

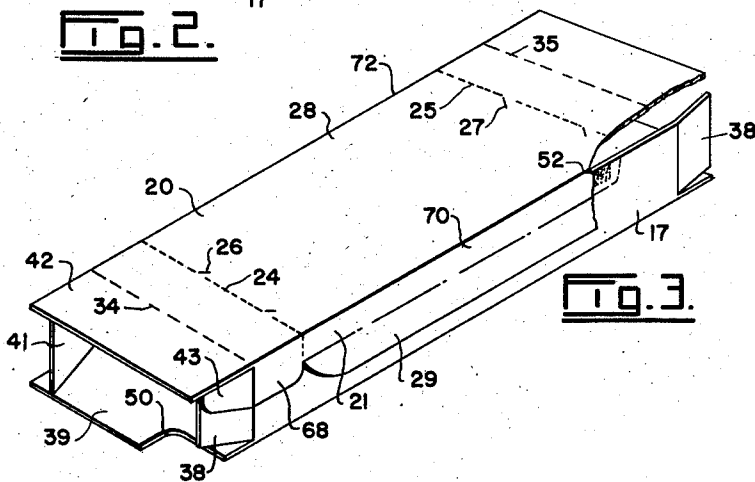
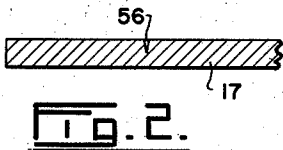
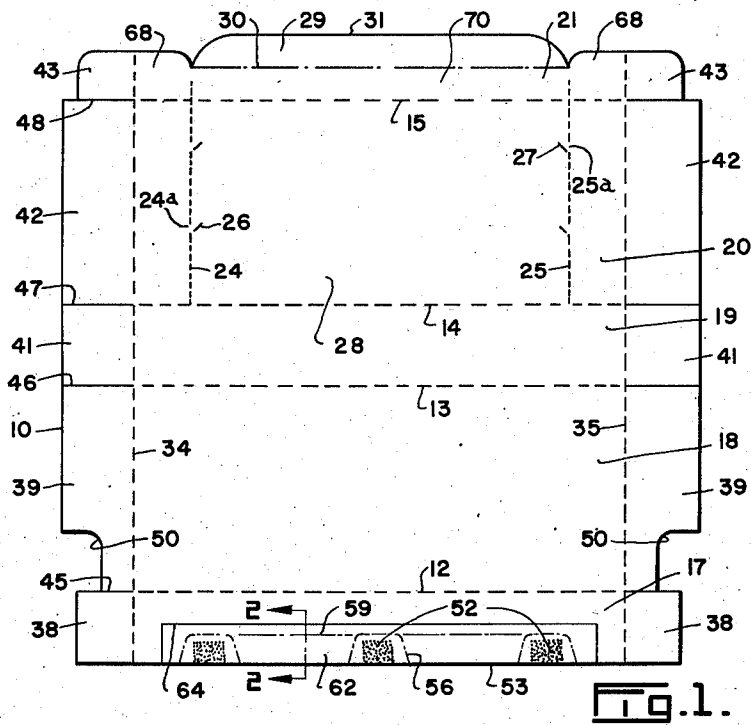
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RECLOSABLE CARTON

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RECLOSABLE CARTON

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6 Claims. (Cl. 229—37)

This invention relates to improvements in cartons of the type that are normally sealed with the contents therein, and which may be partially opened in order that the contents may be removed.

Cartons of this type are used for various food products, such as cube sugar. The carton is sealed, and the product remains therein until the purchaser is ready to use it. Then the carton is opened, but it is usually used to store the product until it has all gone. In view of this, it is desirable to have a carton that may be easily opened or which may be easily unsealed, and frequently opened and closed over a period of time.

Cartons of this type are in existence today, but it is comparatively difficult to get into most of them without tearing or partially destroying the carton. This treatment gives the carton an unsatisfactory appearance, and thereafter it does not properly protect its contents from dust or the like. In addition to this, with sugar cartons, some of the sugar usually breaks off the cubes, and when the carton is torn, this sugar frequently spills out of it.

The main object of the present invention is the provision of a carton of the nature described which may be quickly and easily opened. It is so designed that it will open without tearing the material thereof. As a result of this, the carton remains in good shape so that it can be used as a container as long as the sugar or other commodity lasts. Special means have been incorporated into this carton to prevent the cardboard from tearing, excepting along desired lines, and it also includes means for preventing the leakage of the sugar granules out of it either before or after it is unsealed.

