Feb. 19, 1935. J. V. A. HASBROOK 1,992,069

DISPLAY BOX

Filed March 12, 1931

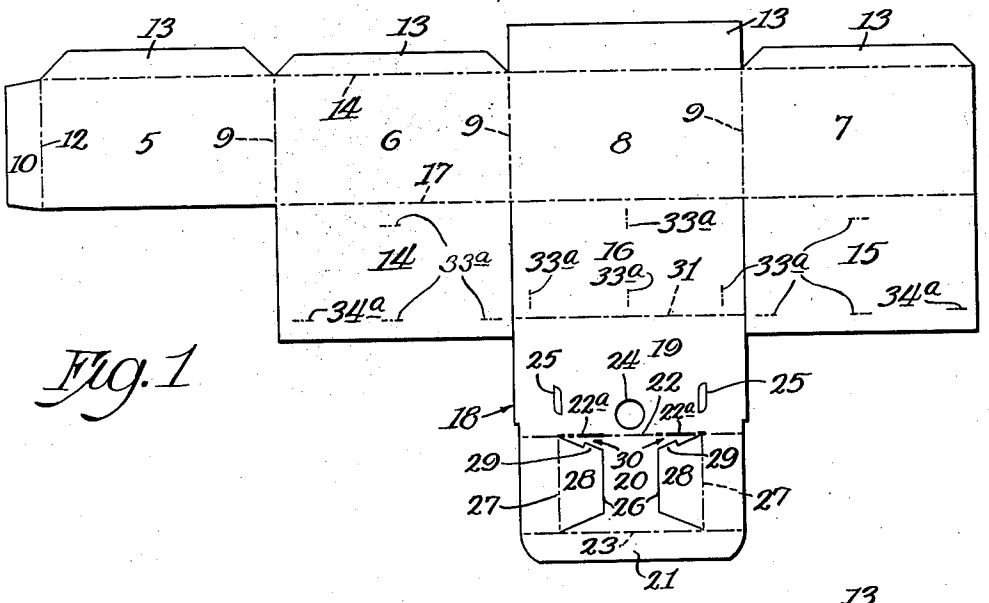

Fig. 1

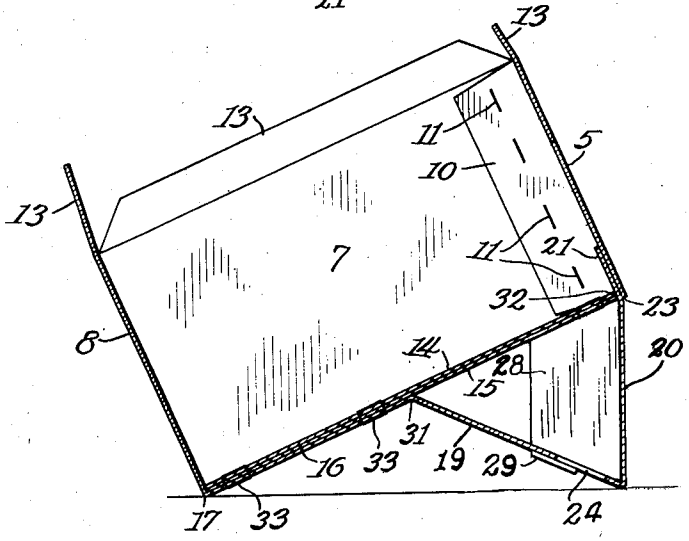

Fig. 2

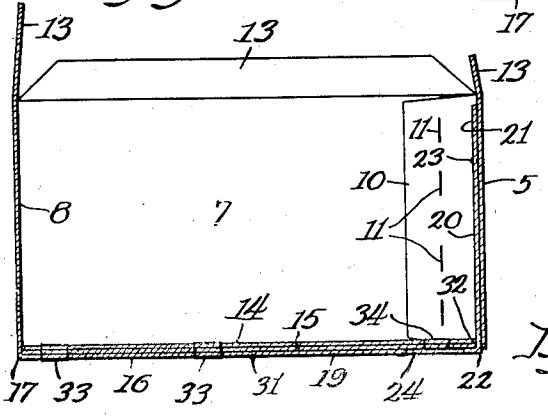

Fig. 3

Inventor
John V. A. Hasbrook
By Fisher, Cluff, Evans & Pond
Attys.

