United States Patent [19]

Jesionowski

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[54] **COMBINED LADDER AND PAINT ROLLER PAN AND TRAY ATTACHMENT**

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[52] **U.S. Cl.**..... **248/210,** 15/257.06, 182/129

[51] **Int. Cl.**..... **B44d 3/12,** E06c 7/14

[58] **Field of Search**..... 15/257.05, 257.06, 105; 220/1 R; 248/210, 211, 238; 182/120, 129

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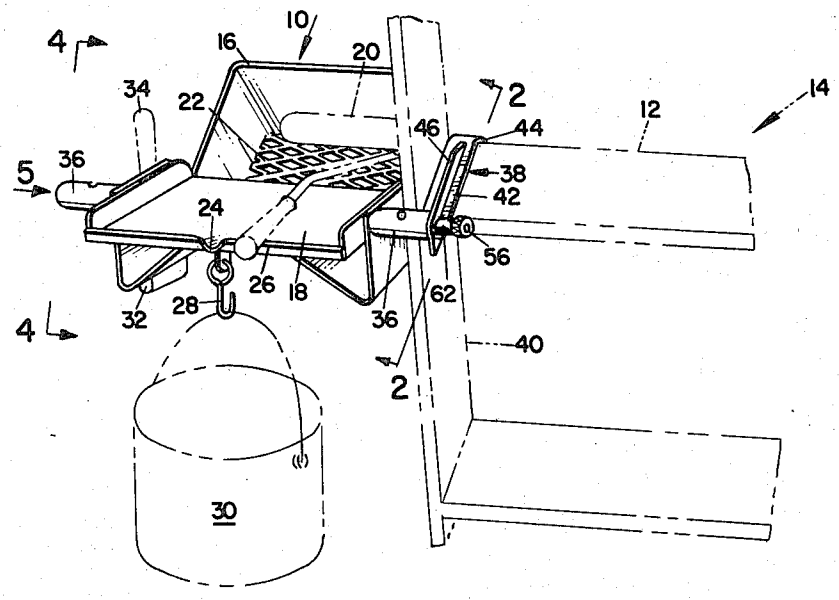
Primary Examiner—Daniel Blum

Attorney, Agent, or Firm—Ross, Ross & Flavin

[57] **ABSTRACT**

A combination platform roller pan and tray for a paint roller has a pair of aligned bosses which extend outwardly from each side thereof, the bosses being releasably engageable with locking means which is releasably associated with the ladder, the locking means in one form comprising a locking hook engageable with the step or rung of the ladder and, in another form, comprising a locking cam engageable in the rung of the ladder.

4 Claims, 13 Drawing Figures



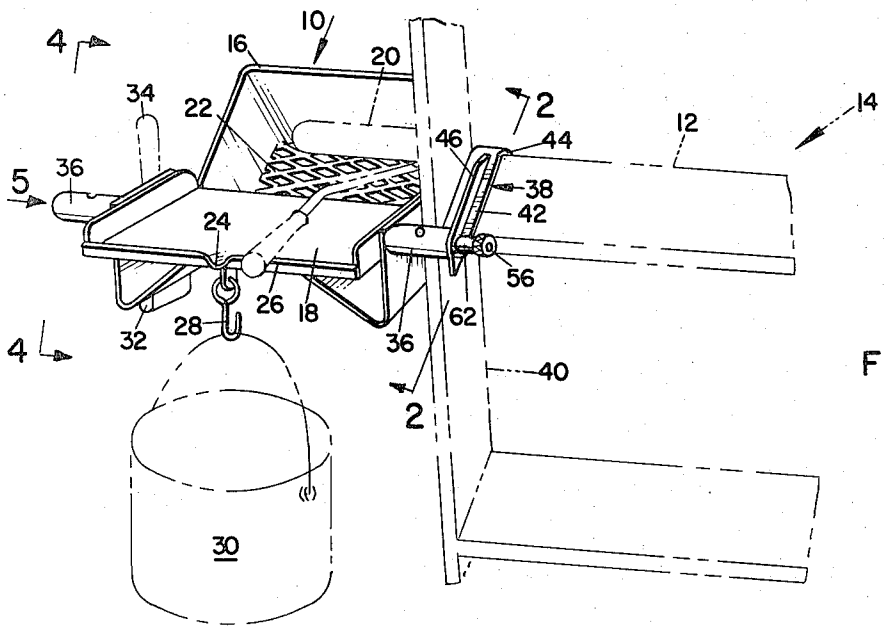


FIG. 1.

