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C. HOLLEN

LINER AND CAN CONSTRUCTION

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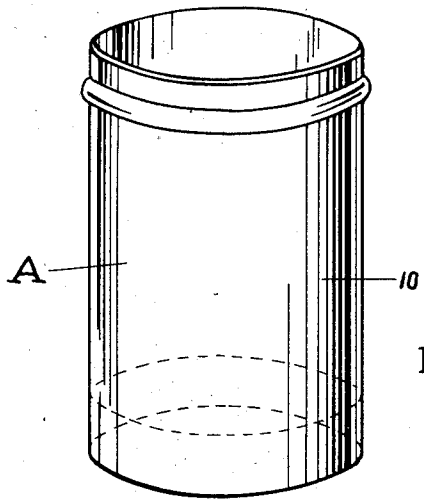


Fig. 1

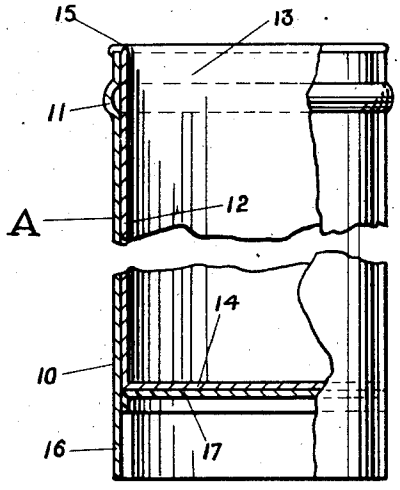


Fig. 2

Inventor
Carl Hollen

By Horace Fiske
Attorney

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CARL HOLLEN, OF BEMIDJI, MINNESOTA.

LINER AND CAN CONSTRUCTION.

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My invention relates to liners and can construction and is particularly adapted to a certain construction of can wherein it is desired to provide a liner of a rust proof material and which is supported by an outer shell adapted to provide the necessary rigidity and firmness to the can in an economical manner.

A feature of the invention resides in providing an aluminum liner for a can having an integral construction to provide the sides and the bottom to the can and designed not to add weight to the can proper. This aluminum liner is adapted to provide the rust proof means for lining the can so that ice cream and other similar ingredients may be packed in the can without any danger of rust affecting the same. My invention relates particularly to such articles where the ice water is salted so as to keep the ice cream cold within the can and this salt water is inclined to rust the can very easily, especially after becoming used and slightly worn and owing to the severe use to which they are subjected.

My invention includes a rust proof liner which is adapted to be supported by the outer shell of a reinforced material having an upper ribbed construction for the top and a lower depending flange to form a foot on the can, while a suitable plate member is projected into the lower flange portion to provide a bottom of reinforcing material to protect the liner. In using the rust proof liner of aluminum, a rather soft rust proof material, it is necessary that the same be reinforced properly to prevent bending and injury to the same so that the can will keep the proper shape inside and out.

These features together with other objects and details of my invention will be more fully and clearly set forth in the following specification and claims.

In the drawings forming part of the specification:

Figure 1 is a perspective view of my can and the liner for the same.

Figure 2 is a cross section of my can showing a portion broken away.

In the drawings my can A is designed of a nature so as to provide the outer reinforcing shell 10 which is made of heavy tin or galvanized metal so as to provide an outer shell strong and durable and constructed so as to be wear resisting. The shell 10 is preferably tubular and is formed with an upper reinforcing bead 11 having an annular construction to provide a reinforcement at the top of the can and also to provide a shoulder for the cover to hold the same, the cover not being illustrated in the drawings.

A feature of my invention is to provide a simple structure for an ice cream can which is provided with a rust proof or non-corrosive lining 12 made of aluminum or other suitable material having an integral nature, so that the side walls 13 of the same are formed integrally with the bottom 14. This liner 12 is slid into the casing 10 and is adapted to be beaded over at 15 around the upper edge of the can A to provide a smooth rust proof edge over the top of the can. This is important in ice cream cans as it is not desirable to have the rust come in contact in any place with the ice cream.

The casing 10 is formed with a foot portion 16 extending below the bottom 14 of the can A in a manner to form a support for the can and to raise the bottom 14 of the liner away from the bottom edge of the casing 10. This permits the insertion of a disk or plate member 17 of strong material similar to the construction of the casing 10 so as to form a reinforcing bottom and a protecting disk for the bottom 14 of the can A. This bottom is forced into the casing shell 10 and is held by friction in place against the bottom 14.

