Jan. 24, 1939. C. R. FARR 2,145,077

CONTAINER CONSTRUCTION

Filed May 1, 1935

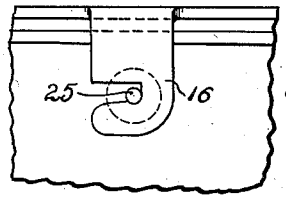


Fig. 2

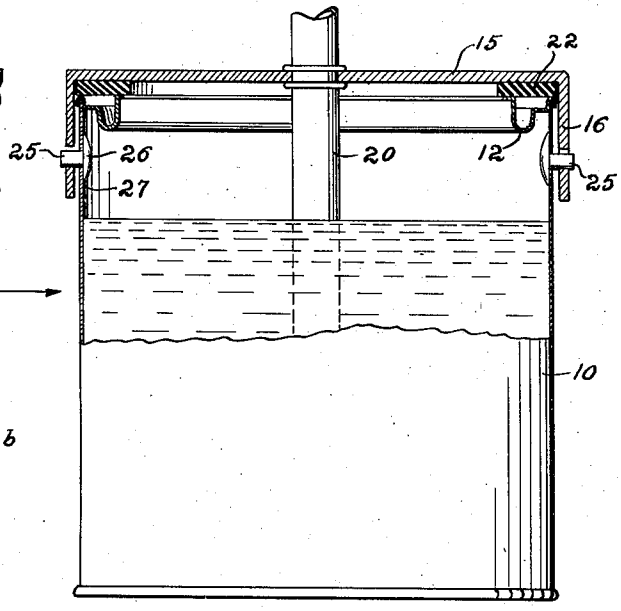


Fig. 1

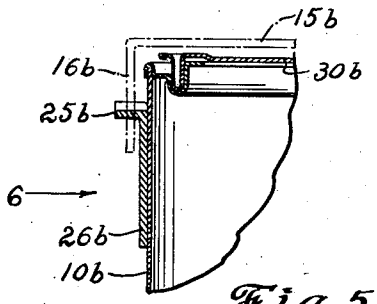


Fig. 5

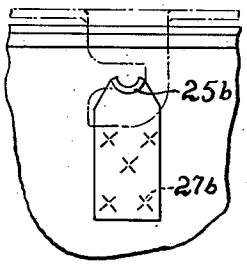


Fig. 6

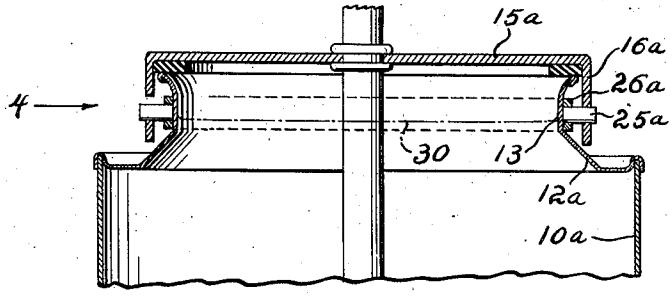


Fig. 3

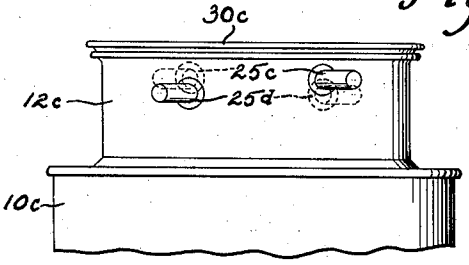


Fig. 7

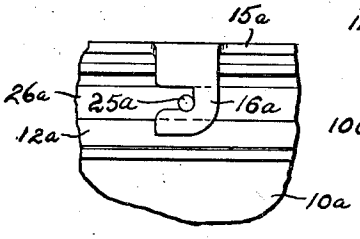


Fig. 4

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CONTAINER CONSTRUCTION

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4 Claims. (Cl. 220—40)

This invention relates to container constructions, and particularly to metallic cans for paints and other liquids ultimately intended to be dispensed or applied in atomized form, as by means of a spray gun or other atomizer. An important object is the provision of an improved original container, in which such liquids may be shipped and sold, which container is also directly attachable to an atomizing device, by separate attaching means, to do away with the necessity for provision of separate or special receptacles in conjunction with the spraying devices.