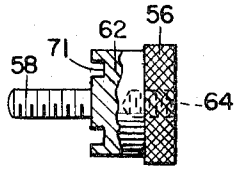


FIG. 3.

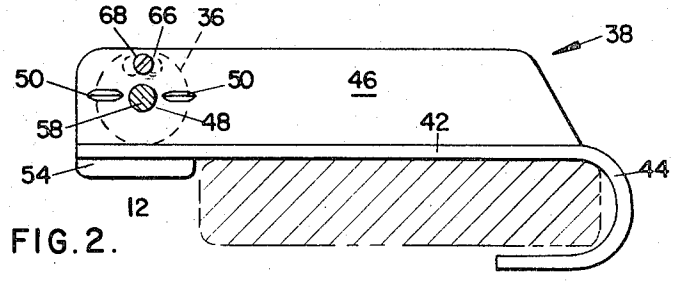
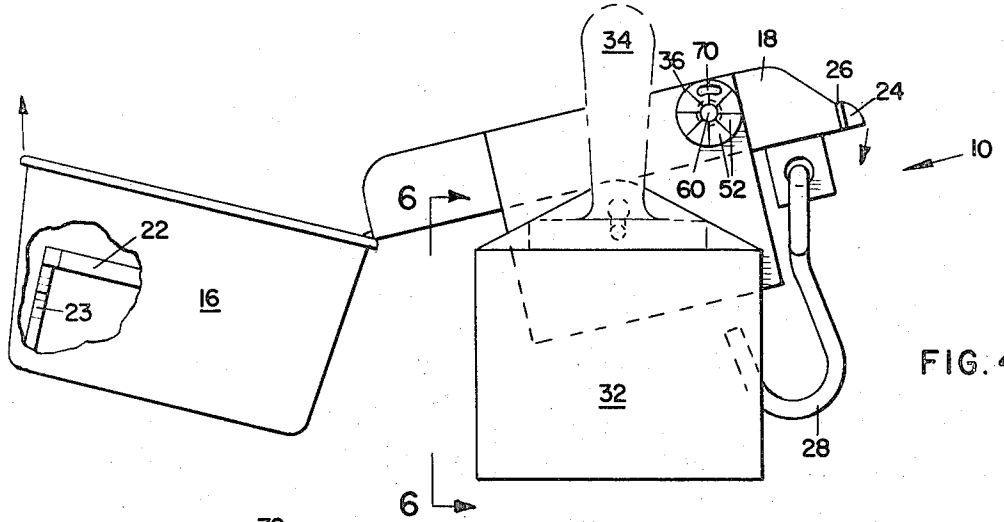


FIG. 2.



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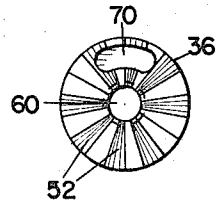
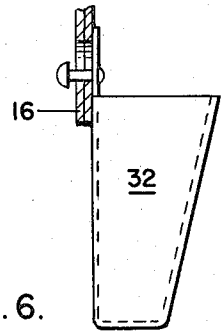


FIG. 5.



