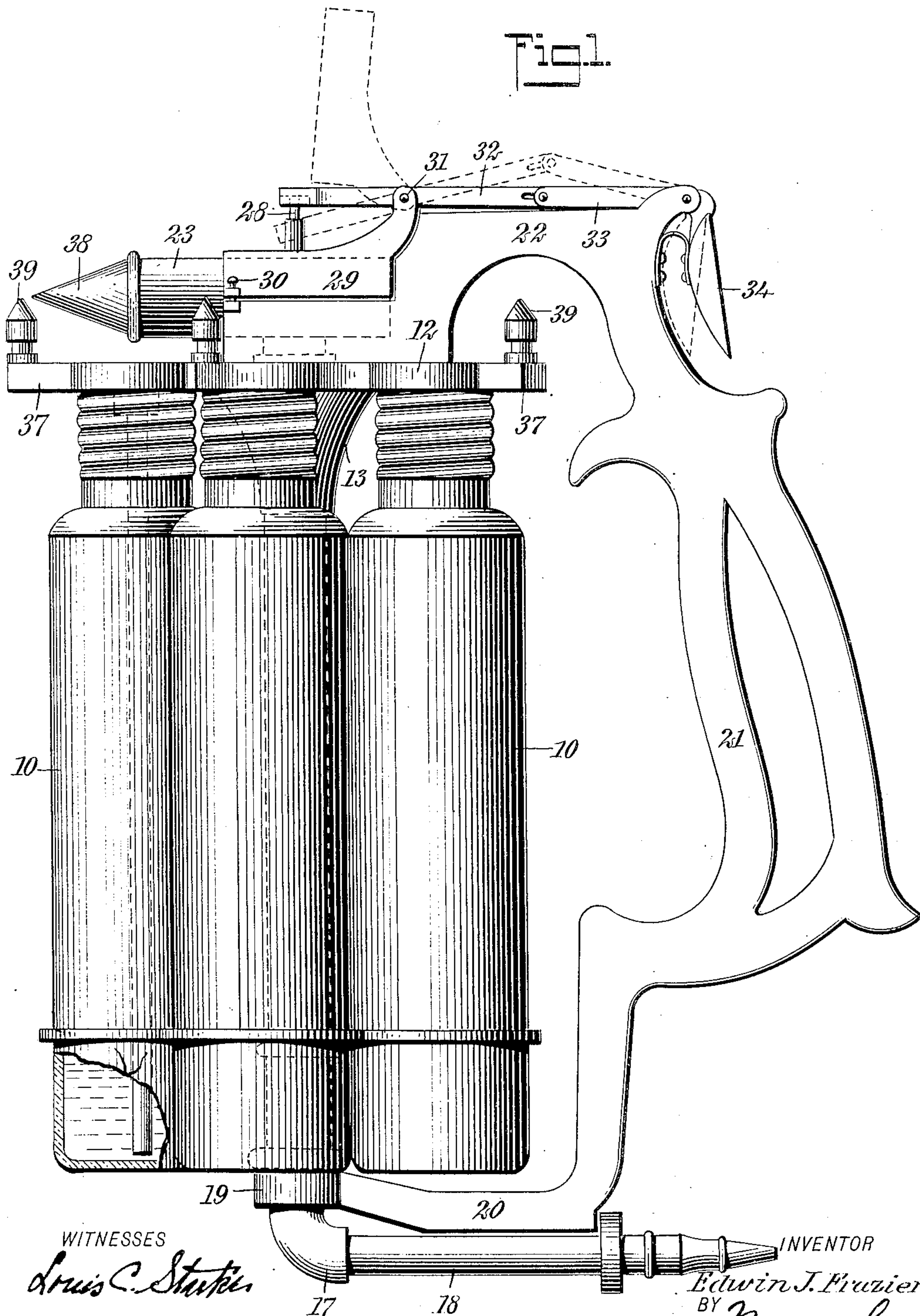


E. J. FRAZIER.
 MULTIPLE FLUID SPRAYER.
 APPLICATION FILED MAR. 28, 1908.

912,106.

Patented Feb. 9, 1909.

