March 26, 1946. E. HERZ 2,397,353

BOX

Filed July 13, 1944 2 Sheets-Sheet 1

Fig. 1

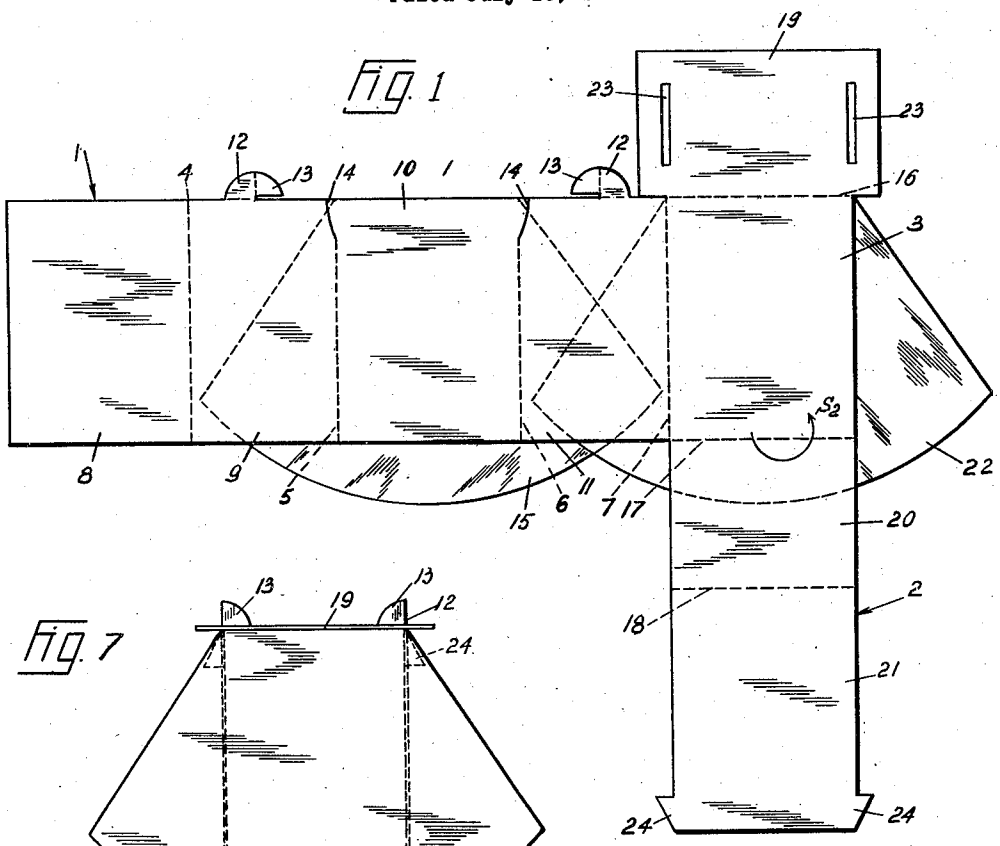


Fig. 7

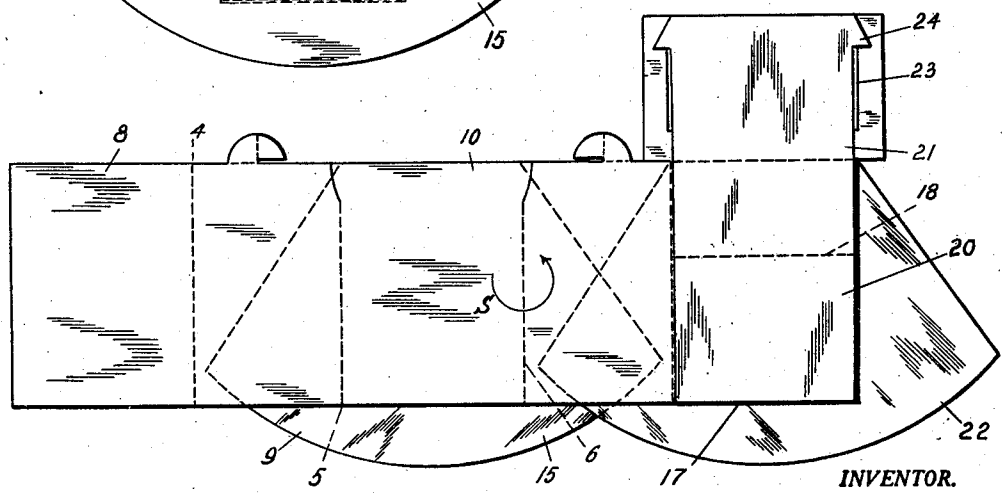


Fig. 2

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March 26, 1946. E. HERZ 2,397,353

