March 8, 1938. C. T. WALTER 2,110,750

PREPARATION OF CONTAINERS

Original Filed May 11, 1936

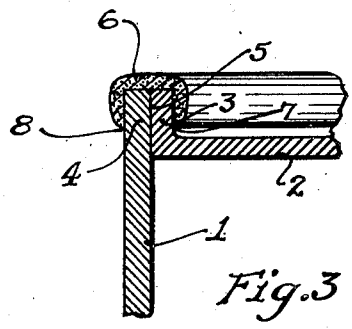

Fig. 3

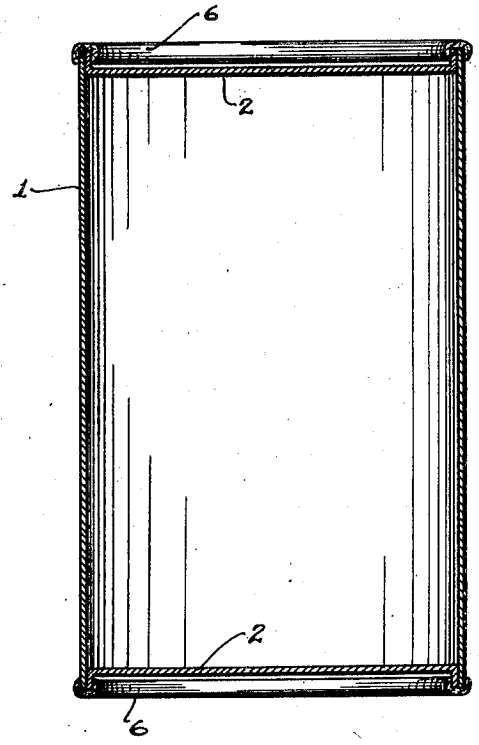

Fig. 2

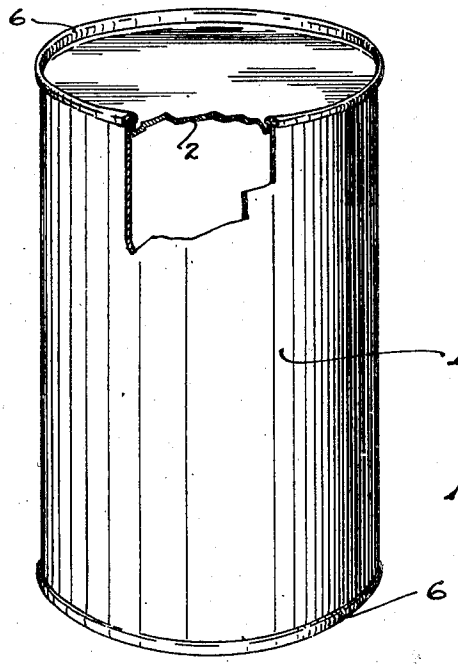

Fig. 1

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PREPARATION OF CONTAINERS

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Original application May 11, 1936, Serial No. 78,966. Divided and this application November 6, 1936, Serial No. 109,448. In Canada July 16, 1936

5 Claims. (Cl. 93—36.5)

This invention relates to an improved method of preparing containers.

One of the objects of the invention is to provide a method for treating fiber containers provided with marginal end flanges.

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

This application is a division of my application entitled "Container", Serial No. 78,966.

The method will be understood by reference to the preferred type of container prepared by the employment of the method.

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 becomes 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.

Referring to the drawing:

Figure 1 is a perspective view, partly in section, illustrating one form of container which may be utilized with the present invention.

Figure 2 is a vertical sectional view of the container illustrated in Figure 1.

Figure 3 is an enlarged detailed view of a section of the container, in which there is illustrated the container sealing means.

The container illustrated in the drawing comprises a tubular fibrous body wall 1, closed at its ends by means of fibrous disks 2, annularly flanged at their peripheral edges as at 3. The disks 2 are invertedly inserted within the ends of body 1 in a manner to form peripheral marginal edges 4 at each of the container ends. Disks 2 may be suitably secured within body 1 by use of a suitable adhesive as at 5 between flanges 3 and the inner walls of body 1.

In accordance with the present invention, a continuous bead 6 of congealable plastic material is applied to the ends of the container, preferably in a manner to extend a suitable distance against the inner and outer side walls of the flange portion 4 as at 7 and 8.

Bead 6 comprises a continuous, substantially U-shaped ring of plastic material, such as celluloid and the like 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 fibers of the container ends and side walls.

Beads 6 are of a suitable thickness such that when the container is rested upon a wetted or heated surface on its side, the body wall 1 as it extends between the beads will be withheld from contact with the surface.

It is seen that the container prepared by the method of the present invention may be rested upon wetted or heated surfaces on its ends or sides without harm to the container or the contents thereof.

Bead 6 may be applied to the container ends by dipping or through the agency of suitable mechanical means. One such 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 6 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 6 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. As is well known, materials of this character are water resistant and are relatively hard and elastic at temperatures approximately 185° F. and below.

A bead prepared from 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.

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 flanges which comprises applying to the flange a bead of plastic material hard and elastic at temperatures approximately 185° F. and below.

2. The method of treating fiber containers provided with marginal end flanges which comprises applying to the flange a pre-formed U-shaped ring of plastic material hard and elastic at temperatures approximately 185° F. and below and bonding the ring to the flange.

3. The method of treating fiber containers provided with marginal end flanges which comprises applying to the flange a congealable thermoplastic compound hard and elastic at temperatures approximately 185° F. and below and hardening the compound.

4. The method of treating fiber containers having a tubular body wall and a flanged end closure providing a marginal end flange which comprises applying to the marginal end flange a bead of plastic material hard and elastic at temperatures approximately 185° F. and below in a manner bonding the end edges of the tubular body wall and the flanged end closure.

5. The method of treating fiber containers having a tubular body wall and a flanged end closure providing a marginal end flange which comprises applying to the flange a pre-formed U-shaped ring of plastic material hard and elastic at temperatures approximately 185° F. and below in a manner bonding the end edges of the tubular body wall and the flanged end closure.

CHARLES T. WALTER.