May 17, 1932. L. SCHOTT 1,858,466

PAINTING DEVICE

Filed June 11, 1930

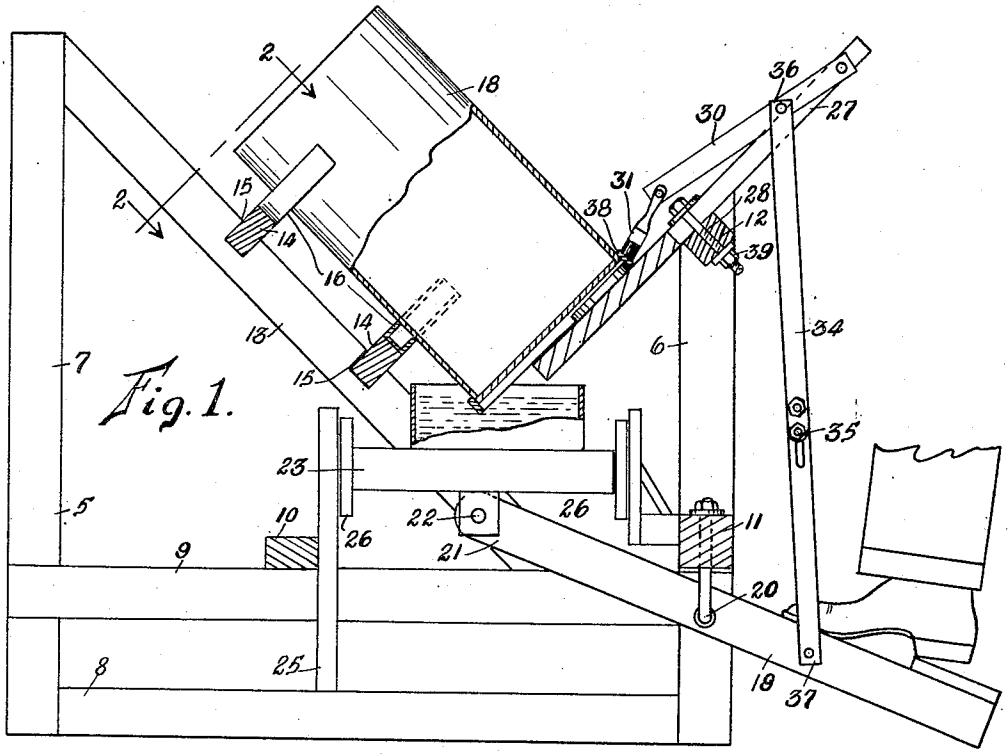


Fig. 1.

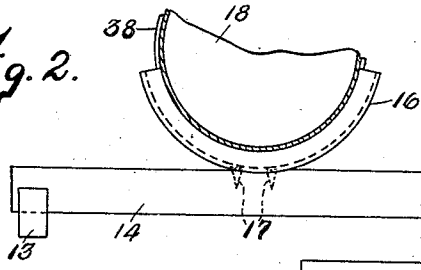


Fig. 2.

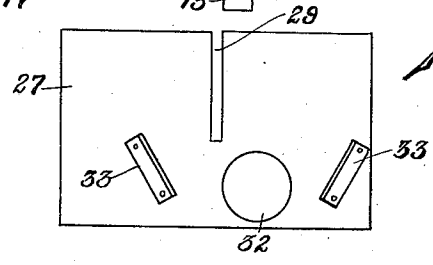


Fig. 3.

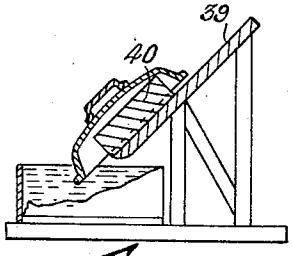


Fig. 4.

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UNITED STATES PATENT OFFICE

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PAINTING DEVICE

Application filed June 11, 1930. Serial No. 460,363.

This invention relates to a method and means for applying a protective and decorative coating to the bottom flange of containers and the like.

The object of the invention is to provide means whereby said operation can be performed in an efficient and workmanlike manner in a minimum of time.

Another object is to provide such means which require but a minimum of skill in the use thereof, whereby the expense involved in the employment of skilled manual labor for performing the coating operation is eliminated.

