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Delivery Box With Perforated Folding Edges

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DELIVERY BOX WITH PERFORATED FOLDING EDGES

Abstract

A delivery box is provided that is perforated at one or more of the folding edges to allow the box to be easily ripped apart for placement in a recycling bin or for storage.

Description

As online ordering of products continues to expand, end consumers must deal with an increasing number of delivery boxes. Nearly all delivered items arrive in cardboard boxes of various sizes, and the consumers are tasked with disposing of the boxes. Currently, the consumer must recycle or throw the boxes away, and storing the boxes until recycling pick up is burdensome. The boxes are typically difficult to break down, flatten, rip apart, or otherwise configure for easy storage and disposal.

The delivery box described hereon includes folding edges that are scored or that are otherwise perforated to allow the folding edges to be torn apart more easily than a with a conventional box. When the perforated edges are torn apart, the box may be torn into a number of sections to allow the user to flatten the box or otherwise reduce the volume of space needed to store the box. In certain examples, the box is reduced to six pieces that may be stored flat or used for another purpose.

In certain examples, the top and/or bottom of the box are composed of two flaps that can be taped or otherwise affixed to one another to create a closed box with six sides. In this example, each flap can be torn along the perforations, just as the sides are torn. If the flaps are affixed to each other, then six sections of cardboard may be left after the box sections are torn apart. If the flaps are not affixed to each other, then the box may be torn into eight sections.

That is, the sections would include four side sections, and two top flaps, along with two bottom flaps.

In another example, the top and/or the bottom of the box are each composed of four flaps that may be taped or otherwise affixed to one another to create a closed box with six sides. In this example, the flaps may be torn along the perforations just as the sides are torn. If the flaps are affixed to each other, then six sections of cardboard may be left after the box sections are torn apart. If the flaps are not affixed to each other, then the box may be torn into twelve sections. That is, the sections would include four side sections, and four top flaps and four bottom flaps.

In another example, only the sides of the box are perforated. In this example, the top and bottom of the box are not torn. Each side of the box is torn from each other, but the top remains affixed to at least one side of the box. If the top has four flaps, then each flap will remain with a side of the box. Similarly, if the bottom has four flaps, then each flap will remain with a side of the box.

In an example, the box with perforations can be constructed of a more durable and rigid material than normally would be selected if the box did not have perforations. That is, when perforations are used as described herein, a more durable material may be desired to provide structural integrity substantially equivalent to that of a conventional box. For example, if a certain thickness of cardboard would ordinarily be selected for a particular application, then a thicker grade of cardboard is selected for the application when the folding edges are to be perforated.

Referring to Figure 1, in some implementations of the technology, a delivery box 100 is delivered to the customer with each folded crease of the delivery box 110 perforated to allow the delivery box to be torn apart along the perforations on the folding edges 115. In Figure 1, delivery box 120 is depicted without perforations along the folding edges 105. This delivery box 120 is burdensome to break down and flatten for storage or disposal. To flatten this delivery box 120, a user must cut the box apart with a knife, rip the delivery box cardboard apart without the benefit of perforations, remove tape or other seals from portions of the delivery box 120, or otherwise manually disassemble the delivery box 120.

Delivery box 100, however, includes perforations along the folding edges 110, 115. The perforations for delivery box 100 are provided along the four sides of the delivery box 110 and also along the top of the delivery box 115. The bottom of the delivery box 100 is similarly shown with perforations. In an example, the top folding edges 115 may either be connected to a single flat piece serving as the top of the delivery box 100 or the top folding edges 115 may either be connected to two or four flaps that are affixable to one another to create a box top or are otherwise configurable to create a box top. A similar construction may be employed on the bottom of the delivery box 100.

The sections of the delivery box 100 may be separated from one another by tearing the delivery box 100 apart along the perforations. The delivery box 100 may be torn along as many perforations as is desired for storage or disposal. For example, a user may tear the delivery box 100 along every perforation to create six, eight, or twelve sections of the delivery box 100. In another example, only the number of edges needed to make the delivery box 100 lie flat are torn apart. Any other suitable strategy may be employed to break down the delivery box 100.

In Figure 2, a delivery box 130 is shown with only the side folding creases 110 perforated to allow easy tearing. The folding edges 215 connecting the top and bottom sections to the sides are not perforated. This configuration allows the sides of the delivery box 130 to be torn apart without tearing the top and bottoms of the delivery box 130 from the sides. In this configuration, the delivery box 130 will typically be broken down into four pieces.

