May 19, 1942. J. HUNTER 2,283,210

CONTAINER KEY

Filed May 23, 1939

Fig. 1

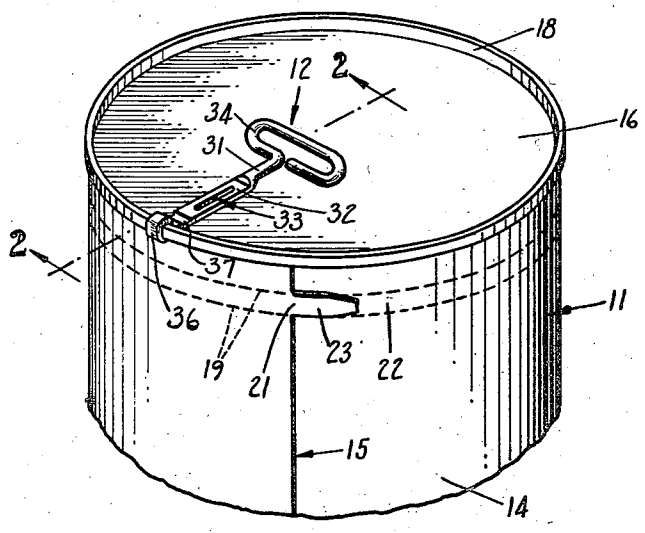


Fig. 2

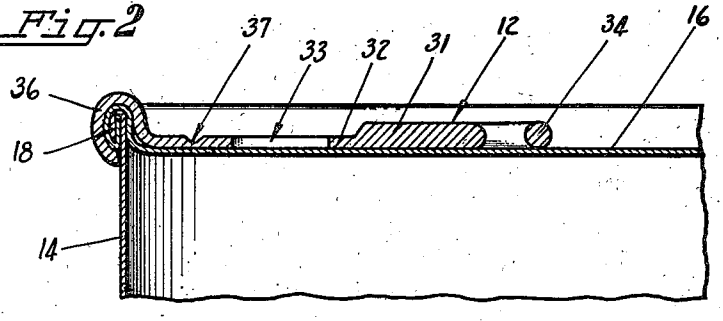


Fig. 3

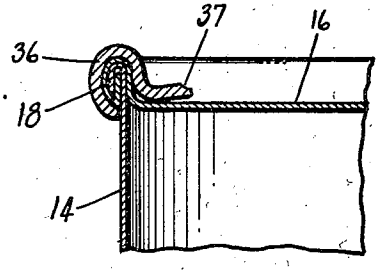
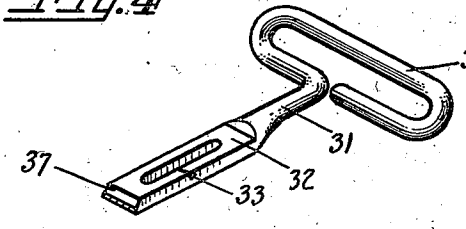


Fig. 4



INVENTOR
John Hunter
BY Brown D. Thornburgh
Charles H. Cole
ATTORNEYS

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CONTAINER KEY

John Hunter, Oak Park, Ill., assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application May 23, 1939, Serial No. 275,320

2 Claims. (Cl. 220—52)

The present invention relates to containers or cans of the character which are adapted to be opened by the removal of a tearing strip torn off by a key temporarily attached to the can, and has particular reference to a break-off key which may be secured to an end seam of the can without welding or soldering. This is an improvement over the key disclosed in United States Patent 1,710,958, issued April 30, 1929, to John M. Young, on Attachment of keys to cans.

In opening keys of the character having formed ends which are adapted to snap over an end seam of a can such as is shown in the Young patent, supra, it has been found that the formed end prevents proper turning of the key during the tearing away of the removable strip of the can and therefore unduly interferes with the opening of the can. Such an enlarged end on the key prevents the key from lying flat against the can when it is applied to the tearing strip and thus often tears the strip at an angle which causes it to break off before the can is opened.

The instant invention contemplates overcoming these difficulties by providing a break-off notch in a key of this character so that the holding portion of the key will remain on the can seam when the key is broken loose from this holding part, the detached key having a straight end which will not offer any interference in opening the can.

An object therefore of the invention is the provision of a key for opening tearing strip cans and the like wherein the key may be permanently secured to an end seam of the can but may be easily broken loose from its holding portion so that the resulting detached key will be freed of all end obstructions which would otherwise prevent proper tearing away of the removable strip on the can in opening the latter.

Another object is the provision of an opening key of this character wherein a formed end is provided on the key adjacent a weakened section so that the key may be tightly clamped at its formed end around an end seam of the can for shipment and storage but which may be readily broken loose from the clamped end preparatory to opening the can.

Numerous other objects and advantages of the invention will be apparent as it is better understood from the following description, which, taken in connection with the accompanying drawing, discloses a preferred embodiment thereof.