Another object is to provide a means of the class described which is simple and inexpensive in construction.

These objects are attained by the means described herein and set forth in the accompanying drawings, in which:

Fig. 1 is a side elevational view of the device of this invention, showing a container operatively positioned thereon, parts being shown in cross section.

Fig. 2 is a view taken on line 2—2 of Fig. 1.

Fig. 3 is a top plan view of a part of the invention.

Fig. 4 is a side elevational view, partly in section, of apparatus for painting container covers or lids.

In the manufacture of metal pails, refuse cans and many other kinds of metal ware of the same character which are normally used somewhat roughly and which are subjected to moisture and the elements it has been found that the known processes of galvanizing or zinc baths effectively protect the body of such ware but the galvanizing on the bottom flange or ridge upon which the articles rest will oftentimes become slightly faulty due generally to the drawing of these hoops or bottom flanges or beads in process of fabrication. The most effective way to prevent rusting of these bottom or wear flanges is to coat them on both sides and the bottom edge with a suitable substance. The use of the ordinary paint brush requires too much time and also a degree of skill if the visible exterior band of paint is to be uniform and evenly applied and hence is prohibitive in cost. These articles cannot be effectively dipped in paint or coating material because the air pocket which is formed between the recessed bottom, the wear flange and the surface of the paint keeps the liquid paint from rising on the inner circumference of the band.

The present invention provides a method and means whereby these difficulties and high costs are eliminated so that the work of coating or painting both the inner and outer circumference and the edge of the flange is performed rapidly and at one operation.

The type of container is well known and in wide use and comprises a generally cylindrical body which may be corrugated and a bottom, surrounding and reenforcing the container. At the bottom is a hoop like band or flange which depends below the normal bottom wall of the container and upon which the container rests. The flange is of heavier gage metal and withstands most of the abuse and strain to which the container is subjected, the bottom wall being spaced at a distance from the bottom edge of the flange.

The device comprises an inclined frame upon which one or more pairs of support members are mounted. The support members may comprise removable bars with arcuately arranged open journal members which receive the cylindrical body. Adjacent the lower portion of the inclined frame is a standard having a table portion serving as a base rest for holding the container in its inclined position during the painting process. Associated with the standard and table portion is a treadle which simultaneously actuates a brush and a can of paint into contacting relationship with the bottom flange on the container, the paint can being disposed directly beneath the lowermost portion of the angularly-disposed container whereby said portion enters into the liquid to the depth of the bottom flange, the brush being held against the exterior face of the flange while the container is revolved, smoothly spreading the liquid thus applied.

A preferred form of constructing the device of the present invention is set forth herein. A substantially rectangular frame 5 is

provided, comprising a pair of front standards 6 and a pair of rear standards 7. The front and rear standards may be joined by lateral base ties 8, and are further provided with a pair of raised members 9 extending therebetween. Members 9 are joined intermediate their ends by a cross bar 10. Front standards 6 are connected by a lower cross member 11 and an upper cross member 12. A pair of angularly-disposed supports 13 extend, one each, between the top of one of the rear standards 7 and the fore portions of the raised member 9 adjacent thereto. Transverse connectors 14 are positioned in spaced relationship upon supports 13 adjacent the middle thereof. As shown herein, connectors 14 are removably received in aligned slots 15 formed in supports 13. An arcuate arm 16 is secured to the upper surface of each connector 14. Arms 16 may be U-shaped in cross section, whereby said arms may be conveniently secured to connectors 14 by means of screws 17, or the like, passing through the base portions of the arms into the connectors. Arms 16 are set in alignment and are adapted to receive the cylindrical body portion of a container 18.

The operative parts and associated elements of the present invention comprise a treadle 19 pivotally mounted as at 20 upon member 11. The inner end 21 of treadle 20 has pivotally secured thereto, as at 22, a carrier member 23 adapted to support a can 24 of paint or coating liquid, upon its upper surface. Carrier 23 is vertically movable, by means of treadle 19, between a pair of slides 25 suitably secured to frame 5, the carrier being provided with a pair of slide blocks 26. A table member 27 is attached to upper cross member 12 in substantially right angle relationship with supports 13. The attachment of table 27 to cross member 12 is adjustable, consisting of a bolt 28 passing through the inner portion of an elongated slot 29 in the table and through member 12 whereby said table may be adjusted toward and away from the supports 13 and secured in its adjusted position by means of a nut 39. One end of a lever arm 30 is pivotally mounted in the outer end of slot 29, the free end of said arm having a brush 31 pivotally attached thereto. The lower end of table 27 has secured upon its upper surface a lug or disc 32 and a pair of guide brackets 33. A link 34, adjustable as to its length, as indicated at 35, is pivotally connected at one end 36 to arm 30, and at its other end 37 to treadle 19.

