

Oct. 29, 1963

W. J. TYRSECK ETAL

3,108,733

END OPEN BOX

Filed Oct. 10, 1960

3 Sheets-Sheet 2

FIG. 3.

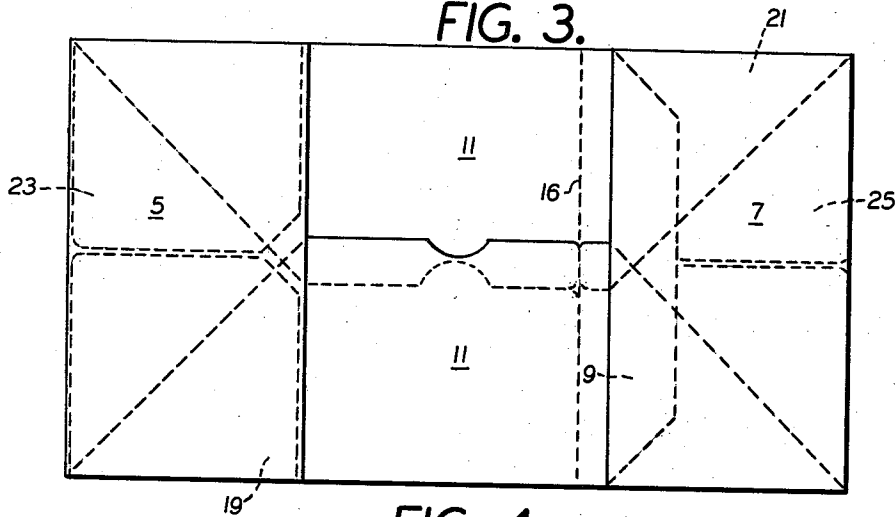


FIG. 4.

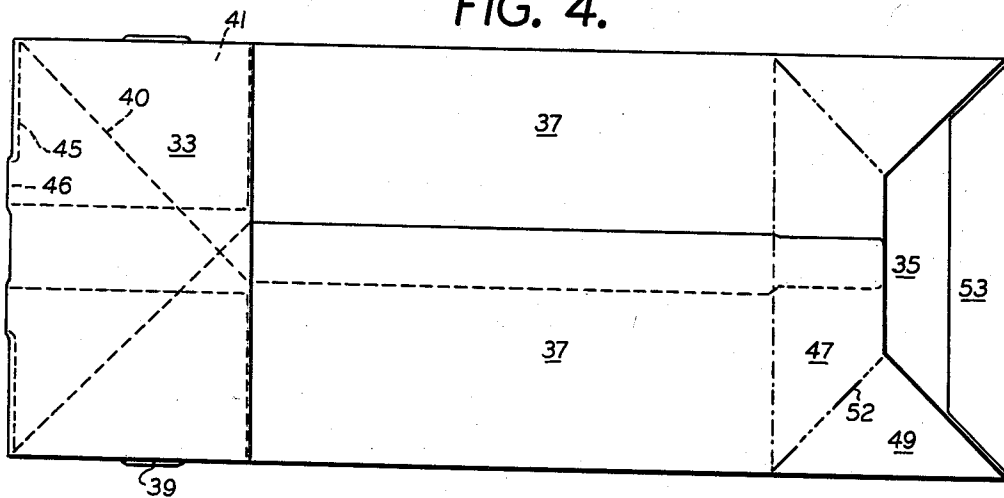


FIG. 8.

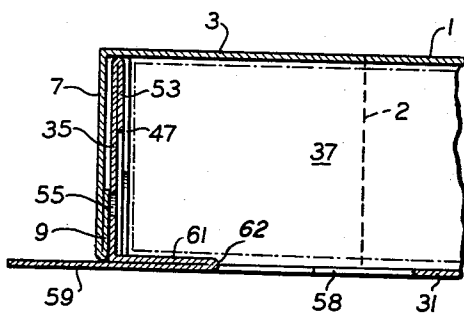
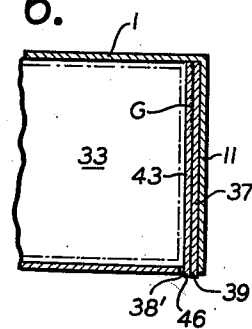
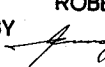


FIG. 6.



INVENTORS
WALTER J. TYRSECK
ROBERT A. HACKENBERG
BY  ATTORNEY.