The structure of my can is very simple and it is designed to overcome the necessity of using paper liners in ice cream cans and to permit the outer reinforcing shell of the can to be made of heavy iron which may be tinned or otherwise coated so as to be rust resisting, yet not having the expensive construction of being made entirely of aluminum or other rust proof material which ordinarily is of a softer nature and is not stiff enough to stand the wear and tear to which ice cream cans are subjected in ordinary use.

The tubular shell 10 provides an inexpensive structure for the container A when used with my aluminum liner, particularly for the reason that no liquid tight joints are necessary in the casing 10 as the casing can be made of a seamless tubular material or the seam may be riveted in a desirable manner. The reinforcing bottom 17, which is also made of heavy wear resisting material, is merely forced into a position against the bottom 14 of the aluminum liner so that the

assembly and manufacture of my ice cream can is very simple and inexpensive. After the liner 12 has been forced by friction into the casing 10 the reinforcing bottom disk 17 is forced up against the bottom of the liner, providing the foot or flange portion 16 for the casing and can A and forming a reinforcing member across the bottom to prevent bending or denting of the can, the rib 11 at the top reinforcing the upper end of the can to provide the necessary rigidity.

When the liner 14 has become worn and it is desirable to replace it, this liner can be forced out at the bottom, forcing the reinforcing disk 17 out of the casing 10 and the liner 12 removed so that a new liner can be placed in the can.

I have found in practical use that my aluminum liner for an ice cream can with a reinforced shell 10 is much to be preferred over the paper liners which are now used to prevent the rusting of the can affecting the contents or the ice cream within the ice cream can. The simplicity of my invention adds to the merit, and the demand for the same evidences the practical nature of my invention. It is apparent that the liner may be quite thin by reason of the reinforcing casing which protects the same.

My can is also intended to be used as a container for milk, or other dairy products, that are better protected by the rust proof liner provided for in my can. It is quite apparent that with dairy products a container of this kind is very desirable because the outer body portion or casing of the can can be made of strong material, while the inner liner can be made of aluminum or other soft non-rusting metal.

In accordance with the patent statutes I have described the principles of construction of my liner and can, together with the best embodiment thereof illustrated in the accompanying drawings, and while a particular formation is shown, I desire to have it understood that it is only suggestive of a means of carrying out my invention and that the same may be carried out by other means and applied to other purposes within the scope of the following claims.

I claim:

1. A can including, an outer reinforcing casing having a tubular straight wall construction, a liner formed of aluminum adapted to fit over the upper edge of the can, and a reinforcing bottom disk frictionally supported spaced from the lower edge of the casing and adapted to protect the bottom of said liner.

2. A can including, a liner formed of aluminum, an outer reinforcing shell adapted to frictionally engage said liner in a manner to permit the liner to be removed, and a bottom reinforcing disk adjacent the liner frictionally supported within said reinforcing casing to provide a reinforcing bottom inset portion for said can.

3. A can including, an outer metallic reinforcing shell having a tubular nature, an inner metallic rustless liner and a reinforcing bottom disk frictionally supported within said shell, said disk being removable to permit the liner to be forced out of said shell so that the liner may be replaced.

4. A can having a rust proof liner comprising an outer tubular shell, an integral liner having a bottom portion adapted to be frictionally supported within said shell, an annular bead on said liner adapted to cover the upper edge of said shell and to form a shoulder for holding said liner positioned in said shell, and a reinforcing and supporting disk frictionally supported and spaced from the lower edge of said shell and adapted to bear against the bottom of said liner.

5. A can including, an outer heavy metallic shell, an inner rust proof and non-corrosive lining having an integral bottom formed therein, and a heavy reinforcing disk frictionally supported against said bottom of said liner to protect the same.

6. An ice cream can including, a metallic rust proof liner having a cylindrical straight wall construction, an integral bottom formed in said liner to provide a seamless rustless lining member, and an outer casing adapted to protect said liner against wear including a disk like bottom member formed from a separate piece of material and adapted to be frictionally supported spaced from the bottom of said casing and bearing against the bottom of said liner.

CARL HOLLEN.