June 15, 1948. S. N. LEBOLD 2,443,256

PACKAGING RECEPTACLE

Filed April 20, 1944 2 Sheets-Sheet 1

Fig. 1

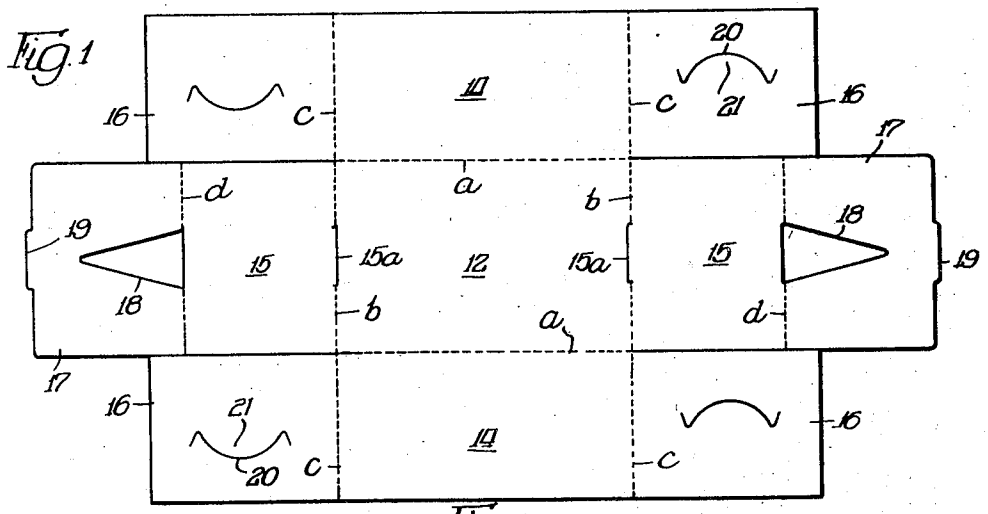


Fig. 2

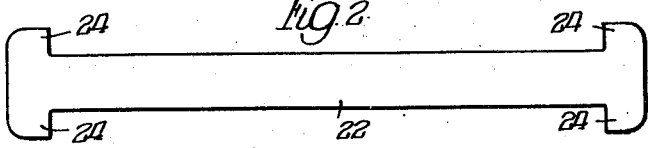


Fig. 3

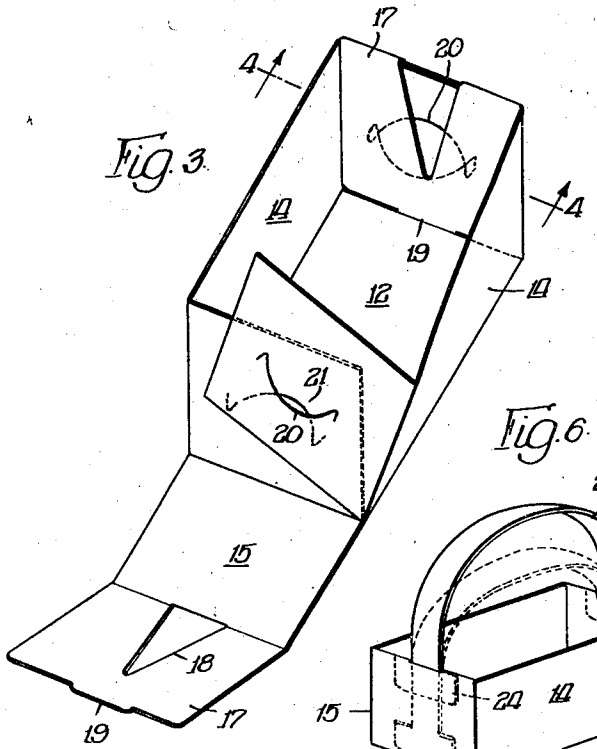


Fig. 4

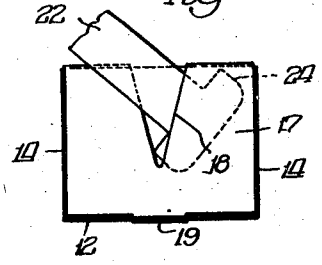


Fig. 5

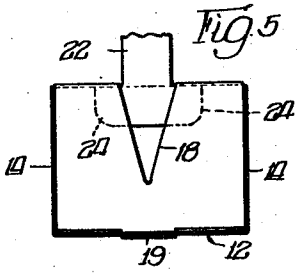


Fig. 6

INVENTOR.
Samuel N. Lebold,
BY
Attys.

