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C. T. WALTER

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METHOD OF PREPARING FIBER CONTAINERS

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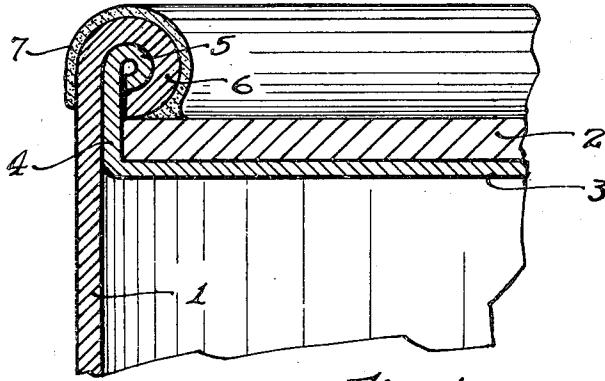


Fig. 1

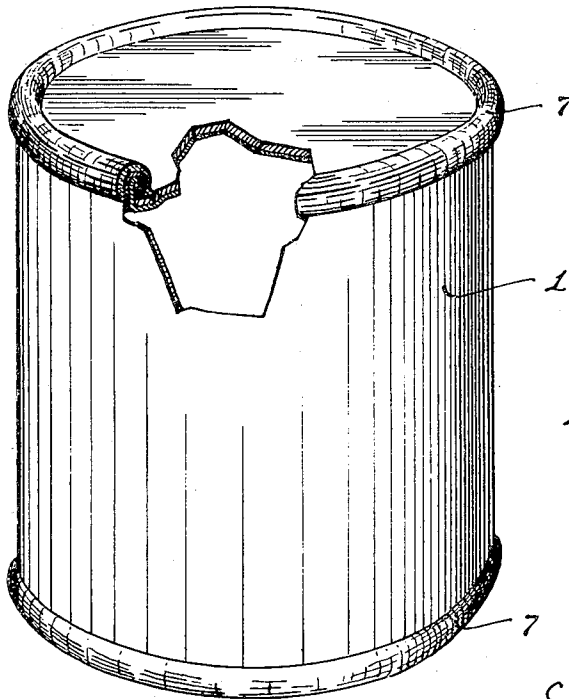


Fig. 2

Charles T. Walter

Inventor

Witness:

Heinrich

By

For W. Johns

Attorney

UNITED STATES PATENT OFFICE

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METHOD OF PREPARING FIBER CONTAINERS

Charles T. Walter, Chicago, Ill., assignor to Industrial Patents Corporation, Chicago, Ill., a corporation of Delaware

Original application May 29, 1936, Serial No. 82,435. Divided and this application November 21, 1936, Serial No. 112,066. In Canada July 25, 1936

3 Claims. (Cl. 93—36.5)

This invention relates to a method of preparing an improved fiber container.

One of the objects of the invention is to provide a method for preparing an improved fibrous container.

Another object of the invention is to provide a method for preparing an improved fibrous container having reinforced end edges.

Another object of the invention is to provide a method for preparing an improved fibrous container having reinforced end edges sealed against capillary attraction of moisture.

Other objects of the invention will be apparent from the description and claims which follow.

This application is a division of my application entitled Fiber container, Serial No. 82,435, filed May 29, 1936.

In my co-pending application entitled Container, filed May 11, 1936, Serial No. 78,966, I describe and claim an improved container provided with bonded marginal end flanges.

From time to time fiber containers have been prepared with fibrous body walls and having fibrous plugs in each end, the plugs being retained in place by virtue of the inwardly rolled edges of the can body. This type of container is satisfactory for certain conditions under which the container is kept entirely dry. However, when the container is used for cleanser powders and the like in which service it is likely to become wetted on the bottom, there is a strong tendency for the inwardly rolled body edges to become unrolled, thus loosening the fibrous plug which is held in place by virtue of the roll.

The present invention involves an improved method whereby this container may be rendered serviceable under extremely moist conditions.