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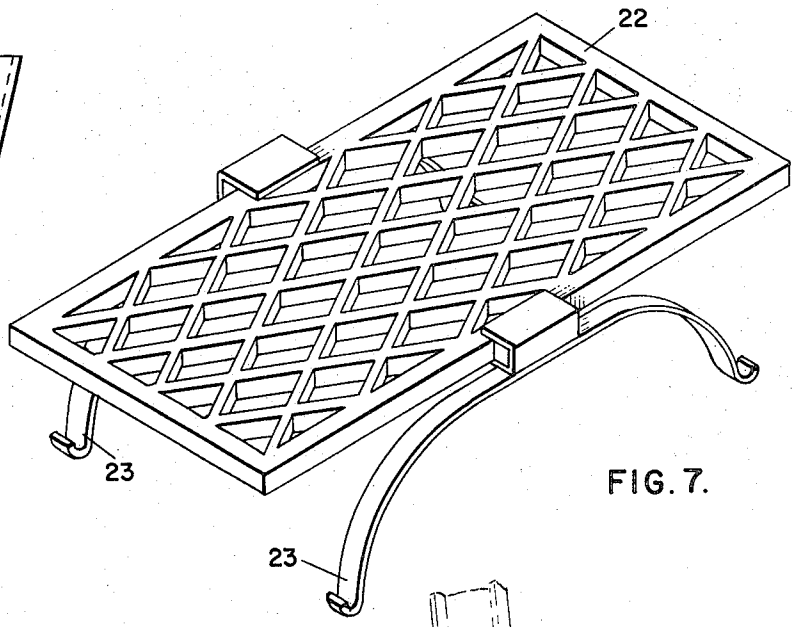


FIG. 7.

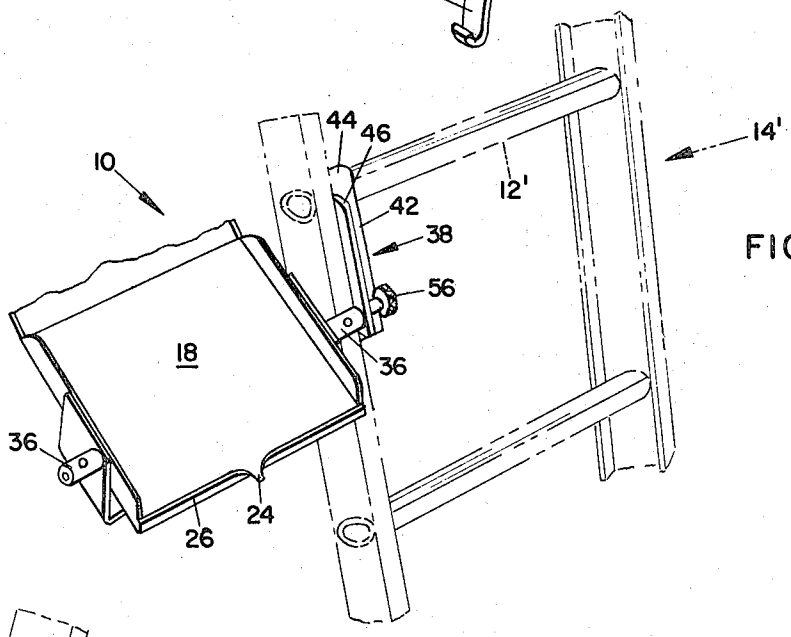
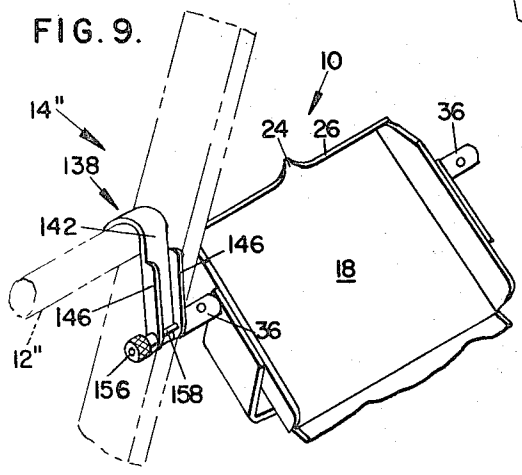


FIG. 8.

FIG. 9.