Patented Feb. 19, 1935

1,992,069

UNITED STATES PATENT OFFICE

1,992,069

DISPLAY BOX

John V. A. Hasbrook, Hinsdale, Ill., assignor to Chicago Carton Company, Chicago, Ill., a corporation of Illinois

Application March 12, 1931, Serial No. 521,901

4 Claims. (Cl. 206—44)

This invention relates to display boxes, and more particularly to foldable paper boxes having means associated with their bottoms for supporting the boxes in a tilted or inclined position so as to more effectively display the contents of the box.

The main object of the invention is to provide a box of the type referred to, of simple but efficient and durable construction and which may be easily set up, both in respect of assembling the box for receiving its contents and in respect of adjusting the box from a normal flat-bottomed container to one having means for supporting the box in inclined or tilted position, as mentioned.

Other objects and advantages of the invention will be understood by reference to the following specification and accompanying drawing, in which a display box embodying a preferred form of the invention is illustrated.

In the drawing:

Figure 1 is a plan of a box blank designed to be folded to form the empty display box;

Figures 2 and 3 are transverse sections showing the box, respectively, in display position and in normal non-display position.

Referring now to the drawing, the box blank as shown in Figure 1 is formed of suitable material, in this instance, a heavy and stiff grade of paper board, the blank being shaped and scored to form a rear wall 5, side walls 6 and 7, and a front wall 8, which are designed to be folded to form a tubular box body. Scores or fold lines designated 9 are provided for facilitating folding of the said wall portions to form said tubular box body. A flap 10 is provided for overlapping and securement to the side wall 7 by means of staples as indicated at 11 in Figures 2 and 3. A score line 12 is provided for facilitating folding of the flap 10 relative to the rear wall 5.

Suitable lips or tongues, such as indicated at 13, may be provided at the upper edges of the respective side walls, these lips being bendable relative to the respective side walls along a score line designated 14, which is, in effect, a continuous straight line extending the length of the blank, as shown in Figure 1.

Bottom-forming flaps designated 14, 15 and 16 are integrally connected with the side and front walls 6, 7 and 8, respectively, as shown in Figure 1, a score line 17 being provided for facilitating folding of these flaps at substantially right angles with respect to the respective side and front walls. When the box blank is folded to form the box, the bottom-forming flaps 14, 15 and 16 are bent along the fold line 17 so as to overlap each other to form a multi-ply bottom structure, as clearly shown in Figures 2 and 3.

The bottom-forming flap 16 is provided with an extension 18 which is divided into front and rear sections 19 and 20, respectively, and a tongue 21 by means of score or fold lines 22 and 23. The front section 19 is provided with an opening 24 and a pair of elongated openings 25 is also provided, as clearly shown in Figure 1. If desired, the openings 25 may be completely punched out in forming the blank, or they may be only partially punched out so as to be readily removable at a subsequent time when the box is to be set up. For the purpose of this application, reference to the openings 25 should be understood as applying to either pre-formed openings or only partially formed openings, as mentioned. However, I prefer to form the opening 24 when forming the box blank, although it is obvious that this opening may also be provided for by means of an incomplete cut facilitating removal of the desired portion at any subsequent time.

The rear section 20 is provided with incomplete lines of severance designated 26 and cooperating score lines 27 for forming foldable brace members 28. One end of each of the brace members is so shaped as to provide a tongue 29 which is designed to enter the openings 25 when the braces 28 are folded out in setting up the box in display position. To facilitate folding of the rear section 20 relative to the front section 19 along the fold line 22, the fold line 22 is provided with portions 22^a opposite the adjacent ends of each of the braces 28 of deeper scoring or more nearly complete severance. These especially weakened portions 22^a serve to permit bending of the relatively narrow portions designated 30 of the section 20 along the fold line 22 without tearing which might otherwise inadvertently occur. A fold or score line 31 is provided intermediate the bottom-forming flap 16 and the extension 18 to facilitate folding of the extension relative to the said flap 16.

