

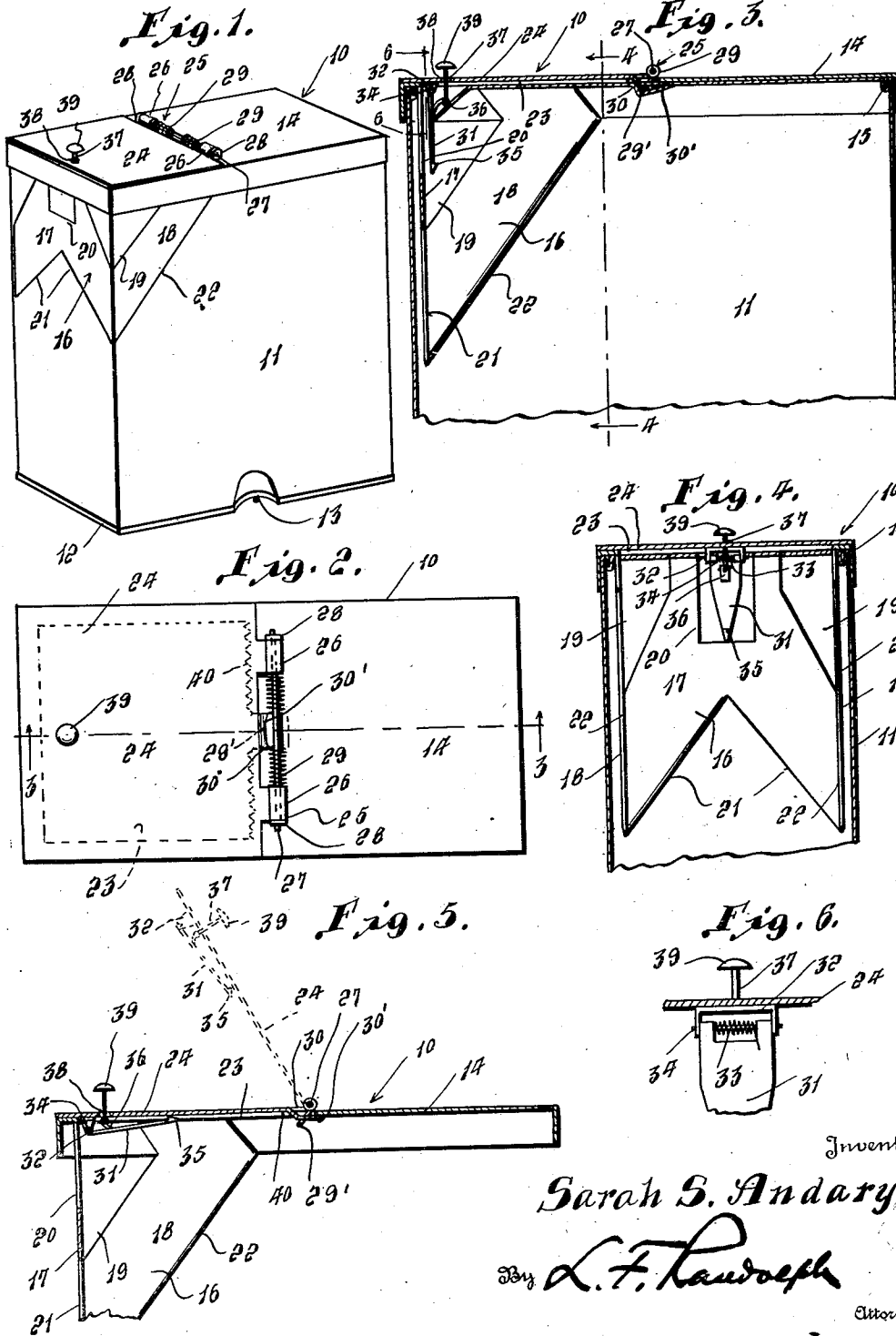
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OPENING AND DISPENSING DEVICE

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OPENING AND DISPENSING DEVICE

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This invention relates to a novel opening and dispensing device for boxes and packages and especially designed for cereal containers and other merchandise in the form of a mass of fine particles which may be poured.

A primary aim of the invention is to provide a device adapted to cover one end and the sides of a cereal box to protect the contents thereof from moisture, said device being provided with a transparent body portion so that labels and other printed matter on the sides of the box may be seen for indicating the contents thereof.