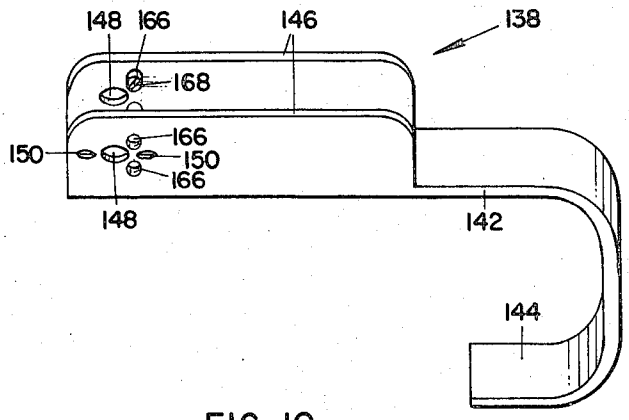
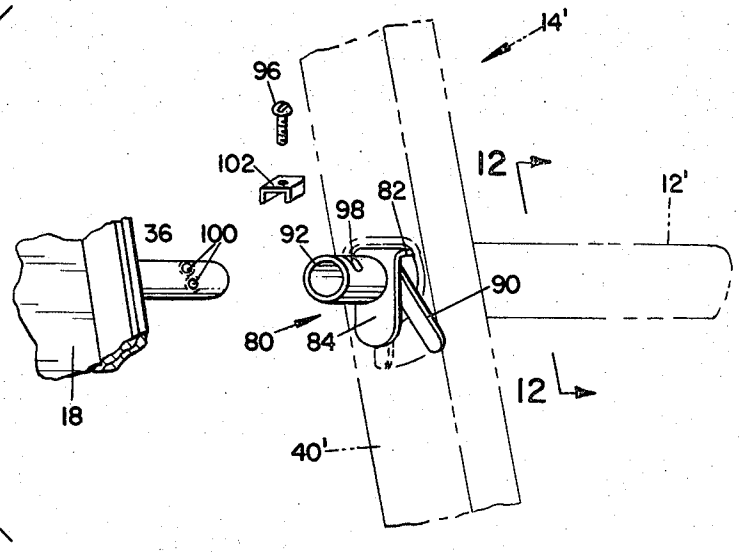


FIG. 10.

FIG. 11.



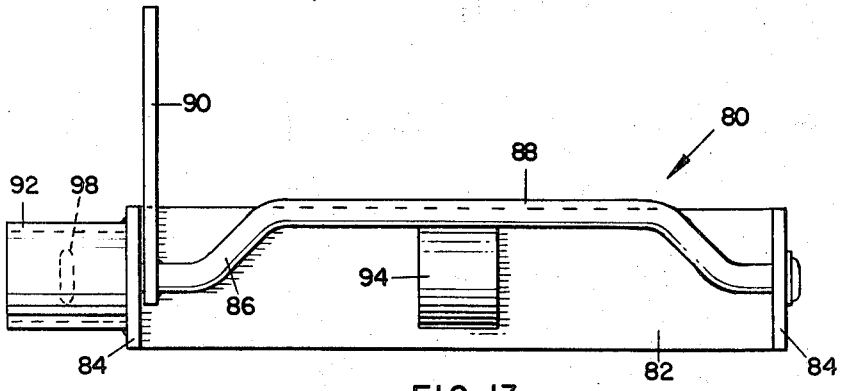


FIG. 13.

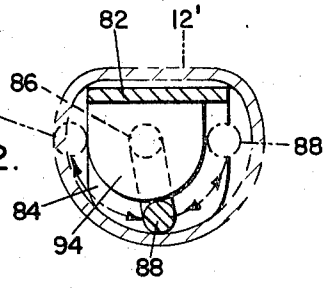


FIG. 12.

COMBINED LADDER AND PAINT ROLLER PAN AND TRAY ATTACHMENT

My invention relates to new and useful improvements in painter's tools and, more particularly, to a novel combination roller pan and tray for use with a paint roller, the combination roller pan and tray being optionally mountable at either side of a ladder or at the front or rear of the ladder.

A primary object of the invention is to provide such a painter's device which can be easily tilted or angularly adjusted while in situ on the ladder, for better paint utilization and for easier draining.

