Title: A box and method

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ABSTRACT

The present invention relates to a box or carton that is suitable for packaging goods such as, and by no means limited to confectionary goods, and is suitable for presenting the goods to customers at a point of sale in the box. The present invention also relates to a method of packaging goods in a box and using the box at a point of sale for displaying the goods.
Figure 1
AUSTRALIA

Patents Act 1990

COMPLETE SPECIFICATION

Innovation Patent

Applicant:

AMCOR LIMITED

Invention Title:

A BOX AND METHOD

The following statement is a full description of this invention, including the best method for performing it known to me/us:
A BOX AND METHOD

FIELD OF THE INVENTION

5 The present invention relates to a box or carton that is suitable for packaging goods such as, and by no means limited to confectionary goods, and is suitable for presenting the goods to customers at a point of sale in the box. The present invention also relates to a method of packaging goods in a box and using the box at a point of sale for displaying the goods.

BACKGROUND OF THE INVENTION

15 There are many different types of the boxes in commercial use that are suitable for presenting goods at a point of sale. Examples of boxes that are suitable for this purpose are the subject of our Australian design registrations 302497 and 315709. The registrations are in respect of boxes having a lid that is integrally formed with the box and a bucket formation that can be opened at a point of sale to allow customers to purchase goods from the box as desired.

20 It is an object of the present invention to provide an alternative box and a method in which goods are packaged in the box and may thereafter be displayed in the box at a point of sale.

SUMMARY OF THE INVENTION

The invention may be said to reside in a box suitable for containing and displaying confectionary at a point of sale, the box including:

a) a tray having a panel and side walls extending from the panel, the tray also having an opening into which goods can be loaded into the tray; and
b) a lid having a closure panel and at least one or more walls extending from the closure panel, wherein the lid is separately formed from the tray so that at least initially, the lid is unattached to the tray, and when the lid is unattached, the tray can be loaded with confectionary or any other material by, for example rapid filling machinery, wherein the tray and/or lid has a spout formation that can be moved between closed and opened positions, and when the box is viewed in an upright orientation the spout formation provides an upwardly facing opening that allows hand access into the box for removing goods stored in the box.

Throughout this specification, the terms "spout formation", "bucket formation" or variations thereof are used interchangeably.

One of the benefits of the present invention is that the tray and lid can be made from separate blanks. This enables the overall consumption of board, and in turn, the wastage of board to be minimised. Another benefit is that the box can more easily be filled using rapid filling machinery than comparable single piece boxes having integrally formed lids.

The invention may also be said to reside in a box suitable for containing and displaying goods such as confectionary at a point of sale, the box including:

a) a tray having a panel and side walls extending from the panel that define an opening into the tray, and the panel has a spout formation that can be moved between a closed position and an opened position and when the box is viewed in an upright orientation, the spout formation opens upwardly to provide hand access into the box; and
b) a lid having a closure panel and at least one or more walls extending from the closure panel, wherein the lid is separately formed from the tray so that at least initially the lid is unattached to the tray, and when unattached to the tray, the tray can be loaded with confectionary or any other desired material, for example using rapid filling machinery.

In an embodiment, when the tray is positioned in an upright orientation, the panel of the tray is a front panel and one of the side walls of the tray forms the base of the box.

In an embodiment, when the tray is positioned in an upright orientation, the side walls define a rearward facing opening and the lid is used to cover the rearward facing opening. In this embodiment, the tray can be oriented with the front panel facing downwardly to facilitate rapid filling of the tray before attachment of a lid to the tray.

According to an alternative embodiment, it is also possible that the tray may include a base and that the front panel and side walls extend from the base so as define an upwardly facing opening when the box is positioned in an upright orientation.

When used at a point of sale, the tray of the box may also be oriented so that the lid of the box may be removed to allow goods to be purchased from the box. In other words, one of the benefits is that the box may have dual modes for displaying goods in the box that allow goods to be purchased from the box. For example, in the situation in which the tray has a front panel and side walls defining a rearward facing opening, the tray can be oriented so that the front panel faces downward and the lid removed to
allow access onto the box via the upward opening. Alternatively, in the situation in which the side walls of the tray define an upwardly facing opening when the box is upwardly oriented both: i) the lid may be removed; or ii) the spout formation opened to allow access into the box.

The invention may also be said to reside in a method of packaging consumable goods in a box such as confectionary goods, the box including i) a tray having a panel, side walls extending from the panel, and an opening, the box also including a lid having a closure panel and walls extending from the closure panel, wherein the method including the steps of:

a) separately forming the tray and the lid so that initially the tray and lid are unattached;
b) loading goods into the tray via the opening;
c) attaching the lid over the opening of the tray to seal the box; and
d) providing an spout formation in the tray and/or lid so that when the box is positioned in an upright orientation, goods can be taken by hand from the tray when the spout formation is located in an open position.

