

[54] **WIPE-ON PAINT APPLICATOR WITH PRESSURIZED FEED**

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[51] Int. Cl. **A46b 11/02**

[58] Field of Search.....401/186, 188, 196, 203, 204, 401/205, 206, 207, 263, 265, 266, 270, 275, 286, 287, 289; 132/109; 15/104.94

[56] **References Cited**

UNITED STATES PATENTS

1,795,673	3/1931	Poschinger	401/205
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FOREIGN PATENTS OR APPLICATIONS

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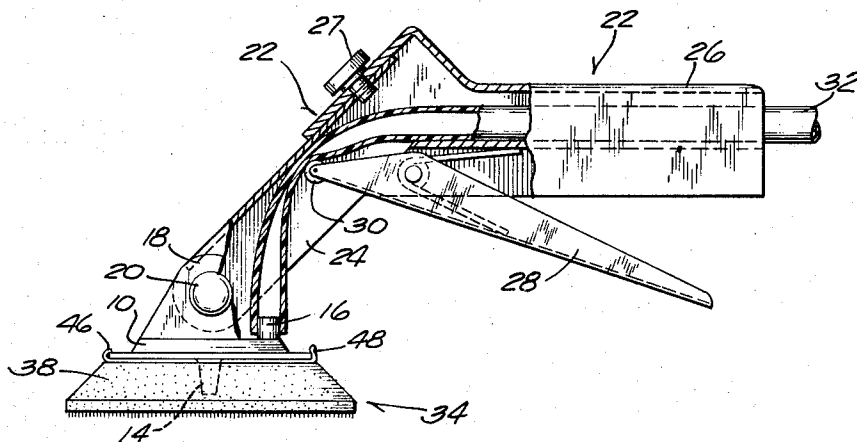
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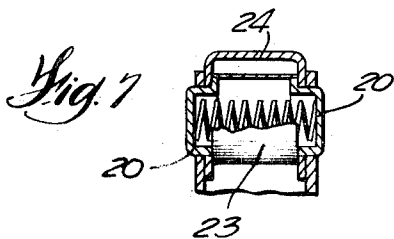
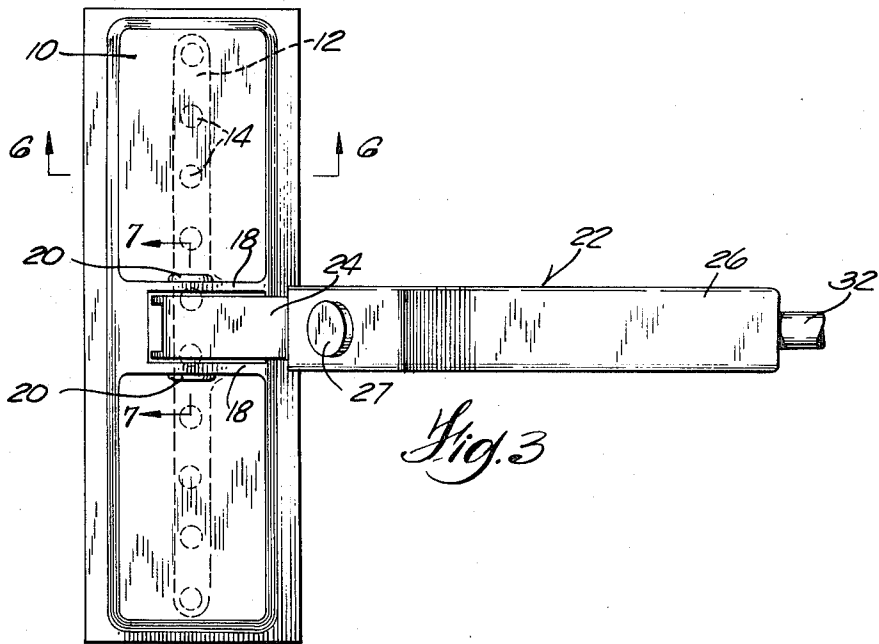
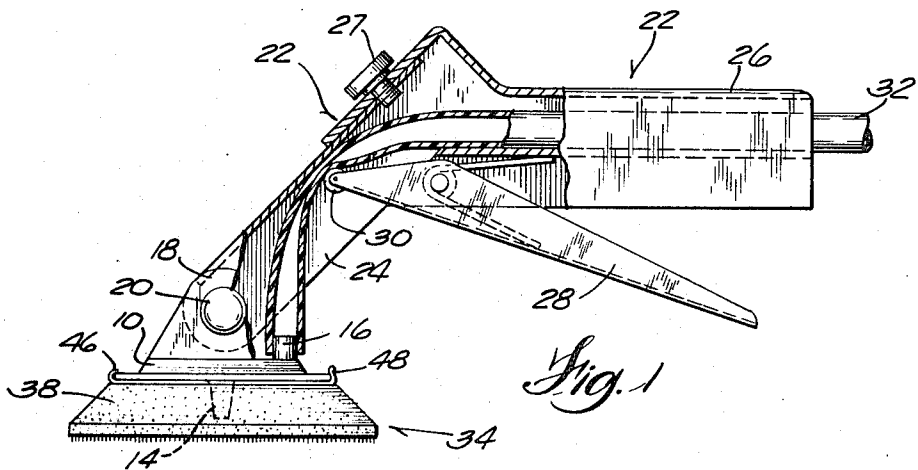
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[57] **ABSTRACT**

