United States Patent [19]

Pfeffer

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[45] **Dec. 4, 1973**

[54] **PAINT BRUSH WIPER**

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[52] **U.S. Cl.** **220/90**

[51] **Int. Cl.** **B65d 25/00**

[58] **Field of Search** 220/90; 248/110, 248/569; 222/570

[56] **References Cited**

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Primary Examiner—Samuel B. Rothberg
Assistant Examiner—Steven M. Pollard

[57] **ABSTRACT**

A novel paint brush wiper made from sheet metal, having an initial flat form adapted to be subsequently readily bent and deformed into an operative three dimensional shape, suitable for removable attachment over the open top of a paint can or the like and held interlockably on said can against accidental displacement forces tending to unwantedly displace said wiper sidewise, for-and-aft, upwardly and downwardly.

4 Claims, 7 Drawing Figures

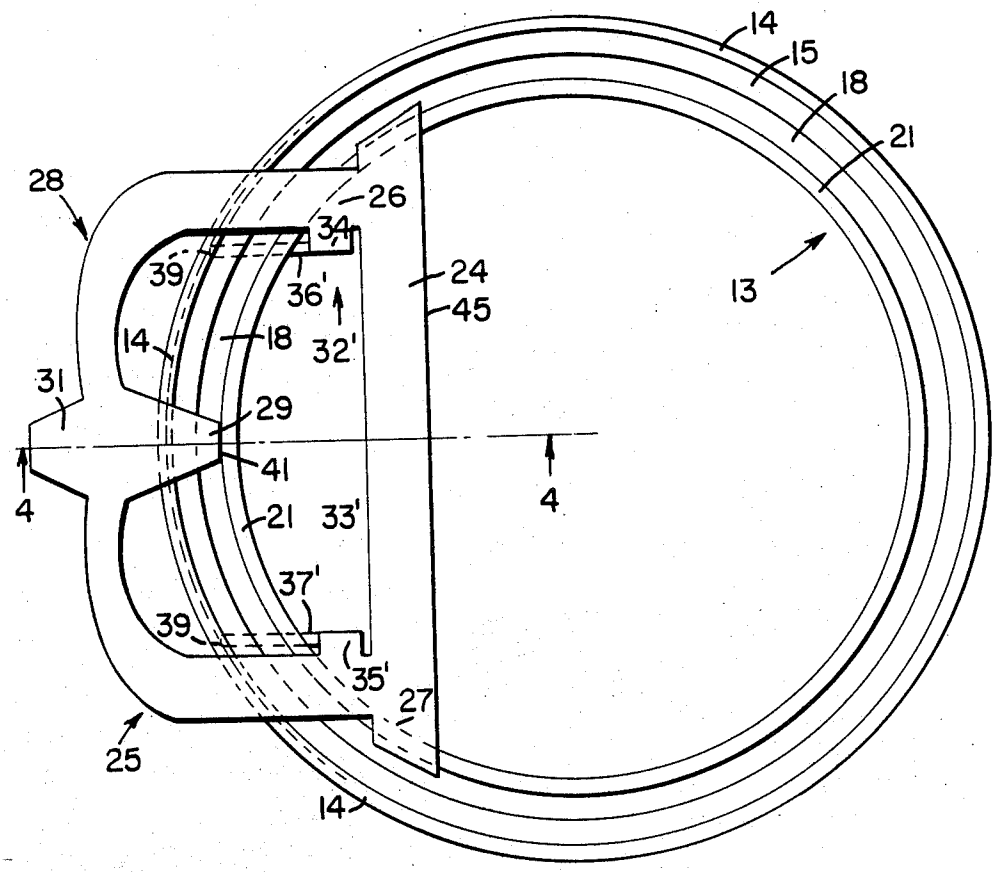


FIG. 5

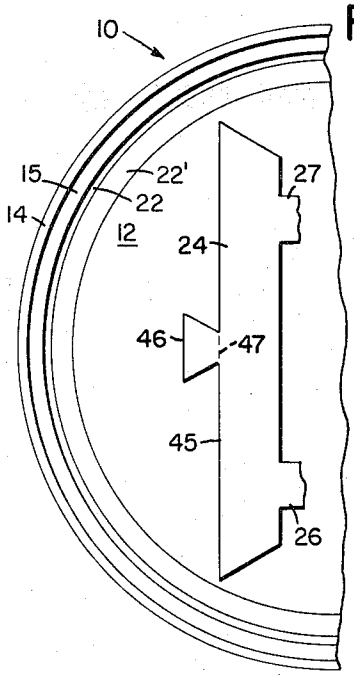


