Aug. 19, 1941. J. HAYCOCK 2,253,273

SHIPPING CARTON FOR CONE TOP CANS

Filed June 10, 1940

FIG. 1.

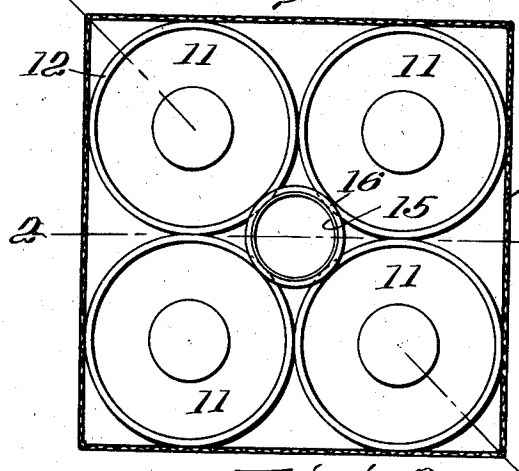


FIG. 4.

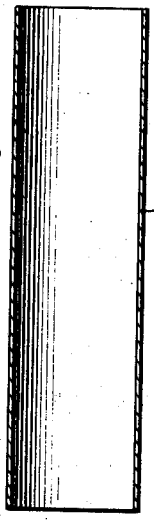


FIG. 5.



FIG. 7.

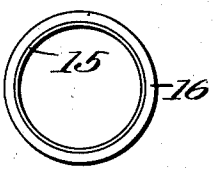


FIG. 2.

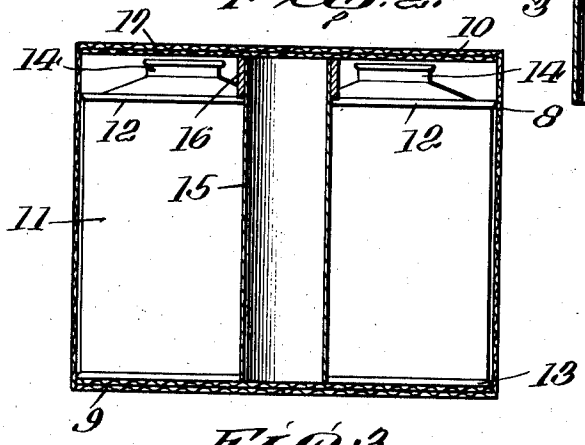


FIG. 6.

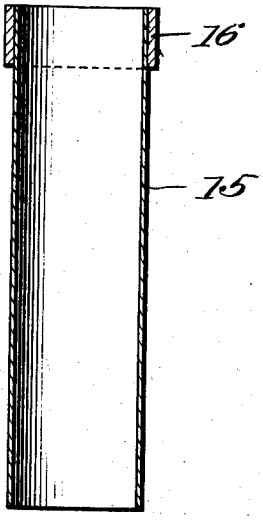
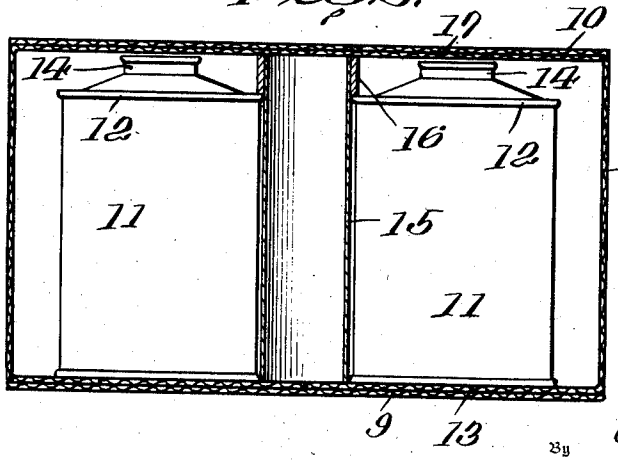


FIG. 3.



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SHIPPING CARTON FOR CONE TOP CANS

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Application June 10, 1940, Serial No. 339,794

3 Claims. (Cl. 206—65)

The invention relates to a shipping carton for cone top cans and the like, having a reduced neck portion projecting above the end seam.

An object of the invention is to provide a shipping carton for cans of the above type, wherein means are provided for preventing endwise or lateral movement of the cans in the carton.

A further object of the invention is to provide a single means associated with a group of cans, and operating independently thereon for accomplishing the result stated.

These and other objects will in part be obvious and will be in part hereinafter more fully disclosed.

Referring to the drawing:

Figure 1 is a section through the upper end of a carton for packaging four cans with the improvement applied thereto.

Figure 2 is a vertical cross sectional view taken on the line 2—2 of Figure 1.

Figure 3 is a vertical cross sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a vertical cross sectional view of the tubular retainer member.

Figure 5 is a similar view of the encircling collar.

Figure 6 is a vertical cross sectional view of the retainer member with the encircling collar fitted thereto, and Figure 7 is a plan view of the assembled retainer.