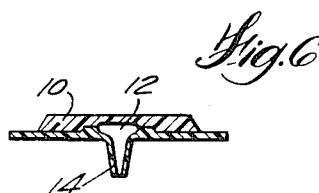
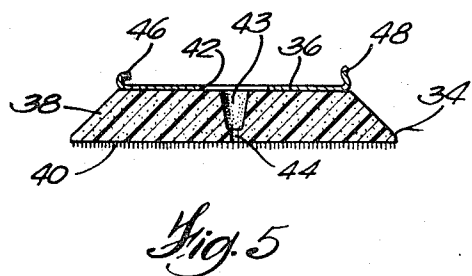
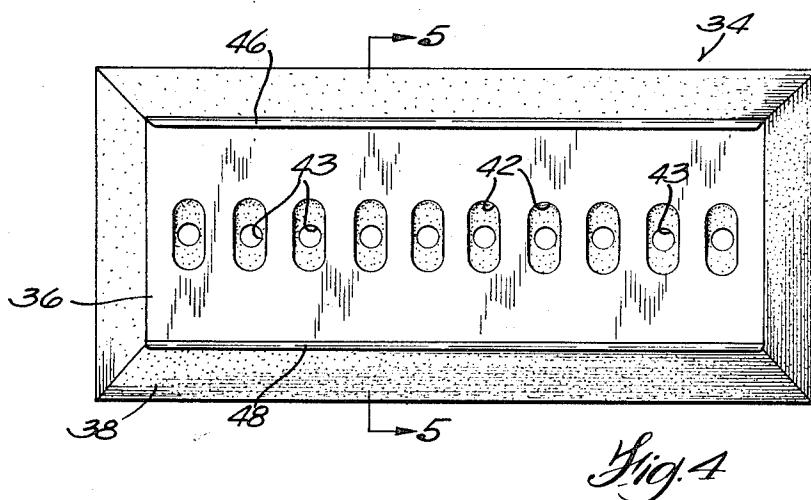
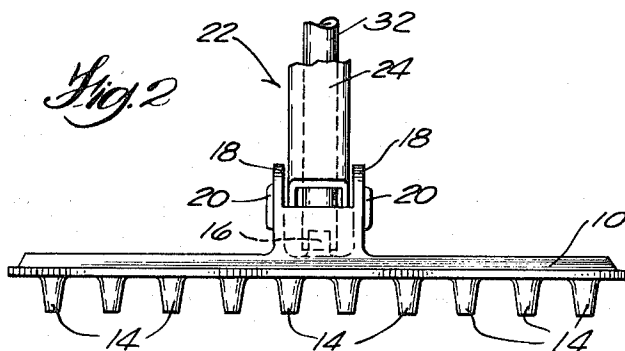
A wipe-on paint applicator has a feeder head to which a handle is pivotally mounted. This head has depending nozzles which are connected internally to a distribution channel. An applicator provided with nozzle receiving pockets with small outlets is mounted on the head with the nozzles projecting into the pockets. A flexible tube passing through the handle has its outlet end connected to the distribution channel and its inlet end connected to a source of paint under pressure. A pinch type valve carried by the handle controls flow of paint through the tube to the channel, the nozzles and the applicator.