FIG. 1

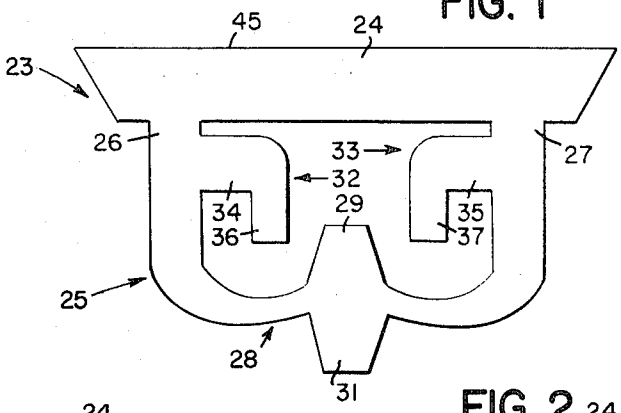


FIG. 2

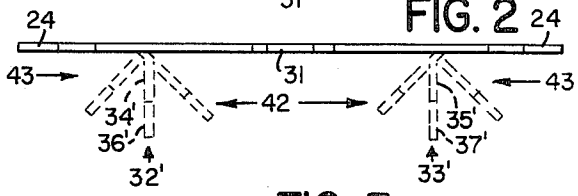
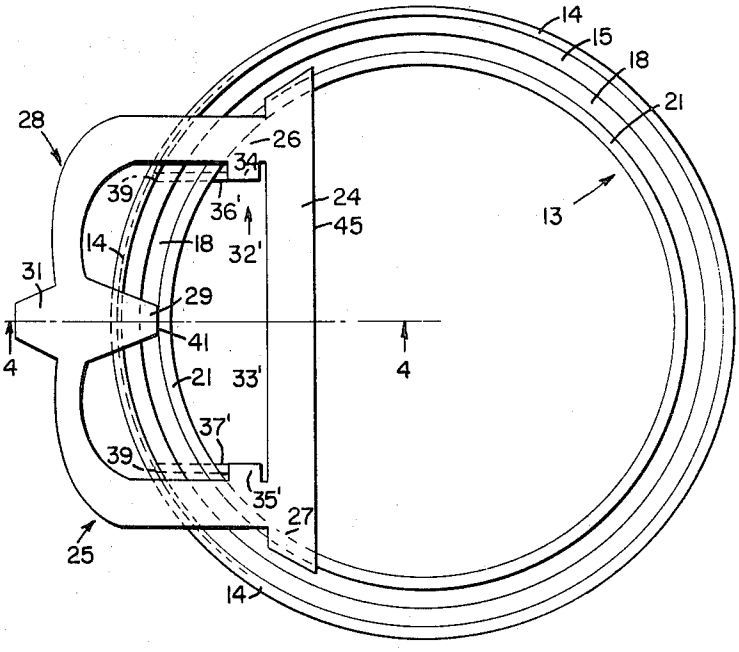


FIG. 3



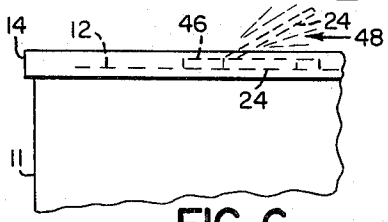


FIG. 6

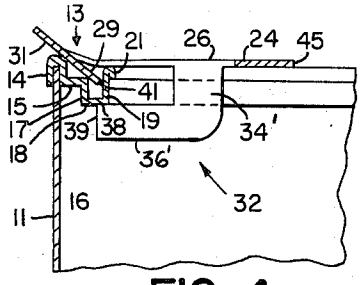


FIG. 4

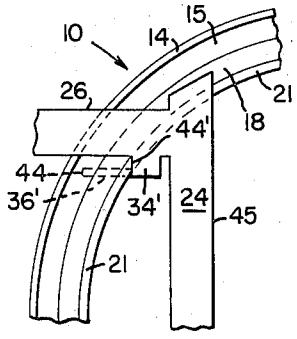


FIG. 7

PAINT BRUSH WIPER

The purpose of this invention is to provide a new and novel paint brush wiper that is removably yet firmly securable to the open top of a conventional paint can.

Another purpose of this invention is to recycle, salvage, and convert the discarded heaps of suitable sheet material such as sheet metal scrap into useful paint brush wipers. All of our disposal techniques are under strong criticism. Across the land, there is increasing support for resource recovery, and for combating solid waste pollution. Because the present invention can be made from only a very small portion of sheet metal, it lends itself remarkably well to fabrication from the waste fragments of the sheet metal converting industry.