It is the present practice, in applying lacquers and various other paints by means of spray guns, to utilize in conjunction with such guns special cups serving as paint containers, which cups must be emptied and cleaned out whenever it is desired to either change colors or store away the unused remainder after completion of a painting operation. This is of course expensive because of the work involved, and also increases the cost of the spraying apparatus, especially since several of such special cups are ordinarily required for each spray gun. An important object of this invention, therefore, is to eliminate the need for such special paint receptacles, and provide a container for the paint, lacquer or other liquid to be sprayed, so constructed that a permanent storage or shipping cover may easily be removed from and resealed upon the same, and equipped as well with means, independent of the portions utilized for attachment of the permanent cover, whereby a spray gun or other atomizing apparatus may be attached to the paint container, the arrangement being such that the securing means for the spraying apparatus cannot be distorted or disaligned by any abuse or mutilation to which the container is subjected in removing the permanent cover.

Other objects include the provision in conjunction with a metallic can or container having attaching means for a permanent cover, of auxiliary attaching means for spraying apparatus and the like, which auxiliary means is of extremely simple and inexpensive construction, and arranged to be protected against material disalignment in event the can is dented or distorted.

Other objects and advantages will be apparent from the following description, wherein reference is made to the accompanying drawing illustrating preferred embodiments of my invention, and wherein similar reference numerals designate similar parts throughout the several views.

In the drawing:

Figure 1 is a view partly in side elevation and partly in substantially diametrical cross section of a paint or lacquer container provided with auxiliary attaching means incorporating the invention, the cover portion of a spray gun being illustrated as attached;

Figure 2 is a fragmentary side elevation taken looking in the direction indicated by the arrow 2 of Figure 1;

Figure 3 is a fragmentary diametrical cross section of the upper portion of a container and auxiliary attaching means of somewhat modified construction;

Figure 4 is a fragmentary side elevation similar to Figure 2 taken as indicated by the arrow 4 of Figure 3;

Figures 5 and 6 are similar detailed sectional and side elevational views respectively of another modification, the latter view being taken as indicated by the arrow 6 of Figure 5; and

Figure 7 is an elevational view of the top portion of a different type of container provided with another modified form of holding means.

Referring now to the drawing, reference character 10 designates the body portion of an ordinary sheet metal can of familiar construction, which for the purposes of illustration is assumed to be utilized as a container for a substance, such as lacquer, intended to be applied by means of a spray gun. The can includes a cover-retaining top flange 12 constructed to frictionally retain a suitably contoured cover (unshown), and also providing a well adapted to prevent unwanted dripping. A mouth or opening of relatively large-diameter is ordinarily provided in such containers, as shown, but the outside diameters of the cans may vary considerably, those for the larger quantities of material being normally of increasing diameter. I contemplate constructing such cans, however, of such uniform diameter as to fit the top or cover portions of spray guns of usual or standard construction. Such spray gun covers form part of the spraying equipment and serve to secure such equipment to the tops of the special paint cups customarily used up until the present time, as described above. Such a cover portion is illustrated somewhat diagrammatically at 15 in Figure 1, and carries locking ears 16, as well as the pipe 20 through which the paint is drawn from the container,—by means forming no part of the present invention and accordingly not illustrated. A gasket 22 is provided to seal the cover with respect to the container.

For cooperation with the locking ears 16 of such covers I propose to provide upon the walls of the container 10 suitable studs or lugs, shown in the form of rivets having stem portions 25 projecting through the side walls of the can and appropriately positioned to engage the slots in ears 16, while the heads 26 of the rivets engage the inner surface of the can walls and are sealed thereto as by solder 27. It will be seen that no matter how the permanent cover, or cover retaining portions, may be mutilated as by prying or hammering, the lugs 25 are so positioned that their separate securing function for the spraying apparatus is not impaired.