The operation of the device is as follows: After a can of paint has been mounted upon carrier 23, a container 18 is positioned within the aligned arms 16. The edge of a portion of base flange 38 of the container rests against the properly adjusted table 27. The flange is guided by the lug 32 contacting its inner face while drip guides 33 are disposed adjacent its outer surface. The treadle 19 is now actuated downwardly whereupon the can of paint is carried upwardly and the lowermost portion of container 18 is submerged in the coating liquid, to the height of the flange 38, the liquid being maintained at the proper level for this purpose. Simultaneously with the upward movement of can 24, lever arm 30 is actuated downwardly through the medium of link 34, so that brush 31 contacts the opposite outer surface of flange 38 and spreads the coating liquid smoothly thereover as the container is rotated. The inner face of the flange is, of course, covered by the coating liquid in the immersion process, but inasmuch as said face is unexposed and invisible when the container is in use, it is unnecessary that a brush be applied thereto. When the flange has been thoroughly coated the treadle is allowed to rise and another container placed in position. The adjustment of table 27 and the movement of the various parts are sufficient to permit of the work being done upon the standardized sizes of containers commonly in use. The device is obviously operative if the brush 31 is manually held against the flange 38 while the can is revolved.

The covers for pails and containers also have the usual beaded edge painted to preserve them. This may be done with the apparatus shown in Fig. 4 which consists of a table like member 39, suitably inclined and having a thick segmental block 40 which supports the cover for manual rotation with its beaded edge overhanging below the edge of the table into a shallow container of paint. The radius of the block is such as to fit inside of the cover and the block is of a height or thickness sufficient to prevent the bead from scraping the table. By holding a brush at the periphery of the cover the paint stripe is made true and uniform and the covers may be placed upon a suitable rack to drain off any surplus paint which may adhere to the inner edges. Such rack may be made up of blocks on an inclined table substantially like that in Fig. 4. A drip catch container or its equivalent replaces the paint pan.

What is claimed is:

1. A device for applying coating liquid to the base flange of cylindrical containers and the like and comprising an inclined frame with aligned arms for receiving the body portion of a container, a table member for supporting the base of the container, said member being adjustable toward and away from the inclined frame, a treadle pivotally connected to the frame and having a carrier at one end adapted to hold a can of coating liquid, said carrier being adapted upon downward actuation of the treadle to approach the lowermost portion of the container whereby said portion is immersed in

the liquid, said treadle being likewise connected by means of a link to a lever arm pivotally secured to said table member and having a brush pivotally attached to its end, downward movement of the treadle serving to move the brush into contacting relationship with the outer face of the base flange for spreading thereon the coating liquid upon rotation of the container.

2. A device for coating the end flanges of cylindrical containers and the like and comprising a frame having adjustable means thereon for supporting a container in an angular position, a treadle pivotally connected to said frame, a carrier for supporting a can of coating liquid, said carrier being pivotally connected with and vertically movable by means of said treadle, and a brush pivotally connected with the treadle, downward movement of the treadle serving to actuate the carrier upwardly for immersing the lowermost portion of the container in the liquid, said downward movement likewise serving to actuate said brush against the container flange for spreading the liquid thereon when the container is rotated on its supporting means.

3. A device for painting end flanges on cylindrical bodies and the like and comprising a frame having means for supporting a body in an angular position, a treadle connected to said frame, and a paint carrier and brush each pivotally attached to the treadle and adapted upon movement thereof, to approach the cylindrical body whereby one portion of the body is immersed in the coating liquid and an opposite portion is contacted by the brush, rotation of the body in its supports resulting in the application and spreading of the coating liquid thereon.

In testimony whereof, I have hereunto subscribed my name this 6th day of June, 1930.

LOUIS SCHOTT.