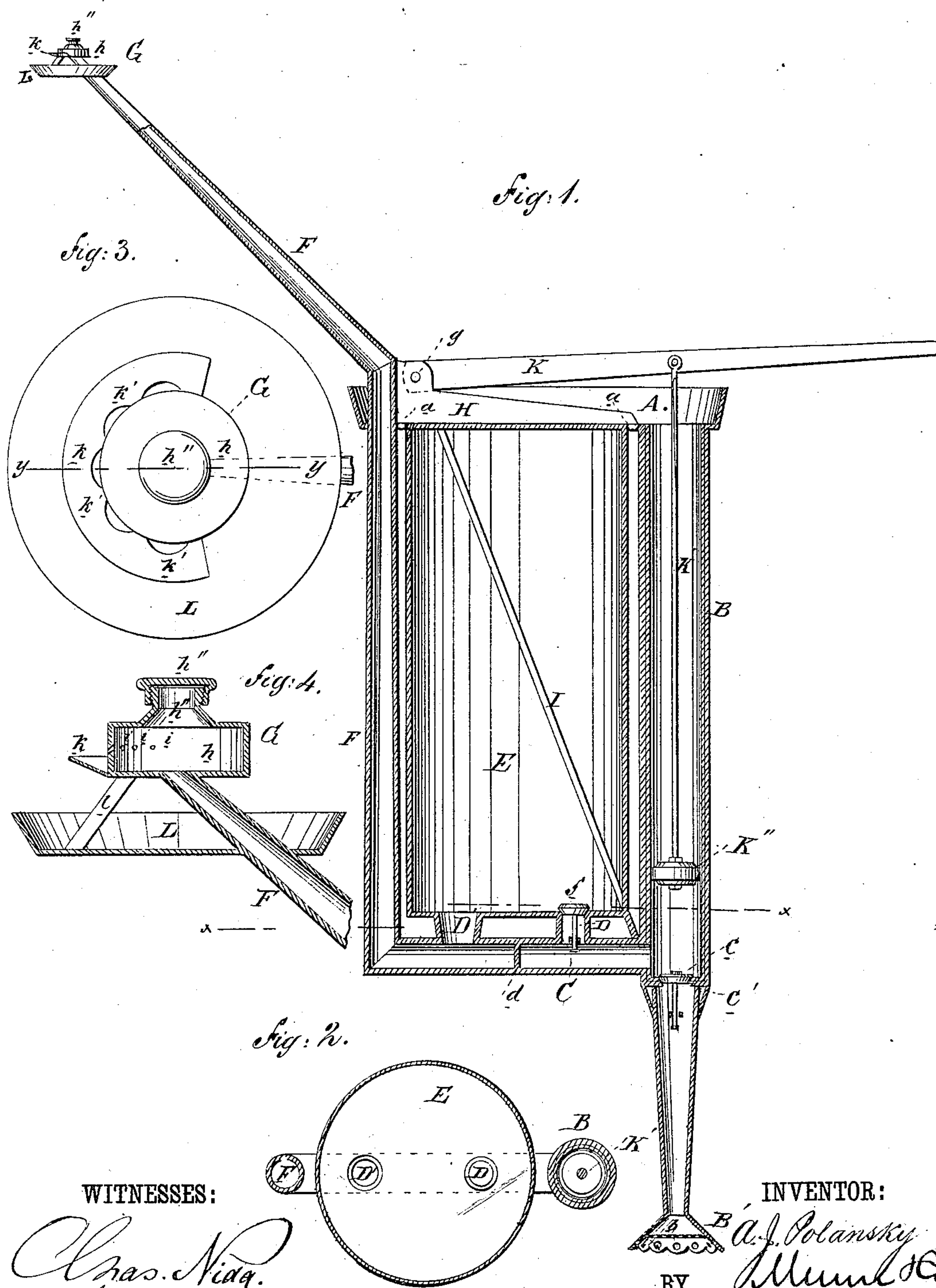


(No Model.)

A. J. POLANSKY.
Pump and Sprinkler.

No. 238,430.

Patented March 1, 1881.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALOIS J. POLANSKY, OF FAYETTEVILLE, TEXAS.

PUMP AND SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 238,430, dated March 1, 1881.

Application filed August 2, 1880 (No model.)

To all whom it may concern:

Be it known that I, ALOIS J. POLANSKY, of Fayetteville, in the county of Fayette and State of Texas, have invented a new and Improved Pump and Sprinkler, of which the following is a specification.

The object of this invention is to provide a simple, durable, and effective device, designed especially for use in sprinkling cotton-plants with poisonous solutions, to protect them against the ravages of injurious insects and worms.

