L. ROSENWALD.

COLLAPSIBLE FRUIT OR BERRY BOX.

APPLICATION FILED JULY 27, 1914.

1,168,565. Patented Jan. 18, 1916.

Fig 1

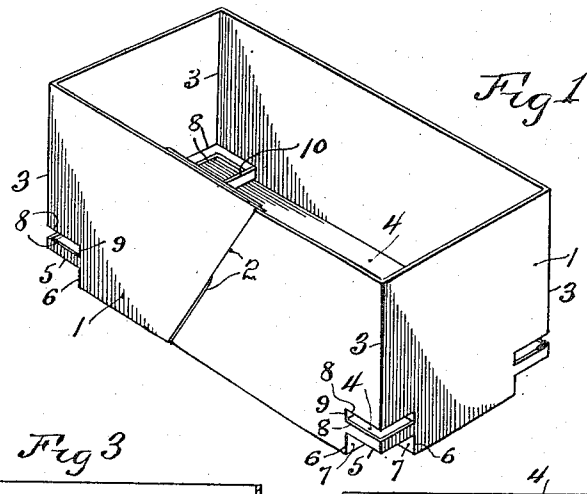


Fig 3

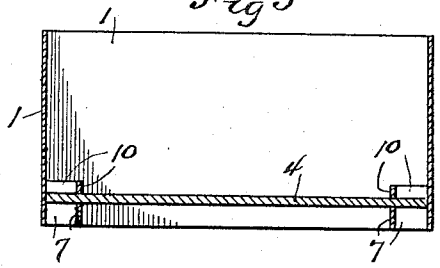
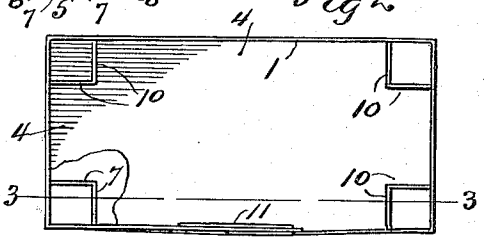


Fig 2



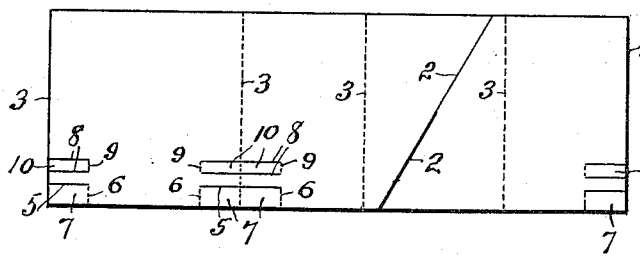


Fig 4

Fig 5

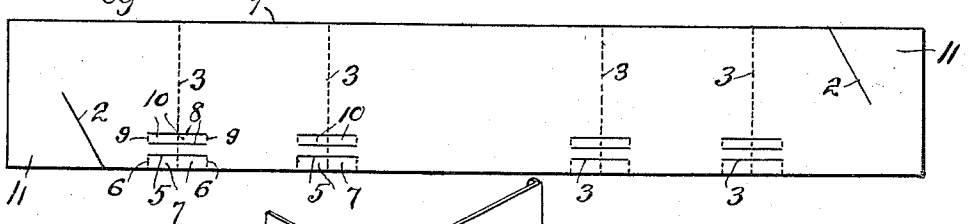
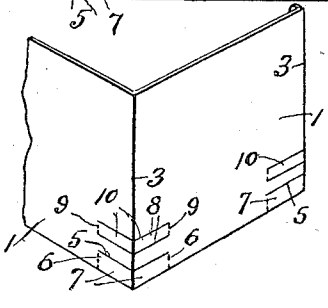


Fig 6



WITNESSES:

R. E. Hamilton

E. B. House.

INVENTOR.

Lucian Rosenwald

BY

Warren D. House

His ATTORNEY.

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

LUCIAN ROSENWALD, OF KANSAS CITY, MISSOURI.

COLLAPSIBLE FRUIT OR BERRY BOX.

