a blast of air flowing rapidly in a concentric jet encircling the outer end of a tube communicating with the reservoir. The object thereof is to obtain a simple device, which may be readily taken apart and packed in a small compass, and which when in use shall deliver the liquid from the reservoir in a fine shower, rather than in an atomized spray, the device being specially designed and adapted for the distribution of an insect-destroying fluid, which, if delivered in the form of a spray or mist by the use of the ordinary forms of atomizers, would not be efficacious in accomplishing its desired effect.

It consists in a special construction and combination, as hereinafter described, of a separate detachable delivery-tube with a conical blowing-pipe secured transversely to the nozzle of a can or vessel to contain the fluid, the detachable delivery-tube being made fast when needed by inserting it through an opening in the nozzle into the blowing-pipe and wedging its outer flattened end into the smaller end of said pipe.

In the accompanying drawings, A represents a closed vessel of any suitable size or form provided with an opening fitted with a threaded collar or nozzle, B. C is a cap screwing upon said nozzle, to form a tight joint therewith, and upon whose upper end is fixed,

diametrically a transverse blow-pipe, D, of conical form, tapering from a large opening at one end, to which the lips of the operator are to be applied, to a small orifice at the opposite end, from which the fluid is to be forcibly ejected, in manner as hereinafter described. Communication is established between the interior of this blowing conical pipe D and the interior of the vessel by means of an extended slot, E, cut through the tube and the top of the cap.

F represents a detachable delivery-tube, of an internal diameter corresponding to that of the smaller end of the blowing-tube. One end of this tube is bent at a right angle to its length, and the extremity of this bent end is flattened transversely to the plane in which it is bent, as shown at W in Fig. 2, so as to widen it, without, however, reducing the area of the opening through the same.

The width of the slot E is equal to that of the flattened extremity of the tube F, so as to permit the latter to be inserted through it from the inside of the cap and pushed forward within the blow-pipe D, until it engages and becomes wedged within the latter at a short distance back from its contracted end, and the bend of the tube F is so proportioned as that when its flattened extremity becomes fast in the pipe D the upper side of the bent end of the tube will strike the top of the pipe D, and the inner side of the bend will engage the front end wall of the slot, so that the tube will become firmly fixed, while the main length of tube will extend at a right angle to the axis of the pipe D far enough to reach the bottom of the vessel A, when the cap C, carrying said pipe, is screwed down upon the nozzle B of the vessel, as shown in Fig. 1.

The tube F may thus be readily fitted to or removed from the cap C and blow-pipe D, and when fitted in place an opening is still left from the pipe D into the vessel A through the slot E, and an air-passage is left in the pipe over and under the flattened open end of the tube F.

The apparatus is prepared for use by inserting the bent end of the tube F through the slot E into the pipe D, and pushing it forward until the tube becomes fixed in proper position, as described. The vessel A is filled with

a suitable insect-destroying fluid and closed by screwing the cap C, carrying the pipe D and tube F, upon the nozzle B.

By blowing into the wide end of the conical pipe D a pressure is created by the force of the air as it enters through the slot E upon the surface of the liquid in the vessel, and will operate to force it up through the tube F, at the same time the blast of air carried over and under the flattened end of the tube will take up the liquid issuing therefrom and carry it in fine drops out through the contracted end of the pipe D, from which it will fall in a shower, which may be readily directed to any point or into any opening or crevice where insects are lodged, and the fluid be thereby delivered in sufficient quantity and under the most favorable condition for efficient action in destroying them.

In packing away the instrument the pipe D is unscrewed from the vessel A, and the tube F withdrawn from the pipe D, so that the whole may be stowed in a very small compass.

I claim as my invention—

The combination, with the vessel A, provided with a threaded nozzle, B, and with a cap, C, screwing onto said nozzle and having an extended slot, E, therein, of a conical blowing-pipe, D, secured transversely upon the cap and communicating through the slot E with the interior of the vessel, and a separate detachable bent delivery-tube, F, adapted to enter the blowing-pipe D through said slot, and which is flattened at its extremity to engage and wedge into the contracted end of the pipe and be thereby secured in position to project therefrom into the vessel A, substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARY F. SALLADE.

Witnesses:

S. A. STARUS,
A. N. JESBERA.