June 11, 1946. A. E. BENTHAM 2,401,742

CARTON

Filed Feb. 5, 1945 2 Sheets-Sheet 1

Fig. 1

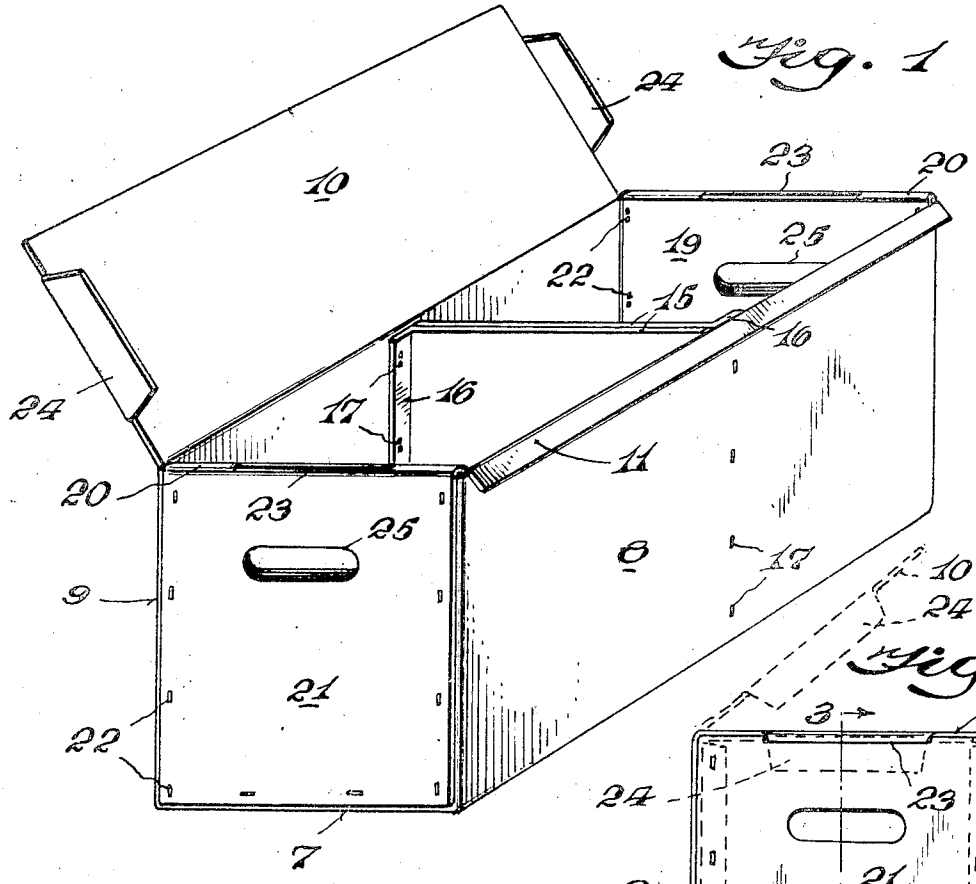


Fig. 2

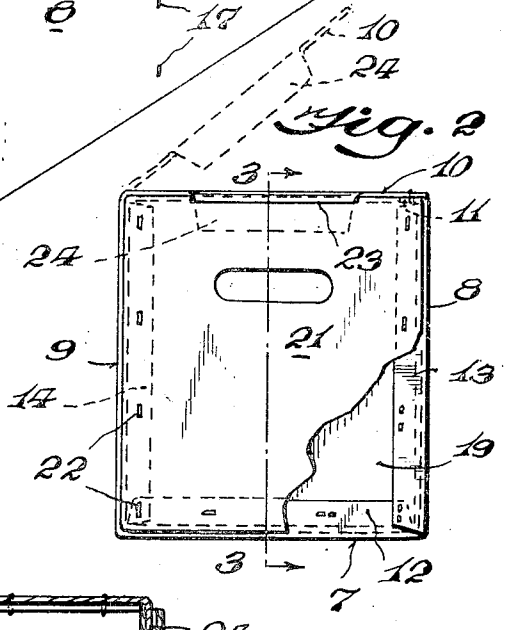
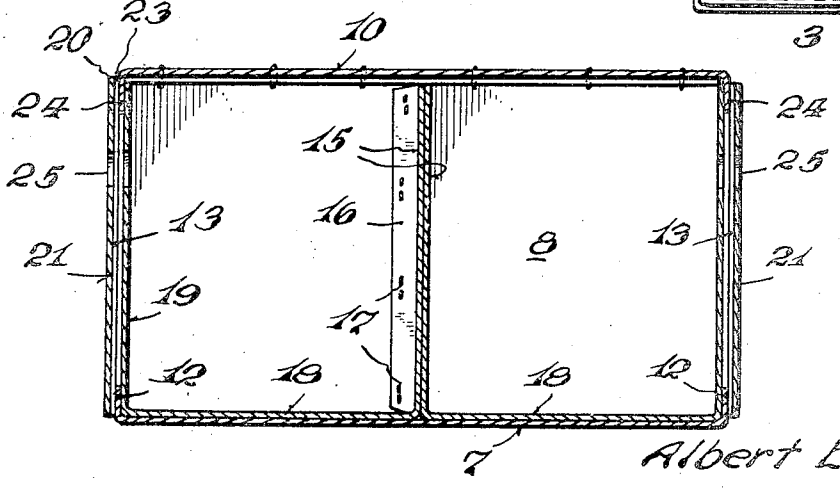