A further aim of the invention is to provide a device which will neatly open the box and including a closure adapted to automatically open when the device is tilted for dispensing the contents of the box, said closure automatically returning to a closed position when the device is placed in an upright position for sealing the contents of the box to retain the cereal in a fresh, crisp condition.

Still another aim of the invention is to provide an improved cutting member for cutting a flap in the top of the box for forming an opening therein and means, associated with the closure of the device for pulling the flap outwardly of the box and for severing the flap from the box.

Other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, which illustrates a preferred embodiment thereof, and wherein—

Figure 1 is a perspective view of the invention,

Figure 2 is a top plan view of the same,

Figure 3 is a vertical sectional view taken substantially along the plane of the line 3-3 of Figure 2,

Figure 4 is a transverse vertical sectional view taken substantially along the plane of the line 4-4 of Figure 3,

Figure 5 is a view similar to Figure 3 showing the cover of the device detached from the body portion thereof, and

Figure 6 is a detail view partly in section and partly in elevation showing the means for removing the flap from the box.

Referring more particularly to the drawing, wherein like reference characters designate like or corresponding parts throughout the different views, 10 designates generally the opening and dispensing attachment for boxes and packages which includes a body portion 11 of transparent material having a lower open end bound by a reinforcing beading 12, preferably of metal.

The body portion 11 is adapted to be disposed around a box, not shown, for enclosing the sides thereof and is made transparent so that labels and printed matter contained thereon may be easily read for ascertaining the contents of the box. Body portion 11 at its lower edge is provided with recesses 13 in opposite sides thereof to permit the lower end of the box to be grasped between the fingers for removing it from the device 10. The upper end of the body portion 11 is closed by means of a rigid cover 14, which may be formed of sheet metal, and which is attached thereto by means of an interlocking joint 15 or may be secured thereto in any other suitable manner as by means of an adhesive.

A knife 16 is secured to and depends from the cover 14 adjacent one end thereof. Knife 16 is disposed within the body 11 and includes a blade 17 which is disposed adjacent an end of the cover 11 and transversely thereof and the corresponding blades 18 which are disposed longitudinally of the cover 14. Blades 17 and 18 are formed integral and are provided with the V-shaped cut-out portions 19. The blade 17 is also provided with a cut-out portion 20, adjacent its top. Blade 17 is provided with the downwardly diverging cutting edges 21 and the blades 18 are provided with the downwardly inclined cutting edges 22 each of which is disposed in converging relationship to a cutting edge 21 and at a right angle thereto.

The cover 14 is provided with an opening 23 disposed between the blades 18 and which is normally closed by means of a door or closure 24 which is hinged at 25, intermediate of the ends of the cover 14. The hinge 25 is formed by extensions 26 on one end of the door 24 which are looped around a pin 27, the ends of which pin are journaled in apertured ears 28 which are struck-up from the cover 14. A spring 29 has its ends coiled about the pin 27 and is provided with a rearwardly and downwardly projecting, arcuately shaped intermediate portion 29' which extends through an opening 30, in the cover 14 and beneath the hinge 25. The door 24 is also provided with a downwardly and rearwardly projecting lip 30', which extends through the opening 30 and is disposed behind the portion 29' when the door 24 is in a closed position, for a purpose which will hereinafter be described.

An arm 31 is hingedly connected to a bracket 32 which depends from the door 24, adjacent its free end. A spring 33 is carried by the hinge pin 34, which pivotally connects the arm 31 to

the bracket 32. Spring 33 normally urges the arm 31 upwardly to a position against the under side of the door 24. The arm 31 is provided with an inwardly projecting hook 35, at its free end, and is provided with an apertured ear 36 on its inner side and adjacent its secured end to which is pivotally connected a plunger rod 37 which is slidably mounted in an opening 38 in the door 24 and which is provided with a headed upper end 39 disposed above the door and adapted to be pressed downwardly to swing the arm 31 downwardly and into the opening 20, for a purpose which will hereinafter be described.

The edge of the cover 14, along the inner edge of its opening 23, is sharpened and toothed to form a serrated cutting edge 40.