The invention consists of a portable force-pump provided with a capacious air-chamber, and having on the end of its discharge-pipe a sprinkler of novel form, which causes the liquid to be ejected in fine spray.

Figure 1 is a partly-sectional side elevation of the device. Fig. 2 is a cross-section of the same on line *x x*, Fig. 1. Fig. 3 is an enlarged plan of the sprinkler. Fig. 4 is an enlarged vertical sectional elevation of the sprinkler on line *y y*, Fig. 3.

Similar letters of reference indicate corresponding parts.

This pump is designed to be fitted into a barrel containing the poisonous solution that is to be sprinkled on the plants.

In the drawings, A is a circular fan-shaped reservoir, with perforations *a a* in its bottom, which fits into and closes the top of the barrel. (Not shown.) Projecting downward from this reservoir A is the lift-pipe B of the pump, with an outer shell of galvanized iron and an inner one of zinc, on whose lower end is a finely-perforated strainer, B', whose perforations *b b* are designed to be smaller than the perforations in the sprinkler G, to insure that nothing shall pass through the pump that shall choke the perforations in said sprinkler G. In the pipe B an ordinary lift-valve, *c*, rests on its annular seat *c'*.

Immediately above the valve-seat *c'* a horizontal pipe, C, communicates with the lift-pipe B, said pipe C having about midway of its length a diaphragm or stop, *d*, and on either side of said diaphragm *d* a short vertical pipe, D D', respectively, both of which connect with the bottom of an air-chamber, E, that extends upward to the reservoir A, and laterally nearly fills the space between the lift-pipe B and the

vertical discharge or force pipe F, that communicates with the other end of the horizontal pipe C. In the pipe D, or resting on the top thereof, within the chamber E, is a lift-valve, *f*. The force or discharge pipe F is connected at right angles with the horizontal pipe C, and extends upward, parallel with the pipe B and chamber E, through the reservoir A, and thence projects tapering forward and upward at an angle of about forty-five degrees, and has the sprinkler G attached to its extremity.

H is a brace secured to the bottom of the reservoir A and to the pipe F, in order to support the latter more firmly, and I represents a diagonal brace, of which there are two—one on each side—extending from the bottom of the reservoir A to the pipe C through the air-chamber E, to assist in further bracing and stiffening the parts of the device.

The handle or lever K of the pump is pivoted at *g* in the brace H, near the discharge-pipe F, extends rearward, and has attached to it the pump-rod K', on the end of which, within the lift-pipe B, is the plunger K''.

The sprinkler G consists of a cylindrical vessel, *h*, provided in its front with lateral perforations *i i*, having in its top a central opening, *h'*, for convenience of cleaning out said sprinkler, which opening is closed by a screw-cap, *h''*, and having a fish-shaped semicircular flange, *k*, attached to its front, below the perforations *i i*, said flange *k* being provided with crescent-shaped openings *k'* at its junction with the vessel *h*, while the upper edge of said flange *k* is designed to be about on a level with the line of perforations *i i*, so that jets of solution forced through said perforations *i i* shall strike upon the edge of said flange *k* and be thereby broken into spray, that is forced forward and laterally upon the plants that are to be sprinkled, while the liquid that is not forced out in spray runs back, through the crescent-shaped openings *k'*, into the circular pan L, which surrounds the discharge-pipe F, just below the sprinkler G, and is connected with said sprinkler G by a brace, *l*, and from this pan L the returning liquid runs back along the outside of the inclined portion of the pipe F into the reservoir A, and thence into the barrel (not shown) in which the pump is placed.

In lieu of the screw-cap *h''* on the top of the

sprinkler G, an air-chamber may be attached thereto, for the purpose of making the flow of the liquid from the said sprinkler more continuous.

5 This device is easily transported, convenient to operate, and ejects the liquid in a finer spray and for a greater distance than any of the pumps and sprinklers that are used for this purpose.

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

1. In a combined pump and sprinkler, the combination, with the lift and discharge pipes,
15 of the perforated reservoir A, substantially as and for the purpose described.

2. In a combined pump and sprinkler, the sprinkler G, consisting of vessel *h*, provided with lateral perforations *i i* and flange *k*, substantially as herein shown and described. 20

3. In a combined pump and sprinkler, the combination, with the discharge-pipe F, of the sprinkler G, provided with flange *k*, having openings *k'*, and pan L, substantially as herein shown and described.

ALOIS JOSEF POLANSKY.

Witnesses:

S. T. HOLEHAK,
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