June 15, 1948. S. N. LEBOLD 2,443,256

PACKAGING RECEPTACLE

Filed April 20, 1944 2 Sheets-Sheet 2

Fig. 7

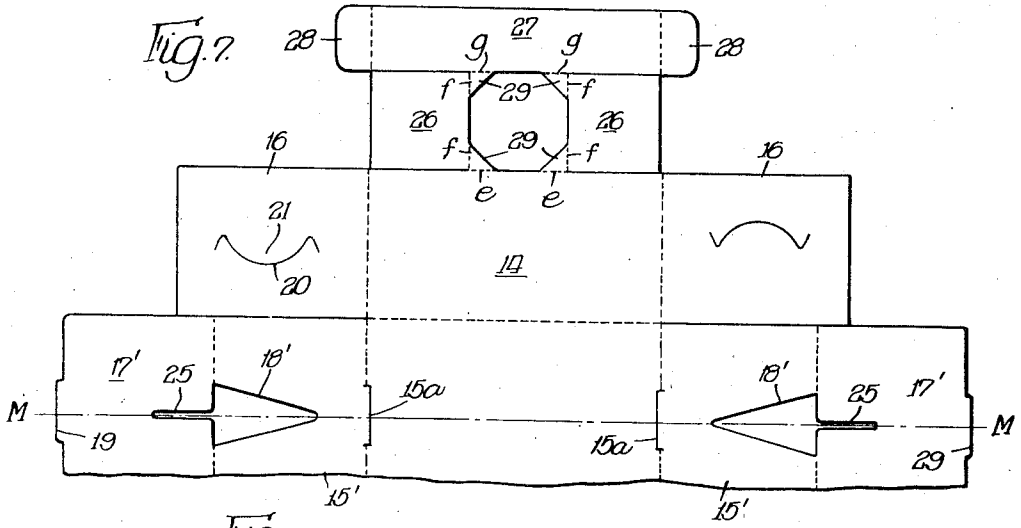


Fig. 8

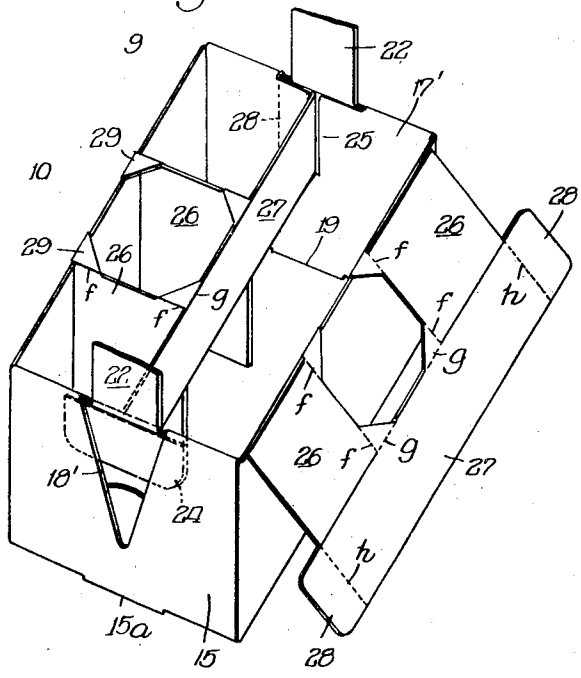


Fig. 9

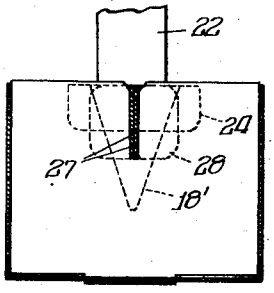
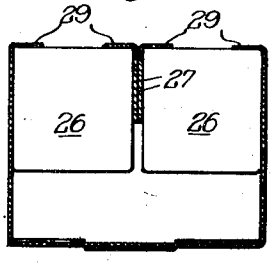


Fig. 10



INVENTOR.
Samuel N. Lebold,
BY
Connell, Smith & Hamm
Attys

Patented June 15, 1948

2,443,256

UNITED STATES PATENT OFFICE

2,443,256

PACKAGING RECEPTACLE

Samuel N. Lebold, Chicago, Ill., assignor to Morris Paper Mills, Chicago, Ill., a corporation of Illinois

Application April 20, 1944, Serial No. 531,905

2 Claims. (Cl. 229—28)

1

This invention relates to packaging receptacles such as may be made from paper board for the packaging of a plurality of articles in a manner such that they may be displayed and carried with convenience.

A general object of the invention is the provision of such a receptacle which may be produced very economically by being blanked out by a single press operation from paper board in a flat form in which it may be stacked and transported and from which it may be set up very quickly and easily by the user without requiring additional fastenings or special apparatus for so doing.

