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2,326,191

CONTAINER OPENING KEY

Filed June 26, 1941

Fig. 1

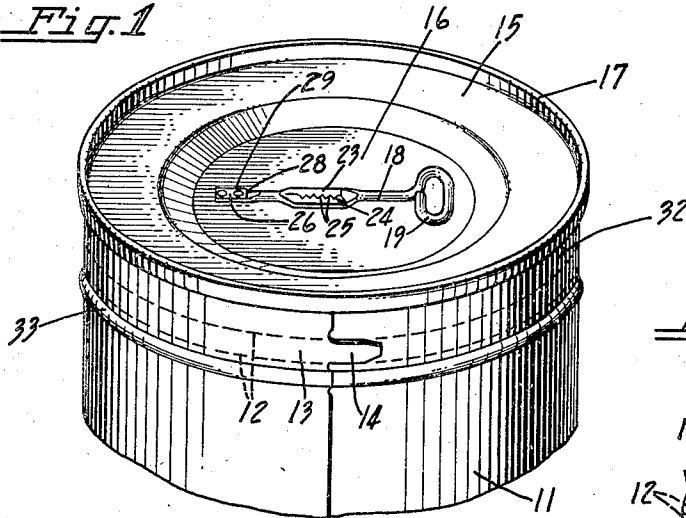


Fig. 5

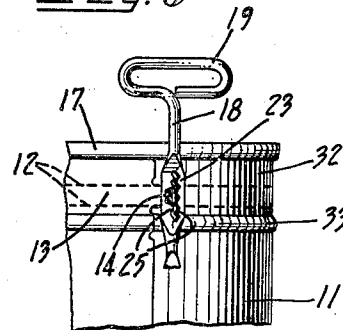


Fig. 3

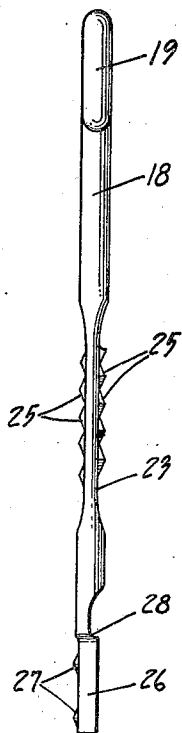


Fig. 2

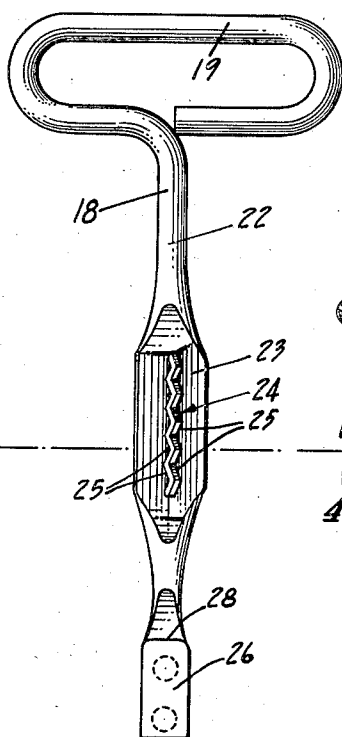
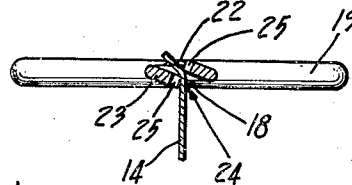


Fig. 4



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CONTAINER OPENING KEY

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2 Claims. (Cl. 220—51)

This invention relates to a key for opening sealed sheet metal tearing strip cans or containers and has particular reference to a sure-grip, slotted opening, formed in a flattened shank of the key and which is adapted to engage a short type tearing tongue in a firm, biting grip so that a tearing or rip strip scored in the body can wall may be removed.

The present invention contemplates certain improvements in the construction of the type of container opening key illustrated and described in the Charles Stollberg United States Patent 1,823,068, issued September 15, 1931, and is especially directed to a saw-tooth edge bordering the slotted shank opening.

The invention contemplates the provision of an opening key which is adapted for easy removal of a scored band or strip formed in the body wall of a sealed container, the key preferably being adapted for convenient attachment to the end of the container so that it may be separated therefrom when it is to be used.

The key is shaped from wire stock and has a flattened shank portion which is slotted at its mid-section by a plurality of offset V-shaped elements bordering the opposite edges of the slot and spaced apart so that a tearing tongue may be inserted between the V-shaped edges of the key when the key is applied to the tongue, these edges instantly gripping the tongue upon slight turning of the key, after which the scored strip is wound on the key as the strip is removed in the conventional manner.