3 SHEETS—SHEET 1.



WITNESSES

Louis C. Stecker
W. Fairbank

INVENTOR

Edwin J. Frazier
 BY *Mum & Co.*
 ATTORNEYS

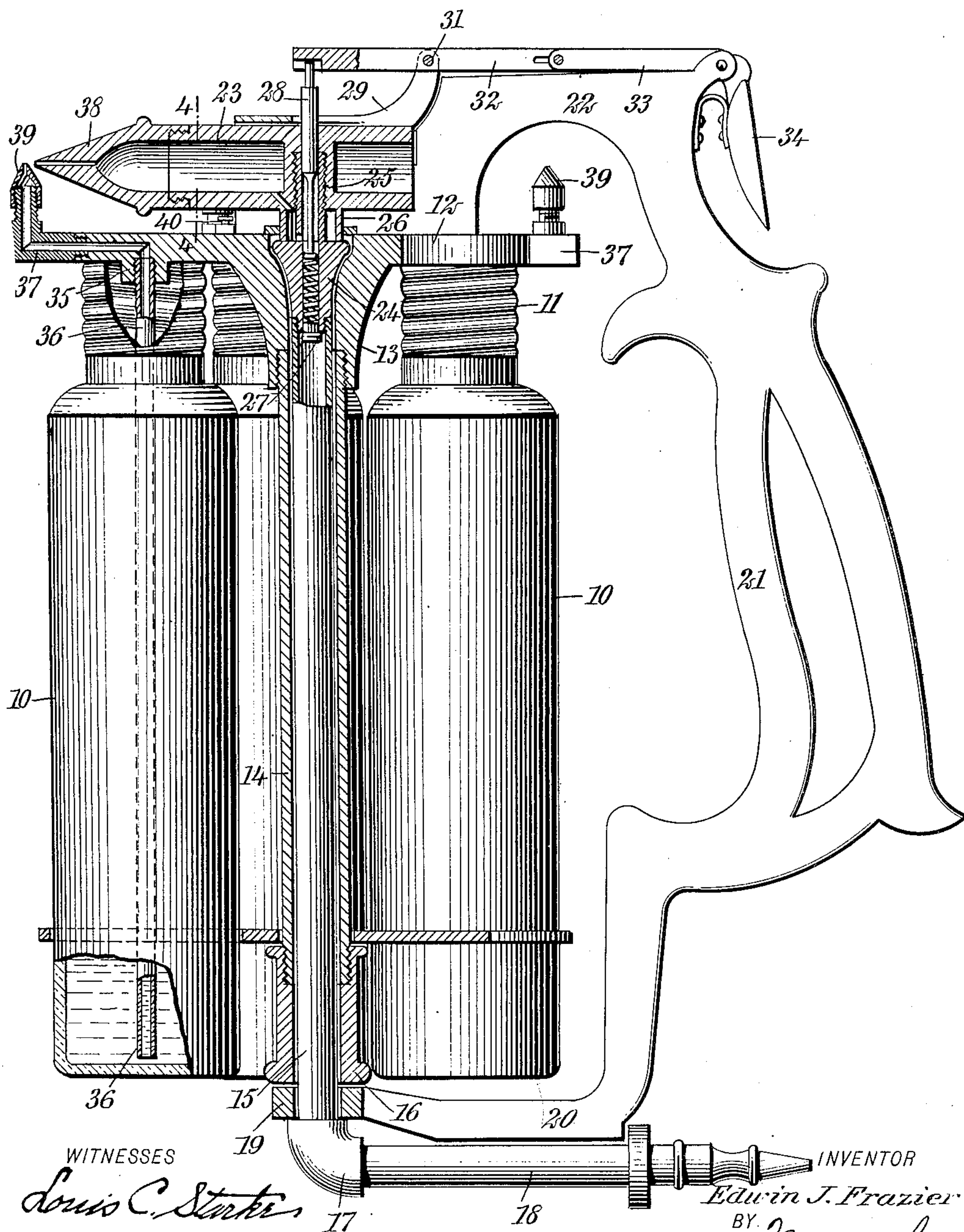
E. J. FRAZIER.
 MULTIPLE FLUID SPRAYER.
 APPLICATION FILED MAR. 28, 1908.

912,106.

Patented Feb. 9, 1909.

3 SHEETS—SHEET 2.

Fig. 2.



