

R. P. KEHOE.
ICE CAN.
APPLICATION FILED DEC. 17, 1912.

1,066,018.

Patented July 1, 1913.

Fig. 1.

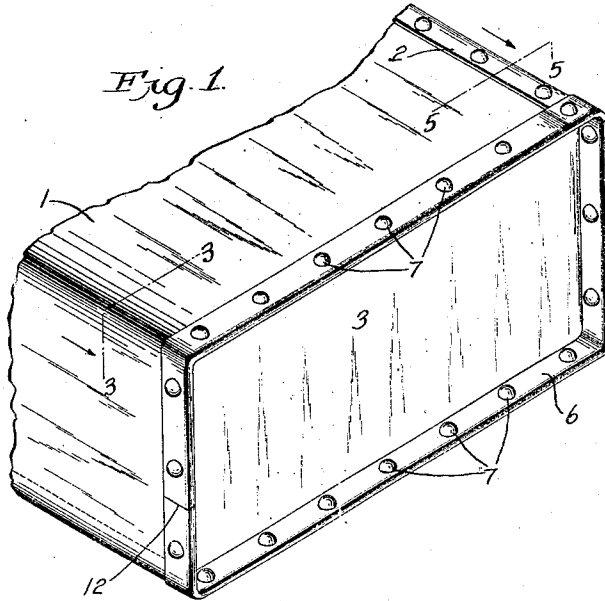


Fig. 2.

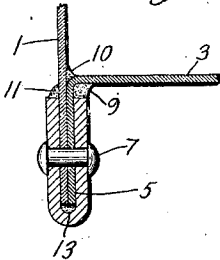


Fig. 4.

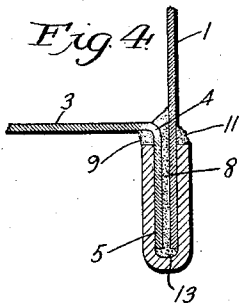


Fig. 3.

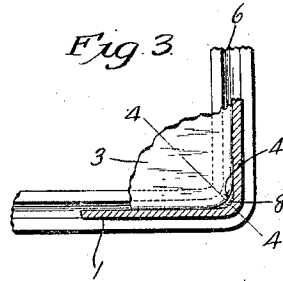
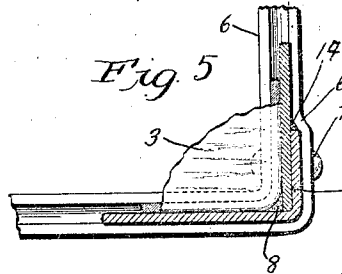


Fig. 5.



WITNESSES

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ICE-CAN.

1,066,018.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ROBERT P. KEHOE, a citizen of the United States, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in Ice-Cans, of which the following is a full, true, and complete specification.

My invention relates to improvements in ice cans for use in ice-making plants and consists in the construction, combination and arrangement herein described and claimed, the principal object of my invention being to provide an improved and reinforced ice can well adapted to withstand the strain and shock imposed upon it in ordinary use and especially adapted to resist abrupt bending and the localization of excessive strains at the joints or seams tending to expose the uncovered portions of the metal to the corrosive action of the liquids with which the can is used.

In the accompanying drawings, forming part of this application, and in which similar reference symbols indicate corresponding parts in the several views, Figure 1 is a fragmentary perspective view of the bottom of an ice can illustrating one embodiment of my invention; Fig. 2 is an enlarged detail section of the bottom joint, substantially life size. Fig. 3 is an enlarged detail section on the line 3—3 of Fig. 1, looking toward the bottom of the can; Fig. 4 is a detail section on the line 4—4 of Fig. 3; and Fig. 5 is a section on the line 5—5 of Fig. 1.

Referring to the drawings, 1 indicates a rectangular can body formed of a metal sheet or plate covered with galvanizing or similar non-corrosive coating and suitably bent and riveted together along a longitudinal joint or seam 2. The can body may be made of one or two pieces of metal as desired. The can bottom plate 3, also galvanized or coated, is formed with rounded corners 4 and with a continuous perimetric flange 5 of substantially the same shape and size as the cross-section of the can body. This bottom, and particularly the flange thereof, thus fits closely within the walls of the rectangular body portion and is designed to be pressed therein, in which position its rounded corners will then be spaced slightly from the interior corners of the can body, as shown in Fig. 3, while the lower edge of

its flange 5 will be flush with the end of the body, as clearly shown by Figs. 2 and 4.

