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3,266,665

DISPENSING CARTON FOR INTERFOLDED TISSUE SHEETS

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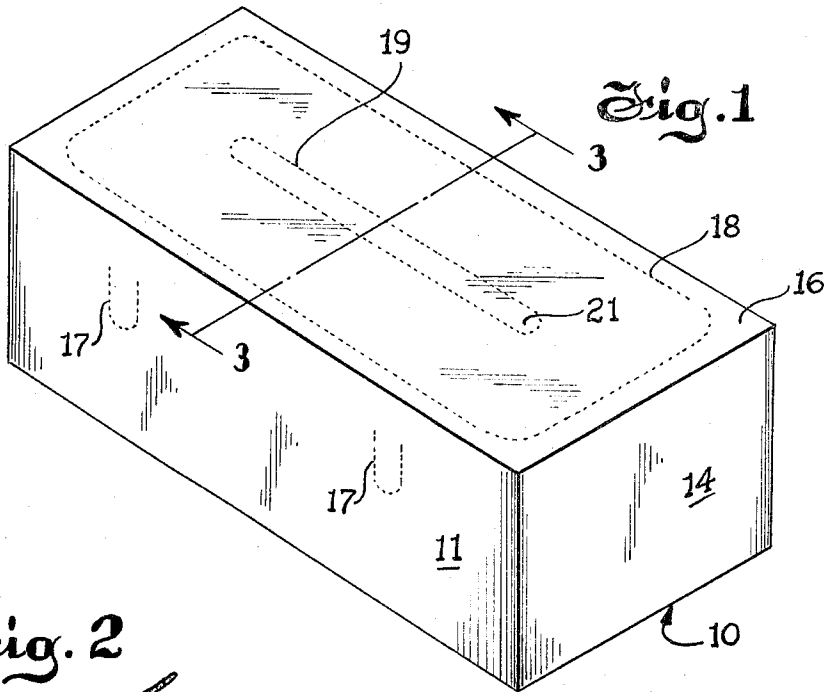


Fig. 2

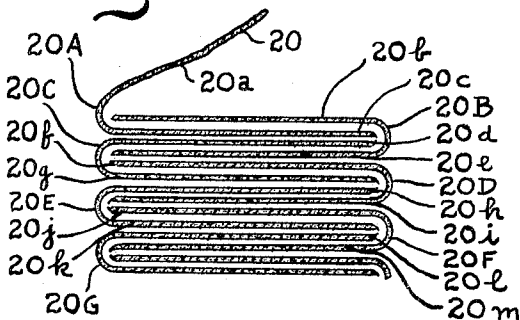


Fig. 4

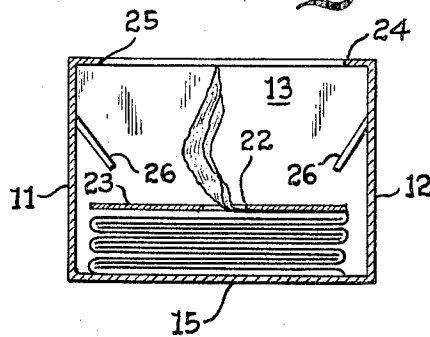
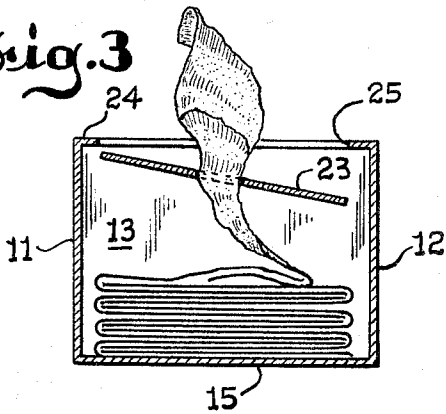


Fig. 3



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DISPENSING CARTON FOR INTERFOLDED
TISSUE SHEETS

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1 Claim. (Cl. 221-48)

My invention relates to sheet packaging arrangements
and particularly to receptacles or cartons in which sheets
of facial tissue or the like are packed and marketed.
More particularly, the invention relates to such cartons
which are adapted to receive tissue sheets that have been
interfolded and are so arranged to permit the user of the
product to dispense sheets from the carton one at a time.

