PAINT TRAY AND PAIL COMBINATION
15 Claims, 6 Drawing Figs.

References Cited
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ABSTRACT: A paint tray for use in loading paint rollers and painting pads which can be or is assembled with a paint pail to receive a proper amount of paint directly therefrom. The tray has a sealing system on the bottom for removably sealing it to the pail and also has a valveless inlet properly disposed for permitting flow of the paint from the pail directly into the tray upon tipping the tray and pail assembly, and the tray also includes an end hood portion for containing the paint during tipping. The inlet can also function as an overflow return for returning paint to the can.
PAINT TRAY AND PAINT COMBINATION

This application is a continuation in part of my pending application Ser. No. 616,892, filed Feb. 17, 1967 and now abandoned.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to paint trays for use in loading paint rollers, painting pads and the like and to a combination of such a tray with a paint pail.

2. Description of the Prior Art

In recent years paint rollers have become more and more popular for use in painting, not only in industrial use but especially by the household. Such popularity, together with increasing popularity of the more recently introduced painting pads, has resulted in an increased need for conveniently usable paint trays for loading paint onto the paint rollers and painting pads. Although such paint trays may differ in appearance, there are generally two types of trays in popular use. First is an open tray which has a trough at one end for containing a limited supply of paint and includes a sloping roll out surface leading away from the trough toward the other end of the tray. The second is similar to the first but includes a hood over the paint holding end of the tray.

The first type of tray, termed a simple tray, has several shortcomings. It is relatively shallow and holds only a limited paint supply. It is filled by pouring paint from a pail and this introduces the hazard of spilling; once filled it is difficult to carry without further spilling. Additionally, under some conditions, e.g. outdoors on a hot windy day, evaporation of paint solvents from the large open paint surface in the simple tray tends to thicken the paint supply. The second type of tray, termed a sealed tray, lessens storage hazards and evaporation but usually not enough to warrant the additional expense, and this tray has therefore been used primarily for special industrial use.

SUMMARY OF THE INVENTION

The present invention provides a combination of paint pail and tray wherein the tray is removably mounted by sealing means to the pail. Also provided is a paint tray which can be used in the combination and overcomes the drawbacks of the present popular paint trays as outlined above. The paint tray is of suitable size for loading a roller or painting pad and a connection is provided between the tray and pail such that the tray can be filled or emptied by tilting the combined tray and pail assembly to a sufficient angle for a period of time to deliver the desired amount of paint from the pail to the tray through the connection. When the assembly is returned to its normal use position with the pail upright, a desired quantity of paint remains in the tray. While this invention is susceptible of embodiment in many different forms, there is shown in the drawings and will herein be described in detail specific embodiments of the invention with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the embodiments illustrated.

DESCRIPTION OF PREFERRED EMBODIMENT

In the drawings:

FIG. 1 is a perspective view of one embodiment of the paint tray of this invention shown assembled with a paint pail;

FIGS. 2 through 4 illustrate the assembly of FIG. 1 in cross section taken along line 2-2;

FIG. 5 is a perspective view of a preferred form of the paint tray shown exploded from a paint pail; and

FIG. 6 illustrates the assembled paint tray and pail of FIG. 5 in is section.

Referencing first to FIGS. 1 and 2, the paint tray 12 is secured and sealed to the top of a paint pail 14 by a suitable seal-
tapered or frustoconical outer surface for engaging the inside portion of the pail lip to rigidify the pail lip and minimize distortion of the pail due to the weight of the paint contained in the pail during assembly or use. A handle 40 is provided on tray 30 shaped to fit a ladder rung so that the assembly can be hung from a ladder, circular flange 38 retaining the pail lip from deforming and becoming disengaged from the threads so that the pail remains supported from the tray.

The tray bottom wall is provided with an inlet 42 partially surrounded by an upstanding dam or wall 44 for delivering paint from the pail to the tray. A hooded container portion 45 is again provided in the tray and the bottom wall of the tray is provided with crossing ribs 48 to assist in proper paint loading. The vent 46 through the bottom wall has a short standpipe 50 about the same height as ribs 48. Vent 46 is small enough that it does not function as a drain to return surplus paint from tray 30 to pail 32.

Tray 30 and pail 32 can each be molded as an integral one-piece plastic member. Handle 40 is preferably made separately of metal and secured to tray 32 by a pair of suitable pivotal connections so that the tray, with the paint pail attached, is free to swing from the handle in normal fashion.

It will be evident from the foregoing that I have provided a paint tray which is combined or combinable with a paint holding reservoir or pail. The tray has a hooded portion at one end and a relatively large open planar area with a relatively shallow depth as required for practical paint loading of a paint roller or painting pad. The paint within the pail portion is properly protected from the drying effects of the atmosphere, and the combination of tray and pail is interconnected with a simple valveless transfer connection which permits the paint to be poured from the pail into the tray in a very convenient manner and which minimizes paint spillage. The paint transfer system can be used to automatically control the maximum paint depth in the tray. Further, the paint portion adds physical stability and balance to the combined unit.

