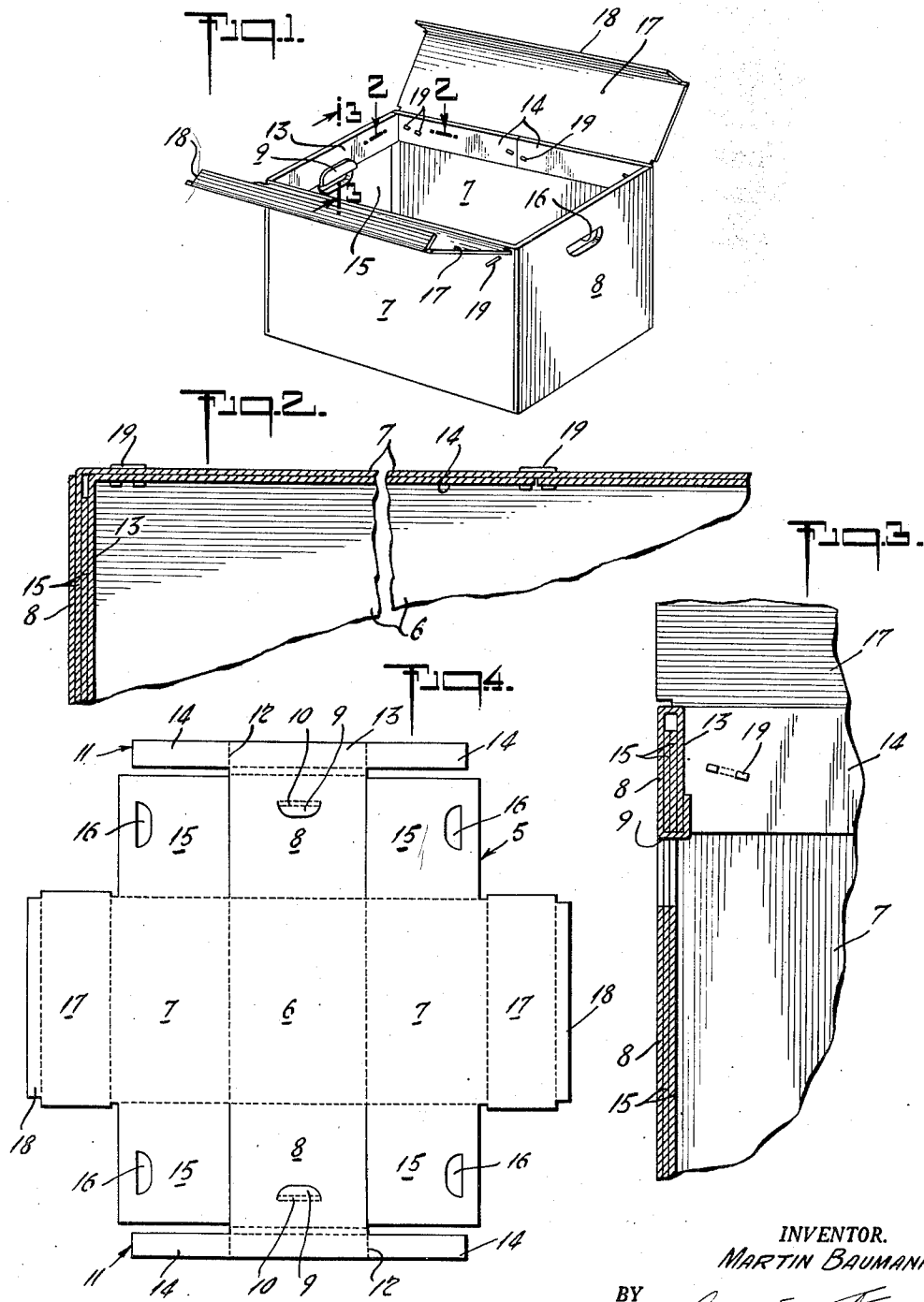


Jan. 5, 1954

M. BAUMANN
SHIPPING CONTAINER

Filed June 1, 1950

2,665,050



INVENTOR.
MARTIN BAUMANN

BY

AGENT

UNITED STATES PATENT OFFICE

2,665,050

SHIPPING CONTAINER

Martin Baumann, Chicago, Ill., assignor to International Paper Company, New York, N. Y., a corporation of New York

Application June 1, 1950, Serial No. 165,493

1 Claim. (Cl. 229—33)

1

2

This invention relates to new and useful improvements in shipping containers generally and particularly seeks to provide a novel box suitable for the packaging of bottled goods and fabricated of corrugated board or the like, in which reinforcing means are provided for the ends and side walls.

An object of this invention is to provide a shipping container of the character stated which may be constructed from a single cut and scored blank of corrugated or other paper board without any additional elements.

Another object of this invention is to provide a shipping carton of the character stated in which the end walls are composed of three plies, provided with handholes, and the upper inside portions of such end walls above the handholes together with the side walls are provided with reinforcements formed from extensions of the end walls so that stresses imposed on a filled container when it is lifted may be more readily withstood.

Another object of this invention is to provide a shipping carton of the character described in which the side walls are reinforced at the upper inner portions so that the stresses imposed on filled containers during packing and storing in vertical series may be more readily withstood.

Another object of this invention is to provide a shipping carton of the character stated which includes a bottom, side walls, end closure flaps carried by the side walls and bottom to form a triple-ply end closure, a pair of top closure flaps carried by said side walls, and a pair of reinforcing flaps carried by opposed respective end closure flaps, said reinforcing flaps being adapted to be rigidly affixed to the entire upper inner edge of the carton.