In the drawings:

FIG. 1 is a fragmentary view in perspective of a first form of the device shown in cooperative association with a step of a step ladder;

FIG. 2 is a sectional view on line 2—2 of FIG. 1, with parts omitted for clarity;

FIG. 3 is a view in side elevation of the thumb screw shown in FIGS. 1 and 2;

FIG. 4 is a view in end elevation as viewed on line 4 — 4 of FIG. 1;

FIG. 5 is a view in end elevation of a portion of the tilt adjustment mechanism as viewed in the direction of arrow 5 in FIG. 1;

FIG. 6 is a sectional view on line 6 — 6 of FIG. 4;

FIG. 7 is a view in perspective of the false bottom for the paint tray of the invention;

FIG. 8 is a fragmentary view in perspective of the device shown in cooperative association with a rung of a ladder;

FIG. 9 is a fragmentary view in perspective of a second form of the device shown in cooperative association with a rung of a ladder;

FIG. 10 is an enlarged view in perspective of the FIG. 9 form;

FIG. 11 is an exploded view in perspective of a third and the preferred form of the device showing the relationship of the paint tray boss and locking device, the latter being associated with the side rail and rung of a ladder;

FIG. 12 is a sectional view on line 12 — 12 of FIG. 11; and

FIG. 13 is a view in bottom plan of the locking device of FIG. 11.

Referring first to FIG. 1, a form of the device is indicated by 10 and is shown in cooperative association with a step 12 of a step ladder 14.

The device includes a tray 16 for paint having a roller pan or platform 18 fixed to the forward edge thereof for supporting a paint roller 20.

A grille-like false bottom 22 is disposed in tray 16 and is held in spaced relation to the bottom of the tray by such as legs 23, (see FIG. 7), disposed at each side thereof, which legs may be fixed to the false bottom as shown, or may be hinged thereto to permit adjustment. The legs are preferably formed from spring steel so that the false bottom can be urged downwardly under pressure and will return to a normal level when that pressure is released.

The false bottom allows uniform paint application around the entire roller circumference and provides a traction drag. Without it, a heavy solution of paint builds up on one side of the roller circumference, wherefore the roller tends to rotate to that side and to spread the paint unevenly. It also acts as a baffle to help prevent excessive splashing when the device or ladder are moved. It retards surface skin drying on the paint by deflecting surface air currents over the top and by holding moisture or paint fumes in the still air found between the paint and platform. Finally, it suspends the roller out of the paint when the roller is not in use, thus preventing the roller from falling and submerging itself in the paint.

A pouring spout 24 is formed centrally of a forward lip 26 on roller pan or platform 18 to facilitate draining of paint.

A pot hook 28 is suspended from the platform for holding such as a paint pot 30.

A brush holder 32 is releasably fixed to the side of the platform for holding a paint brush 34.

Aligned bosses 36 extend horizontally outwardly from each side of the platform adjacent the forward end thereof, the bosses being cooperant, in the FIG. 1 embodiment, with a hook member 38 which is releasably engageable with one of the steps 12 of ladder 14.

Two bosses 36 are provided so that the device can be mounted along either side rail or stringer 40 of the ladder.

Hook member 38 includes a flat body portion 42 adapted to rest on the upper surface of the step and having a hook portion 44 at its inner end for engagement with the inner edge of the step.

A web portion 46 extends upwardly from body portion 42 along the central longitudinal axis thereof, the web portion having a through-hole 48, (see FIG. 2), therein adjacent the end thereof opposite from hook portion 44.

Ribs 50, which extend outwardly from each planar face of web portions 46 adjacent through-hole 48, are selectively engageable in serrations 52 provided in the outer free ends of bosses 36.

A lip 54 on the lower face of body portion 42 functions as a stop to preclude movement of the hook member out of engagement with the step of the ladder.

A thumb screw 56 has a threaded shank 58 which is engageable in a tapped opening 60 in the end of each boss 36, the shank 58 of the thumb screw passing freely through through-hole 48 in web portion 46 of hook member 38, with a shoulder portion 62 of the thumb screw being brought into bearing engagement with the web portion.

A tapped opening 64 is provided in the head and shoulder portion of the thumb screw in order that a threaded extension, not shown, may be threadedly engaged with the thumb screw, such an extension being desirable when the device is hung inside of or to the rear of the ladder.

A tapped opening 66 is provided in web portion 46 of hook member 38, a set screw 68, (see FIG. 2), being threaded therein and extendable therethrough into an accurate slot 70 in the end of each boss 36, the set screw acting as a secondary stop in the event the ribs 50 on the web portion become disengaged from the serrations 52 in the bosses. An annular recess 71 is provided in the face of shoulder 62 on thumb screw 56 to provide clearance for set screw 68.