Oct. 29, 1963

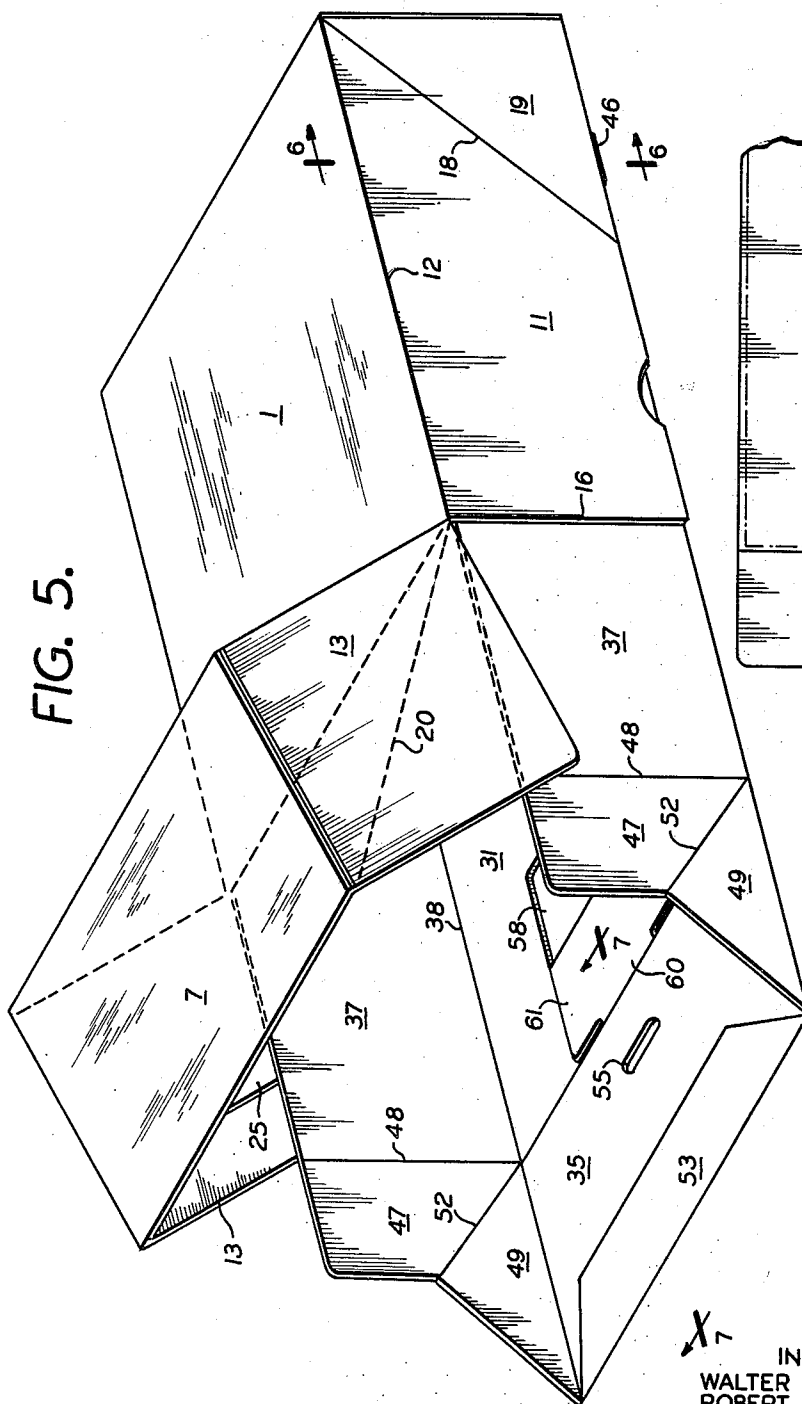
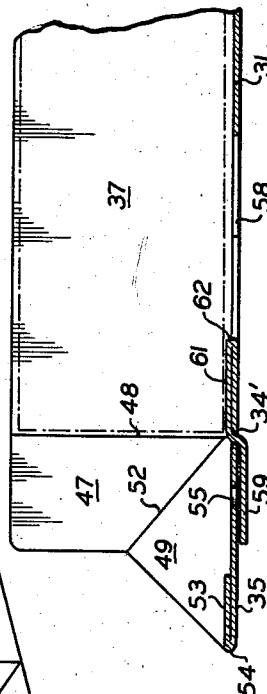
W. J. TYRSECK ETAL

3,108,733

END OPEN BOX

Filed Oct. 10, 1960

3 Sheets-Sheet 3



INVENTORS
WALTER J. TYRSECK
ROBERT A. HACKENBERG
BY 
ATTORNEY.

1

3,108,733

END OPEN BOX

Walter J. Tyrseck, Montville, and Robert A. Hackenberg, Norwich, Conn., assignors to Robertson Paper Box Company Incorporated, Montville, Conn., a corporation of Connecticut

Filed Oct. 10, 1960, Ser. No. 61,535

2 Claims. (Cl. 229—31)

This invention relates to folding paper boxes, and more particularly to boxes of a type such as used for envelopes or paper and which may be opened at one end to furnish access to the contents.

The general object of the invention is to provide an improved folding box of the type indicated.

A further object of the invention is to provide a box of the type indicated in which the box body retains the stack in position and does not present edges upon which the individual envelopes or sheets may catch or which might make impressions on the contents.

Another object of the invention is to provide a box of the type indicated incorporating a pull out tab by means of which the box may be extracted from a stack or row without disturbing other boxes.

A box embodying the invention in a preferred form will now be described with reference to the accompanying drawing, and the features forming the invention will then be pointed out in the appended claims.