3 Claims, 7 Drawing Figures





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WIPE-ON PAINT APPLICATOR WITH PRESSURIZED FEED

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to paint applicators of the wipe-on type. Paint is fed under pressure to the surface of the applicator and spread by sliding the applicator along the surface to be painted.

2. Description of the Prior Art

Paint applicators of the slider type are shown in U.S. Pat. Nos. 2,156,270; 2,810,148; 2,853,731; 3,172,140; 3,369,268; 3,473,183.

The applicators of these patents require the dipping of the paint applying pad into a supply of paint and removing excess paint by wiping the pad against the edge of the paint container. This is time consuming and wasteful of paint.

Paint under pressure has been supplied to the surface of paint rollers, see, U.S. Pat. No. 3,195,170 and introduced into the center of brushes, see, U.S. Pat. Nos. 927,872; 3,079,628; 3,195,170 (also shows pinch valve).

It is extremely difficult to clean the non-removable bristle type brushes of U.S. Pat. Nos. 927,872 and 3,195,170. The brush head of U.S. Pat. No. 3,079,628 includes a laminated stiffener which is practically not removable from the polyurethane plastic foam covering.

SUMMARY OF THE INVENTION

The essence of this invention is the pressure feeding of paint through a feeder head to pockets in a flat applicator, such pockets having small outlets leading to the outer surface of the applicator. The feeder head has projecting nozzles which enter such pockets.

BRIEF DESCRIPTION OF THE DRAWING(S)

In the drawing(s):

FIG. 1 is a view in side elevation of a wipe-on paint applicator embodying the present invention, parts being broken away for clarity of illustration;

FIG. 2 is a view in front elevation of the paint applicator of FIG. 1 with the applicator removed;

FIG. 3 is a top plan view of the paint applicator shown in FIG. 1 with the applicator removed;

FIG. 4 is an enlarged top plan view of the applicator including its metal backing plate;

FIG. 5 is a sectional view taken on the line 5—5 of FIG. 4;

FIG. 6 is an enlarged sectional view taken on the line 6—6 of FIG. 3; and

FIG. 7 is a fragmentary sectional view taken on the line 7—7 of FIG. 3.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings for the purpose of illustrating one application thereof, the wipe-on paint applicator has a feeder head 10 with an internal longitudinally extended distributing channel 12. The feeder head has a plurality of spaced downwardly projecting nozzles 14 having openings therethrough connected with the distributing channel. Also connected to the distributing channel is an upwardly projecting inlet nipple 16. This

nipple is positioned between handle mounting brackets 18 extending upwardly from the top of the feeder head. These mounting brackets have openings which receive nylon buttons 20 to provide a pivotal connection between a handle 22 and the feeder head. As is more clearly shown in FIG. 7 these buttons are carried within a plastic sleeve 23 which also contains a spring urging the buttons outwardly to form a pivotal connection.

The handle 22 consists of a U-shaped metal arm 24 and a moulded hand grip 26. This hand grip is slid onto the arm and held by screw 27. A pinch valve comprising a spring biased pivoted lever 28 with a nylon roller 30 is mounted in the lower part of the hand grip 26 so that the roller 30 will bear against and close a flexible plastic tube 32. This tube enters into a longitudinally extending opening in the upper part of the hand grip 26 and extends inside along the top of the metal arm 24. The outlet end of the tube is seated over and is secured to the inlet nipple 16. The roller 30 presses the tube against the inside top of the metal arm 24 to close off flow through the tube. To open the pinch valve the lever 28 is gripped and urged toward the hand grip 26 thus swinging the roller 30 away from the flexible tube 32 thus permitting flow of paint through the tube.

