P. SEWERYN.

AIR BRUSH.

APPLICATION FILED OCT. 5, 1917. RENEWED JULY 30, 1918.

1,281,674. Patented Oct. 15, 1918.

2 SHEETS—SHEET 1.

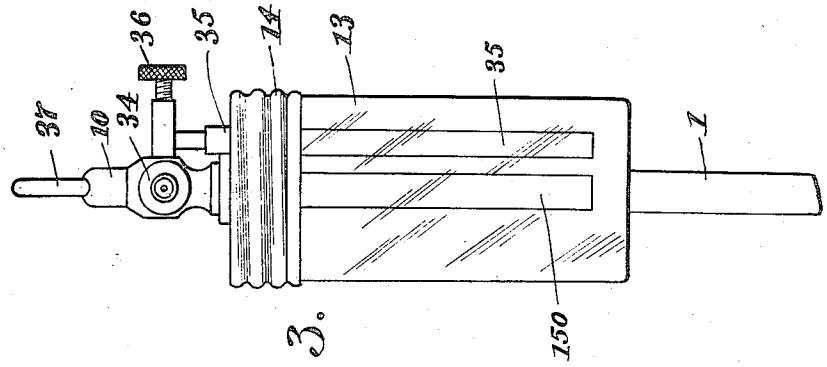


Fig. 3.

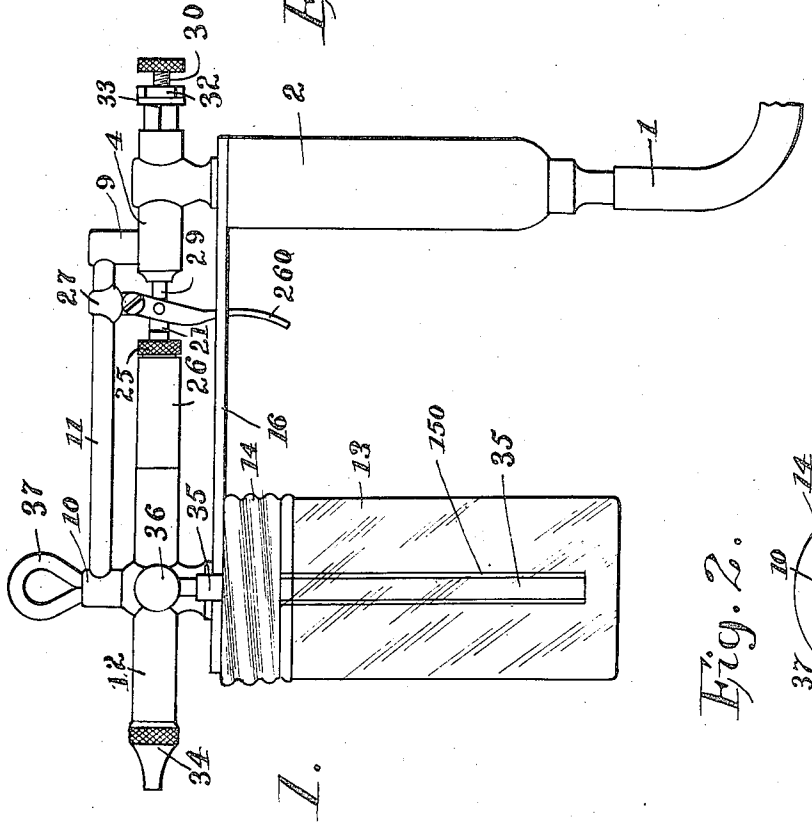


Fig. 1.

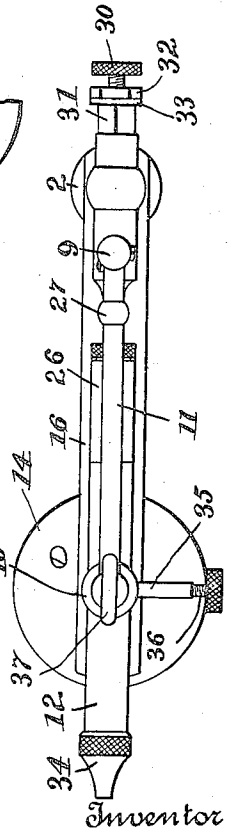


Fig. 2.

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2 SHEETS—SHEET 2.

