Nov. 18, 1941. A. EIDAM 2,263,353

BOX OPENER

Filed Nov. 4, 1940

Fig. 1.

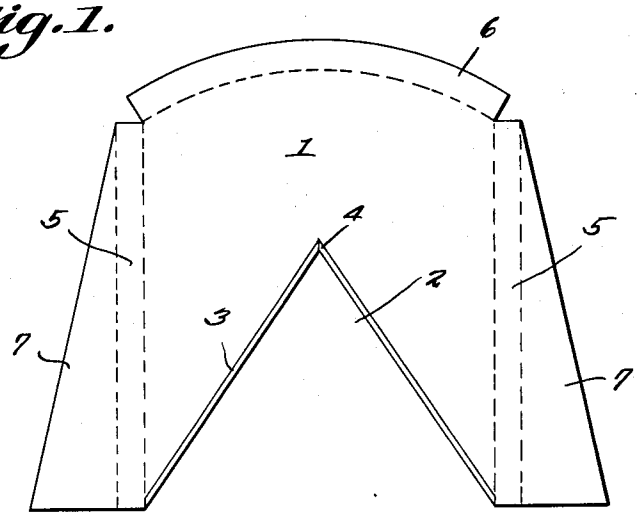


Fig. 2.

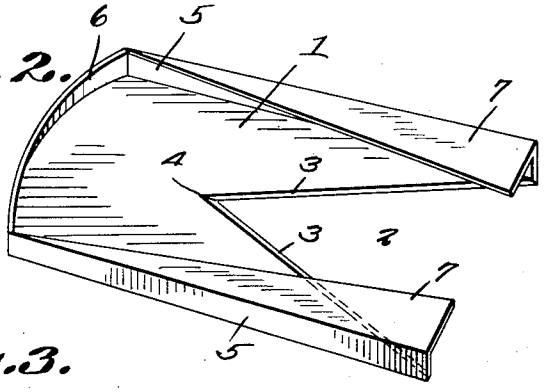
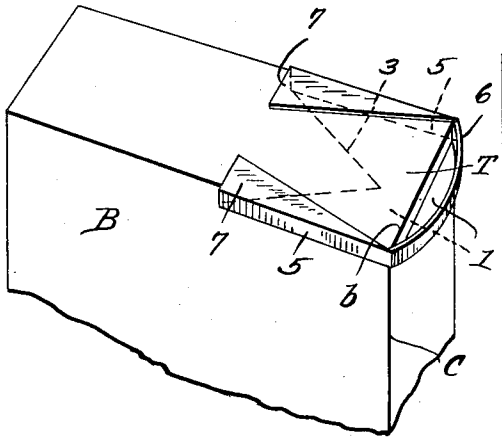


Fig. 4.



Fig. 3.



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BOX OPENER

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Application November 4, 1940, Serial No. 364,292

5 Claims. (Cl. 30—2)

This invention relates to a box opener designed primarily for use in opening cardboard boxes such as used for holding cereals, soap powders, and other merchandise of a like nature.

Various means have been devised for opening boxes of this type but all of them have been objectionable for one reason or another. The general practice is to cut the back from the corner of a box with a knife. This, however, is dangerous and unsatisfactory. The problem has also been met, in part, by making specially constructed boxes with weakened areas adapted to be pushed in or pulled out by the user. This, however, has its disadvantages because of the effort required to push them in and also the danger of breaking the finger-nails. Furthermore when a box is opened by any of the methods stated, the contents remain exposed to insects and dust.

An object of the present invention is to provide a tool which is cheap to manufacture and can be used easily by any one, the action of the tool being such that when it is applied to the corner portion of the box it will shear across the narrow side close to the top and will also shear into each of the broad sides, thereby forming a part of the box top into a tongue on which the tool is mounted. By then lifting the tool, the tongue engaged thereby is also lifted so that the contents of the box are free to flow therefrom. When the tool is released it acts as a weight for closing the tongue and excluding foreign substances.