In the drawing:

FIG. 1 is a flat view of a blank from which the top of the box is formed;

FIG. 2 is a flat view of a blank from which the bottom of the box is formed;

FIG. 3 is a flat view showing the collapsed box top ready for shipment;

FIG. 4 is a flat view showing the collapsed box bottom ready for shipment;

FIG. 5 is an isometric showing the set up box, as used, but with the contents omitted;

FIG. 6 is a fragmentary section on the line 6—6 of FIG. 5;

FIG. 7 is a fragmentary section on the line 7—7 of FIG. 5;

FIG. 8 is a section similar to FIG. 7, but showing the box in a different arrangement or position.

A blank for forming the box top as shown in FIG. 1 comprises a top element consisting of sub-panels 1 and 3, separated from each other by an embossed crease line 2 for hinging of one element with respect to the other in use. End panels 5 and 7 are joined to the top panel elements 1 and 3 along crease lines 6 and 8 for folding and the panel 7 has a glue flap 9 joined to it along the crease line 10. The two edges of the blank are the same and comprise side wall elements 11 and 13 attached to the top elements 1 and 3 along the crease lines 12 and 14. Elements 11 and 13 meet along the perforated line 16 which is breakable as hereafter described, and the panels 11, 13 have diagonal lines 18 and 20 defining triangular corner panel elements 19 and 21. The board is cut and scored for folding on the lines 18, 20. Each end wall panel 5, 7 is provided with side flap panels 23 and 25, respectively joined to the end wall panels by creased lines 24, 26.

In setting up the top, the blank is prepared with glue over the stippled areas indicated by letter G, so that flap 10 when folded over is joined to panel 7 to reinforce the upper edge thereof, while the end flap elements 23 and 25 are joined to the triangular elements 19 and 21.

2

As will be apparent to those skilled in the art, the collapsed box top of FIG. 3 is of the type known as "Beer's fold."

The bottom as formed from the blank of FIG. 2 is of a modified "Beer's fold" construction. The blank comprises a bottom panel 31 joined along cut and creased fold lines 32 and 34 to the end wall panels 33 and 35. The side wall panels 37 are joined to the bottom by score lines 38 and short cuts 38' which form small tongues 39 on the lower edges and toward one end of the side walls. At one end, the side wall panels 37 are cut and scored along diagonal lines 40 to form triangular corner elements 41 which cooperate with flaps 43 joined to the end wall 33 by score lines 44. The flap elements 43 are generally recessed along one edge as indicated at 45 and have projecting short tongues 46 which fit into the cuts 38' alongside the short tongues 39 previously referred to, when the box is set up. Gusset panels 47, 49 are provided at the other end of the box, panel 47 being joined to side wall 37 along a creased line 48 for folding, the panel 49 being joined to end wall panel 35 along a similar creased line 50 and the two gusset panels 47 and 49 meeting on the crease line 52 for folding with respect to each other.

Panel 35 also has a glue flap 53 joined to it along crease line 54. The end 35 has a cut out 55 to permit examination of the level of the contents without opening or handling the box and the blank is slit through as indicated at 34' in the middle of the hinge line 34. The bottom panel 31 has a T-shaped cut 58 defining a T-shaped element having a leg 59 and crosshead element 61, these two being joined on a crease line 60 and the crosshead element 61 being joined to the panel 31 generally by the crease line 62.

The bottom is set up as indicated in FIG. 4, end wall flap elements 43 being joined to the triangular portions 41 of the side walls 37 by applying adhesive over the indicated areas and glue flap 53 is folded over and joined to the end wall 35, adhesive being applied to the flap 53 over the area indicated.

In use, the box is filled with stationery such as envelopes fitting in the box with usual clearance, as indicated in phantom in FIGS. 6, 7 and 8. In shipping, the tab 59 may be left in the position of FIG. 2. In order to provide ready handling when the box is on the shelf, the entire tab may be bent under as shown in FIG. 8, so that element 59 projects out and may be used for pulling out the box from the shelf or stack of boxes. Preferably, the tab is folded forward on top of the bottom as indicated in FIG. 7 and element 59 is pushed out through the slit 34'.

What is claimed is:

1. A folding paper box for stationery comprising a rectangular box bottom, having side walls and an end wall joined thereby by gusset panels for folding out flat, a box cover fitting over the said bottom and having a hinged end section normally covering the box end and holding the said end wall in position and swingable up to afford access to the contents and permit folding the said end wall down flat, the box having a cut defining a section foldable back beyond the line of joining the end wall to the bottom and comprising a terminal tab, and the box having a slit along the said line and accommodating the said tab.

2. A folding paper box according to claim 1, in which the section defined by the said cut is also foldable underneath the box bottom to bring the tab into protruding relation beyond the end wall.

(References on following page)

3,108,733

3

References Cited in the file of this patent

UNITED STATES PATENTS

1,530,643	Blandford	Mar. 24, 1925
1,715,021	Wolf	May 28, 1929
1,895,070	Czerweny	Jan. 24, 1933
2,174,179	O'Brien	Sept. 26, 1939
2,210,443	Bergstein	Aug. 6, 1940

2,642,218

2,799,442

2,966,000

5

4,710

464,373

4

Platt June 16, 1953

Van Rosen July 16, 1957

Vohden Oct. 4, 1960

FOREIGN PATENTS

Great Britain July 29, 1914

Great Britain Apr. 16, 1937