A particular object is the provision of such a knock-down receptacle equipped with a handle whereby it may be carried pendulously, the character of the receptacle and handle being such that their connection may be made very easily without additional fastenings and will be very strong and secure, even though the parts are made of light and relatively inexpensive paper board or similar material.

Another object is the provision of such a receptacle which may be knocked down again after it has been set up, so that it may be stored away in small space for re-use, and still another object is the provision of a construction wherein the handle may be depressed from its carrying position to a lowered position, so as to permit a plurality of the receptacles with their contents to be housed in a crate of a depth not exceeding the height of the contents.

Other and further objects will be pointed out or indicated hereinafter or will be apparent upon an understanding of the invention or its employment in use.

For aid in describing the invention I show in the accompanying drawings various forms in which it may be embodied, but it is to be understood that these and the accompanying description are presented merely by way of illustration and are not to be construed as limiting the appended claims short of their true and most comprehensive scope in the art.

In said drawings,

Fig. 1 is a plan view of the blank illustrating the knocked-down form of the receptacle;

Fig. 2 is a plan view of the handle;

Fig. 3 is a perspective view of the receptacle partly set up from the blank shown in Fig. 1;

Fig. 4 is a transverse sectional view on line 4—4 of Fig. 1, illustrating the position in which the handle is inserted for engaging a portion of the receptacle;

Fig. 5 is a similar sectional view showing the lower portion of the handle in its fully connected and fully elevated position;

2

Fig. 6 is a perspective view showing the completely assembled receptacle and handle, and showing in dotted lines the handle in its depressed position;

Fig. 7 is a part plan view of a modified form of blank, which blank is symmetrical across the median line M;

Fig. 8 is a perspective view of the receptacle as partially set up from such blank and showing the lower end portions of the handle connected thereto;

Fig. 9 is a transverse section on approximately line 9—9 of the completely assembled receptacle; and

Fig. 10 is a transverse section on approximately line 10—10 of the fully assembled receptacle.

The nature of the invention will be most quickly ascertained from a detailed description of the embodiments here shown, which are as follows.

The blank illustrated in Fig. 1 may be cut out of suitable paper board in a single operation of a conventional die press. It is slit and creased to provide a bottom 12 to which are conjoined side panels 14 which may be folded upwardly along crease lines *a* to substantially perpendicular relationship to the bottom, and end panels 15 which likewise may be folded upwardly to perpendicular position on crease lines *b*, a short tongue 15*a* being formed on each end panel and extending slightly into the end portion of the bottom panel. At each end of the side panels is a connecting flap 16 which is of approximately the same width as the bottom 12 and which may be folded on crease line *c* to right-angle relationship with its conjoined side panel 14. The outer or top margin of each end panel 15 is defined by a crease line *d* beyond which the material is continued as an end flap 17, the panel and conjoined end flap forming an end section which may be folded on itself along fold line *d*. Each end flap is provided with an aperture 18 which terminates at line *d* and extends therefrom in converging form in the end flap. At the outer end of each end flap is formed a shallow latching tongue 19 of width and location corresponding to the slot in which the related tongue 15*a* is formed. Each connecting flap 16 is formed with a latching slot 20 which is shaped to provide a latching tongue 21, those of the opposite connecting flaps being disposed in opposite or corresponding relationship. The blanks are stacked, packaged and shipped to the user in this flat form.

The handle is blanked out of paper board material, and, for the receptacle shown, is of approximately the proportions illustrated. It is formed with a bail portion **22** and with laterally projecting support portions **24** at the ends thereof.

To set up the receptacle from the flat form shown in Fig. 1, the side panels **14** are folded to upstanding positions relative to the bottom **12**, and the connecting flaps **16** are swung inwardly into lapping relationship with each other, and are latched together by means of the tongues **21** and slots **20**, as illustrated in Fig. 3. Then the end panels **15** are folded upwardly against the outer connecting flaps, and the end flaps **17** are folded over the tops of the latter, and downwardly along their inner sides, as illustrated at the farther end of Fig. 3, and the latching tongues **19** are snapped into the slots from which the tongues **15***a* have been displaced, whereby the end panels and end flaps are retained definitely in their folded positions with the associated interlocked connecting flaps between them. Then the handle may be connected to the set-up receptacle by inserting its support portions obliquely through the openings **18**, as in the relationship shown in Fig. 4, and then swinging it so that its bail is brought to the normal relationship with the end flap, as illustrated in Fig. 5. Since the width of the handle opening **18** at its top is only slightly greater than the width of the handle bail portion **22**, the support portions **24** of the handle project laterally of the bail to positions where they are below portions of the top fold of the end section.