1,168,565. Specification of Letters Patent. Patented Jan. 18, 1916.

Application filed July 27, 1914. Serial No. 853,260.

To all whom it may concern:

Be it known that I, LUCIAN ROSENWALD, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented a certain new and useful Improvement in Collapsible Fruit or Berry Boxes, of which the following is a specification.

My invention relates to improvements in collapsible fruit or berry boxes.

The object of my invention is to provide a collapsible box, adapted for use as a fruit or berry box or for other uses, which is cheap to manufacture, which may be quickly and easily collapsed to flat form or set up ready for use, and which is strong and durable.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawing, which illustrates the preferred embodiment of my invention, Figure 1 is a perspective view showing my improved box set up ready for use. Fig. 2 is a plan view of the same. Fig. 3 is a vertical section on the line 3—3 of Fig. 2. Fig. 4 is a plan view of the body collapsed. Fig. 5 is a stretch-out view of the strip from which the body is formed. Fig. 6 is a perspective view of a portion of the box showing the bottom retaining members in positions respectively in alinement with the sides of the box.

Similar reference characters designate similar parts in the different views.

In the following description and claims, the term "sides" includes the ends of the box.

The body of the box is formed, preferably, from a single rectangular strip 1, of suitable material, such as sheet wood or card board, the ends of the strip being overlapped and, preferably, being releasably secured together. To effect this, as shown in Fig. 5, the strip 1, adjacent to its ends, is provided with two parallel slits 2, which extend respectively from opposite longitudinal edges obliquely toward the adjacent ends and to points half way between said edges.

The strip 1 is provided with a plurality of transverse flexible joints 3 disposed at right angles to the longitudinal edges of the strip, and which may be formed by scoring or creasing the material. Said joints are located respectively at the corners of the box, whereby the strip may be easily bent to the form required in the body, and which permit the body to be collapsed to the flat form shown in Fig. 4.

4 designates a removable bottom, which is adapted to be fitted into the body, when the body is extended, thereby retaining the body in the extended position, as well as serving the usual function of a bottom. For retaining the bottom 4 in the operative position within the body, the following described means are provided. For supporting the bottom 4 in a horizontal position, the body 1 is provided with devices adapted to be moved, from positions parallel with the sides of the body, to positions at angles thereto. Preferably these devices are arranged for as follows: A plurality of longitudinal slits 5, disposed a little distance above the lower edge of the body, extend respectively across the vertical joints 3. A plurality of pairs of shorter flexible vertical joints 6 extend from the lower edge of the strip 1, at opposite sides of the vertical joints 3, to the adjacent ends of the slits 5. The portions 7, which are located between each pair of flexible joints 6 and between the adjacent slit 5 and the adjacent longitudinal edge of the strip 1, form a sort of hinge, the two members 7 of which are flexibly connected with each other by the vertical joint 3 which connects them, and which at their other set of ends are flexibly connected by the flexible joints 6 with two adjacent sides of the body. By means of this construction, the flexibly connected portions 7 may be bent inwardly from positions in alinement respectively with the sides of the box, as shown in Figs. 4, 5 and 6, to positions respectively at right angles to the sides to which they are flexibly connected, as shown in Figs. 1, 2 and 3. In the last named position, the portions 7 serve as supporting devices upon which the bottom 4 may rest.

When the strip 1 has been bent to form the body, and has had its ends hooked together, or otherwise fastened to each other, the portions 7 may be bent inwardly from the outer position shown in Fig. 6, to the inner position shown in Figs. 1, 2 and 3, by pressing inwardly upon said portions adjacent to the vertical joint 3. The sides of the body being flexibly connected with each other by the joints 3, will swing apart sufficiently to enable the portions 7 to be moved

to the inner position shown in Fig. 2. After this has been done, the bottom 4 is slipped into the body so as to rest upon said portions 7.