In conventional practice, cleaning and scouring compounds are commonly packed for household use in containers of the type comprising a fibrous body wall having metallic ends crimped or otherwise secured to the fibrous body. In use, these containers are constantly brought in contact with wetted and heated surfaces such as sinks, drain boards, floors, stoves, and the like. If the containers are rested upon such surfaces on their ends, the metal may become rusty, with the result that the container becomes unsightly and leaves an unsightly mark upon all surfaces with which it is thereafter brought in contact. If rested upon its sides, the fibrous body of the container, being of a highly absorbent nature, will absorb moisture from the contacted surface with the result that the body will very often collapse before the contents of the container can be used.

Also when rested on its sides, the fibrous body walls serve to transmit moisture to the contents of the container. In accordance with the present invention, an all-fiber container is sealed at its ends in a manner to prevent contact of the container with damp surfaces, whether the container be rested on the ends or sides thereof.

The drawing depicts a container prepared in accordance with the present invention.

Figure 1 is a fragmentary view, partly in section, showing the end edges of the container of the present invention in detail.

Figure 2 is a perspective view of the finished container shown in Figure 1.

The container comprises tubular fibrous body wall 1 closed at the ends with a fairly thick fibrous disc 2 which is supported against inward pressure by a somewhat thinner fiber disc 3. Fiber disc 3 is cupped as at 4. The cupped edges 4 are designed to be interrolled as at 5 with the rolled edge 6 of body 1. The rolled over portion 6 of the body 1 is reinforced by a thin layer of water resistant plastic 7 which may be Celluloid, gutta-percha, synthetic rosins, or the like.

Bead 7 comprises a continuous protecting ring of congealable plastic material and may be applied to the ends of the container in the form of a plastic through the medium of a suitable solvent. When applied in this manner, the solvent will readily evaporate from the mass leaving a tough layer rigidly bonded to the roll 6 providing effective protection to the ends of the container.

It will be seen that the container prepared in accordance with the method of the present invention may be rested upon wetted or heated surfaces on its ends or on its sides without harm to the container or the contents thereof. The bead 7 may be applied to the container ends by dipping or through the agency of suitable mechanical means.

One means for applying a bead of this character is described in my copending application, Serial No. 54,181, filed December 13, 1935, entitled Applicator.

The plastic compound forming beads 7 may be suitably tinted such that when applied to the container ends, they will most attractively add to the appearance of the container.

The plastic beads 7 may be made of such thermoplastic materials as natural or synthetic rosins. In such instances, the bead may be applied through the agency of heat only, eliminating the necessity of a solvent. An example of a material which may be employed in this manner

- is a mixture of natural rosin with some suitable plasticizer such as paraffin wax. If a glossy jet black surface is desired, a quantity of pitch may be included in the mixture. A mixture of such materials will melt to a liquid state at about the boiling point of water and may be applied to the container end by simply dipping the edges of the container into the liquid material which cools and hardens upon contact with air.
- 10 A bead prepared from a Celluloid or a similar material may be preformed as a ring or ferrule of U shape and applied after the container has been assembled by attaching the bead to the edges by means of heat and mechanical pressure, no solvent or adhesive being necessary. As is well known, Celluloid and materials of this character are water resistant and are relatively hard and elastic at temperatures approximately 185° F. and below.
- 20 The term "fiber", as used in the claims, will be understood to include fiber board, strawboard,

paper board, pulp board, and other similar materials adapted for the manufacture of containers.

I claim:

1. The method of treating fiber containers provided with marginal end rolls which comprises applying to the marginal end rolls a bead of plastic material, hard and elastic, at temperatures approximately 185° F. and below. 5
2. The method of treating fiber containers provided with marginal end rolls which comprises applying to the marginal end rolls a preformed ring of plastic material, hard and elastic, at temperatures approximately 185° F. and below and bonding the ring to the marginal end rolls. 10
3. The method of treating fiber containers provided with marginal end rolls which comprises applying to the marginal end rolls, a congealable thermo-plastic compound hard and elastic at temperatures approximately 135° F. and below and hardening the compound. 15 20

CHARLES T. WALTER.