The invention may also be said to reside in a method of packaging and dispensing consumable goods such as confectionary goods in a box, the box including i) a tray having a panel, side walls extending from the panel, and an opening into the tray, wherein the panel has a spout formation that can be moved between closed and opened positions such that when the box is viewed in an upright orientation, the spout formation opens upwardly to provide hand access into the box, and ii) a lid having a closure panel and walls extending from the closure panel, and the method including the steps of:

a) forming separate blanks so that one blank defines the tray and the other blank defines the lid in
which at least initially blanks of the tray and
the lid are unattached;
b) assembling the blanks of the tray and the lid;
c) loading goods into the tray;
d) attaching the lid over an opening of the tray and
thereby seal the box; and
e) opening the spout formation to allow hand access
into the box at a point of sale.

It will be appreciated that the steps mentioned above may
be carried out consecutively or disjunctively with periods
between two or more of the steps. The steps may also be
carried out at a single location or at multiple locations,
or by a single person or by two or more different people.

In an embodiment, the method may also include assembling a
blank of the lid to form the lid.

In an embodiment, the method may also include removing the
lid of the tray at a point of sale instead of step e) or
in addition to step e).

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will now be described in detail with
reference to the accompanying images of which:

Figure 1 is an illustration of a blank for making
a tray of a box according to a preferred embodiment of the
present invention, the blank including sections that form
a spout or bucket formation;

Figure 2 is a photograph of a blank for making
the tray shown in Figure 1 with the section for forming
the spout formation overlapping the remainder of the
blank;

Figure 3 is a photograph showing a perspective
view of the tray of the box shown in Figure 2 when
assembled and oriented so as to be facing downwardly on a
front panel of the tray;

Figure 4 is an illustration of a blank for making a lid suitable for being attached to the tray shown in Figures 3 and 4;

Figure 5 is a photograph showing a perspective view of the lid of the box shown in Figure 4 when assembled;

Figure 6 is a photograph showing a perspective view of the box with the lid attached to the tray and with the box positioned in an upright orientation and the spout formation located in an opened position; and

Figure 7 is a schematic illustration of method steps for assembling the box shown in Figure 6, packaging goods in the box, and using the box for displaying or dispensing goods at a point of sale.

DETAILED DESCRIPTION

A preferred embodiment of the present invention will now be described with reference to the Figures. The preferred box of the present invention comprises a tray and lid, wherein the tray comprises a front panel and side walls extending from the front panel, and wherein the lid comprises a rear closure panel and walls extending from the closure panel. When the box is located in an upright orientation, one of the side walls of the tray acts as a base for the box and the lid covers a rearwardly facing opening of the box. However, it will be appreciated that the tray and lid of the box may have a range of formations including a lid that is located on top of the box to cover an upwardly facing opening when the box is located in an upright orientation.

With reference to Figure 1, the blank of the tray includes a front panel 10, suitably a rectangular front panel, and four side wall panels 11, 12, 13 and 14, suitably rectangular panels that extend from the front panel 10
along fold lines 15, 16, 17 and 18 on each edge of the front panel 10. In particular, two of the side wall panels 12 and 13 extend from lengthwise fold lines 16 and 18 respectively, and two side walls 11 and 14 extend from fold lines 15 and 17 respectively across the width of the front panel 10.

The front panel 10 includes a line of weakness 19 that extends across the width of the front panel 10 to divide the front panel into an upper section 10a and a lower section 10b. Although not shown in Figure 1, part of the fold lines 18 and 19 interconnecting the lower section 10b to the side wall panels 12 and 13 also comprises a line of weakness that allows the lower section 10b of the front panel 10 to be moved outwardly about fold line 17 into an open position, as shown in Figure 6.

To assist in moving the front panel 10 between open and closed positions, a finger removable patch 20 enables a finger to be inserted behind an upper edge of the lower section 10b.

The side wall panels 12 and 13 have attachment flaps 21 and 22 on outer adjacent sides. The attachment flaps 21 extend from a lengthwise fold line 23 and the attachment flaps 22 extend from a fold line 34 that is oriented across the width of the side wall panel 10. Similarly, one of the end side wall panels 11 has attachment flaps 24 extending from opposite lengthwise fold lines 25. The attachment flaps 22 and 24 can be glued to the inside surfaces of the side walls 11, 12, 13 and 14 to hold the side walls into an assembled tray as shown in Figure 2.

Extending from the end side wall panel 14 is a spout or bucket formation that has a main panel 26 that is flanked by opposite guide panels 27 that are joined to the main panel 26 by fold lines 28. Each of the guide panels 27
includes a notch 29 and to one side of the notch 29 is a sliding edge 30, and on the other side a stopping portion 31. The main panel 26 is hingedly attached to the end side wall 14 by an interconnecting locating panel 32 that can best be seen in Figures 1 and 2. A fold line 33 interconnecting the main panel 26 and locating panel 32 substantially aligns with a bottom edge of the front panel 10 as shown in Figure 2. Although not essential, the main panel 26 is suitably also attached, for example using hot or cold glue to an inside face of the lower section 10b.

Moreover as can best be seen from Figure 6, when the box is positioned into an upright orientation, the lower section 10b of the front wall panel 10 can be pulled outwardly to locate the spout formation into an open position. When the spout formation is located in a fully opened position, the stopping portions 31 of the spout formation abut against the inside face of the upper section 10b of the front panel 10.