WITNESSES
Louis C. Stokes
C. W. Fairbank

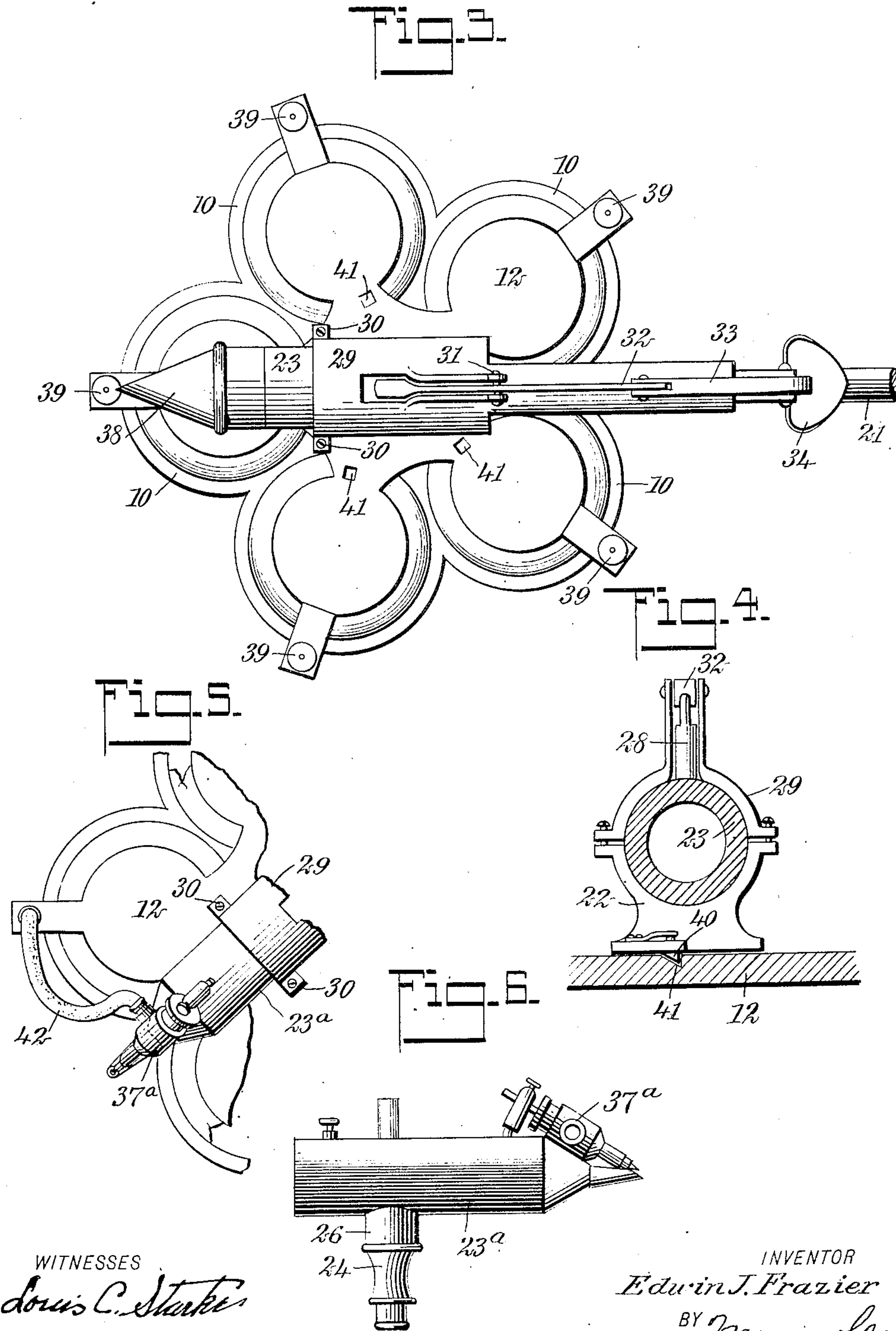
INVENTOR
Edwin J. Frazier
 BY *Mumford*
 ATTORNEYS

E. J. FRAZIER.
 MULTIPLE FLUID SPRAYER.
 APPLICATION FILED MAR. 28, 1908.

912,106.

Patented Feb. 9, 1909.

3 SHEETS—SHEET 3.



WITNESSES
Louis C. Stokes
G. W. Fairbank

INVENTOR
Edwin J. Frazier
 BY *Munroe*
 ATTORNEYS

UNITED STATES PATENT OFFICE.