When the box is set up, the side wall bottom-forming flaps 14 and 15 are first folded inwardly into overlapping relation, after which the front wall flap 16 is folded inwardly under the said flaps 14 and 15. The extension 18 is initially folded along the fold line 22 and the rear section 20 and tongue 21 are inserted between the rear edge 32 of the box bottom and the inside face of the back wall 5, substantially as shown in Figure 3. The mutually overlapping flaps 14, 15 and 16 are stapled together, as indicated at 33, the location of the staples 33 being indicated at 33^a in Figure

1. The overlapping rear edge portions of the bottom flaps 14 and 15 are also stapled together as indicated at 34, the opening 24 in the flap section being provided to facilitate insertion of the staple 34 without securing the section 19 to the bottom by the same staple. The location of the staple 34 with respect to the bottom flaps 14 and 15 is indicated at 34^a in Figure 1.

When the box is to be set up in display position as shown in Figure 2, the rear section 20 of the flap extension 18 is withdrawn from the position shown in Figure 3 and the braces 28 are folded inwardly so as to constitute spacers extending between the bottom of the box and the front section 19 of the extension 18 which is then disposed in the angular relation depicted in Figure 2, to the bottom flap 16. It will be understood that when the rear section 20 is withdrawn from the inside of the box to the position shown in Figure 2, the front section 19 is necessarily folded outwardly or downwardly along the fold line 31. The tongues 29 of the braces 28 fit into the openings 25 and project therethrough, as indicated in Figure 2, thereby interlocking the brace and section 19, with the brace in operative position. The tongue 21 remains inside of the box as shown in Figure 2, a slight bend occurring along the fold line 23.

The described construction is obviously quite simple to make and the structure is easily manipulated; i. e., the box may be readily set up and converted from an ordinary flat-bottomed box to one having a bottom for holding the box in inclined or display position, as shown in Figure 2. The described structure is also advantageous in that the only portions necessary to fold out, that is to say, the brace portions 28, are normaly disposed inside of the box where they are protected against injury in the course of handling to which the box may be subjected. Also, it will be noted that there are no weak or flimsy parts which are apt to be easily broken, exposed on the bottom of the box, as has been more or less common in the prior art, so far as known to me.

I am aware that changes may be made in the described structure without departing from the spirit of my invention, the scope of which should be determined by reference to the following claims, the same being construed as broadly as possible consistent with the state of the art.

I claim as my invention:

1. A paper box comprising connected front, rear and side walls, said front and side walls having flaps connected together to form the box bottom, the front flap being disposed under the side flaps and having a foldable extension provided with scoring forming front and rear sections and a tongue at its free end, the tongue and rear section being insertable between the edge of the box bottom and the rear wall to hold the other section against the box bottom, the tongue alone being so insertable to hold both sections offset relative to the box bottom to form a support for tilting the box.

2. A paper box comprising connected front, rear and side walls, said front and side walls having flaps connected together to form the box bottom, the front flap being disposed under the side flaps and having a foldable extension provided with scoring forming front and rear sections, and a tongue at its free end, the tongue and rear section being insertable between the edge of the box bottom and the rear wall to hold the other section against the box bottom, the tongue alone being so insertable to hold both sections offset relative to the box bottom to form a support for tilting the box, said rear section having a foldable brace arranged to engage the box bottom when said sections are offset.

3. A paper box comprising connected front, rear and side walls, said front and side walls having flaps connected together to form the box bottom, the front flap being disposed under the side flaps and having a foldable extension provided with scoring forming front and rear sections and a tongue at its free end, the tongue and rear section being insertable between the edge of the box bottom and the rear wall to hold the other section against the box bottom, the tongue alone being so insertable to hold both sections offset relative to the box bottom to form a support for tilting the box, and one of said sections having a foldable brace arranged to interlock with the other when said sections are offset.

4. A paper display box comprising connected front, rear and side walls, said front and side walls having relatively independent flaps folded into mutually overlapping relation and united to form a bottom for the box, the lowermost of said bottom forming flaps having its rearward edge located intermediate the front and rear edges of said bottom and having a rearward extension scored to provide front and rear sections and a tongue at its free end, the tongue and rear section being insertable between the rear edge of the box bottom and the rear wall to hold the front section against the box bottom, the tongue alone being so insertable to hold both sections offset relative to the box bottom to form an easel for supporting the box in tilted position, and means for locking said front and rear sections in said easel forming position.

JOHN V. A. HASBROOK.