The present carton is formed of cardboard, and it is substantially rectangular in cross section when erected. It includes a cover section to be opened extending across at least a portion of the top thereof to an edge of said top, a flap connected to the cover section and extending downwardly over the carton side, and a plurality of spaced glued patches securing the flap to the adjacent carton side. There is a scoring in the carton side around each glue patch so that when the flap is pulled away from the side to open the cover section the surface of said side under each glue patch comes away with the flap without tearing the carton material. This carton, with or without the scoring, may have a coating of ink around each glue patch, said ink being of a type that glue will not adhere to it. This helps to eliminate the possibility of any portion of the cover flap adhering to the carton side outside of the glue patches.

These features and others will become apparent from the following description:

An example of a carton constructed in accordance with this invention is illustrated in the accompanying drawings, in which:

Figure 1 is a flat layout of a carton blank,

Figure 2 is an enlarged fragmentary section taken on the line 2—2 of Figure 1,

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Figure 3 is a perspective view of a partially erected carton with the ends thereof still unfolded,

Figure 4 is a fragmentary perspective view of an end of the carton with the flaps of said end partially folded into their final positions,

Figure 5 is a perspective view of a completely erected and sealed carton,

Figure 6 is an enlarged fragmentary sectional view taken on the line 6—6 of Figure 5, and

Figure 7 is another perspective view of the carton after it has been opened, showing the cover section raised above the carton body.

Referring to Figures 1 and 2 of the drawings, 10 is a cardboard blank for this carton. It is scored or creased longitudinally along lines 12, 13, 14 and 15 to form side 17, bottom 18, side 19, top 20 and flap 21. Spaced perforation lines 24 and 25 extend across the top 20 spaced inwardly from the ends thereof from the score line 14 at one end and across flap 21 at the other end. These perforation lines are interrupted at 24a and 25a in order not to weaken the material too much along them. If desired, angular cuts 26 and 27 may be located inside these lines adjacent interruptions 24a and 25a, respectively. The perforation lines form a cover section 28. A tip 29 is formed on the outer or free edge of flap 21 between the perforation lines 24 and 25. Actually, the tip forms part of the flap, and the latter is scored or creased along line 30 spaced inwardly from the free edge 31 thereof. The score or crease line 30 extends between perforation lines 24 and 25, and it is intended to permit the tip to be bent relative to the flap.

Score or crease lines 34 and 35 extend transversely of the blank, each being spaced inwardly a little from an end of the blank. The crease or score line 34 forms glue tab 38, inner end panel 39, glue tab 41, outer end panel 42 and tab 43 on the corresponding ends of side 17, bottom 18, side 19, top 20 and flap 21, respectively. These tabs and panels are separated by spaced slits 45, 46, 47 and 48. A notch 50 is formed in the outer edge of inner end panel 39 at one end thereof, said notch being approximately the same size and shape as tab 43. The crease or score line 35 forms similar tabs and panels at the opposite end of the blank and these have been given the same numbers for the sake of convenience.

A plurality of spaced glue patches 52 are provided on side 17 at the free edge 53 thereof, said patches being in line with the flap tip 29 at the opposite edge of the blank. A scoring 56 in the carton side extends around each glue patch. Each of these scorings is deep enough to permit the outer surface of the cardboard upon which the glue patch is located to be separated from the remainder of the material. An additional scoring 59 in the carton side extends from the scoring of each patch to the next adjacent patch near the inner edges of said patches.

If desired, a coating of ink 62 may be placed on side 17 around the glue patches 52. In this example, a band of ink is applied to the side, said band being defined by line 64. There is, however, no ink on the material at each glue patch. The ink used is such that glue will not adhere to it. While it is preferable to include the scorings 56 and 59 with or without the ink band, the latter may be used without said scorings, although this is not considered as good as when the scorings are included.

The carton is formed by standard procedure. The blank is folded along line 13 to bring the free edge 53 on side 17 along line 15. Then flap 21 is folded over side 15. The two end portions 68 of the flap are glued to the side 17, while tabs 43 are glued to glue tabs 38. It will be noted that the glue patches 52 are of such width that they engage only portions of flap 21, but are clear of the flap tip 29. These glue patches firmly secure the portion

70 of the flap between perforation lines 24 and 25 to the carton side.

When it is desired to use the carton, it is erected into a tube 72 of substantially rectangular cross section, as clearly shown in Figure 3. The portion 70 of flap 21 forms a flap for the cover section 27, and the tip 29 is secured to the latter flap. The flap 70 extends downwardly over the carton side 17 and is secured thereto by glue patches 52. The flap tip 29 also extends down over said carton side, but it is not secured thereto.