With these and other objects in view, the nature of which will be more apparent, the invention will be more fully understood by reference to the drawings, the accompanying detailed description, and the appended claim.

In the drawings,

Fig. 1 is a perspective view of an erected container constructed in accordance with this invention;

Fig. 2 is an enlarged horizontal section of one corner taken along line 2—2 of Fig. 1;

Fig. 3 is an enlarged vertical section of one end taken along line 3—3 of Fig. 1; and

Fig. 4 is a plan view of a blank from which the container may be formed.

Referring to the drawings in detail, the invention as illustrated is embodied in a shipping con-

tainer so constructed and proportioned as to be particularly suitable for use as a container for shipping bottled goods.

The container can be initially formed from a single cut blank generally designated at 5 of corrugated board or the like which includes a bottom 6 and side walls 7. The bottom carries an outer end panel 8 at each end, provided with a die-cut handhole flap 9 foldable about score line 10, disposed parallel to the upper end and spaced nearer the top of the associated outer end panel 8. Each outer end panel also carries a relatively long narrow reinforcing strip generally indicated at 11 and divided into three panels by score lines 12, 12, a central portion 13 being coextensive in length with the width of outer end panel 8 and the end portions 14, 14 each extending a distance equal to one-half of the side wall 7. Each side wall carries an end panel 15 at each end, said end panels each having a cut-out handhole 16 positioned so that it will overlie the handhole of the outer panel 8 after the box is formed and sized slightly larger so as to accommodate the handhole flap 9 when it is folded through the combined aligned handholes as shown in Figs. 1 and 3. Each side wall also carries a top closure flap 17 which is provided with an inner flange 18.

By referring to Fig. 1 of the drawings it will be observed that a carton constructed in accordance with this invention when erected has the bottom 6, side walls 7 and triple-ply ends 8, 15, 15 so arranged to define a generally rectangular body, said triple-ply ends being stapled, glued or fastened by other means to retain the shape of the carton. The end portions 14 of the reinforcing strip 11 are folded at right angles at 12 and the entire strip folded inward and downward until the central portion 13 is in juxtaposition with the upper portion of the associated end wall and the end portions 14, 14 are in juxtaposition with the upper portions of the associated side walls, each said end portion reaching the midpoint of the upper edge of the respective side wall. The reinforcing strip at the opposing end is folded in the same manner, said end portions 14 reaching the midpoint of the upper edge of the respective side wall, thus making a complete reinforcing strip around the entire upper edge of the carton. Said strip may be stapled, as at 19, glued or fastened by other means. Said means of fastening the strip may be, if desired, the sole means of retaining the shape of the carton.

When a carton is being formed it is preferable to have the outer end panel carry the handhole flap 9 and the reinforcing strip 11. Thus when

3

the reinforcing strip is folded over into juxtaposition with the innermost end panel the strip will serve as a binder to hold the three end panels together and will also distribute any stress among the three end panels and the reinforcing strip. Also, when the handhole flap 9 is folded in through the series of handholes and then up, said handhole flap will serve to make a smoother receiving support for a hand and will also distribute the stress caused by carrying the container to the three end panels and the reinforcing flap.

The top closure flaps 17 remain free to be opened or closed. The inner flanges 18 provided thereon are folded inwardly so that they are out of the plane of the closure flap and generally the two inner flanges will be at right angles to the closure flaps and superposed against each other when the top closures are folded down to the closing position. The inner flanges give an added strength to the edges of the closure flaps where they are attached and also tend to keep the closures from opening while the carton is being handled. It will be noted that the top closure flaps 17 are slightly longer than the respective side walls so that when closed the closure flaps rest on the full top surface of the end walls. Therefore, the inner flanges 18 are shortened slightly at each end in order to move freely inside the container when being closed.

Many efforts have heretofore been made to provide shipping cartons adaptable for the packaging of bottled goods in which the entire wall areas are reinforced. These reinforcements have invariably been created at materially greater cost of assembly, compelled the use of a greater amount of paper board from which the container has been fabricated, and required a plurality of cut blanks to form the carton. It is a feature of the container of this invention that it can be fabricated from a single cut blank of container board. At the same time top closure flaps are provided with inner flanges, all from the same single cut blank so as to provide a closure which is stronger and will not tend to open on handling.

4

It is, of course, to be understood that various details of arrangements and proportions of parts may be modified within the scope of the appended claim.

I claim:

A container formed from a single cut blank of corrugated board and comprising a bottom, side and end walls and a top closure, said end walls each being three-ply and provided with a handhole located near the top edge thereof, a relatively long and narrow reinforcing flap being carried by and extending across the inner face of the associated end wall in the area between the top of said end wall and the upper edge of said handhole and being provided with extensions projecting from each corner along the inner faces of said side walls for a distance substantially equal to one-half the length of said side walls, and means for rigidly securing said reinforcing flap and its extensions to said walls whereby to provide a reinforcement extending completely around the container adjacent the upper marginal edge portions of said walls, said top closure being formed by a pair of closure flaps formed integrally with said side walls and each closure flap having an inner flange in a substantially different plane than said closure flap.

MARTIN BAUMANN.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,161,639	Schmidt	June 6, 1939
2,196,502	Kells	Apr. 9, 1940
2,216,299	Schilling	Oct. 1, 1940
2,284,385	Freshwaters	May 26, 1942
2,321,536	Wells	June 8, 1943
2,340,394	Limbirt	Feb. 1, 1944

FOREIGN PATENTS

Number	Country	Date
386,103	Great Britain	Jan. 12, 1933