March 30, 1943. H. E. RUE 2,315,015

TOOL HOLDER FOR CARTONS

Filed May 19, 1941

Fig. 1.

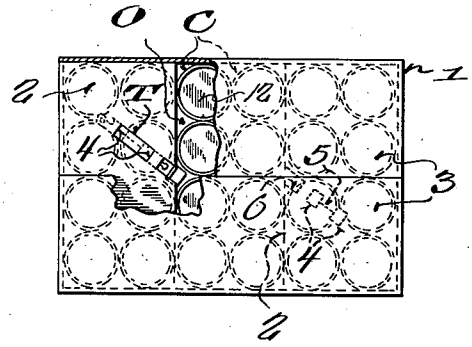


Fig. 3.

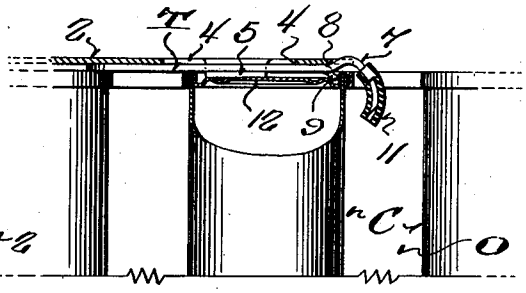
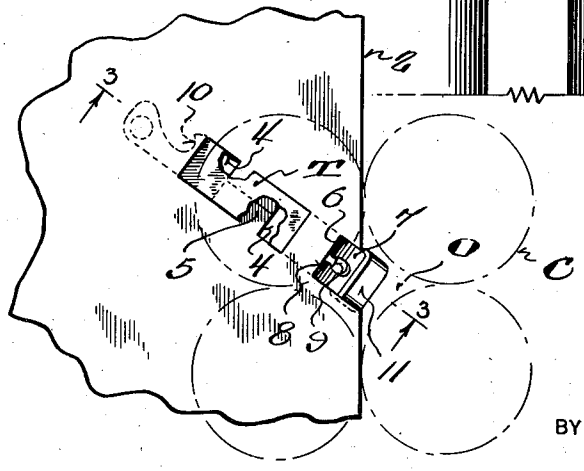


Fig. 2.



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TOOL HOLDER FOR CARTONS

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2 Claims. (Cl. 206—47)

This invention pertains to shipping cartons for containers having metallic covers necessitating the use of a tool for puncturing or opening the same.

At the present time, containers used extensively for beer, milk, fruit juice and other liquids, are packed in shipping cartons into which an opening tool is promiscuously inserted by the packer either on top or between the containers.

Due to rough handling and agitation of the carton, the loose tool frequently becomes shifted and wedged between the containers, resulting in damage of one or more of the containers, and consequent loss of the contents. Further, the tools may become lodged in the bottom of the carton, which requires a search, and in some instances removal of a number of containers to locate the same.

The present invention has primarily for its object to overcome the foregoing difficulties by the provision of a fiber shipping carton having means formed therein for receiving and firmly holding an opening tool in fixed relation to the containers, in which position its piercing end extends into a space occurring between a group of containers.

A further object of the invention resides in forming spaced openings in one of the cover flaps of the fiber carton through which the flat shank of a puncturing tool may be threaded.

Another object is to form tool receiving openings in an inner cover flap of the carton, making it necessary to open the same for access to the tool, thus preventing its theft or loss.

A still further object resides in forming a pair of spaced tool receiving openings in each end flap of the carton, thus fascilitating insertion of the tool regardless of the position in which the carton is presented to the packer.

Lastly, a more specific object is to form the tool receiving openings at an angle to the rows of containers within the carton, to position and support the tool diagonally over the top of a container with its depending piercing end extending into a space between the adjacent containers.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts, substantially as hereinafter described, and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

In the accompanying drawing is illustrated one complete example of the physical embodiment of the present invention constructed according to the best mode so far devised for the practical application of the principles thereof.

In the drawing:

Figure 1 is a plan view of a shipping carton constructed in accordance with the present invention.

Figure 2 is an enlarged fragmentary plan view of one of the carton cover flaps incorporating the present tool holder; and,

Figure 3 is a fragmentary sectional view taken on the line 3—3 of Figure 2.

Referring now more particularly to the drawing, the numeral 1 designates a rectangularly shaped fiber carton including inner folded end flaps 2, and outer side flaps 3 folded over and secured upon the end flaps to form a closure for the top of the carton.