I claim:

1. A paint holding tray for use in loading a roller or pad which comprises a tray member including a bottom wall and a container portion for holding paint in the tray with the tray tipped to dispose the bottom wall generally vertically, an inlet through said bottom wall, means for sealing said bottom wall as a cover across a paint pail opening with said inlet forming an outlet of the paint pail for pouring of paint from the pail to said container portion with said bottom wall in tipped position, said inlet being located in the bottom wall so as to be adjacent the edge of the paint can and dam means at said inlet for retaining paint in the tray with the tray in non tipped position.

2. The tray of claim 1 including a vent through said bottom wall.

3. The tray of claim 1 wherein said container portion comprises an end wall of the tray extending inwardly to overlie a portion of the tray bottom wall.

4. The combination comprising the tray of claim 1 and a paint pail removably secured to said bottom wall by said sealing means.

5. A paint holding tray for use in loading a roller or pad which comprises a tray member including a bottom wall and a container portion for holding paint in the tray with the tray tipped to dispose the bottom wall generally vertically, an inlet through said bottom wall, means for sealing said bottom wall as a cover across a paint pail opening with said inlet forming an outlet of the paint pail for pouring of paint from the pail to said container portion with said bottom wall in tipped position, and a paint pail removably secured to said bottom wall by said sealing means, wherein said sealing means comprises a threaded portion of said paint received in an inside threaded circular flange extending downwardly from the tray bottom wall and including a circular backup ring for the pail lip comprising a ring on said bottom wall concentric with and spaced inwardly from said circular flange, said ring having a frustoconical outer surface for backing the pail lip as the pail is threaded into said flange.

6. A paint holding tray for use in loading a roller or pad which comprises a tray member including a bottom wall and a container portion for holding paint in the tray with the tray tipped to dispose the bottom wall generally vertically, an inlet through said bottom wall for delivering paint to the container portion and a vent through the bottom wall having a stack upward to an upper level at least to the intended paint level of the tray.

7. The paint holding tray of claim 6 including means for sealing said bottom wall across a paint pail opening.

8. The paint holding tray of claim 1 wherein said inlet is in said container portion and including lateral passage means in said dam means for directing paint laterally into said container portion during pouring and forming a passage for easier return of paint through said inlet.

9. A paint holding tray for use in loading a roller or pad which comprises a tray member including a bottom wall and a container portion for holding paint in the tray with the tray tipped to dispose the bottom wall generally vertically, an inlet through said bottom wall, means for sealing said bottom wall as a cover across a paint pail opening with said inlet forming an outlet of the paint pail for pouring of paint from the pail to said container portion with said bottom wall in tipped position, said inlet being located in the bottom wall so as to be adjacent the edge of the paint can, and dam means at said inlet for retaining paint in the tray in non tipped position, said sealing means comprising a circular threaded flange depending from said bottom wall for threaded engagement with a threaded paint pail lip and ring means associated with said circular flange for rigidifying the paint pail lip with the flange threads threaded thereon.

10. The combination of claim 9 wherein said circular flange is internally threaded and the paint pail lip is externally threaded and said ring means is a backup ring on the bottom wall of the tray concentric with and spaced inwardly from the circular flange and has a frustoconical outer surface for backing the pail lip as the pail is threaded into the flange.

11. The combination of claim 9 including a handle secured to said tray for supporting said tray and in turn supporting the pail through the threaded connection.

12. A paint holding tray for use in loading a roller or pad which comprises a tray member including a bottom wall and a container portion for holding paint in the tray with the tray tipped to dispose the bottom wall generally vertically, an inlet through said bottom wall, means for sealing said bottom wall as a cover across a paint pail opening with said inlet forming an outlet of the paint pail for pouring of paint from the pail to said container portion with said bottom wall in tipped position, said inlet being located in the bottom wall so as to be adjacent the edge of the paint can and dam means at said inlet for retaining paint in the tray with the tray in non tipped position.

13. The combination of claim 12 including a vent through said bottom wall extending upwardly about the same height as said standpipe.

14. A paint holding tray for use in loading a roller or pad which comprises a tray member including a bottom wall and a container portion for holding paint in the tray with the tray tipped to dispose the bottom wall generally vertically, an inlet through said bottom wall, means for sealing said bottom wall as a cover across a paint pail opening with said inlet forming an outlet of the paint pail for pouring of paint from the pail to said container portion with said bottom wall in tipped position, said inlet being located in the bottom wall so as to be adjacent the edge of the paint can, dam means at said inlet for retaining paint in the tray with the tray in non tipped position, a paint pail removably secured to said bottom wall by said sealing means and a handle secured solely to said tray for supporting the combined tray and pail, said sealing means being sufficient to support the pail full of paint from said tray.

15. The combination of claim 14 wherein said handle comprises a rectangular hook for hooking the handle to a rectangular rung of a ladder.