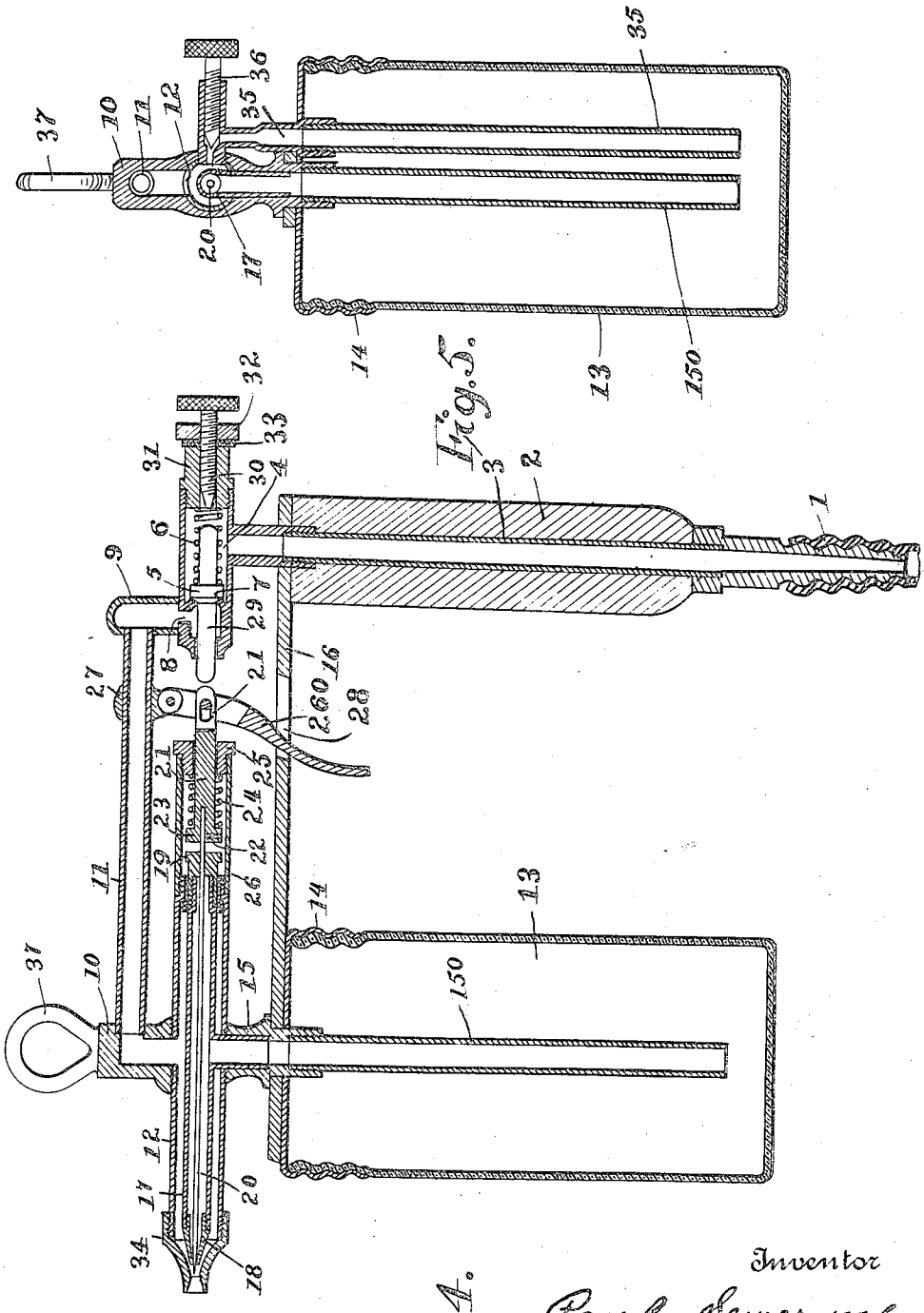


Fig. 5.

Fig. 4.

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UNITED STATES PATENT OFFICE.

PAUL SEWERYN, OF NEW YORK, N. Y.

AIR-BRUSH.

1,281,674. Specification of Letters Patent. Patented Oct. 15, 1918.

Application filed October 5, 1917, Serial No. 194,915. Renewed July 30, 1918. Serial No. 247,452.

To all whom it may concern:

Be it known that I, PAUL SEWERYN, a subject of the Emperor of Austria, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Air-Brushes, of which the following is a full, clear, and exact specification.

This invention relates to air brushes or devices for spraying liquid coating compositions, such as varnish, bronzing liquid, etc., by means of compressed air.