A U-shaped strip 6 is bent from a separate strip of metal into a rectangular form conforming to the section of the can body and having the metal thereof at the corners continuous and substantially of the same degree of rounding as the contiguous corners of the can body and the bottom flange. This U-strip is then pressed onto these parts, as shown in the drawings, so as to clamp the two together, the upper inner edge of said U-shaped strip being then spaced somewhat below the bottom plate 3, and the upper outer edge being of the same or a greater height, as desired. The bottom of the strip is also slightly spaced from the flush lower edges of the can body and bottom flange 5. The U-strip may be made in one continuous piece or several, as convenient. Its ends are brought together in a flush or scarf joint as indicated at 12, this joint being preferably disposed on one or both of the short sides of the can, and the whole strip is then riveted to and through the body end and bottom flange as shown at 7. The small crevices or spaces between the inside of the corners of the rectangular body 1 and the outer sides of the rounded corners of the flange 5 of the bottom plate 3 are filled with a softer metal, as shown at 8, Figs. 3 and 4, a continuous similar soft metal filling 9 being inserted in the crevice between the bottom plate 3 and the upper edge of the inner wall of said U-shaped strip. This crevice is completely filled with the softer metal 9, so as to form an auxiliary bearing for the can bottom upon the U-strip. Another filling 11, is placed along the crevice between the outer edge of the U-strip and the outside of the body. It is desirable also to form a further soft metal filling 10 in the crevice between the bottom plate and the inner surface of the body portion. The soft metal filling, particularly at the corners, will flow upon local distortion of the parts and provides a shock-transmitting packing in close engagement with the adjacent spaced corner walls of the rectangular body portion and bottom flange which causes the one to reinforce the other under all conditions of long continued and heavy service, it being particularly desirable to so brace the bottom rim of the can as to prevent cracking of the galvanized

coating which, when broken, gives entrance of moisture or brine to the fissures or cracks and results in corrosion. It is at the corners that corrosion always begins. The invention also includes the insertion of a packing of oakum 13 or like material in the space between the flush lower edges and the bottom of the U-strip. This packing is compressed by forcing the U-strip over the edges and maintaining it under pressure while the holes for the rivets 7 are punched and the rivets introduced and upset. Where the U-strip 6 covers the seam 2 of the can body, it is bent and stretched to conform to the overlap, as indicated in Fig. 5, and one of the rivets 7 is passed also through the strip. The crevice 14 is desirably also filled with the softer metal, as before.

The assemblage of the can bottom and its reinforcing strip as above described, provides an unusual strengthening effect for the entire bottom of the can but particularly the corners which suffer most when the cans are handled filled with ice. The rectangular framing represented by the U-strip and the two thicknesses of metal inside of it, is more than equivalent in strength and durability to the best grade of malleable casting and is far cheaper and also much stiffer at the corners. It can also be applied to the can and bottom with a closer and better fit. In forming the corners the inner leaf or side of the U-strip need not be slotted or notched if the bending is done while the strip is hot or when held in a suitable form and it is preferred to so make the strip. The flange 5 of the bottom plate is also preferably a continuous flange pressed down from the body of the bottom plate, so that by its cooperation with the continuous corner of the U-strip the

strongest possible corner-joint is thereby obtained.

I claim:

1. An ice can comprising a rectangular body portion, a rectangular bottom plate 3 provided with a perimetric flange 5 having rounded corners and fitted closely within the walls of said rectangular body portion and spaced from the corners thereof, a separate U-shaped strip 6 formed of rectangular shape with continuous corners, pressed over and clamping said rectangular body portion and bottom flange at the corners thereof, and a filling 8 of softer metal in the spaces between the corners of said rectangular body portion and the flange 5 of said rectangular bottom plate, substantially as set forth.

2. An ice can comprising a rectangular body portion, a rectangular bottom plate provided with rounded corners and a perimetric flange fitting closely within the walls of said rectangular body portion and spaced from the corners thereof, a U-shaped strip formed of rectangular shape with continuous unslotted corners pressed over and rigidly clamping said rectangular body portion and bottom flange, said U-shaped strip being riveted to said parts and having its inner wall extended upwardly toward but spaced from the bottom plate, and a yielding filling 9 occupying the space between the edge of such wall and said bottom plate, substantially as set forth.

In testimony whereof, I have signed this specification in the presence of two witnesses.

ROBERT P. KEHOE.

Witnesses:

H. G. KIMBALL,
HARRY PRAEGER.