Glue tabs 38 and 41 are folded inwardly, and inner end panels 39 are folded over the tabs, see Figure 4. It will be noted that tab 43 fits within notch 50 at this time. With this arrangement, the end panel 39 extends the full width of the carton along line 34 so that there is no chance of leakage along the edge of the bottom 18. The fact that the tab fits in the notch eliminates an extra thickness of material at this point. It has been found advisable to provide the tabs 43 since they help to keep the portions 68 of flap 21 in place against side 17.

Finally, the outer flaps 42 are folded over the inner flaps and tabs 43, see Figures 5 and 6. The outer panel is glued in place. Thus, the carton is closed and completely sealed. By referring to the ends of the carton shown in Figures 5 and 7, it will be seen that the outer panel lies flat over tab 43 and the portion of the inner panel 39 therebeneath so that there is no danger of leakage at this point. If the tab were folded over the outer surface of the inner panel, the outer panel would extend down over the tab and then have to bend in to reach the outer surface of the inner panel. This would tend to form a small opening around the bottom of the tab.

When it is desired to open the carton, the flap tip 29 may be bent outwardly since it is not secured to the adjacent carton side. This tip extends between perforation lines 24 and 25 and, therefore, when the tab is pulled upwardly, the material of the carton separates along the perforation lines so that the cover section 28 may be raised, as shown at Figure 7. The angular cuts 26 and 27 prevent the material from tearing inwardly of the perforation lines at the interruptions 24a and 25a while the cover section is being raised. The scorings 36 around the glue patches 52 have been provided so that when the flap is pulled away from the carton side, the outer surface of the cardboard bounded by the scorings comes away from the remainder of the material. The reason for this is that the scorings cut the fibres of the cardboard for a short distance inwardly of the outer surface thereof. This prevents the cardboard from tearing in the wrong places. The scoring 59 is provided as a safety measure in case the flap is accidentally glued to the carton side at points outside the glue patches. This would result if glue dropped on to the carton side in the wrong places. However, if the ink band 62 is provided along the carton side, this is not likely to happen since the glue will not adhere to the ink.

This carton may be used for storing the commodity even after it is opened. The cover section 27 closes the carton when the flap and its tip are tucked down into the carton inside side 17.

The embodiments of the invention in which an exclusive privilege or property is claimed are defined as follows:

1. In a cardboard carton having a top, bottom and two sides, a flap connected to an edge of the top extending the length thereof and extending down over one of the carton sides, said flap being secured to the carton side at both ends of the latter, glue tabs connected to each end of the carton sides folded inwardly over the carton ends, a tab connected to each end of the flap folded inwardly over the adjacent glue tab and glued thereto, each of said flap tabs extending from the top of its glue tab part way down the latter, inner and outer end panels secured to each end of the carton bottom and top respectively and extending the full width thereof, a notch in the upper edge of each inner panel to fit around the adjacent flap tab when the inner panel is folded inwardly, each outer panel being folded downwardly over the adjacent inner panel and glued thereto.

2. A cardboard carton as claimed in claim 1 in which the carton top and the flap connected thereto are scored along lines spaced inwardly from the carton ends to form a cover section which may be raised from said top to open the carton, and including a plurality of spaced glue patches securing the flap to the adjacent carton side, and a scoring in the carton side around each glue patch, whereby when the flap is pulled away from the carton side to open the cover section the surface of said side under each glue patch comes away with the flap without tearing the carton material.

3. A cardboard carton as claimed in claim 1 in which the carton top and the flap connected thereto are scored along lines spaced inwardly from the carton ends to form a cover section which may be raised from said top to open the carton, and including a plurality of spaced glue patches securing the flap to the adjacent carton side, and a coating of ink around each glue patch, said ink being such that glue will not adhere to it.

4. A cardboard carton as claimed in claim 2 including an additional scoring in the carton side extending between the patch scorings near the bottoms thereof.

5. A cardboard carton as claimed in claim 2 in which a tip is hingedly connected to the lower edge of the flap between the scorings thereof and normally bears against but is free of the carton side, whereby said tip may be bent outwardly to form gripping means when it is desired to pull the flap away from the carton side.

6. A cardboard carton as claimed in claim 3 in which the flap is scored longitudinally thereof between its scorings and spaced inwardly from its lower edge, said score being below the glue patches to form a tip on the flap which normally bears against but is free of the carton side, whereby said tip may be bent outwardly to form gripping means when it is desired to pull the flap away from the carton side.

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