As is shown in detail in FIGS. 4 and 5 the applicator 34 consists of a metal backing plate 36 to which is adhesively secured a polyester foam pad 38. This pad has an outer surface 40 formed by fibers flocked in the outer face of such pad. The metal backing plate has a series of oblong openings 42 which are spaced to conform with the spacing of the nozzles 14 so that the applicator may be easily fitted onto the feeder head. As shown in FIG. 5 the pad has formed therein pockets 43 which are spaced and shaped to conform with the spacing and shape of the nozzles 14. The outer ends of these pockets terminate in small openings 44 which allow the easy passage of the paint from the end of the nozzles 14 to the fiber flocked surface 40.

The applicator is removably secured to the feeder head by means of a hook-like flange 46 which extends along an edge of the metal backing plate and a spring clip type of flange 48 which extends along the opposite edge of such metal backing plate. The flange 46 hooks over a marginal side of the feeder head 10 and the spring clip 48 snaps over the opposite marginal side of the feeder head to removably hold the applicator in place.

In use the inlet end (not shown) of the tube 32 is connected to a source (not shown) of paint under pressure. Any well-known type of pressurized vessel containing paint is satisfactory. As the operator squeezes the lever 28 toward the hand grip 26, paint will be distributed to the fiber-like surface of the pad 38 and will be applied to the surface to be painted by sliding the applicator along such surface. The amount of paint applied is readily controlled by the pinch-type valve and no dipping and removal of excess paint is required to keep the pad properly supplied with paint. The pivotal connection between the handle 22 and the applicator 34 allows the surface of the pad 38 to remain flat against the surface being painted without unnecessary dexterity by the operator. The portion of the flexible tube extending from the inlet nipple 16 to the pinch roller 30 has a stabilizing effect on the swinging of the feeder head 10 with respect to the handle 22 and also permits the necessary relative movement for easy operation.

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I claim:

1. A wipe-on paint applicator adapted to be connected to a source of paint under pressure comprising:
 - a feeder head having a handle mounted thereon;
 - a distributing channel in said feeder head;
 - a plurality of nozzles projecting from said feeder head and connected to said channel;
 - means for controlling the supply of paint under pressure to said channel; and
 - an applicator pad mounted on said feeder head, said pad having a plurality of pockets into which said nozzles are positioned, said pockets having small openings leading to the outer surface of said pad;
 - said applicator pad consisting of a body of polyester foam adhesively secured to a metal backing plate, the outer surface of said body having a fibrous surface, said backing plate having openings there-through aligned with the pockets in said applicator pad.
2. A wipe-on paint applicator adapted to be connected to a source of paint under pressure comprising:
 - a feeder head having a handle mounted thereon;
 - a distributing channel in said feeder head;
 - a plurality of nozzles projecting from said feeder head and connected to said channel;
 - means for controlling the supply of paint under pres-

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- sure to said channel; and
- an applicator pad mounted on said feeder head, said pad having a plurality of pockets into which said nozzles are positioned, said pockets having small openings leading to the outer surface of said pad;
- the means for controlling the supply of paint under pressure to said channel consists of (a) a flexible tube having one end connected to said channel and its other end adapted to be connected to a source of paint under pressure, and (b) a spring biased lever pivoted to said handle with one end overlying said tube and normally urging said tube toward said handle to squeeze said tube and close off flow of paint therethrough, the other end of said lever adapted to be manually grasped with said handle and moved against the spring bias to withdraw the squeezing end and allow the said tube to dilate and allow controlled flow of paint through said tube.
3. A wipe-on applicator as claimed in claim 2 in which:
 - said handle is pivoted to said feeder head; and
 - said tube flexes to provide stabilized pivoting of said feeder head with respect to said handle.

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