Figure 3 illustrates the side wall panels 11, 12, 13 and 14 assembled so as to define a rearwardly facing opening. Moreover, when the tray is located with the front panel 10 facing downwardly as shown in Figure 3, goods such as confectionary items can be loaded into the box, for example, by means of automated loading machinery.

Figure 4 illustrates a blank for forming a lid of the box. The blank includes a closure panel 40 which essentially has the same dimensions in terms of length and width to the front panel 10 of the box. The closure panel is shown as having a central fold line 41 in Figure 2, however, the fold line 41 is by no means necessary for the adequate use of the box. Located at opposite ends of the lid are walls 42 and 43 that can be glued, for example using any cold or hot adhesive to outside surfaces of the side walls 11 and 14 to attach the lid to the tray.
Figure 5 illustrates an assembled lid formed from the blank shown in Figure 2, and Figure 6 illustrates the lid attached to tray and box located in an upright orientation and the spout formation located in an open position.

The preferred embodiment of the present invention may also be said to reside in a method of packaging goods in a box and use of the box at a point of sale. The steps of the method are summarised in Figure 7 and may be described in terms of:

- forming or cutting one blank of a tray, such as the blank shown in Figure 1, and forming and cutting a second separate blank of a lid, such as the blank shown in Figure 4;
- assembling the blanks into the form of a tray and a lid, wherein the tray and lid are initially unattached;
- loading goods at a packaging line into the tray via an opening, suitably an upwardly facing opening when the tray is oriented as shown in Figure 3;
- attaching the lid over the opening to seal the box;
- transporting the box from the packaging line to a point of sale such as a retail outlet;
- removing the lid to allow customers to purchase goods from the box as desired; and
- locating the spout formation into an open position to allow customers to purchase goods as desired.

Those skilled in the art of the present invention will appreciate that many variations and modifications may be made to the preferred embodiment described above without departing from the spirit and scope of the present invention.
THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A box suitable for containing and displaying confectionary at a point of sale, the box including:
   a) a tray having a panel and side walls extending from the panel, the tray also having an opening into which goods can be loaded into the tray; and
   b) a lid having a closure panel and at least one or more walls extending from the closure panel, wherein the lid is separately formed from the tray so that at least initially, the lid is unattached to the tray, and when the lid is unattached, the tray can be loaded with confectionary or any other material by, for example rapid filling machinery, wherein the tray and/or lid has a spout formation that can be moved between closed and opened positions, and when the box is viewed in an upright orientation the spout formation provides an upwardly facing opening that allows hand access into the box for removing goods stored in the box.

2. A box suitable for containing and displaying goods such as confectionary at a point of sale, the box including:
   a) a tray having a panel and side walls extending from the panel that define an opening into the tray, and the panel has a spout formation that can be moved between a closed position and an opened position and when the box is viewed in an upright orientation, the spout formation opens upwardly to provide hand access into the box; and
   b) a lid having a closure panel and at least one or more walls extending from the closure panel, wherein the lid is separately formed from the tray so that at least initially the lid is unattached to the tray, and when unattached to
the tray, the tray can be loaded with confectionary or any other desired material, for example using rapid filling machinery.

3. The box according to claim 1 or 2, wherein the side walls of the tray define a rearward facing opening when the tray is located in an upright orientation and the lid is attached to the tray to cover the rearward facing opening.

4. A method of packaging consumable goods in a box such as confectionary goods, the box including i) a tray having a panel, side walls extending from the panel, and an opening, the box also including a lid having a closure panel and walls extending from the closure panel, wherein the method including the steps of:
   a) separately forming the tray and the lid so that initially the tray and lid are unattached;
   b) loading goods into the tray via the opening;
   c) attaching the lid over the opening of the tray to seal the box; and
   d) providing an spout formation in the tray and/or lid so that when the box is positioned in an upright orientation, goods can be taken by hand from the tray when the spout formation is located in an open position.

5. A method of packaging and dispensing consumable goods such as confectionary goods in a box, the box including i) a tray having a panel, side walls extending from the panel, and an opening into the tray, wherein the panel has a spout formation that can be moved between closed and opened positions such that when the box is viewed in an upright orientation, the spout formation opens upwardly to provide hand access into the box, and ii) a lid having a closure panel and walls extending from the closure panel, and the method including the steps of:
a) forming separate blanks so that one blank defines the tray and the other blank defines the lid in which at least initially blanks of the tray and the lid are unattached;
b) assembling the blanks of the tray and the lid;
c) loading goods into the tray;
d) attaching the lid over an opening of the tray and thereby seal the box; and
e) opening the spout formation to allow hand access into the box at a point of sale.
Forming and cutting a blank of a tray and forming and cutting a separate blank of a lid

assembling the blanks into the form of a tray and a lid that is not attached to the tray

loading goods into the tray, for example by means of an automated or a semi-automated machine

attaching the lid over an opening of the tray to form a sealed box

transporting the box from a packaging line to a retail outlet

removing the lid to allow customers to purchase goods as desired

Opening the spout formation to allow customers to purchase goods as desired