BOX

Filed July 13, 1944 2 Sheets-Sheet 2

Fig. 3

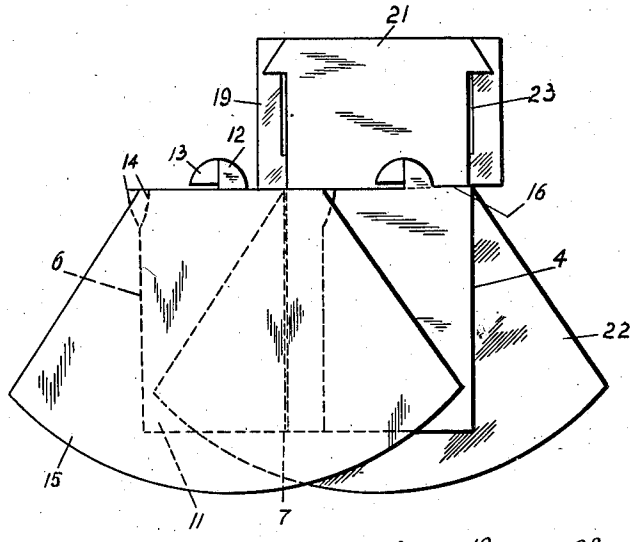
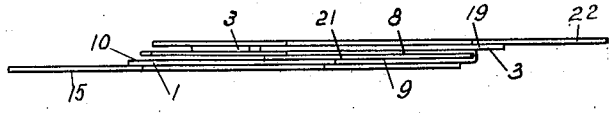


Fig. 4



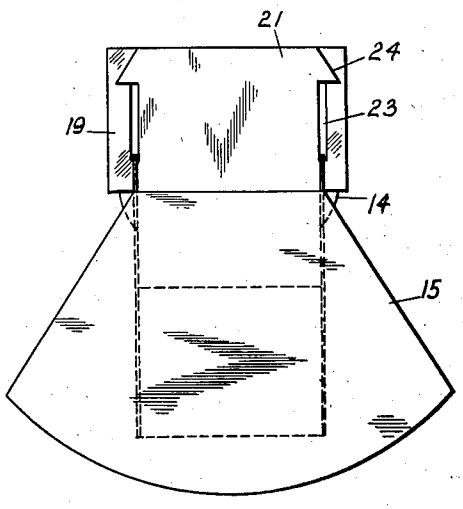


Fig. 5

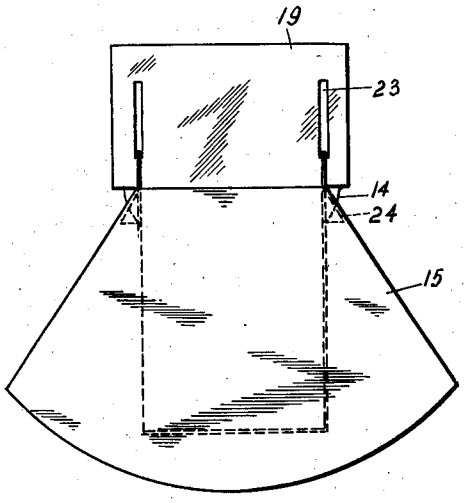


Fig. 6

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Patented Mar. 26, 1946 2,397,353

UNITED STATES PATENT OFFICE

2,397,353

BOX

Erwin Herz, New York, N. Y.

Application July 13, 1944, Serial No. 544,722

2 Claims. (Cl. 229—8)

This invention relates to cardboard boxes and cartons to be used as emballages and packages for the commercial handling and particularly the transport of diversified merchandise of a compartively small size, such as chocolates, candy, fruits, toilet articles, grocery and drugstore goods and the like.

Boxes and cartons of this type are frequently produced from paper or cardboard blanks which by means of prearranged folds and creases may be converted into the final article and secured in this state by tongues, tabs and slits.

An object of this invention resides in an improved construction and shape of the initial blank whereby a greatly simplified assembly into the box structure, utmost rigidity and stability of the finished article and safe closure and transportation of the packed merchandise is achieved.

It is a further object of the invention to provide a box or carton of the above named type which represents a highly attractive toy.

Further objects of the invention will become apparent as the specification proceeds.

The construction and assembly of the instant box and the operation of the invention will best be understood by reference to the accompanying drawings which illustrate a preferred embodiment thereof, this being deemed sufficient for its disclosure.

In the drawings,

Fig. 1 is a plan view of a blank of a suitable material such as cardboard or stiff paper representing the initial body for the performance of this invention,

Figs. 2, 3, 5, 6 are plan views of the box in its consecutive assembling steps,

Fig. 4 is a top view of the partly assembled box shown in Fig. 3,

Fig. 7 is a front view of the finished and closed box.

The initial blank to be assembled in the toy box forming the subject matter of this invention includes a main portion of right-angled shape consisting of a horizontal shank portion 1 and a vertical shank portion 2, section 3 forming the vortex section of the right-angled body section which would appertain to these two shank portions 1 and 2.