Accordingly, the receptacle finds support upon the support portions **24** of the handle, and inasmuch as these are closely gripped between the adjacent end flaps and connecting flaps, the support portions, although of thin paper board, are definitely supported against creasing or crumpling under the weight which is imposed upon them. Moreover, inasmuch as the weight is imposed upon the end panels and end flaps directly at their top fold line, and the supporting portions of the handle gripped frictionally between the connecting and end flaps, the tearing or shearing stress imparted to the end section is minimized. In its fully assembled condition, and with its handle in elevated or carrying position, the receptacle appears as shown in Fig. 6. From this elevated position the handle may be depressed so that its bail is moved to a considerably lower level, simply by pushing the bail downwardly to slide the support portions downwardly between the end flaps and connecting flaps. The handle is held in either position by the gripping action or friction exerted upon it by the end flaps and connecting flaps.

In the modified embodiment illustrated in Figs. 7 to 9 inclusive, the blank is like that shown in Fig. 1 with the exception that the handle openings, here designated **18'**, are formed in the end panels **15'**, and slots **25** are formed in the end flaps **17'**; and also, on each of the side panels **14** is formed a partition flap which remains connected to the side panel along short fold lines *e*. Each partition flap comprises a pair of partition tabs **26** and a separator strip **27** having a connecting tab **28** at each end. The partition tabs **26** remain connected to the side panel **14** and to the separator strip **27** by triangular gussets **29** which are marked off in the conjoined parts by the crease lines *e*, *f* and *g*.

The receptacle is set up in very much the same fashion as the one previously described, the connecting flaps **16** being folded inwardly and those on opposite side panels latched to each other, and

the end panels and end flaps being folded upwardly and over the connecting flaps, as above described. The strips **27** are folded inwardly on the crease lines *g* and the tabs **28** are folded inwardly on the lines *h*. Then the complete partition flaps are swung inwardly into the receptacle, the tabs **28** being slipped into the slots afforded by the upper ends of the handle openings **18'** and the end portions of the strips **27** being slipped into the slots **25**. This brings the strips **27** to the position shown in the medial portion of Fig. 8, whence the partition tabs **26** may be swung downwardly on the lines *f* to the position shown in that figure. Thus the receptacle is compartmented into six compartments arranged in two rows of three each, the separator strips **27** forming the partitions between the two rows, and the partition tabs **26** forming the partitions between the compartments in the rows.

It will be observed that this places the handle openings **18'** on the outer sides of the ends of the receptacle. The handle is inserted and connected with the receptacle in the manner above described, and may be placed in either the elevated or depressed position. Such compartmented receptacles find special utility for the packaging of delicate fruits or glass jars or bottles or other articles which it is desired to protect against rubbing or impact. In either form, the receptacle may be knocked down by first pushing the handle down to a depressed position, then swinging it laterally until the supporting members **24** are in oblique position and may be withdrawn from the handle openings **18'**. Then, in the form shown in Fig. 8, the partition tabs may be disengaged by withdrawing the strips **27** and **28** from slots **25**, then disengaging the tongues **19** and unfolding the end tabs and end panels. Then the connecting flaps **16** may be disengaged from each other and the blank laid out in its flat form.

In the set-up condition, the tongues **15***a* perform an important function in that they provide feet or spacers which prevent the latching tongues **19** being disengaged by being forced upwardly when the package is set down upon its bottom.

What I claim is:

1. A packaging receptacle comprising a blank of sheet material creased for folding to form a container having a bottom panel with a side panel conjoined to each of its side margins and flexible to upstanding position therefrom and an end section conjoined to each of its end margins and flexible to upstanding position therefrom, the side panels having connecting flaps conjoined to respective ends and flexible to upstanding positions above the end margins of the bottom panel, said connecting flaps having means for connecting those of opposite side panels in upstanding position, the end sections being foldable over the upper margins of the connecting flaps into embracing relationship therewith, said end sections including means for securing them in such folded relationship, and a partition flap connected to the top margin of each of the side panels and flexible inwardly therefrom to position above the bottom panel, said partition flaps comprising a longitudinal separator strip retentively engageable with the folded end sections and partition tabs hinged on transverse fold lines on which they are flexible downwardly to form transverse partitions within the receptacle.

2. A packaging receptacle as specified in claim 1 and wherein said separator strips have end con-

necting tabs and the end sections are slotted to receive said end connecting tabs.

SAMUEL N. LEBOLD.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
630,007	Russell	Aug. 1, 1899
1,411,678	Walker	Apr. 4, 1922
1,707,528	LaBombard et al.	Apr. 2, 1929
2,039,971	Meinhardt	May 5, 1936
2,195,070	Backert	Mar. 26, 1940
2,218,360	Rokol	Oct. 15, 1940
2,354,867	Larkin	Aug. 1, 1944

FOREIGN PATENTS

Number	Country	Date
447,136	Great Britain	1936