An object of this invention is the provision of a paint brush wiper that is practical, inexpensive, efficient, economical, easy to install and easy to install and remove from a paint can.

Another object is to provide a paint brush wiper all the parts of which are initially flat and coplanar, for ease of stacking, packaging, and shipping, and which is subsequently easily bent to adapt and accommodate it to use on a paint can.

Still another object of this invention is the provision of a brush wiper all the parts of which are flat and coplanar, for detachable affixation flatwise on the top surface of a cover for a paint can for convenience of shipment, distribution, display, and convenience of the customer.

Yet another object of this invention is to provide a paint brush wiper which can be readily adapted to paint cans of various sizes, by the enlargement or reduction in overall size of such brush wiper.

A further object is the provision of a paint brush wiper which can be readily adapted to paint cans of various sizes by bendably accommodating pertinent members of the wiper to the paint can dimensions.

Other specific features and many of the attendant advantages of this invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings in which like reference numerals designate like parts throughout the figures thereof and wherein:

FIG. **1** is a plan view of the planar brush wiper invention;

FIG. **2** is a rear elevation view of the device shown in FIG. **1**, showing the interlockable arms thereof bent operatively downwardly as indicated by dotted lines;

FIG. **3** is a plan view showing the device of FIG. **2** operatively and interlockably secured to the open top portion of a paint can;

FIG. **4** is a section view taken on line **4—4** of FIG. **3**, showing in detail the interlocking relation of the brush wiper device with the rim and body portion of paint can;

FIG. **5** is a fragmentary plan view of a paint can and a removable cover therefor, and showing an affixation tab on the blade of the wiper detachably securing the wiper flatwise on and to the top planar surface of the cover, as by soldering and the like;

FIG. **6** is a side elevation view of the apparatus of FIG. **5**, showing by dotted lines the means of disjoining and separating the wiper from the affixation tab as by alternate reverse bending at their line of juncture; and

FIG. **7** is a fragmentary plan view of a modification showing the biceps portion of the interlocking arm

abuttable with the outer surface of the inner side wall of the trough, such as with the bead or lip thereof.

Referring now to the drawings, wherein like reference numerals designate like or corresponding parts throughout the several views, there is generally indicated at **10** a conventional paint container comprising a paint can **11** and a cover **12** therefor, see FIG. **5.**

Said conventional paint can **11** has a cylindrical body, a bottom, and is open at the top, see FIG. **3.** The top end portion of said can body is provided with a conventional inwardly projecting circular rim means generally indicated at **13,** see FIG. **4.**

The inturned rim **13** is secured on and along the top edge of the body portion of said can by reverse crimping and clamping a longitudinal edge portion of said rim over said top edge, in inverted U-shape fashion, thereby forming a vertical circular bead or flange **14** around the top edge of said can body.

Projecting inwardly from the inner lower portion of said can flange **14** is an annular horizontal berme or shoulder **15** from the inner edge of which depends an annular trough generally indicated at **16.**

Said annular trough **16** comprises an outer side wall **17** integrally connected to the inner edge of shoulder **15,** a bottom **18,** and an inner side wall **19** terminating in a reverse crimped beaded annular lip **21.**

The top of bead **21** is disposed slightly below the level of the top of can flange **14.**

Cover **12** is provided with a rim flange **22** and a pressed down annular groove **22'** press-fit and snugly receivable in trough **16,** and the under surface of said cover is engageable with said trough bead **21** when the cover is operatively disposed as a closure on can **11,** see FIGS. **4** and **5.**

The above conventional can **11** and conventional cover **12** combine to make up a conventional paint container **10** which provides the setting for the new and novel paint brush wiper to which said wiper is adapted and operatively applied, as hereinafter described.

The paint brush wiper generally indicated at **23,** see FIG. **1,** is fabricated or punched from a flat sheet metal member, 28 gauge thickness having been found suitable, and sufficiently stiff; however the invention is not limited to such thickness. Obviously the wiper device can be made of other material suitable for the intended purpose.

Conventional galvanized steel sheet metal has been found suitable as a material for making the brush wiper in that it is suitably flexible, that is, it is easily bent and deformed and adapts itself readily to change of shape as hereinafter described.

In the event a die is made shaped to conform to the configuration of the brush wiper, the wipers can be punched out from such sheet metal on a punching machine. However, fabrication of the wiper can be accomplished by generally acceptable procedures, depending on the material used.