A modification shown in Figures 3 and 4 is especially suited for use in conjunction with a can as 10*a* having a reduced neck portion 12*a* including a substantially cylindrical wall 13. The dimensions of this cylindrical portion of the wall, and the mouth of the can, are preferably such as to conform to the dimensions of the spray gun cover as 15*a*. A ring as 26*a* may be provided encircling the exterior of the cylindrical portion, carrying studs 25*a* projecting therefrom and suitably positioned to be engaged by the ears 16*a* of the cover, to enable securing the latter in place in the usual fashion. It will be seen that the inset neck portion of the can, provided with the cylindrical wall and carrying the auxiliary securing lugs in this fashion, not only enables forming the can of any desired diameter while yet permitting its attachment to standard spray gun covers, but so positions the lugs that they are protected against either being knocked out of alignment or injuring or interfering with other goods when the cans are stored or stacked, while the ring 26*a* greatly reenforces the auxiliary securing means for cover 15*a*, and further enables firm securance of the lugs to the outside of the neck without causing any protrusion upon the inner surface of the wall 13, which surface is ordinarily engaged by the depressed central portion of the permanent cover, indicated in dot-dash lines at 30.

Referring to Figure 6, it will be seen that as there shown the auxiliary securing means may be carried upon the exterior of the container. Lugs 25*b* may be formed as outturned ears carried by integral strap portions 26*b* secured to the outside of the cam as 10*b* by welding (at points designated 27*b*), or by sweat soldering or other suitable means. The lug portion 25*b*, as best shown in Figure 6, may be rounded at the bottom for smooth engagement with the securing ear 16*b* of the spray gun cover 15*b*. A permanent cover 30*b* is shown in place upon the can, and it will be seen that its removal and replacement cannot interfere with the operation or alignment of the auxiliary securing means for the spray equipment.

In Figure 7 I have illustrated a container 10*c* somewhat modified in that it is provided with an elongated neck portion 12*c*. Into the top of the neck may be press-fitted a simple stamped cover 30*c*, while its side wall carries upon its exterior the radially projecting lugs 25*c*, 25*d*, shown as comprising simple flathead rivets, the heads of which are directly secured to the exterior of the neck, as by brazing, welding or soldering. The lugs are arranged in pairs whose members are diametrically opposed and disposed at different distances from the mouth of the can. Either pair of the lugs 25*c*, 25*d* is thus selectively usable and adapted to be engaged by the securing portions of spray equipment having holding elements of different dimensions, thus adapting the can to be directly secured to spray equipment of different types. Inasmuch as spray guns for painting are also ordinarily equipped with feed pipes somewhat longer than the vertical dimensions of a standard quart-size paint container of the usual proportions, the provision of the elongated neck 12*c* makes it unnecessary to cut off a portion of the feed pipe to enable its accommodation within a container equipped with my improved securing means.

While it will be apparent that the illustrated embodiments of my invention herein disclosed are well calculated to adequately fulfill the objects and advantages herein set forth, it is to be understood that the invention is susceptible to variation, modification and change within the spirit and scope of the subjoined claims.

What I claim is:

1. In combination with a cover, a container having a mouth adapted to be closed by the cover, a relatively resilient friction sealing neck portion of reduced diameter projecting upwardly from the container and defining said mouth, and outwardly projecting securing lug means extending from the container below the neck portion, said cover having downwardly extending holding portions engageable with said lug means, whereby the cover member may be held against the top of said neck portion by the lug means.

2. Means as set forth in claim 1 including strap means secured to the exterior of the container and supporting said lug members.

3. Means as set forth in claim 1 including strap means secured to the exterior of said container, said lug portions being integrally outturned from said strap means.

4. Means as set forth in claim 1 in which said holding portions comprise cam elements for forcing the cover yieldably downwardly against said resilient neck portion.

COY R. FARR.