Fig. 3



Inventor

Albert E. Bentham,

By Barry & Cyr

Attorneys

June 11, 1946. A. E. BENTHAM 2,401,742

CARTON

Filed Feb. 5, 1945 2 Sheets-Sheet 2

Fig. 4

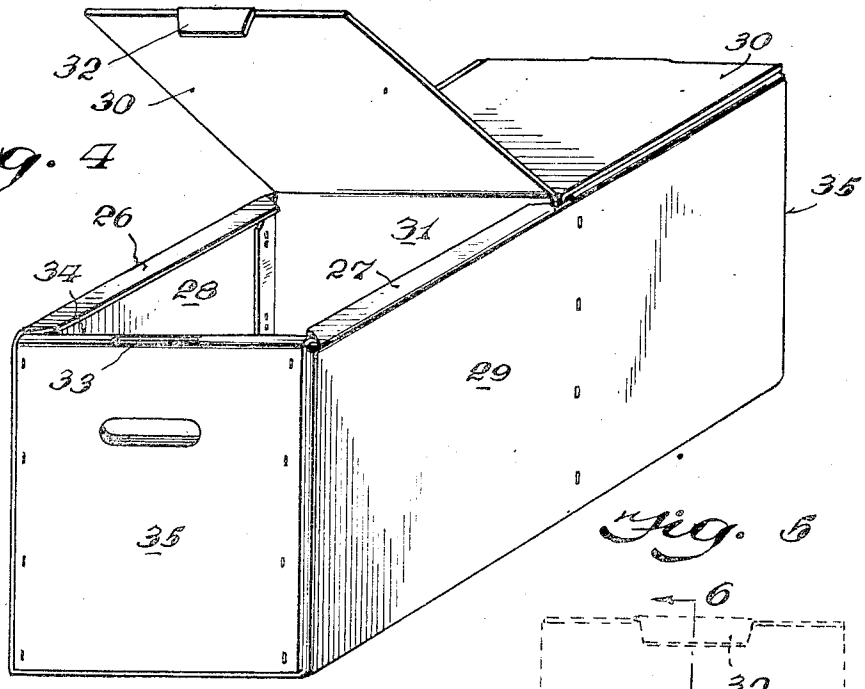


Fig. 5

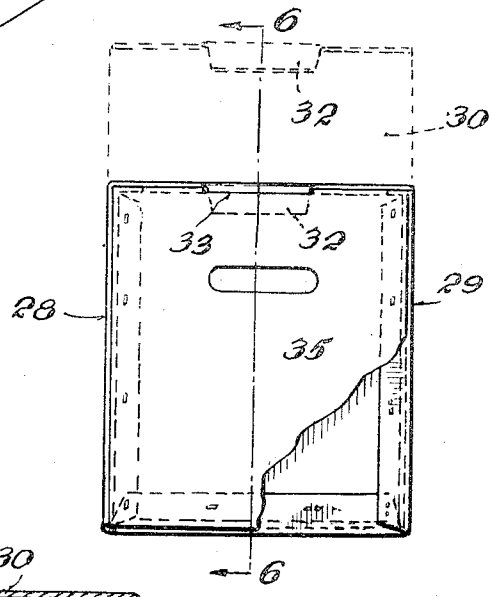
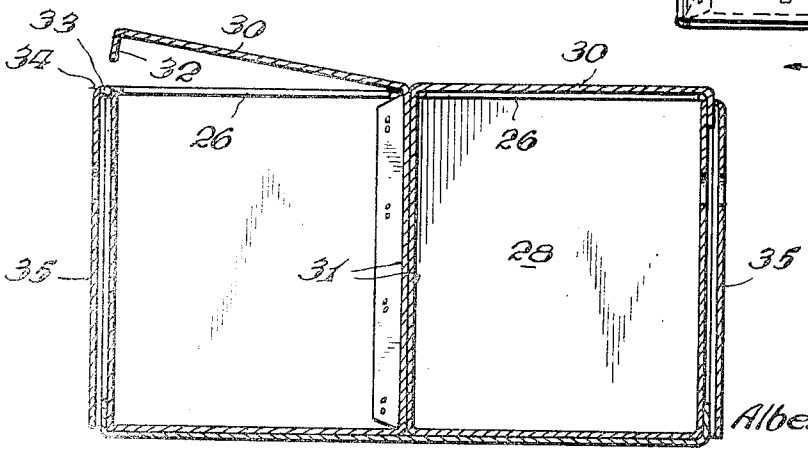


Fig. 6



Inventor
Albert E. Bentham,

By Barry & Cyr
Attorneys

Patented June 11, 1946

2,401,742

UNITED STATES PATENT OFFICE

2,401,742

CARTON

Albert E. Bentham, Baltimore, Md., assignor to The Baltimore Paper Box Co., Baltimore, Md., a corporation

Application February 5, 1945, Serial No. 576,264

6 Claims. (Cl. 229—15)

1

This invention relates to improvements in cartons and more particularly to cartons made of fiberboard or the like, and designed for the safe shipment of eggs and other fragile articles. A carton of the type which I have improved is claimed in my application, Serial No. 446,753, filed June 12, 1942.

One of the objects of the invention is to provide such a carton reinforced to prevent sagging of the bottom or bulging of the side walls.

Another object is to supply a fiberboard carton which may be shipped in flat condition, and afterwards be set up by unskilled labor.

A still further object is to furnish a carton formed of relatively stiff sheet material and in which the contents of the carton are employed to prevent bulging of the side and end walls of the carton.

The manner in which these broad objects are attained, together with more specific objects and features of the invention, will be apparent from the following detailed description which refers to the accompanying drawings.

In the drawings:

Fig. 1 is a perspective view of a carton in accordance with the invention.

Fig. 2 is an end elevation with a portion of one end broken away.

Fig. 3 is a longitudinal vertical sectional view taken on the line 3—3 of Fig. 2.

Figs. 4, 5, and 6 are views corresponding respectively with Figs. 1, 2, and 3 of a modification, and Fig. 6 is taken on the line 6—6 of Fig. 5.

In the embodiment illustrated in Figs. 1, 2, and 3, a main blank of fiberboard or the like is bent along parallel lines to provide a bottom 7, front wall 8, rear wall 9, top 10, and top flap 11, all of these parts being integral with one another. The bottom is provided at each end with a flap 12; the front wall is provided at each end with a flap 13; and the rear wall is provided at each end with a flap 14.

Two dividers or partition members are employed. Each consists of a vertical partition wall 15 that extends across the medial portion of the carton and is secured to one side wall only by the use of a flap 16, fastened to the wall by staples 17, or the like.