EDWIN J. FRAZIER, OF BUFFALO, NEW YORK.

MULTIPLE-FLUID SPRAYER.

No. 912,106.

Specification of Letters Patent.

Patented Feb. 9, 1909.

Application filed March 28, 1908. Serial No. 423,869.

To all whom it may concern:

Be it known that I, EDWIN J. FRAZIER, a citizen of the United States, and a resident of Buffalo, in the county of Erie and State of New York, have invented a new and improved Multiple-Fluid Sprayer, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in sprayers or atomizers of that type in which a plurality of containers are employed, whereby any one of a plurality of different fluids may be sprayed from a single device and under the influence of a single air jet.

My invention involves details of construction, whereby the air nozzle may be brought into proximity with any one of the nozzles for the fluid being sprayed, in a very simple and efficient manner.

My sprayer is primarily designed for spraying paints or colors where it is desired to frequently change the color employed, but it is evident that it may be used for spraying any other kinds of fluids.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, and in which—

Figure 1 is a side elevation of a device constructed in accordance with my invention; Fig. 2 is a view similar to Fig. 1, but showing certain of the parts in section; Fig. 3 is a top plan view of the device; Fig. 4 is a vertical section on the line 4—4 of Fig. 2; Fig. 5 is a top plan view showing a modified form of construction; and Fig. 6 is a side elevation of a part of the apparatus shown in Fig. 5.

In my improved sprayer I employ a plurality of receptacles, each adapted to contain a different material to be sprayed and all mounted in a frame, whereby the liquid may be sprayed from any one of the receptacles. As shown, I provide a plurality of bottles 10, each having the neck thereof screwed into a collar 11 carried by a top plate 12. The plate is provided with a hub 13, adjacent its center, and this hub is connected to a tube 14 rotatably mounted on a central air pipe 15. The lower end of the tube 14, may, if desired, have a separate section 16 in threaded engagement therewith, whereby upon rotating the section 16, the total length of the tube may be varied

to adjust the elevation of the plate 12 and the receptacles depending therefrom. The lower end of the air pipe 15 is connected by a suitable elbow 17 to an air pipe 18, designed for connection with a hose or other suitable means for delivering air under pressure thereto, and between the elbow and the lower end of the sleeve section 16 is a collar 19 serving to support said sleeve. The collar is preferably formed integral with an arm 20 carried by the main handle 21 at the lower end of the latter. The handle 21 extends upward to above the plate 12 and the lateral arm 22 at the upper end of the handle connects the same to the upper surface of the plate 12. Above the plate the arm 22 is adapted to receive and retain an air discharge nozzle 23, which latter is operatively connected to the upper end of the central or pivot pipe 15. Threaded to the upper end of the pipe is a tubular member 24, having a threaded section 25 extending up into the nozzle, and having a shoulder adapted to abut against an annular flange 26 on said nozzle.

A suitable collar carried by the annular flange engages with the upper surface of the plate to hold the latter against vertical movement in respect to the pipe. The inner end of the tubular member 24 constitutes a valve seat for a valve 27, which latter is connected by a coil spring to a valve stem 28 having sliding engagement through the tubular member and through an opening in the upper surface of the nozzle. By depressing the valve stem, the spring is compressed and the valve 27 forced from its seat. The nozzle is secured to the arm 22 and held in place by a cover section 29, which upon the removal of the securing screws 30 at the front end thereof, may be moved back upon its pivot 31, as indicated in dotted lines in Fig. 1, so as to permit of a removal of the nozzle. Mounted on the pivot 31 is also a lever arm 32, one end of which is in engagement with the upper end of the valve stem and the other end of which is pivoted to the end of an arm 33 carried by a thumb piece 34. The latter is pivoted at the upper end of the handle 21 and normally held outward by the action of a suitable spring. By forcing the thumb piece inwardly toward the handle, as indicated in dotted lines in Fig. 1, the valve stem is depressed and the valve opened.