The wiper comprises an elongated flat strip or blade member **24** having front and rear longitudinal edges, respectively, and having an open generally U-shaped flat body portion generally indicated at **25** extending rearwardly therefrom, and the ends of the legs **26** and **27** of said U-shaped body being integrally connected to the rear edge of said blade at points equally spaced from the ends of said blade, respectively. That is, the flat U-shaped body is disposed symmetrically about the transverse axis of said blade and is coplanar with the

blade. Said blade is adapted to span the open top of said paint can and seat on the rim thereof. The legs **27** and **26** are also adapted to seat on the rim.

The curvilinear cross member, of the U-shaped body **25**, generally indicated at **28** is provided with an inwardly extending flat tongue **29** and an oppositely disposed and outwardly extending flat finger tab **31**, both projecting centrally from said cross member **28**. Said tongue and finger tab are coplanar with the flat U-shaped body **25**.

A pair of oppositely disposed similar angular or curved arms generally indicated at **32** and **33** extend inwardly from the inner edge portions of legs **26** and **27**, respectively. Said arms are flat and preferably right angular in configuration comprising inwardly projecting biceps portions **34** and **35** extending laterally from legs **26** and **27**, respectively, and rearwardly extending forearm portions **36** and **37** projecting substantially at right angles from the ends of said biceps portions **34** and **35**, respectively. Said flat arms are coplanar with said flat blade **24** and with said flat U-shaped body **25**.

In operation said arms **32** and **33** are bent downwardly substantially **90** degrees, see FIGS. **2**, **3** and **4**, to positions generally indicated at **32'** and **33'**, with the biceps portions being now disposed in positions **34'** and **35'**, and the forearm portions in positions **36'** and **37'**, respectively.

With such bent condition of the arms, the end portions of the flat blade **24** and the end portions of legs **26** and **27** are seated on the rim **13** such as on the flange **14** or bead **21** thereof, the blade **24** being disposed in spanning relation to the open top of the can, and the right angular arms **32'** and **33'** are then slid under the annular trough **16**, with the forearm portions disposed adjacent the under side or under surface of the bottom of the trough as at **38**, see FIG. **4**, and the ends of said forearms disposed adjacent an inner surface of said can, such as adjacent the inner surface or inner periphery of the cylindrical body side wall of said can as at **39**, see FIG. **3**.

The tongue **29** is then pressed and bent downwardly into trough **16** with the end of said tongue being disposed adjacent the inner surface of the inner sidewall **19** of said trough, as at **41**, see FIG. **4**, and engageable therewith.

The sheet metal material being flexible, as defined above, is quite easily bent and the arms and tongue above mentioned will hold the shape and position to which they were bent.

To remove the wiper from the can, one merely presses downwardly on finger tab **31** thereby raising the tongue end from the trough and its adjacence to side wall **19**, and the wiper can then be retracted forwardly thereby removing the forearm from under the trough, and then lifting the wiper bodily from the rim of the can.

As above described and applied to the open top of the can, the wiper is secured against accidental downward displacement by the blade **24** being seated on the rim **14** of the can, against significant upward displacement by the forearms **36'** and **37'** engaging the bottom **18** of trough **16**, against significant sidewise and rearward displacement by the forearm ends engaging with the cylindrical wall of the can, and against significant forward displacement by the engagement of the end of tongue **29** with the opposite side-wall **19** of trough **16**.

To accommodate the wiper arms to the cylindrical wall of smaller diameter cans, the arms can be bent downward less than 90°such as 45°, as generally indicated at **42**, by dotted lines, see FIG. **2**, to a disposition adjacent such smaller diameter inner periphery.

To accommodate the wiper arms to the cylindrical wall of a larger diameter cans the arms can be bent downward and outwardly such as 135°, such as generally indicated at **43**, by dotted lines, see FIG. **2**, to a disposition adjacent such larger diameter inner periphery.

Obviously, the initial basic design of the wiper can be made in different sizes to accommodate the wiper to such corresponding cans, thereby negating the necessity of adapting the angular disposition of the arms to the particular can, as described above.

The above lesser and greater degree of bent disposition can also be used to accommodate the wiper arms to can troughs of shallower depth, if desired.

The wiper can thus be readily adapted to paint cans of various sizes.