From the foregoing it will be seen that the attachment 10 can be applied over a box, containing cereal for example, which the body portion 11 is sized to fit and as the attachment 10 is moved downwardly thereon the body portion 11 will engage the sides of the box, not shown, to form a guide for the cutting knife 16 which will cut a flap in one end of the box. As the device 10 is pushed down on the box the rod 37 is held in a depressed position for holding the arm 31 in a lowered position with its free end 35 in the opening 20 so that said end will pass the outer end of the flap, not shown, which is formed by the cutting edges 21 and 22. After the attachment 10 is pressed down to completely cover the cereal box the plunger 37 is released thereby permitting the spring 33 to swing the arm 31 upwardly beneath the outer end of the flap. The closure 24 is then swung to an open position and the flap detached from the arm 31 to disconnect it from the box by being drawn across the cutting edge 40 for severing the flap. The closure 24 will be normally held by gravity in a closed position except when the device 10 is tilted to cause the contents of the box to flow through the opening therein formed by the knife 16 and through the opening 23 so that the pressure of the contents will open the door 24 to permit the cereal to be poured therefrom. When the device 10 is returned to an upright position the door 24 will resume its closed position to thereby substantially seal the opening 23 to retain the contents of the box in a fresh, crisp condition. Should the door 24 be swung open past an angle of substantially forty-five degrees to the cover 14, the lip 30' will engage the portion 29' to tension the spring 29 so that when the closure 24 is released the pressure of the spring on the lip 30' will urge the door 24 back toward a closed position. As previously mentioned the transparent body portion 11 permits printed matter on the box contained within the device 10 to be read. It will thus be apparent that the device 10 will provide a neat attachment for cereal boxes to form a neat opening therein so that the unsightly irregular torn openings will be avoided and as a result the cereal box will be maintained in an attractive condition and with the attachment 10 applied thereto will form an attractive container which will enhance the appearance of a dining table.

Various modifications and changes are contemplated and may obviously be resorted to as only a preferred embodiment of the invention has been disclosed.

I claim as my invention:

1. A pouring attachment for containers comprising a cover adapted to be applied to the top of a container, cutting means depending from

said cover for piercing the top of the container for forming an opening therein, said cover having an opening arranged to be disposed above the opening formed in the container, a hinged closure for closing the opening in said cover, and hinged manually operative means carried by said closure for engaging a cut-out portion in said container formed by the cutting means and for drawing said cut-out portion outwardly through the opening in the cover when the closure is moved to an open position.

2. An attachment as in claim 1, said cover being provided with a cutting edge along one end of its opening for severing the cut-out portion from the container.

3. An attachment as in claim 1, comprising a transparent apron depending from the cover and adapted to fit over the side walls of the container and forming means for guiding the attachment in applying it to the container for directing the cutting means into engagement with an end of the container.

4. An attachment as in claim 1, said closure being adapted to be opened by the pressure of the contents of the container when said container is tilted in one direction for dispensing the contents thereof, said closure being returned to a closed position by gravity when the container is returned to an upright position, and spring means for urging the closure toward a closed position when the closure is moved to a fully opened position.

5. An attachment as in claim 1, said cutting means comprising a plurality of integral blades, one of said blades being disposed at right angles to the other blades, said first mentioned blade having a cutting edge disposed in downwardly converging relationship to a cutting edge of each of said last mentioned blades.

6. An opening and dispensing attachment for boxes comprising a flanged cover adapted to be applied over the top of a box, said cover having depending cutting means for forming an opening in the box when the cover is applied thereto, said cover having an opening arranged to be disposed over the opening formed in the box, a hinged closure for closing said opening, said cutting means including a plurality of integral blades, one of said blades being disposed transversely of the cover, and the other blades being disposed longitudinally of the cover, said first mentioned blade having downwardly diverging cutting edges and said last mentioned blades having cutting edges each disposed in downwardly converging relationship to one of said first mentioned cutting edges to coact therewith for cutting a flap in the top of the box to form the opening thereof.

7. An opening and dispensing attachment for boxes comprising a flanged cover adapted to be applied over the top of a box, said cover having depending cutting means for forming an opening in the box when the cover is applied thereto, said cover having an opening arranged to be disposed over the opening formed in the box, a hinged closure for closing said opening, said cutting means including a plurality of integral blades attached to and depending from the cover, one of said blades being disposed transversely of the cover, and the other blades being disposed longitudinally of the cover, said first mentioned blade having a cutting edge disposed in downwardly converging relationship to a cutting edge of each of the last mentioned blades for cutting a flap in the top of the box

to form the opening thereof, and means carried by said closure for engaging the flap and for drawing the flap outwardly through the opening of the closure when the closure is swung to an open position.

8. An attachment for use with an opening and dispensing device for cereal boxes comprising a rectangular body portion having one end

thereof attached to the dispensing device, the opposite end of the body portion being open to receive the cereal box for insertion endwise therein, and said body portion being formed of a transparent, substantially rigid material and being sized to snugly engage the side walls of the box.

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