The plate 12 carries not only the threaded collar 11 into which the bottles are screwed,

but also carries a plurality of downwardly-extending bosses 35, into which are secured tubes 36 leading to approximately the bottoms of the several bottles. From each boss
 5 a passage leads outwardly to the edge of the plate, and on the plate at the end of each of said passages is a nozzle 37, turned up in the form of an elbow and terminating adjacent the tip of the air nozzle 23. The terminal
 10 portion 38 of the air nozzle and the terminal portion 39 of the collar nozzle are preferably threaded to the body portions of the nozzles, so that by rotating them, they may be brought into the desired adjustment in re-
 15 spect to each other. By rotating the body of the nozzle 37, the terminal portion thereof may also be adjusted laterally to a slight extent. The plate, as previously stated, is freely rotatable on the air pipe 15, so that
 20 any one of the nozzles 37 may be brought adjacent the air nozzle 23.

For holding the parts in the desired position during the use of the device, the inner end portion of the arm 22 preferably carries
 25 a depending spring-pressed dog 40, as shown in Fig. 4, and this dog is adapted to enter into any one of a plurality of apertures 41 in the upper surface of the plate 12. These apertures are so disposed that when the dog en-
 30 ters any one of them, the corresponding liquid-discharge nozzle will be closely adjacent the air-discharge nozzle.

Various modifications may be made in the specific construction of the mechanism and
 35 particularly in the details of the discharge nozzle.

In Figs. 5 and 6, I have illustrated one modification in which the air nozzle 23^a sup-
 40 ports upon the upper surface thereof and adjacent the point, a separate liquid nozzle 37^a. Only one liquid nozzle is used for all of the receptacles and is carried directly by the air nozzle. In using this modified form of construction, the nozzle 23 and its attaching
 45 parts are removed from the plate and tube and the device shown in Fig. 6 inserted in place thereof. Each of the terminals 39 of the liquid nozzles are removed and short hose sections 42 are substituted in place
 50 thereof. The end of any one of the several hose may be secured to the liquid nozzle 37^a, so that the liquid from any one of the several containers may be sprayed.

Having thus described my invention, I
 55 claim as new and desire to secure by Letters Patent:

1. In combination, a plurality of containers, a separate discharge nozzle for each container, and an air delivery nozzle, said
 60 nozzles being relatively movable to permit of said air nozzle being disposed in proximity with any one of the first-mentioned nozzles.

2. In combination, a rotatably mounted

plate, a plurality of containers carried there-
 by, a separate discharge nozzle for each con- 65
 tainer, and an air delivery nozzle above said plate and adapted for disposition in proximity with any one of said first-mentioned nozzles.

3. In combination, a plate, a plurality of 70
 containers depending therefrom, a plurality of nozzles carried by said plate and communicating with the several containers, and an air delivery nozzle mounted on said plate, said plate being rotatable to bring any one of 75
 the first-mentioned nozzles into proximity therewith.

4. In combination, a plate, a plurality of
 containers depending therefrom, a plurality 80
 of tubes depending from said plate and within said containers, passages through said plate communicating with said tubes, noz-
 zles at the outer ends of said passages and an air nozzle adapted for use in connection with
 any one of said first-mentioned nozzles. 85

5. In combination, an air delivery pipe, a
 plate rotatably mounted thereon, a plurality
 of containers carried by said plate, a plural-
 ity of nozzles for said containers, and an air
 delivery nozzle above said plate and in com- 90
 munication with said air pipe, said first-mentioned nozzles being brought into proximity with said air delivery nozzle upon the rotation of said plate.

6. In combination, an air delivery pipe, a 95
 plate rotatably mounted thereon, a plurality of containers carried by said plate, a plurality of nozzles for said containers, an air delivery nozzle above said plate and in communication with said air pipe, said first-
 100 mentioned nozzles being brought into proximity with said air delivery nozzles upon the rotation of said plate, and co-acting means for normally holding said plate with one of
 said first-mentioned nozzles in operative 105
 position.

7. In combination, an air delivery pipe
 having an air nozzle at one end thereof and
 disposed at an angle thereto, a plate rota-
 tably mounted upon said pipe, a plurality of 110
 containers depending therefrom, a plurality of nozzles carried by said plate and communicating with the interior of said containers, a valve controlling the passage of
 air from said pipe to said nozzle, a handle in 115
 engagement with said pipe below said containers and in engagement with said air nozzle, and means carried by said handle for operating said air valve.

In testimony whereof I have signed my 120
 name to this specification in the presence of two subscribing witnesses.

EDWIN J. FRAZIER.

Witnesses:

WILLIAM J. FERRIS,
 R. A. NEELY.