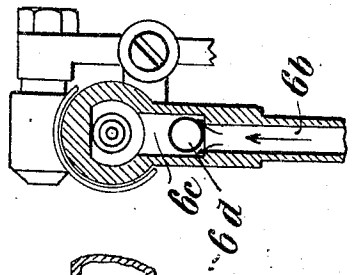
Oct. 19, 1926. 1,603,612

A. KRAUTZBERGER

AIR AND COLOR SPRAYING APPARATUS

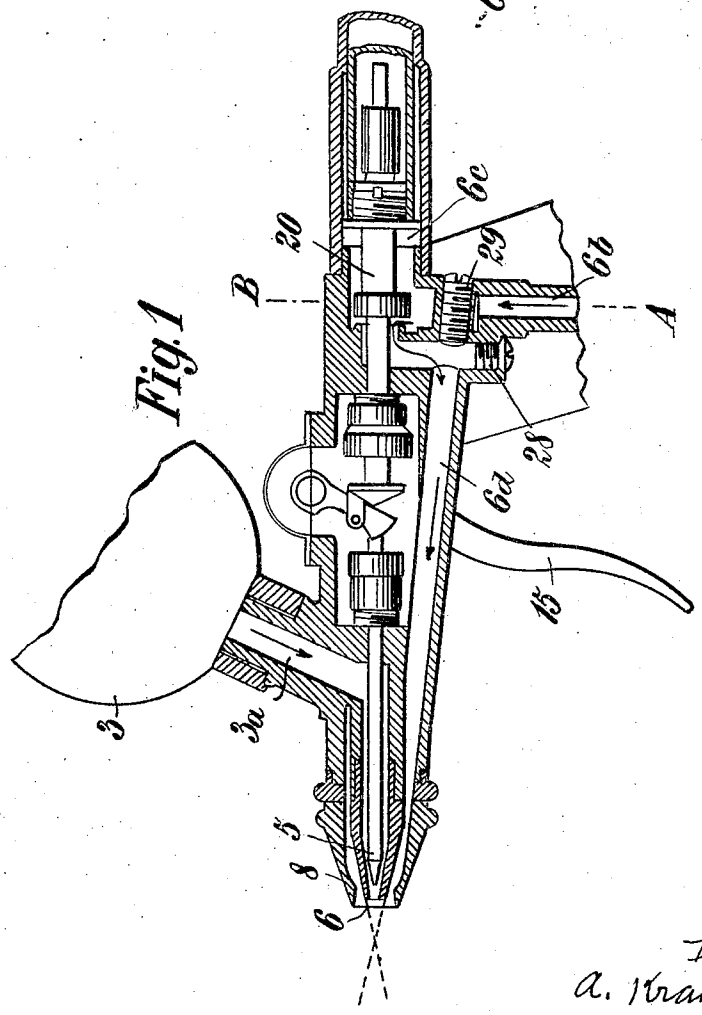
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Fig. 2



Section A-B.

Fig. 1



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UNITED STATES PATENT OFFICE.

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AIR AND COLOR SPRAYING APPARATUS.

Application filed September 14, 1925, Serial No. 56,312, and in Germany October 31, 1924.

The present invention relates to an appliance for spraying colors by means of compressed air, in which the spindle of the air valve and the color needle valve lie in line one behind the other. Such appliances are known. The purpose of the present invention is to construct such an appliance so that the passage through which the air flows shall allow a clear view to be obtained through it; further that the said air passage shall be capable of being cleaned by putting straight brushes through it. Furthermore, it can easily be ascertained, with apparatus according to the invention whether the said cleaning has been effectively performed. The air flowing through the apparatus does not need to be throttled until it flows through the nozzle, where a conical space is formed in which is a partial vacuum. This partial vacuum exerts a suction which draws the fluid to be sprayed from a container arranged on one side in a known manner.

The invention is illustrated diagrammatically, by way of example, in Figs. 1 and 2, in which

Fig. 1 is a vertical section;

Fig. 2 is a vertical section through the air inlet valve, on the line AB of Fig. 1.

The compressed air enters the appliance through the pipe 6^b, which is attached on the lower side, and then flows round a pipe which is provided with an internal screw thread and which is closed by means of the closing member 29. By removing the closing member 29 the passage 6^d, hereinafter more particularly referred to, is rendered accessible. The air next flows into the valve chamber 6^c, and to the air valve 20, which is arranged on a spindle, then into a short straight pipe which is parallel to 6^b, and then into the air passage 6^d. The above mentioned short pipe projects beyond 6^d to the outside of the appliance, being closed at this outer end by means of the closing member 28. The air from the passage 6^d arrives at the outer nozzle 8, where it is throttled, producing at 6 a rarefication of the air which has a suction effect. In this way the fluid which is to be sprayed is drawn from the container 3; the fluid flows through the passage 3^a surrounding the color valve needle 5, finally arriving at 6. 15 is the hand lever which controls the valves. It has been proposed, in the case of this type of apparatus, to make the front parts which form the nozzle, the back parts which form the air valve, as well as the air and color valve spindles, removable. with such apparatus, as hitherto constructed, it was not possible to have a free view through the air passage. It is, however, necessary to obtain such a view, in order to be able to clean the apparatus effectively. This is made possible by the present invention, in which the air passages are laid free by the removal of the closing members.

Claim:

A color spraying apparatus, having an air valve, a color needle valve, a spindle on which the said air valve is mounted, the axes of the said spindle and needle valve being in line with each other, an inlet passage for the compressed air perpendicular to the line containing the said axes, a valve chamber for the air valve, a pipe which is perpendicular to the line containing the said axes and which leads from the said valve chamber, an open communication between the said pipe and the valve chamber, a member closing the end of the said pipe, an air passage slightly inclined to the line containing the said axes, a nozzle, the air passage lying between the said nozzle and the rear end of the apparatus, an opening at the rear end of the apparatus in alignment with the air passage, a closing member in the said opening whereby the said air passage can be laid bare for inspective and for cleaning purposes, after the removal of the said closing members, as set forth.

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

ALBERT KRAUTZBERGER.