Receptacles for serially dispensing interfolded tissue
sheets disposed in stacked relation in the receptacle have
been previously proposed and used. One of these has a
fixed top panel or cover with a rather large aperture there-
through, and a sheet discharge control panel is provided
between the stacked sheets and the top panel of the re-
ceptacle. The control panel fits loosely in the receptacle
and is of larger size than the aperture in the fixed top
panel of the receptacle and is slightly smaller in size than
the internal dimensions of the receptacle. The control
panel has an opening therethrough which is a little
smaller than the aperture in the top panel of the carton,
and sheets are drawn upwardly through the two apertures
to dispense them. The smaller sized opening permits
frictional engagement between a sheet being dispensed
and the next sheet in the stack so that each succeeding
sheet tends to stand in upraised position through the
opening in the control panel due to the preceding sheet
being withdrawn through the apertures of the control
panel and the top panel of the receptacle. The control
panel is of lightweight paperboard so as to be sufficiently
lightweight to permit the control panel to move upwardly
toward the upper panel of the receptacle upon withdrawal
of a sheet through the opening in the control panel and
subsequently return to rest upon the stack in the carton
with the next sheet projecting through the opening in the
control panel.

It is an object of the present invention to provide an
improved and more economically manufactured carton
of this type which is of such construction that the upper
panel of the carton may be broken into an internal part
and a fixed rim due to perforating provided in the top
panel of the receptacle, whereby the internal part of the
panel after being so broken away forms the control panel
which moves upwardly and downwardly within the carton
as sheets are individually withdrawn from the carton.

It is also an object of the invention to provide per-
forated tab portions on the sides of the carton which may
be utilized for the purpose of limiting the upward move-
ment of the control panel, after a part of the stack of
sheets within the carton has been used.

The invention consists of the novel constructions, ar-
rangements and devices to be hereinafter described and
claimed for carrying out the above stated objects, and
such other objects, as will be apparent from the follow-
ing description of a preferred embodiment of the inven-
tion, illustrated with reference to the accompanying draw-
ing, wherein:

FIG. 1 is a perspective view of a dispensing package
or carton embodying the principles of the invention
shown in its condition prior to the breaking of perfora-
tions in its top panel to open the carton and to provide
an internal sheet control panel;

FIG. 2 is a diagrammatic view illustrating the manner
in which sheets in the carton of FIG. 1 are folded;

FIG. 3 is a vertical sectional view taken on the line

3-3 in FIG. 1, and illustrating the contents of the car-
ton as they appear when a sheet is being withdrawn from
the carton; and

FIG. 4 is a view similar to FIG. 3 illustrating the con-
tents of the carton as they exist after a sheet has been
withdrawn from the carton and also illustrating the tab
means provided on the sides of the carton for limiting the
upward movement of the sheet control panel in the carton.

Like characters of reference designate like parts in the
several views.

The illustrated embodiment of the invention is shown
to be a box-like receptacle or carton 10 which is formed
of side panels 11 and 12, end panels 13 and 14, a bottom
panel 15, and a top panel 16. The receptacle 10 is pre-
ferably made from relatively inexpensive material, such
as cardboard or paperboard, so that it may be easily dis-
posed of when its contents have been removed. All of
the panels 11, 12, 13, 14, 15 and 16 are integral as the
package is marketed; however, the side panels 11 are
perforated along U-shaped lines 17 and the top panel 16
is perforated in a closed line 18 that is for the most part
parallel to and is adjacent to the edges of the panel 16,
and the top panel is perforated along an endless line 19
of slotted form in the center of the panel.

A stack of folded tissues 20 are provided within the
carton. Each of the tissues 20 is folded on a longitudinal
center line of each tissue so as to provide folds 20a, 20b,
20c, 20d, 20e, 20f, 20g, 20h, 20i, 20j, 20k, 20l, 20m,
etc. of tissues 20A, 20B, 20C, 20D, 20E, 20F, 20G, etc.
The tissues are interfolded with each other so that the
lower fold 20c of the uppermost tissue 20A lies under-
neath the upper fold 20b of the tissue 20B, and the lower
fold 20e of the tissue 20B lies beneath the upper fold
20d of the tissue 20C. The interfolding pattern through-
out the complete stack of tissue sheets is the same and is
such that the lower fold of a sheet next higher in the
stack lies beneath the upper fold of the sheet next lower
in the stack and tends to pull the latter upper fold up-
wardly along with it as it is pulled upwardly.

When it is desired to utilize the tissues within the
carton 10, the perforation line 19 is first broken, as by
running a fingernail along the line 19. An elongated
part 21 is thus broken away from the remainder of the
top panel 16 and is removed from the top panel, and the
line 19 is of such shape that an elongated slotlike opening
22 is thereby provided in the top panel 16.

The top panel 16 is then broken along the perforation
line 18, as by running a fingernail along the line 18, so as
to provide a control ring panel 23 (see FIGS. 3 and 4)
which has the slot 22 extending longitudinally of the con-
trol panel 23 along the longitudinal center line of the
panel 23. This leaves a narrow rim 24 remaining of the
top panel which is fastened to the side panels 11, 12, and
to the end panels 13 and 14, and the control panel 23 is
shoved downwardly into the carton 10 to provide an
aperture 25 defined by the rim 24.