The partition wall in each instance is integral at its lower end with a bottom portion or reinforcement 18 of the same shape as a half of the bottom of the carton. These parts 18 form with the integral bottom 7, an unbroken entire second bottom, and each part 18 is integral with an upwardly extending inner end wall flap 19, that

2

is integral at its upper end, as indicated at 20, with an outer end wall flap 21. When the flaps 19 and 21 are in parallel relation, they define a space to permit the flaps 12, 13, and 14 to be tucked between and secured to them by staples 22, or the like.

The bent portions 20 are provided with slots 23 to receive tongues 24, arranged at the ends of the top 10, for securing the top in position and in superposed relation to the top flap 11. For carrying purposes, each of the double thickness ends of the carton is provided with a hand hole 25.

It will be evident to those skilled in the art, that before the carton is set up, the parts 7, 8, 9, 10, and 11 will lie flat with each of the combined divider and reinforcing members superposed thereon, and each secured thereto by the fastening means 17 arranged respectively at the medial portion of the front wall 8 and the rear wall 9, and when it is desired to erect the carton, each of the members consisting of the parts 15, 18, 19, and 21 may be folded into the shape shown in Figs. 1 and 3, prior to bringing the side walls into the position shown in Fig. 1, and before making use of the fastenings 22.

In the modification shown in Figs. 4 to 6, inclusive, the structure is substantially the same as that shown in Figs. 1 to 3, but the top instead of being formed as in Figs. 1 to 3, includes top flaps 26 and 27, integral respectively with side walls 28 and 29. A cover flap 30 is integral with each of the partition walls 31, and the free end of each cover flap is provided with a tongue 32 designed to enter a slot 33 at the upper folded edge portion 34 of each end wall 35.

It is obvious that this alternative structure may, also, be shipped in flat condition, because while the main blank is unfolded, the auxiliary blanks which form the cover flaps, partition walls, bottom reinforcements, and double thickness end walls, can be superposed on the main blank.

While I have disclosed what I now consider to be preferred embodiments of the invention, in such manner that they may be readily understood by those skilled in the art, I am aware that changes may be made in the details disclosed without departing from the spirit of the invention as expressed in the appended claims.

What I claim and desire to secure by Letters Patent is:

1. A carton formed of stiff paper material and comprising an integral bottom, opposite side walls and cover means, the bottom being a one-piece element extending from side to side and end to

end of the carton, dividers extending across the carton and each firmly secured to the intermediate portion of one side wall only of the carton, each divider being integral with a member forming a reinforcing half bottom, resting on the bottom of the carton, and end walls integral with said half bottoms and firmly secured to the ends of the bottom and side walls of the carton.

2. A carton formed of stiff paper material and comprising an integral bottom, opposite side walls and cover means, the bottom being a one-piece element extending from side to side and end to end of the carton, dividers extending across the carton and each firmly secured to the intermediate portion of one side wall only of the carton, each divider being integral with a member forming a reinforcing half bottom, resting on the bottom of the carton, and end walls integral with said half bottoms and consisting of inner and outer plies firmly secured to the ends of the bottom and side walls of the carton.

3. A carton as claimed in claim 2 in which the bottom and side walls have end flaps extending inwardly between the plies of the end walls.

4. A carton as claimed in claim 1 in which the cover means is provided with tongues and the end walls have folded upper ends provided with slots for the reception of said tongues.

5. A carton as claimed in claim 1 in which the cover means consists of cover flaps integral with the dividers and provided with tongues, each end wall having a fold at its upper end provided with a slot for the reception of one of said tongues.

6. A carton formed of stiff paper material and comprising an integral bottom, opposite side walls and cover means, the bottom being a one-piece element extending from end to end and from side to side of the carton, dividers extending across the carton and each firmly secured to the intermediate portion of one side wall only of the carton, each divider being integral with a member forming a reinforcing half bottom resting on the bottom of the carton, and end walls integral with said half bottoms and consisting of inner and outer plies, flaps integral with the ends of the bottom and side walls of the carton, and arranged between the inner and outer plies of the end walls, and means securing the flaps to said plies.

ALBERT E. BENTHAM.