If desired, means may be provided for holding the bottom 4 from being moved upwardly from the supporting portions 7. For the purpose of effecting this function, I have provided the following described means. A plurality of pairs of longitudinal slits 8 are provided in the strip 1 respectively above the slits 5, the lower slit 8 being separated from the adjacent slit 5 by a distance a little greater than the thickness of the bottom 4. The slits 8 of each pair extend transversely across the adjacent vertical joint 3. The strip 1 is provided with vertical joints 9, respectively extending between the ends of the slits 8. The portions 10 which are located between the slits 8 and the adjacent vertical joints 9, are connected with each other and to the strip 1 in a manner similar to the portions 7 above described. Said portions 10, when the strip 1 is in flat form, lie in alinement with the body of the strip 1, from which positions they may be inwardly bent to positions respectively at right angles to the sides to which they are flexibly connected, as shown in Figs. 1, 2 and 3. After the bottom 4 has been slipped into the body and against the portions 7, the portions 10, if the strip 1 is of sufficiently flexible material, may be forced inwardly to the position shown in Fig. 1 and in Figs. 2 and 3, thereby extending over the bottom 4 so as to prevent its rising from the portions 7.

In setting up or assembling the box, the strip 1 is bent to the proper form along the joints 3, after which the tongues 11, which are formed at the respective ends of the strip, by the presence of the slits 2, are respectively slipped into the slits 2 of opposite ends, the tongues 11 being preferably inserted at the inner side of the box, with the slits 2 in alinement with each other, as shown in Figs. 1 and 4, and with the longitudinal edges of the strip 1 disposed in alinement with each other at both ends of the strip. The portions 7 are then forced inwardly to the positions shown in Figs. 1 and 3, after which the bottom 4 is placed in the body upon the portions 7, following which the portions 10 are bent inwardly to the positions shown in Figs. 2 and 3. To collapse the box, the operation just described is reversed, with the exception that the ends of the strip 1 need not be unhooked, the body being collapsed to the position shown in Fig. 4.

I do not limit my invention to the structures shown and described, as modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

1. A collapsible box body comprising a strip having its ends secured together and provided with a plurality of transverse flexible joints extending vertically from one longitudinal edge of the strip to the other, and provided with a plurality of longitudinal slits respectively crossing said joints, and having respectively at opposite sides of each of said joints two flexible joints extending from one longitudinal edge of the strip parallel with the first named joints to the adjacent slit.

2. A collapsible box having a body comprising a strip having its ends secured together and provided with a plurality of transverse flexible joints extending from one longitudinal edge of the strip to the other, and provided with a plurality of longitudinal slits respectively crossing said joints, and having respectively at opposite sides of each of said joints two flexible joints extending from one longitudinal edge of the strip parallel with the first named joints to the adjacent slit, and a removable bottom adapted to be fitted within said body, the portions of the strip which are located between said slits and the adjacent longitudinal edge of the strip and which extend between the shorter joints being movable into positions adapted to support said bottom.

3. A collapsible box comprising a body having at each corner two inwardly extending angular portions spaced apart and disposed one above the other, and adapted to be swung into alinement with the walls of the box, and a bottom member adapted to be mounted between the upper and lower angular portions and to be supported by the latter when they are inwardly extending.

4. A collapsible box comprising a body having at each corner three longitudinal slits disposed one above the other and extending across the adjacent corner, the portions between the two upper slits and between the lower slits and the lower edge of the box having vertical flexible joints at the ends of the slits and at the corners of the body, whereby said portions may be bent inwardly from alinement with the sides of the box to angular positions respectively, the lower portion and the upper portion at each corner being spaced apart, and a bottom member adapted to rest upon said lower portions under the upper portions, when the said portions are bent inwardly to the angular positions.

5. A box provided at each corner with a longitudinal slit, which extends across the corner, the portions between the said slits and the lower edge of the box being provided at the ends of the slits and at the corners of the box with vertical flexible

joints which extend from the lower edge of the box to the adjacent slits respectively, whereby said portions may be bent inwardly from alinement with the sides of the box to an angular position, and a bottom member adapted to be supported upon said inwardly bent portions.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

LUCIAN ROSENWALD.

Witnesses:

WARREN D. HOUSE,

E. B. HOUSE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents. Washington, D. C."