

March 7, 1939.

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SPRAYING APPARATUS
Filed Dec. 22, 1936

2,149,932

Fig. 1

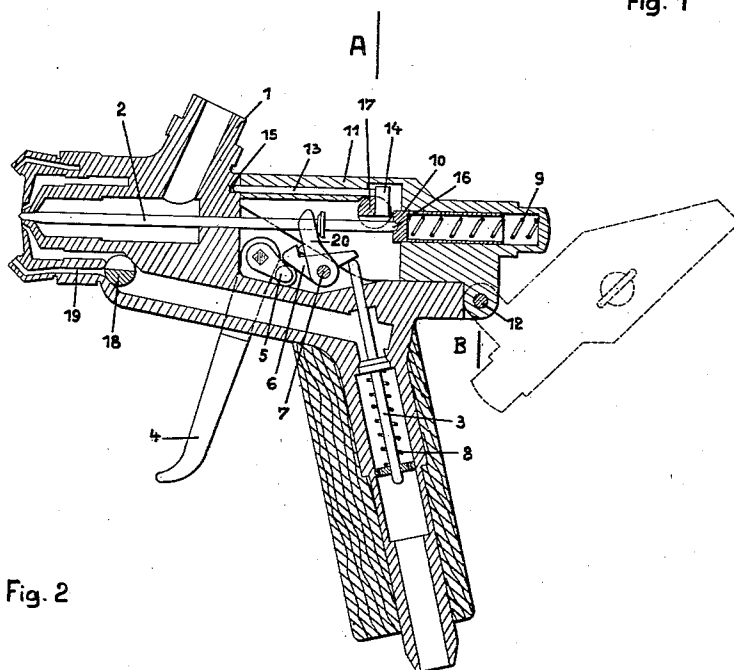
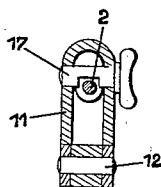


Fig. 2



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UNITED STATES PATENT OFFICE

2,149,932

SPRAYING APPARATUS

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GermanyApplication December 22, 1936, Serial No. 147,241
In Germany December 23, 1935

3 Claims. (Cl. 299—140.1)

Experience has shown that the wear of movable parts of spraying devices is very great especially when substances are applied with the spraying device which act as grinding substances, for example glazings, water enamel and the like.

Even when the parts serving for controlling the air and the substance to be sprayed are built in the spraying device so that they are protected, the particles of the fine spraying substance cannot be always prevented from entering the bearings and between the contacting points of the control parts where they deposit in a thin layer and favor wear.

If premature wear is to be avoided this can only be attained by making it as easy as possible for the thorough cleaning of the movable parts in question; because if the parts to be cleaned are difficult to get at, the necessary careful treatment is generally neglected.

According to the German Patent 628,529 the wear of the control parts of spraying devices is avoided by providing a passage extending transversely to the main body of the spraying device in the range of the controlling parts, which passage can be well closed at both ends by means of covers, so that compressed air introduced into the enclosed space prevents the entrance of foreign substances and then depositing on the sliding surfaces of the control parts.

The small space, however, renders it difficult to introduce cleaning tools. The renewal of the nozzle needle, the point of which is subjected to heavy wear, presents difficulties because the entire rear portion of the device must be taken to pieces for this purpose.

The invention considerably facilitates thorough cleaning of the movable parts and their renewal when necessary, if the space accommodating the control parts is closed by a foldable cap in which the spring controlled piston is likewise accommodated, by which the nozzle needle is shifted towards the color nozzle. Owing to this construction the control parts can be exposed by merely folding back the protecting cap so that these parts are easily accessible from three sides and consequently can be thoroughly cleaned and if necessary renewed without difficulty. The nozzle needle can also be easily pulled out towards the rear.

An embodiment of the invention is illustrated by way of example in the accompanying drawing, in which

Fig. 1 shows the spraying apparatus in longitudinal section,

Fig. 2 shows the closing cap in cross-section taken on line A—B of Figure 1.

On the main body 1 a closing cap 11 is arranged foldable about an axle 12. This cap 11 accommodates a piston 10 which is pressed by a spring 9 against the color nozzle needle 2. The

closing cap 11 is secured in its closing position by a latch 13 which engages in a notch 15 in the main body 1. At the other end of the latch 13 an arm 14 projects into the path along which a crank pin 17 moves, which can be turned by means of a handle (Fig. 2) arranged on the outer side of the apparatus. If this crank pin 17 is turned in clockwise direction out of the position shown in Fig. 1, it first moves the latch 13 out of the notch 15 and by the arm 14 coming into contact with the piston 10, this piston will be forced away from the nozzle needle 2, so that its cup 16 exposes the needle 2 and the cap can be swung open without hindrance (position shown in dotted lines in Fig. 1). 4 designates the handle by which the control levers 5 and 6 are actuated; 7 is the axle for the lever 6 and for another bifurcated lever 20 under the action of which the nozzle needle 2 can be shifted against the pressure of the piston spring 9. 3 is the piston rod for the air valve which is closed by the spring 8. A cock plug 18 throttles the spraying air leading to the nozzle or leads it partly to the channel 19 whose opening is turned to the nozzle axis in such a manner that the round stream produced at the nozzle is changed, in the well known manner, to a flat stream.

I claim:

1. A spraying apparatus comprising a main body, control parts in said body, a hinged U-shaped cap on the body opening and closing on the control parts, a spring controlled piston in the cap, said piston having a cup-shaped portion, a nozzle needle in said body actuated by said control parts, said nozzle needle resting in the cup-shaped portion of the piston when the cap is in closed position, locking means in said cap, and means for disengaging the cap locking means and moving said piston away from the nozzle needle at the same time, whereby the cap may be opened without injury to the nozzle needle.

2. In an apparatus according to claim 1, in which the locking means comprise a latch, and an arm on said latch extending into the range of the piston, said arm adapted to move the piston away from the nozzle needle.

3. A spraying apparatus comprising a main body, a nozzle needle in said body, control parts including a spring pressed piston accommodated in said body for actuating said nozzle needle, a U-shaped cap having top and side walls hingedly mounted on said body and enclosing said spring pressed piston, said cap covering the control parts at the sides when in closed position and uncovering same at the sides and permitting access to the piston when in open position, and a bolt mounted in said cap for locking same in its closed position on the body.

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