1/2

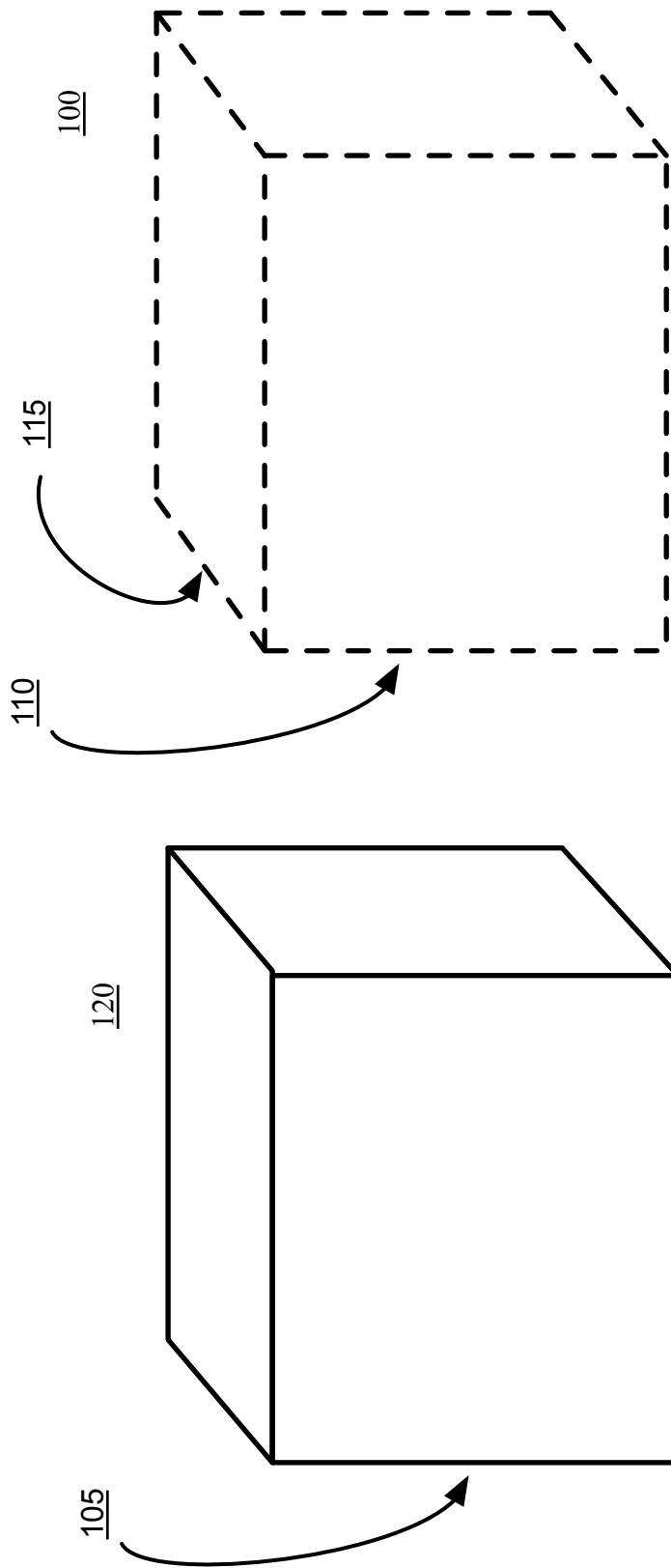


Fig. 1

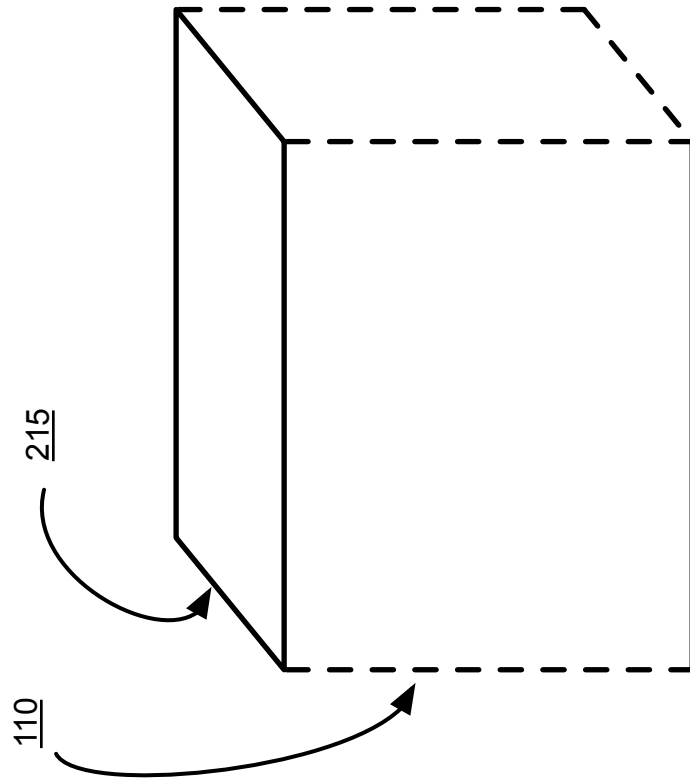


Fig. 2