An object of the invention is the provision of an opening key for the removal of a scored tearing strip formed in the can body wall, such an opening key being provided with a flattened shank section which is slotted in an undulated, serrated shape so that when such a slotted shank is applied to the tearing tongue of the container, the serrated edges bordering upon the slotted opening bite into the tearing tongue and take a firm grip upon the tongue so that there is no slippage when removing the tearing strip.

Another object of the invention is the provision of an opening key of the character described which is adapted to grip firmly the tearing tongue at the terminus of the tearing strip, permitting the use of tearing tongues of reduced length with substantial material saving of can body stock.

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 fragmentary perspective view of a sealed container and an attached opening key embodying the present invention;

Fig. 2 is an enlarged plan view of the slotted opening key showing its serrated slot.

Fig. 3 is a similarly enlarged view in side or edge elevation of the opening key.

Fig. 4 is a transverse sectional view through the key shank shown in Fig. 2, as viewed substantially along the line 4—4 with a portion of the tearing strip tongue shown within the slot; and

Fig. 5 is a fragmentary view in side elevation of the upper portion of the container shown in Fig. 1, and illustrating a serrated slotted opening key in a gripped position upon the tearing tongue and preparatory to removing of the tearing strip.

For the purpose of illustrating the invention, Figure 1 of the drawing shows a can body 11 provided with encircling spaced score lines 12 which set off a tearing strip 13 therebetween, said strip terminating in a tearing tongue 14. A can end or cover 15 having a countersunk panel 16 is secured to the upper part of the can body in a suitable end joint or seam as at 17.

A container opening key 18 (Fig. 2) comprises a piece of round key or wire stock which has been bent to produce a looped handle or head part 19 at one end of a shank or stem part 22. The shank is flattened at its mid-section 23 so that the key may be slotted in an elongated opening as at 24. Such a slotted opening preferably is formed by bending or offsetting the material of the flattened section outwardly in opposite directions from the plane of the flattened portion 23, as best illustrated in Fig. 4, along an undulating or serrated outline.

The opposite sides of such an irregular elongated opening are thus of irregular or serrated configuration. These opposite sides are outwardly spaced or offset in respect to each other just sufficiently to permit the tearing tongue 14 to enter within the opening when the key is applied. A plurality of complementary aligned and extended or tooth-like edge portions 25 constitute this serrated construction and serve to firmly hold the opposite flat surfaces of the tearing tongue 14 when the latter has been inserted in the slot.

The shank 22 is also flattened at the end opposite the handle as at 26. One face of the flattened section 26 is formed with two small mounds or tits 27 which are spaced apart (Figs. 2 and 3). These mounds are for the purpose of providing

contact points for spot welding the key 13 to the cover 15 in the usual manner.

A weakened section 23 is formed in the key shank 22 adjacent the flattened section 26 and this produces a break-off region in the key. Such a weakened section facilitates removal of the key from its welded or otherwise secured position as at 29 (Fig. 1).

The looped handle 19 of the key may easily be lifted to break its shank along the weakened section 23 as is usual preparatory to removing the cover from the sealed container. The key thereupon is engaged with the raised tongue 14 with the head or looped handle of the key extending outwardly of the end seam 17 of the container and with the slotted shank engaging the tongue in the usual manner (Fig. 5).

When the key is in this applied position only a slight turning action causes it to grip the opposite faces of the tearing tongue 14 in a firm non-slipping engagement. The tearing strip 13 then is severed along the score lines 12 as the strip is wound around the key shank. Such an action opens the container by completely separating the upper wall part of the body, designated by the numeral 32, which remains attached to the cover.

The cover 15 with the extended body part 32 may be replaced as a reclosure in the usual manner, when such containers are provided with an internal collar. Such collars are usually retained within the container by a body bead, as indicated at 33 (Fig. 1). Obviously, the key disclosed in the instant invention may also be used to open containers which are not to be reclosed, the cover being discarded.

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 key for opening sealed containers, comprising a shank having a handle portion at one end thereof, a portion of said shank being flattened and provided with an elongated opening for receiving the end of a removable area of the container, said opening being defined by outwardly bent serrated portions of the flattened shank extending in opposite directions out of the plane thereof, whereby to provide a firm grip upon said container tearable area when the key is applied to open the container by winding said tearable area onto said key.

2. A key for opening sealed tearing strip containers, comprising a round wire shank terminating in a looped handle portion at one end thereof, a portion of said shank being flattened and provided with an elongated opening for receiving the end of the container tearing strip, opposite sides of said opening being defined by outwardly bent complementary serrations on the flattened shank portion extending in opposite directions out of the plane of the flattened shank, whereby to insure a firm biting grip upon said container tearing strip when the key is applied to the end thereof to open the container by winding said tearing strip onto said key.

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