A further object of the invention is to provide a tool which can be handled easily without danger of injury to the user and which can be manufactured at such low cost that it could be used for free distribution as an advertising medium.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

In the accompanying drawing the preferred form of the invention has been shown.

In said drawing

Figure 1 is a plan view of a blank from which the device can be shaped.

Figure 2 is a perspective view of the complete article.

Figure 3 is a perspective view showing the article in position on the corner portion of a box.

Figure 4 is a side elevation showing the box open after it has been cut.

Referring to the figures by characters of reference, 1 designates a flat blade of a width slightly greater than that of a box of standard size and extending into this blade from one end is a V-shaped recess 2 providing cutting edges 3 which converge at an acute angle and come together at a point 4.

Along the sides of the blade are upstanding parallel flanges 5 extending throughout the length thereof and terminating at the outer ends of the cutting edges 3 while their other ends are joined by a transverse flange 6 which can be rounded as shown. Supporting wings 7 are extended along the flanges 5 throughout the length thereof and toward each other, these wings overlying the blade 1 and preferably being of gradually decreasing width toward the flange 6. The wings 7 are so spaced from blade 1 that when they are in position on the top of a box, they will act to support blade 1 where it is beneath the level of but close to said top.

In practice, when it is desired to open a box B, the narrow side *b* of the top end of the box is positioned within the wide end of the recess 2 with the wide ends of the wings 7 resting thereon. The device is then thrust onto the top end of the box and this causes the cutting edges 3 to shear inwardly toward each other through the front and back surfaces of the box commencing at the corners *c* until a portion of the end of the box is completely severed at one side and along portions of the front and back from the other portions of the back, thereby forming a tongue T firmly embraced by the box opener. By then pressing the opener upwardly by means of the rounded end containing the flange 6, the tongue will be bent along a line coinciding substantially with the broad ends of the wings 7 and as shown in Figure 4, thereby exposing the contents of the box so that they can be poured therefrom.

The device can be removed from the tongue and when it is desired to close the box the tongue can be pressed down into closed position. Preferably, however, the device is left on the tongue so as to constitute a weight whereby, after a sufficient amount of material has been removed from the box, the weighted tongue will close automatically and fit so firmly in place as to exclude foreign substances.

As shown particularly in Figure 1 the device can be formed from a suitably shaped blank of sheet metal of suitable hardness and obviously it thus

becomes possible to produce the articles at low cost.

Importance is attached to the fact that the cutting edges are all located inwardly from the end of the blade. In other words there is no projecting point tending to injure a person handling the opener. The cutting edges are shielded to a certain extent and will not become easily dulled by striking against unyielding surfaces.

The flange 6 not only presents a rounded thrust receiving surface but it also acts as a handle whereby the device can be readily grasped while being manipulated. It also adds weight to the device to facilitate gravitation of the engaged tongue to closed position.

What is claimed is:

1. A box opener including a blade having cutting edges converging into the blade from one end, and supporting wings joined to the sides of and overlying the blade.

2. A box opener formed of a single blank of sheet metal shaped to provide a flat blade having cutting edges converging into the blade from one end, and supporting wings formed by the sides of the blank and spaced from the blade, said wings overlying portions of the blade and cutting edges and being extended toward each other past the cutting edges.

3. A box opener formed of a single blank of sheet metal shaped to provide a blade having cutting edges converging into the blade from one end, side flanges spaced to receive therebetween a portion of a box to be opened, and supporting wings on the flanges extended toward each other and longitudinally of the flanges.

4. A box opener including a blade having an angular recess in one end providing inwardly converging cutting edges, a flange at the other end of the blade constituting a thrust-receiving handle, and supporting wings joined to the sides of the blade and overlying but spaced from the same.

5. A box opener formed in a single piece of sheet material and including a flat blade having a V-shaped recess extending into one edge, the walls of the recess being sharpened, flanges extending upwardly from the sides of the blade, and wings extended toward each other from the flanges and extending over the cutting edges.

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