The invention relates broadly to a shipping carton for cans which is particularly adapted to house cone top cans having reduced neck portions projecting above the end seams thereof. The carton consists of a rectangular body portion which, as illustrated, is adapted to receive a group of four cans, and attached to the body portion are top and bottom end closures. The distance between the end closures is slightly greater than the overall height of the cans. To prevent lateral movement of the cans in the carton, a tubular retaining member, which is designed to fit snugly in the space between the four round cans nested in the carton, is placed centrally of the carton and in contact with the end seams of the cans. This tube is of such a diameter as to act as a spacer for the cans to prevent lateral shucking of the cans in the carton. The tube is also of sufficient height to engage the end members of the carton, and support the upper end so as to maintain said end spaced a distance slightly greater than their overall height of the cans. An encircling collar is provided for the tubular retaining member which is adapted to overlie the end seams of the cans and contact with the top end of the carton. This collar is so dimensioned as to hold the cans from endwise movement in the carton.

Referring in detail to the drawing, a rectangular carton is indicated at 8 having bottom and top end closures 9 and 10 respectively. This carton 8 is of sufficient size as to nest four cans 11 within its confining walls and is of a height from bottom to top slightly greater than the overall height of the cans.

The cans 11 are of the cone top type having end seams 12 and 13 and a reduced neck portion 14 at the upper end thereof. This is the type of can in which beverages may be placed for shipment and which are usually closed by a crown cap similar to that used on a bottle. The cans shown in the drawing are empty cans which are shipped to the packer from the can manufacturer, but filled cans with their crown caps in place could be readily packed in such a carton.

A tubular member 15 is placed in the central space between the cans 11. This tubular member is so dimensioned as to contact with the end seams 12 and 13 of each of the four cans. The tubular member will therefore hold the cans in contact with the side walls of the carton and thus prevent any shucking movement of the cans which might otherwise cause marring or denting of the cans when the carton is dropped or roughly handled.

A collar 16 is placed on the tubular member 15 and preferably secured thereto. This collar overlies the end seams of the cans and is dimensioned as to length so as to contact with the top end closure of the carton. This collar holds the cans firmly seated on the bottom end closure, even though the carton be inverted.

As noted above, the distance between the bottom end closure of the carton is slightly greater than the overall height of the can and therefore, this collar 16 will prevent the neck portion 14 of the can from contacting with the top end closure and breaking or rupturing the same. The space between the neck portion 14 and the top end closure is indicated at 17 in the drawing.

The tube 15 and collar 16 are preferably made of paper or fiber board. It is obvious that this retainer for the cans which holds the cans from lateral and end-wise movements may be made of wood and may be solid with the collar formed integral with the tube. It is also obvious that the tube and collar may be made of other shapes in cross section than circular, the essential feature being that this tubular retaining member and the collar carried thereby shall be so shaped

and dimensioned as to contact with the cans and hold said cans firmly from lateral movement and also end-wise movement in the carton.

While the carton illustrated is dimensioned so as to hold a group of four cans, it will be understood that the carton may be dimensioned so as to hold six, eight, or even more cans. In each instance, however, there is a retainer located in each space between adjacent cans and the retainers will operate to prevent lateral movement of the cans and also end-wise movement of the cans in the manner which has been described above in detail.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:

1. A shipping carton for cone top cans having reduced neck portions projecting above the end seams thereof, comprising a body portion adapted to receive four or more cans, end closures for said body portion, the distance between the end closures being slightly greater than the overall height of the cans, and a retainer member located in the space between a group of cans and dimensioned so as to engage the closure ends of said carton, said retainer member having means overlying and in contact with the end seams of each can of the group for preventing endwise movement of the cans in the carton.

2. A shipping carton for cone top cans having reduced neck portions projecting above the end seams thereof, comprising a body portion adapted to receive four or more cans, end closures for said body portion, the distance between the end closures being slightly greater than the overall height of the cans and a tubular retainer member located in the space between a group of cans contacting with the end seams thereof for holding the same spaced from each other, said tubular retaining member being dimensioned so as to engage the closure ends of the carton, and having means overlying and in contact with the end seam of each can for preventing endwise movement of the cans in the carton.

3. A shipping carton for cone top cans having reduced neck portions projecting above the end seams thereof, comprising a body portion adapted to receive four or more cans, end closures for said body portions, the distance between the end closures being slightly greater than the overall height of the cans, and a tubular retainer member located in the space between a group of cans contacting with the end seams thereof for holding the same spaced from each other, said tubular retaining member being dimensioned so as to engage the closure ends of the carton and having a collar encircling the same, said collar being adapted to overlie and contact with the end seams of the cans and being of a height slightly greater than the distance from the end seam to the top of the reduced neck portion for preventing endwise movement of the cans in the carton, and the neck portions from contacting with and breaking the top end closure.

JOHN HAYCOCK.