Jan. 24, 1950 T. R. MAGOWAN 2,495,587

PAINT SPRAY APPARATUS

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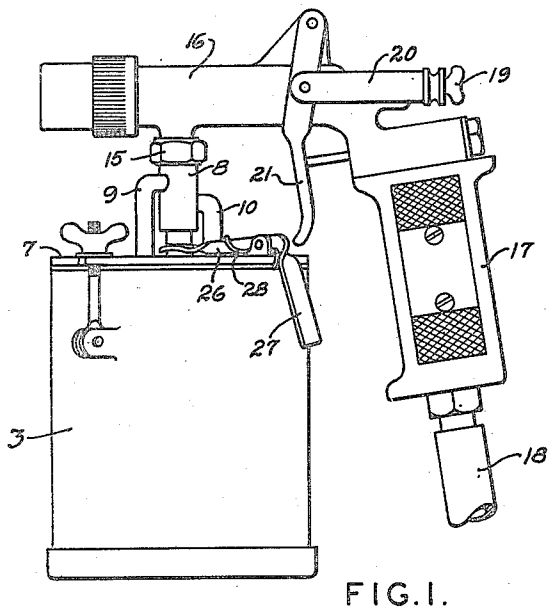

FIG. 1.

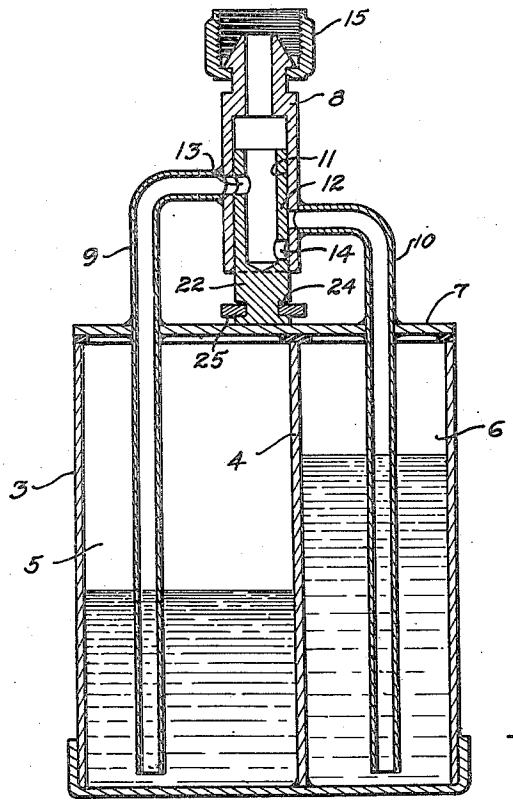

FIG. 2.

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PAINT SPRAY APPARATUS

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2 Claims. (Cl. 299—88)

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This invention relates to paint spray apparatus and consists particularly of means for cleaning the spray nozzle after each use thereof with paint.

Where a paint spray nozzle is used only occasionally for application of small quantities of paint, the drying of paint in the nozzle tip between successive painting operations seriously affects the operation of the nozzle. In commercial paint shops, it is a simple matter to attach the spray nozzle to a supply of solvent for cleaning out the tip, but such disconnection of the tank would be inconvenient and laborious in certain special cases, such as mentioned.

Accordingly, it is an object of the present invention to provide means for quickly and easily cleaning out the spray nozzle tip after each spraying operation without the necessity of disconnecting the nozzle from the paint tank.

A more detailed object is to provide paint spray apparatus including a compartmentalized tank which stores quantities of paint as well as paint solvent together with a conveniently located valve whereby the operator may cut off the paint supply and cause the supply of solvent through the nozzle for cleaning out the tip.

These objects and other more detailed objects hereafter appearing are attained by the device illustrated in the accompanying drawing in which

Fig. 1 is a side view of a paint spray apparatus embodying the present invention.

Fig. 2 is a vertical section through the tank and control valve.

The spray apparatus shown in the figures comprises a tank 3 having a partition 4 forming a paint compartment 5 and a substantially smaller paint solvent compartment 6. Mounted on the removable cover 7 is a delivery conduit 8 having branches 9 and 10 extending, respectively, into the two compartments. Conduit 8 forms a valve chamber 11 for hollow slide valve 12 having ports 13 and 14 which selectively control the branches. The upper end of conduit 8 is provided with a coupling 15 for attachment to spray nozzle 16. The spray nozzle may be of any well known type and includes a handle grip 17 to the lower end of which is attached a compressed-air hose 18. A cut-off valve mounted within the nozzle is provided with an actuator extension 19 connected by links 20 to a valve actuator trigger 21 located conveniently adjacent the handle grip.

Slide valve 12 has a portion 22 depending beneath valve chamber 11 and slotted as at 24 to receive the bifurcated extremity 25 of an actuating lever 26 having a manipulating handle 27

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also conveniently located with relation to handle grip 17. A torsion spring 28 constantly urges lever 26 in the counter clockwise direction so as to maintain port 13 alined with branch 9 for supplying paint to the nozzle.

In operation, the operator depresses trigger 21 in order to supply a spray of paint through the nozzle. At the end of the immediate painting operation, it is merely necessary to depress handle 27 of lever 26 which elevates slide valve 12 so as to cut off paint branch 9 and open solvent branch 10 through port 14 for the supply of solvent through the nozzle so as to effectively clean paint from the nozzle tip. The nozzle, then, may be allowed to remain idle for a long period without the danger of paint hardening in and fouling the nozzle and the nozzle is ready for immediate use.

It will be noted that the delivery conduit 8 is of cylindrical form, with a bore of uniform cross-section extending upwardly through the bottom thereof to the reduced discharge orifice at the upper end, this orifice being coaxial with the bore and with an annular shoulder at the upper end of the bore, which latter acts as a stop to limit the upward movement of the slide valve 12. The downward movement of the valve 12 is determined by the spacing of the conduit 8 from the container top 7, the valve being unrestricted in its downward movement under urge of spring 28 until it seats on the upper surface of the top 7.

The invention may be modified in various respects as will occur to those skilled in the art and the exclusive use of all modifications as come in the scope of the appended claims is contemplated.

I claim:

1. In a paint spray apparatus, including a tank having a paint compartment and a paint solvent compartment, a closure for said tank, a main vertical conduit positioned above said closure, branch conduits connecting said compartments and said main conduit, said main conduit being formed with an upwardly extending bore having its upper end opening into a discharge orifice and its lower end open to receive a sliding multiported valve therein, said valve being shiftable in said main vertical conduit to selectively open communication between said branch conduits and said orifice, resilient means normally urging said valve downwardly against said closure, manual means for shifting said valve vertically, and stop means for limiting the upward movement of said valve.

2. The substance of claim 1 characterized in

that the sliding multi-ported valve is slotted at its lower end portion to receive the bifurcated extremity of an actuator arm, the actuator arm being pivotally mounted on the top of the closure and having a depending handle portion extending downwardly along the side of the tank.

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