Shank portion 1 is provided with parallel folds 4, 5, 6, 7 whereby in addition to section 3 sections 8, 9, 10, 11 are formed.

Section 9 and section 11 are provided with tabs 12, having freely bendable parts 13; the blank is severed at the upper ends of folds 5 and 6 whereby curved incisions 14 are formed; sections 3 and 10 are at the rear side united with rocking elements 15, 22.

Vertical shank portion 2 is provided with folds 16, 17, 18 whereby in addition to section 3 sections 19, 20, 21 are produced; section 19 is provided with two slits 23 and section 21 with two tabs 24. The conversion of the blank into the finished box shown in Fig. 7 is effected in the following manner.

Sections 20, 21 of shank portion 2 are turned about fold 17 forming the axis of rotation in the direction of arrow S2 and folded down upon sections 3, 19; the resulting body is shown in Fig. 2.

Hereupon end section 8 is seized and that part of shank 1 consisting of sections 8, 9, 10 is turned about fold 6 forming the axis of rotation in the direction of arrow S and folded down on sections 20, 21; section 8 is now turned back about fold 4 as axis of rotation in a direction opposite to that direction in which sections 8, 9, 10 had been turned and slipped in between sections 3, 19, and 20, 21; the thus reached conversion stage is shown in Fig. 3 and in a top view in Fig. 4.

By now swinging section 10 to the left side in the drawings in a position where the rocking elements 15, 22 become aligned in a direction at a right angle to the plane of the drawings, the conversion stage results, shown in Fig. 5, whereby a four sided box has been formed consisting of sections 8, 9, 10, 11.

By now shifting sections 21, 22 down into the box and inserting tabs 24 in slots 14 the stage is reached shown in Fig. 6 representing the box in its finished but still open stage section 20, the bottom of the box being formed by section 20; the box structure is solidly rigidified by cooperation of tabs 20 and slots 14 and sections 20, 21 and 8 which form efficient stiffening means.

To close the box the cover forming section 19 is now folded down from the position shown in Fig. 6; the closed box supported on the rocking elements 15, 22 is shown in Fig. 7.

The free parts 13 of tabs 12 are turned sidewards as shown in Fig. 7 to secure the cover on the box.

Due to its rocking movement the box represents a very attractive toy.

The box has been described and shown in the form of a rocking toy; however, the invention is not restricted to this embodiment of the invention and various changes and modifications may be made to the details of the invention without departing from the spirit and scope thereof, as set forth in the following claims.

I claim:

1. A right angled blank of a foldable material adapted to be folded into a closed box having a horizontal and a vertical shank portion, a rectangular vortex section common to both of said shank portions, four parallel folds in the horizontal shank portions to form four rectangular adjacent sections in addition to said common vortex section, the outermost and the central sections of the said five sections of said horizontal shank portion having an equal size and the intermediary sections having a smaller width than the other three sections, three folds in the vertical shank portion to form three sections in addition to the said common vortex section, one of the said three sections projecting on the one side, and the other two sections protruding on the opposite side over said common vortex section, the outermost of the said two sections having the same size as the vortex section, and the singular section of the opposite side of said common vortex section projecting on its both sides over the width of the said vortex section, two parallel vertical slots in the said singular section being so spaced from its projecting edges as to extend in the direction of the sides of said vertical shank portion, two curved slots in the upper ends of the folds bordering the said central section and two tabs to coact with said two slots at the outer edge of said vertical shank portion, and two tabs having freely bendable parts at the upper edge of the intermediary sections of said horizontal shank portion.

2. A right angled blank of a foldable material adapted to be folded into a closed box having a horizontal and a vertical shank portion, a rectangular vortex section common to both of said shank portions, four parallel folds in the horizontal shank portions to form four rectangular adjacent sections in addition to said common vortex section, the outermost and the central sections of the said five sections of said horizontal shank portion having an equal size and the intermediary sections having a smaller width than the other three sections, three folds in the vertical shank portion to form three sections in addition to the said common vortex section, one of the said three sections projecting on the one side, and the other two sections protruding on the opposite side over said common vortex section, the outermost of the said two sections having the same size as the vortex section, and the singular section of the opposite side of said common vortex section projecting on its both sides over the width of the said vortex section, two parallel vertical slots in the said singular section being so spaced from its projecting edges as to extend in the direction of the sides of said vertical shank portion, two curved slots in the upper ends of the folds bordering the said central section and two tabs to coact with said two slots at the outer edge of said vertical shank portion, two tabs having freely bendable parts at the upper edge of the intermediary sections of said horizontal shank portion, and rocking elements attached to the said common vortex section and to the center section of said horizontal shank portion.

ERWIN HERZ.