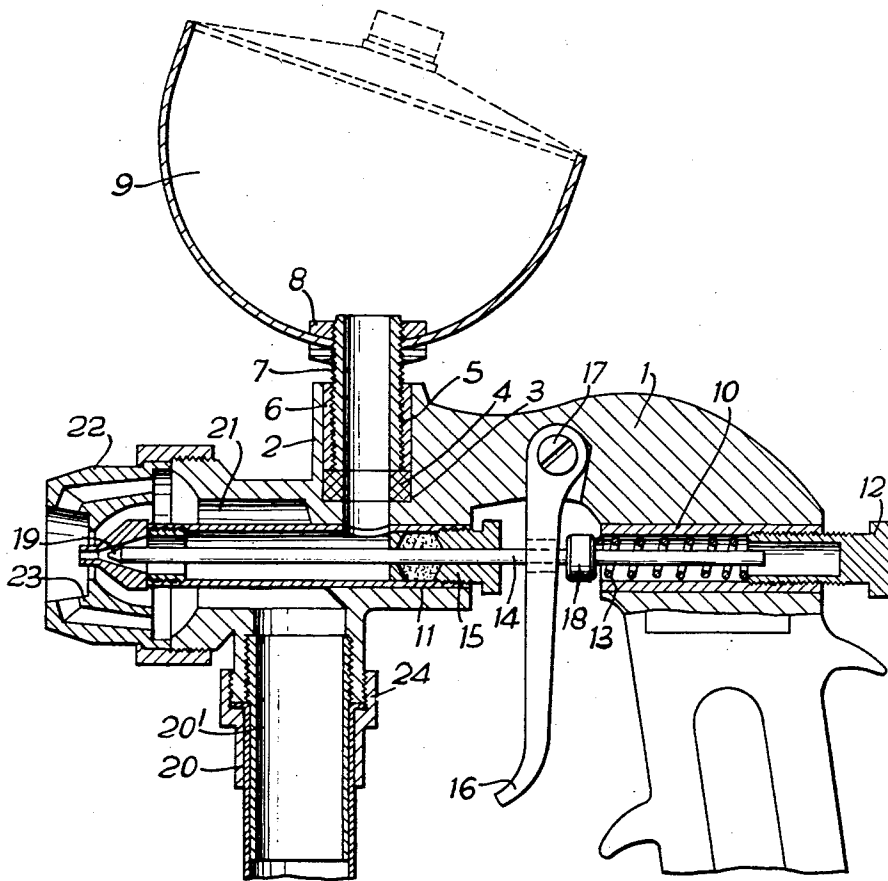


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LOW PRESSURE SPRAY-GUN

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LOW PRESSURE SPRAY-GUN

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2 Claims. (Cl. 239-345)

The present invention relates to a spray-gun intended for using low air pressure for the spraying and spreading of paints of any viscosity and of other more or less easily flowing materials.

Said invention is characterised by the means use, considered both individually and in combination, and more particularly by the jointed setting of the loaded container or bowl, obliquely planted, so as to adapt it by means of an easy rotary motion with the hand, to any high or low spraying position, being specified that the working members of the gun prefabricated, are used as a core for the setting of the external members of light material.

In the hereto attached drawing, given as a non-limiting example of a variant of embodiment of the invention, the spray-gun is represented in its whole in a lengthwise section.

The spray-gun is made of a body 1, of light alloy, having in its upper forepart a seating 2, this same receiving in its bottom on the shoulder 3 a packing 4, which is immobilized by a sleeve 5 forced therein, which has a screw-cutting 6, a tubular bearer 7 being screwed therein; this later forming a supply main, interdependent with the mounting 8, which holds the bowl 9 same being immobilized in a determined obliquity.

The tubular members 10 and 11, of steel or brass, are sunk in the casting; they receive the thrust-screw 12, the thrust-spring 13, which thrusts the needle 14, and the packing-box 15.

The tumbler 16 is pivoted on the pin 17, and touches the trigger 18.

The duct 7 runs into the tubular member 11, which is sealed on the one side by the packing-box 15, on the other side by the needle sealing the opening 19.

The spraying occurs by means of the air stream blown from the low pressure compressor through the duct 20, said air running into the ring-like chamber 21, to be led to the adjustable spraying nozzle.

The connection of the duct 20 to the member 20' is operated by means of the tightening band 24.

This type of spray-gun offers numerous advantages.

After the container 9 has been filled, the duct 20 feeding the low pressure air is opened. The paint flows down by gravitation along the pipe 7, it reaches the duct 11 and the opening of the atomizer 19. The air stream which surrounds said opening by means of the nozzles 22, 23 (primary and secondary air) comes out at a very high speed, but with a low pressure, it draws along the spraying material, cutting off the fog around the jet.

Finely divided droplets are thrown upon the surface, they stretch themselves out without bursting; their covering power is increased.

The material is completely utilized, no toxicity occurs. The air output is much higher as in the high pressure spray-guns, precisely it does duty for the high pressure.

The setting of the container 9 upon the pipe 7 being

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out of the axis, the level of the material therein changes according to the position. The container needs only to be rotated forwards or backwards, as the spraying is, high or low. This handling is operated without a spanner by a single thrust, because the pipe 7 is threaded only partly so as to be screwed on the sleeve 5. This ring is firm, it is kept in place by forcing the packing 4. By rotating a half turn, the bowl is oblique in one direction or in the opposite. Only the perfectly smooth part touches the packing 4, this one thus playing a double part; firstly it ensures a perfect tightness of the duct; secondly it ensures the keeping of the bowl in the wanted position.

By pressing the tumbler 10, the needle 14 liberates the opening 19. A flat or a round jet is obtained as wanted by removing the members 22, 23.

By casting the metal, the ducts 10 and 11 are held by an axial spindle in the moulding chill, thus ensuring the perfect centering of the needle 14, at the same time forming a frame strengthening the whole.

The steel ring 24 is screwed, and ensures the quick connection of the air pipe to the spray-gun.

All the members are easily accessible; the handling is easy; the brass founding and the design confer on this spray-gun the highest utility.

However, the shapes, dimensions and dispositions of the different elements may be varied within the limits of equivalence as also the materials used for their manufacturing, without thus changing the general design of the above described invention.

What I claim is:

1. In a spray gun having a body carrying a nozzle including an axial supply passage for a liquid material to be sprayed, a feed pipe communicating with said supply passage and extending upwardly through said body, the axis of said feed pipe being substantially perpendicular to said axial supply passage, a liquid tight seal rotatably securing said feed pipe in said body so that the pipe may be rotated about its own axis, a material container having a top opening, means for mounting said container about the upper end of said pipe with the axis of the container inclined with respect to the axis of said feed pipe whereby the plane of the opening of said container is varied with respect to the axis of the supply passage as said feed pipe is rotated.

2. The apparatus of claim 1 wherein said liquid tight seal rotatably securing said feed pipe in said body comprises a packing ring between said body and the lower part of said feed pipe, an internally threaded cylindrical sleeve abutting at one end against said packing ring and external threading on said feed pipe engaged into said sleeve.

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