May 28, 1935. S. P. F. SNEED 2,002,591

BOX OPENING DEVICE

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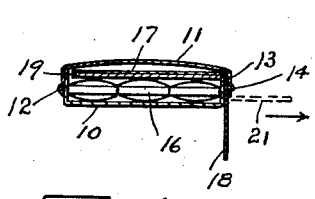


Fig 1

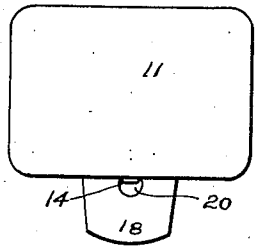


Fig 2

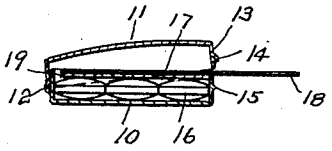


Fig 3

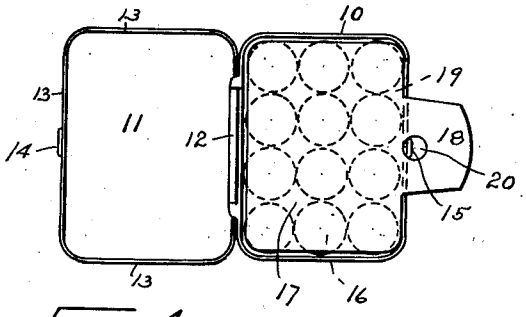


Fig 4

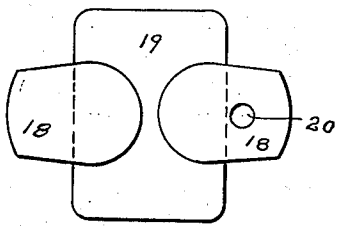


Fig 5

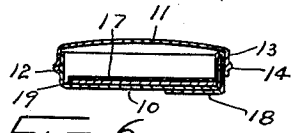


Fig 6

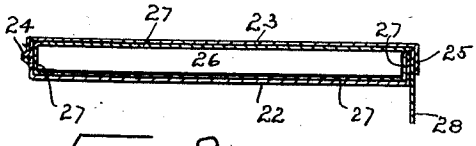


Fig 8

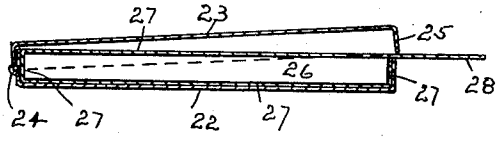


Fig 9



Fig 7

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BOX OPENING DEVICE

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4 Claims. (Cl. 220—43)

The invention relates to devices for facilitating the opening of boxes of the type wherein a cover has a rim extending down over the box and fitting snugly thereon. It has for its main object to provide a simple and inexpensive device by means of which boxes of this kind may be easily and conveniently opened by a simple, single operation without danger of spilling or upsetting the contents of the box; and by means of which, if desired, the contents may also be sufficiently raised to facilitate its removal.

Another object is to provide a device which can be inserted in boxes of this type without requiring any change or alteration in the box itself, in the arrangement of its contents or in the machinery used for filling such boxes. A further object is to utilize, as a partial instrumentality, the filler or the wrapper of whatever kind is used in such boxes. A still further object is to provide a device which will not occupy enough additional space to interfere with the packing of the individual boxes in the cartons in which they are now packed. These and various other objects and advantages will be readily understood from the following description and from the accompanying drawing of preferred embodiments of the invention in which, however, various modifications may be made without departing from the scope of the appended claims. In the drawing

Fig. 1 is a cross-sectional side view of a hinged metal box in which the opening device has been inserted,—the box being shown closed;

Fig. 2 is a plan view of the same box;

Fig. 3 is a side view similar to Fig. 1, but showing the box open;

Fig. 4 is a plan view of the same box, shown with its cover thrown wide open;

Fig. 5 shows a modification of the opener illustrated in Figs. 1, 2, 3 and 4;

Fig. 6 is a cross-sectional side view of a similar box in which the opener is inserted in a different manner;

Fig. 7 is a side view of the opener illustrated in Figs. 1, 2, 3, 4 and 6;

Fig. 8 is a cross-sectional side view of a box of a different design in which the opener is employed,—the box being shown closed; and

Fig. 9 is a similar side view of the same box, but shown open.