As best illustrated in Figure 1, the present carton is designed to receive parallel rows of closely packed round containers C, affording openings or spacings O between each group of containers.

Heretofore, it has been customary for the packer to promiscuously insert an opening tool into one of the spaces O, or place the same upon the top of the containers prior to sealing the carton flaps, and as explained in the foregoing objects, rough handling of the container in shipping frequently resulted in shifting of the tool, causing the same to become wedged between the containers, or lodged below the same, with consequent damage to the containers or difficulty in locating the tool.

The salient feature of the invention consists in forming a tool holder in one of the carton flaps, to firmly hold a pointed or piercing tool in fixed position to prevent contact with the containers.

In the preferred form of the invention, the foregoing is accomplished by forming spaced openings 4 in one of the end flaps 2, said openings being separated by a web 5, which may be slit longitudinally to render the same more flexible and facilitate insertion or threading of a tool T through the openings.

In addition to the openings 4, the inner edge of the end flap 2 is provided with a notch 6 for reception of the offset head of the piercing end 7 of a can opener tool, which consists of a raised crimp affording a shoulder 8, and a depending struck out prong 9 for engaging the bottom of the container bead when forcing the piercing end through the cover. The rear end of the can opener tool T, which extends below the carton

flap 2, may be provided with a hook 10 for removing conventional "Crown" caps.

Inasmuch as it is customary to pack round containers in parallel rows, as indicated in Figure 1, in order to utilize one of the spaces O for reception of the piercing end 7 of the tool, the alined openings 4 and notch 5 are formed at an angle to the rows of containers to position and support the shank of the tool T upon the top of a container with its piercing edge depending into the adjacent opening O. While not essential to the invention, the piercing end 7 of the tool may be provided with a resilient protective sleeve 11, which in the event of mutilation or damage to the cover or carton, offers additional protection against damage to the containers.

As best shown in Figure 3, conventional containers are provided with beaded metallic covers 12, the inner portion of which is slightly depressed. This characteristic of the container serves to accommodate the depressed web 5 as well as the prong 9 and allow the tool to be supported directly upon the cover bead. In its normal position, the prong abuts the inner circumference of the bead, and in cooperation with the inner end of the notch which engages the shoulder 8, upon sealing the container, the tool is firmly held against shifting.

To further facilitate assembly of the tool in the carton, which may be presented to the packer in several positions, it is proposed to form the tool receiving openings and notches in both of the end flaps 2, as indicated in Figure 1, which arrangement also serves the convenience of either right-hand or left-hand packers.

From the foregoing explanation considered in connection with the accompanying drawing, it will be readily seen that exceedingly simple, inexpensive, and effective means has been provided for attachment of a tool to a container shipping carton which, in the preferred form of the invention, the tool is secured against loss or theft and firmly held against shifting or dislodgement within the carton, thus eliminating damage to the containers as well as difficulty in locating the tool.

I claim:

1. In a fiber container for receiving rows of closely packed round containers having spaces between the same, inner closure flaps for engaging over the containers and outer closure flaps adapted to extend over and hide the inner flaps, one of said inner flaps being provided with means for receiving and detachably holding a tool for opening the containers, the tool being of the type having a flat shank and an arcuate penetrating prong on one end of the shank, said tool holding means consisting of spaced openings in the last mentioned inner flap for receiving the shank and a connecting web for supporting the shank and a notch in the outer edge of said inner flap in alignment with the openings for receiving the penetrating prong, whereby the prong can be positioned in a space between adjacent containers, said outer flaps when positioned over the inner flaps completely hiding and covering the tool during shipping of the carton.

2. In a fiber carton for receiving rows of closely packed round containers having spaces between the same, inner closure flaps for engaging over the containers and outer closure flaps adapted to extend over and hide the inner flaps, one of said inner flaps being provided with means for receiving and detachably holding a tool for opening the containers, the tool being of the type having a flat shank and an arcuate penetrating prong on one end of the shank, said tool holding means consisting of spaced openings in the last mentioned inner flap for receiving the shank and a connecting web for supporting the shank and a notch in the outer edge of said inner flap in alignment with the openings for receiving the penetrating prong, whereby the prong can be positioned in a space between adjacent containers, said outer flaps when positioned over the inner flaps completely hiding and covering the tool during shipping of the carton, said web being slit to facilitate the placing and removal of the tool from said tool holding means.

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