When it is desired to utilize the sheets within the carton
10, they are drawn one at a time through the slot 22 in
the control panel 23. Initially, the top of the stack of
tissues 20 within the carton lies quite close to the rim 24,
and there is little movement of the control panel 23
within the carton 10. The sides of the slot 22 function
to frictionally engage the tissues as they are drawn
through the slot; and in view of the fact that the tissues
20 are interfolded as previously described, each upper
tissue as it is drawn through the slot 22 pulls the next
lower tissue in the stack partially through the slot so that
it partially protrudes upwardly from the slot and may be
easily grasped by the user.

As the stack of tissues 20 within the carton 10 is
depleted, the control panel 23 moves vertically to a
greater extent within the carton 10 from the top of the

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remaining stack of sheets to the rim 24; and as a tissue is withdrawn from the carton 10 under these conditions, the parts appear substantially as illustrated in FIG. 3. As a tissue is drawn through the slot 22, it moves the control panel 23 upwardly beneath the rim 24 due to the friction between the sides of the slot 22 and the tissue being withdrawn; and, after the tissue separates from the slot 22, the control panel 23 falls downwardly on the remaining stack of tissues, with the next succeeding sheet protruding upwardly through the slot as illustrated in FIG. 4, so that the sheet may be easily grasped by the user. Although the control panel 23 and the aperture 25 are of the same size, there is never an exact alignment of the edges of the control panel 23 with the edges of the rim 24 so that the control panel 23 remains within the carton and does not pull out of the carton.

After a substantial part of the stack of tissues within the carton has been used, the perforation lines 17 may be broken, and tabs 26 extending downwardly and inwardly of the carton are thereby provided (see FIG. 4). The control panel 23 on upward movement strikes the tabs to limit the vertical movement of the panel 23 which under these conditions would otherwise be more than half the height of the carton (the ends of the tabs 26 preferably lie approximately midway between the rim 24 and the bottom panel 15). Dispensing of the tissues from a substantially reduced stack height to thus improved due to the fact that the frictional engagement between a tissue being withdrawn through the slot 22 need not be relied on to pull the next succeeding tissue from the top of the stack of tissues for any greater distance than half the height of the carton 10.

My improved carton advantageously is so arranged that a portion of the top carton panel 16 may be removed from the remainder of the panel so as to provide the slotted control panel 23 freely movable vertically within the carton 10. No separate cost increasing control panel need, therefore, be provided while attaining the advantageous operation of such a floating control panel within the carton. The tabs 26 assure that the movement of the control panel 23 within the carton is not sufficiently great so that the frictional contact between succeeding sheets is not sufficient for pulling succeeding sheets through the slot 22 for substantially reduced height stacks of tissues 20 remaining in the carton 10.

I wish it to be understood that the invention is not to be limited to the specific constructions, arrangements, and devices shown and described, except only insofar as the claim may be so limited, as it will be understood to those skilled in the art that changes may be made without departing from the principles of the invention.

What is claimed is:

The combination of a rectangular carton for serially

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dispensing interfolded tissue sheets and a stack of interfolded tissue sheets disposed in said carton; said carton being formed by six rectangular panels including elongated top and bottom panels, two end panels and two side panels; said top panel having a first closed line of perforations in an elongate substantially rectangular pattern extending longitudinally of said top panel and being inwardly spaced a short distance from the edges of said top panel; said first line of perforations dividing said top panel into an intermediate, substantially rectangular, centrally disposed portion, and an outer narrow rim portion; a second closed line of perforations in an elongate pattern extending longitudinally of said top panel and being disposed completely within the boundaries of said first closed line and inwardly spaced therefrom; said second line of perforations defining a small section centrally disposed within said intermediate portion of said top panel; said smaller section adapted for detachment along said second line and manual removal from said carton whereby there is obtained an aperture for withdrawal of tissues therethrough; each of the side panels of said carton being provided with at least two U-shaped perforated lines spaced from said end panels and disposed approximately midway between said top panel and said bottom panel; the intermediate portion of said top panel being adapted for detachment along said first line and retention between said rim portion and said tissue stack and being of sufficient transverse width that when the level of said tissue stack falls below said U-shaped perforations and said intermediate portion is detached, said U-shaped perforations may be broken and the tabs formed thereby pushed inwardly to extend past the edges of said rim portion and over said intermediate portion when detached to limit vertical movement thereof.

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