Referring first to Figs. 1 to 4 inclusive, the box selected for illustrating the invention is the one commonly used for the dispensing of "aspirin" or similar tablets. It will, however, be understood that there is no intention to limit the invention to any particular type or style of box, but that the opener may be used in any box for which it is suitable. The box illustrated consists of a box 10 and a cover 11 which are hinged together at 12. The cover has a rim 13 which extends down over the box and the front of the rim is provided with the customary bulge 14 which snaps over a co-acting bulge 15 raised on the front of the box. A plurality of tablets is shown at 16.

The box opener consists of a linen member 17, formed to fit the box and having a sidewardly extending tab 18 which projects over the edge of the box. While I prefer to use a linen member and tab, I have found in actual practice that on small boxes requiring opening only a few times, strong paper will serve equally well. I prefer to glue, or otherwise attach, the opener to the filler 19 commonly employed in such boxes to prevent the contents from being disarranged or rattling. The filler may be merely a piece of chip board, or it may be a folded circular or a printed booklet of instructions. The filler, which also has the general outline of the box, is placed on top of the contents, while the tab projects outside of the box, being held between the box and the rim of the cover as plainly shown in Fig. 1. So as not to interfere with the snap action of the bulges 14 and 15, an opening 20 is punched in the tab. The bulge 15 projects through this opening.

To open the box it is merely necessary to lift the tab to the position shown by the dotted lines 21 and to pull lightly in a direction indicated by the arrow. The tab will then lift the cover, as shown in Fig. 3, without in any way disturbing the contents; while the filler, being restrained by the front edge of the box, will prevent the complete withdrawal of the box opener.

When the boxes are packed in cartons, the tabs are folded under the boxes as plainly shown in Fig. 6; in which position they occupy very little space. In Fig. 6, instead of placing the filler on top of the contents, the filler is placed in the bottom of the box and the contents placed on top of the filler. By this arrangement it is not only possible to open the box by a slight pull on the tab, but, after the box is opened, its contents may be partly lifted to facilitate its removal.

In Figs. 8 and 9 a box such as is customarily used for the dispensing of cigarettes or little cigars has been chosen as an illustration. It consists of a box 22 and a cover 23 which are hinged together at 24. The rim 25 of the cover extends down over the box. A little cigar is

shown at 26. In this embodiment the wrapper 27, in which the cigars are customarily enveloped, is used as the box opening device, either by attaching a tab to its front edge, or by merely allowing this front edge 28 to extend beyond the edge of the box, as shown in Fig. 8. A pull on this projecting part, in the same manner as previously described, will raise the cover, as shown in Fig. 9.

While the boxes thus far illustrated and described are of the hinged type, it will be understood that the device may as readily be used on boxes having detachable covers. In such cases the rim of the cover opposite the edge from which the tab projects acts as a fulcrum upon which the cover is lifted. In some instances it may be advantageous, particularly on larger boxes of this type, to employ two tabs as shown in Fig. 5. In such case the simultaneous pulling on both tabs will lift the cover completely off the box.

It is evident that a single tab, such as shown in Fig. 5, may be used in the cases illustrated in Figs. 1 to 4 and in Fig. 6 instead of using a member covering the entire filler. These tabs are secured to the filler by an adhesive, or in any other suitable manner. In some cases, as for example where the filler is a circular or a booklet, the tab may be merely a part of such circular or booklet extended outside the box.

Having described my invention and its advantages, what I claim as new and wish to protect by Letters Patent is:

1. A box opening device of the class described, comprising a box, a filler loosely inserted in said box and having sidewardly projecting tabs bent over the edges of the box and held between the rims of the box and its cover; the ends of said tabs extending sufficiently beyond the rim of the cover to permit them to be grasped by the fingers of the user.

2. A box opening device of the class described, comprising a box having a hinged cover, a filler loosely inserted in said box and having a projecting tab bent over that edge of the box which is opposite the hinge and held between the rims of the box and its cover; said tab extending sufficiently beyond the rim of the cover to permit it to be grasped by the fingers of the user.

3. A box opening device of the class described, comprising a box having a snap-fastening means for locking the cover on the box, a filler loosely inserted in the box and having a projecting tab bent over the edge of the box and held between the rims of the box and its cover, said tab extending sufficiently beyond the rim of the cover to permit it to be grasped by the fingers of the user, and an opening formed in said tab through which the snap-fastening means of the cover may operate.

4. A box opening device of the class described, comprising a box, a relatively thick filler loosely inserted in said box and having a thinner projecting tab bent over the edge of the box and held between the rims of the box and its cover; said tab extending sufficiently beyond the rim of the cover to permit it to be grasped by the fingers of the user, and the greater thickness of the filler forming a shoulder which butts against the inner side of the box and prevents the displacement of the filler when a pull is exerted on the tab.

STEPHEN P. F. SNEED.