Referring to the drawing:

Figure 1 is a perspective view of the upper end of a can having an attached opening key embodying the instant invention;

Fig. 2 is an enlarged sectional view taken substantially along the line 2—2 in Fig. 1, with parts broken away;

Fig. 3 is a view similar to Fig. 2 showing the secured portion of the key still in place on the can seam after the key has been broken off and removed from the can; and

Fig. 4 is an enlarged perspective view of the broken off key ready for use in opening the can.

As a preferred embodiment of the invention the drawing illustrates a sheet metal can 11 adapted to be opened by a key 12 attached thereto. The can is of the tearing strip type and includes a tubular body 14 having a lock and lap side seam 15. A top closure 16 is secured to the upper end of the body in a suitable seam 18, such as for example, the well known double seam.

Adjacent the can end seam 18 there is provided in the body, a pair of spaced and parallel score lines 19 which encircle the body and terminate in a lap section 21 of the body side seam. These score lines set off between them a removable tearing strip 22 which is adapted to be torn away to open the can and at one end the tearing strip terminates in a tongue 23 which forms an attaching part for the key to facilitate starting of the tearing action. This is a usual tearing strip can construction.

The key 12 includes a shank 31 having a flattened section 32 pierced with a slot 33 adapted to receive the tongue 23 when the key is applied to the can in can opening position. One end of the shank is formed with a loop handle 34. The other or opposite end of the shank is formed with an inverted U-shaped hook 36 for engagement over and under the end seam 18, the terminal portion or outer extremity of the hook being preferably in substantially close abutting relation in respect to the can body wall 14 as best seen in Figs. 2 and 3. Between the formed hook 36 and the slot 33 the shank is partially cut through with a transverse weakening line or break-off groove 37.

When the key is on the unopened can it lies flat against the top closure 16 with its hook end 36 permanently engaged over the can end seam 18, as shown in Figs. 1 and 2. The hook is bent over and under the seam in a tight permanent joint by any suitable tool or if desired it may be previously formed to such shape and size that it may be snapped into engaged position on the seam by a properly applied pressure. In either form for all practical purposes, the hook may be con-

sidered as being permanently secured to the seam and in such condition the key is held in place on the can during shipment and storage or other handling.

When it is desired to remove the key to condition it for use in opening the can, it is only necessary to lift up its loop end **34**. This action breaks off the key from its hook end **36** at the transverse groove **37**, the aforesaid abutting relation between the outer extremity of the hook end **36** and the can body wall **14** preventing rotative movement of the hook relative to the can end seam **18**, thereby facilitating the breaking action. The broken off or detached key is thus free from its hook end which remains in place on the can end seam, as shown in Fig. 3. The removed key, as shown in Fig. 4, is free of any protruding obstruction at its end adjacent the slot **33** and may therefore be applied to the tongue **23** of the can in the usual manner of tearing strip opening keys and may be utilized for properly and easily removing the tearing strip.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and it will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A break-off key adapted to be attached to a projecting seam of a sheet metal tearing strip can, said key including a shank having a flattened portion provided with a slot for engagement with the tearing strip, a handle part at one end of the shank, and a preformed hook portion at the opposite end of the shank, said hook portion being tightly and permanently clinched over and around the projecting seam of the can with the outer end of the hook in substantial abutting engagement against a wall of said can for holding the key in place during shipment and storage, the shank and handle portion of the key lying substantially flat against an adjacent can wall, said key shank having a weakened section adjacent said hook portion to facilitate breaking the key away from its hook portion when the handle of the key is lifted outwardly and leaving its hook portion secured to the can seam, the abutting relation between the outer end of said hook portion of the key and the can wall preventing rotative movement of said key relative to the can seam so as to augment the breaking action, the resulting broken off shank portion of the key being free from any protruding obstruction which will interfere with proper turning of the key relative to the can when opening the latter by removing the tearing strip.

2. A break-off key adapted to be attached to a projecting seam of a sheet metal tearing strip can, said key including a shank having a flattened portion provided with a slot for engagement with the tearing strip, a handle part at one end of the shank, and a preformed hook portion at the opposite end of the shank, said hook portion being tightly and permanently clinched over and around the projecting seam of the can with the outer end of the hook in substantial abutting engagement against the can body wall for holding the key in place during shipment and storage, the shank and handle portion of the key lying substantially flat against the can end wall beneath the plane of the can seam, said key shank having a break-off groove adjacent said hook portion to facilitate breaking the key away from its hook portion when the handle of the key is lifted away from the can end wall and leaving its hook portion secured to the can seam, the abutting relation between the outer end of said hook portion of the key and the can body wall preventing rotative movement of said key relative to the can seam aand insuring the breaking action, the resulting broken off shank portion of the key being free from any protruding obstruction which will interfere with proper turning of the key relative to the can when opening the latter by removing the tearing strip.

JOHN HUNTER.