The paint tray and platform may be tilted to any desired position of adjustment by loosening the thumb screw and set screw and then retightening same to lock the tray and platform in position.

In FIG. 8 I have shown the device of FIG. 1 in cooperative association with a rung 12' of an aluminum ladder 14', the platform 18 of the device being shown in a tilted position for draining paint.

The device of the invention of FIG. 9 is identical to that of FIG. 1 with the exception that a modified form of hook member 138 is employed for engagement with a rung 12'' of a wooden ladder 14''.

As seen in FIGS. 9 and 10, hook member 138 includes a flat body portion 142 having a hook portion 144 at its inner end for engagement with the rung 12''.

A pair of web portions 146, 146 extend upwardly from body portion 142 along each edge thereof, the web portions having aligned through-holes 148, (see FIG. 10), therein adjacent the end thereof opposite from hook portion 144.

Ribs 150, which extend outwardly from the outer planar faces of each web portion 146 adjacent through-holes 148, are selectively engageable in the serrations 52 provided in the outer free ends of the bosses 36.

An elongated shank 158 of a thumb screw 156 passes freely through the through-holes 148 and is receivable in the threaded opening 60 in the end of boss 36.

Tapped openings 166 are provided in web portions 146 of hook members 138, a set screw 168, (see FIG. 10), being threaded therein and extendable therethrough into the accurate slot 70 in the end of each boss 36, the set screw acting as a secondary stop in the event the ribs 150 on the web portions become disengaged from the serrations 52 in the bosses.

As with the FIG. 1 embodiment, the paint tray and platform may be tilted to any desired position of adjustment by loosening the thumb screw and set screw and then retightening same to lock the tray and platform in position.

In the form of the invention shown in FIGS. 11–13, the bosses 36 of the device are receivable in a cam locking member 80 inserted into the hollow rung 12' of aluminum ladder 14' and extending outwardly from the side rail or stringer 40' of the ladder.

Cam locking member 80 includes a flat body portion 82 having brackets 84 depending therefrom at its opposite ends, the inner bracket being of appropriate size as to be freely receivable in the rung in the manner of a slip fit.

A cam rod 86 is journalled at its ends in brackets 84 and has an offset central portion 88 adapted to be moved into locking engagement with the interior wall of the rung as shown in FIG. 12, such being possible because of the ecentric or off-center pivotal mounting of the ends of the cam rod in the brackets 84.

An actuating handle 90 fixed to the cam rod inwardly of one of the brackets 84 facilitates movement of the cam rod.

A sleeve or socket 92 extends outwardly from one of the brackets 84 and is of appropriate size to receive the bosses 36 therein in free sliding manner.

An abutment 94 depends from the lower surface of body portion 82, the central offset portion 88 of the cam rod being adapted to bear thereagainst as the cam rod is rotated to the several positions as indicated in dash lines in FIG. 12. When the cam rod is rotated to the left as viewed in FIG. 12, central offset portion 88 is moved into ever tighter bearing relation to the inner wall of ring 12'. When the cam rod is rotated to the right, the offset portion is moved out of engagement with the interior wall of the ring wherefore the cam locking member may be repositioned relative to the rung or removed therefrom.

Bosses 36 are telescopically receivable into sleeve or socket 92 and are locked in position by a set screw 96 extendable through a slot 98 in the sleeve or socket 92 and threadedly engageable in one of a pair of tapped openings 100 provided in each boss 36.

A bracket or washer 102 may be disposed between the set screw 96 and socket or sleeve 92 for better locking action.

I claim:

1. In combination with a ladder, the improvement in a painter's attachment which comprises, a roller pan and tray for a paint roller, a boss extending outwardly from each side of the roller pan and tray, and locking means on the ladder for releasable locking engagement with the bosses comprising a cam locking member having portions disposed in the rung of the ladder and having a cam bar selectively movable into and out of bearing relation to the inner wall of the rung, the bosses being engageable with the cam locking member.

2. The improvement of claim 1, including a false bottom in the tray.

3. The improvement of claim 1, including a pot hook on the roller pan for suspending a paint pot therefrom.

4. The improvement of claim 1, including a brush holder on the roller pan for receiving a paint brush therein.

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