In lieu of the cooperative adjacency of the forearm ends with the cylindrical side wall of the can, see FIG. **7**, such forearms can be made shorter, terminating such as indicated at **44**, thereby permitting a resulting cooperative adjacence of the bent down biceps portions **34'** and **35'** to an inner surface of said can such as adjacent the outer surface of the inner side wall of said trough which terminates in bead or lip **21** and indicated at **44'**, thereby to substitute and secure against sidewise and rearward displacement of the wiper device.

Obviously the extent and length of the tongue **29**, relative to its operative adjacence to lip **21**, can be varied to compensate for the effects of changes in the lengths of the forearms or the cooperative adjacence of the biceps portions to the can lip **21**.

A paint laden bristle brush, applicator, or the like can be drawn across the blade edge **45** in the usual and customary manner to remove, scrape or wipe excess paint from such brush.

In its planar or entirely flat condition a wiper device can be affixed to the top planar surface of the cover **12** for the can **11**, see FIG. **5**. In this event the blade **24** is provided with an affixation tab **46** projecting centrally from blade **24** and planar therewith. The tab **46** can be affixed to the can cover by any means such as by soldering, cementing, adhesive, or the like. To facilitate detachment of the wiper from the affixed tab, the juncture of the tab with the blade edge is provided with a scored or creased line, or otherwise nicked or partially cut through the metal as indicated by dotted line **47**. To detach the wiper from the affixed tab one merely raises the wiper from the surface of the cover and bends it back and forth, alternately, hinged at said scored or nicked line **47**, as indicated generally at **48**, by dotted lines, see FIG. **6**, until the wiper finally breaks away and is disjoined and separated from the tab. Obviously, the size of the wiper device to be affixed to the cover is determined by the cover planar surface area available.

The most simple affixation means would be to merely tape the flat wiper, per se, on the top surface of the can cover by any of the conventional adhesive tapes — absent the affixation tab.

Obviously, the wiper can be initially cast or formed in three dimensions or assembled from individual parts, as distinguished from a flat or two dimensional planar configuration, of rigid or flexible material, having the arms and tongue operatively disposed in the aforesaid

bent operative angular positions, if desired, see FIGS. **2, 3,** and **4.**

Some characteristic features of this invention are the provision of a paint brush wiper having an initial flat form adapted to be subsequently readily bent into an operative three dimensional shape; the above paint brush wiper made of material sufficiently flexible to be readily bent by the average person's fingers; such wiper originally cast in a rigid three dimensional shape; a paint brush wiper that is adapted for removable securement over the top of a paint can and held interlockably thereon against accidental displacement forces acting thereon in any direction; and a flexible flat type wiper removably attached to the top or other surface of a container for convenience of shipping and distribution.

Obviously many modifications and variations of the present invention are possible in the light of the above teachings. It is therefore to be understood, that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described.

What is claimed and desired to be protected by Letters Patent of the United States is:

1. A brush wiper for an open top can having a body side wall, and having an inturned rim including a trough having an inner side wall, comprising:

a. an elongated blade member adapted to span the open top of said can and seat on the rim thereof, said blade member having a front brush wiping edge and a rear edge,

b. a U-shaped body member extending rearwardly from said blade member and coplanar therewith, and adapted to seat on the rim of said can, said U-shaped body comprising a pair of spaced legs and a connecting cross member, said legs being connected to said blade member at the rear edge thereof,

c. a pair of substantially oppositely disposed similar arms projecting laterally from said legs, respectively, and coplanar therewith, each arm having a flexible biceps portion extending laterally from its associated leg and a forearm portion extending rearwardly from the end of said flexible biceps portion, said forearm portion adapted for engagement with the underside of said trough and with the inner surface of the body side wall of said can when said flexible biceps portion is bent disposed downwardly,

d. a flexible tongue member disposed substantially centrally of said connecting cross member and extending forwardly from said cross member and coplanar therewith and adapted for engagement with the inner surface of the inner side wall of said trough when said flexible tongue is bent disposed downwardly into said trough.

2. The brush wiper of claim **1** wherein said forearm portion is adapted for engagement with the underside of said trough and said biceps portion is adapted for engagement with the outer surface of the inner side wall of said trough when said flexible biceps portion is bent disposed downwardly.

3. The brush wiper of claim **1** wherein said brush wiper is formed from a sheet of flexible metal.

4. The brush wiper of claim **1** and a flat affixation tab projecting from the front brush wiping edge of said blade member and coplanar therewith, a score along the juncture of said tab and said blade member, a paint can cover, said wiper and tab being supported flat-wise on the top surface of said cover, and means for securing said tab on said cover.

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