The object of the invention is to simplify and generally improve the construction of the device so as to make it more compact, easier to operate and regulate, and less liable to get out of order. Other objects will appear as the description proceeds.

The invention will be first hereinafter described in connection with the accompanying drawings, which constitute part of this specification, and then more specifically defined in the claims at the end of the description.

In the accompanying drawings, wherein similar reference characters are used to designate corresponding parts throughout the several views:—

Figure 1 is a side elevation of apparatus constructed substantially in accordance with this invention.

Fig. 2 is a plan view of the same.

Fig. 3 is a left hand end view.

Fig. 4 is a longitudinal vertical section through the device, and

Fig. 5 is a transverse vertical section through the agitator tube which extends down into the liquid holding jar or receptacle.

Compressed air from any source (not shown) may be conducted by hose 1 to the lower end of the handle 2 through which an air tube 3 extends and opens at its upper end into a valve chamber 4. In this chamber a valve 5 is normally held by a spring 6 on a seat 7 leading to a by-pass 8 extending through two upwardly extending posts 9 and 10, and a horizontal tube or pipe 11, and opening into a tubular casing 12 above the liquid holding jar 13. The casing 12 is connected to the top 14 of the jar by a stud 15, and said top or cover of the jar is rigidly connected to the upper end portion of the handle 2 by a plate or bar 16.

Within the casing 12 and preferably arranged concentrically thereof is a liquid conducting tube 17 terminating at one end in a conical nozzle 18 and at the other end is a packing nut 19 through which a regulating needle 20 extends. The end of the needle, which protrudes from the casing or tube 17, is connected to a slide 21 by means of a set screw 22. The slide 21 has a shoulder 23 against which a coiled spring 24 abuts, the other end of the spring engaging an adjusting nut 25 in the end of a tubular casing 26 detachably connected to the casing 12 and constituting an extension thereof. The slide 21 extends beyond the nut 25 in the end of the casing 26 and is attached to a trigger 260 fulcrumed on a ball 27 fast on the by-pass air tube 11. The trigger extends down through a slot 28 in the plate 16 into position to be actuated by the fore-finger of the hand which grasps the handle 2.

The air controlling valve 5 has a stem 29 which protrudes from the front end of the casing or chamber 5 and abuts against the rear edge of the trigger, so that the air controlling valve 5 and liquid controlling needle valve 20 are both actuated simultaneously by the trigger. The movement of both valves may be regulated by a set screw 30 mounted in the end cap 31 of the valve chamber 4 and equipped with a lock nut 32 carrying a packing or sealing washer 33.

The front end of the air tube or casing 12 is provided with a detachable conical tip 34 surrounding and spaced from the fluid tip or nozzle 18. The passage of air through the space between said tips, when the trigger is pulled, creates a suction in the liquid tube 17 and draws out some of the liquid from the jar through the tube 150 and delivers it with the air in the form of a spray.

A tube 35 leads from the casing 12 down into the liquid containing jar 13 and is designed to conduct some of the compressed air into the liquid for the purpose of agitating it and preventing it from getting thick at the bottom and thin at the top. The amount of air admitted to this agitator tube 35 may be regulated by the set screw 36. The post 10 has a ring 37 at its upper end to serve as a hanger.

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

1. In an air brush, the combination, with an air tip, of a liquid nozzle, a spring-

pressed valve controlling said liquid nozzle, a trigger connected to operate said valve, an air controlling valve having a stem abutting against the trigger, whereby both valves may be simultaneously operated, and a set screw adapted to be engaged by said air valve to limit the movement of the trigger and both valves.

2. In an air brush, the combination, with an air tip, of a liquid nozzle, a spring-pressed valve controlling said liquid nozzle, a trigger connected to operate said valve, an air controlling valve having a stem abutting against the trigger, whereby both valves may be simultaneously operated, a set screw adapted to be engaged by said air valve to limit the movement of the trigger and both valves, and a lock nut on said set screw provided with a packing washer to prevent escape of the air.

3. In an air brush, the combination, with an air tip, of a liquid nozzle arranged concentrically within said air tip, a valve controlling said liquid nozzle, a trigger connected to operate said valve, an air controlling valve arranged in line with the liquid controlling valve and having a stem abutting against the trigger, whereby both valves may be simultaneously operated, and an external by-pass tube for conducting the air around the trigger and liquid nozzle the trigger being fulcrumed on said by pass tube.

In testimony whereof I have signed my name to this specification.

PAUL SEWERYN.