

Dec. 5, 1933.

M. R. SHOFER

1,938,501

BOX

Filed Jan. 14, 1932

Fig. 1

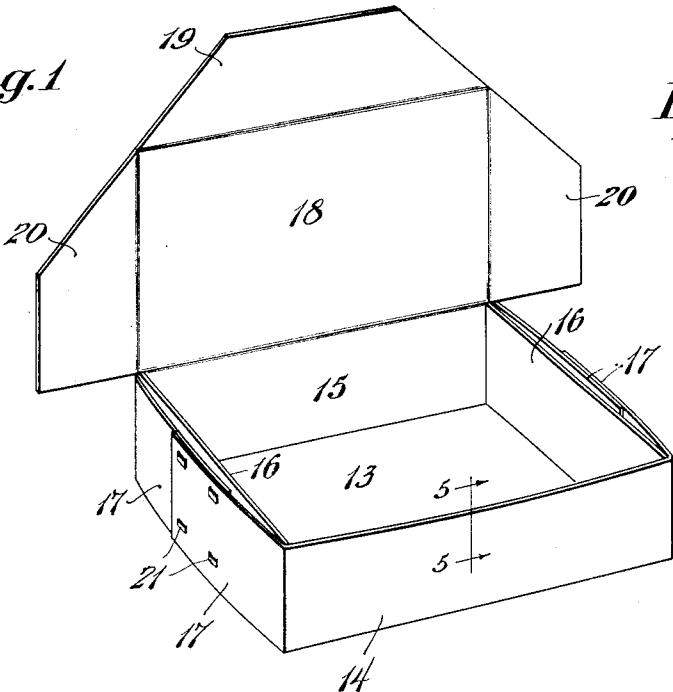


Fig. 5

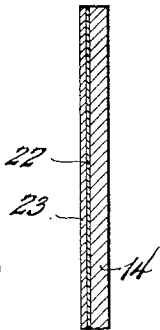


Fig. 2

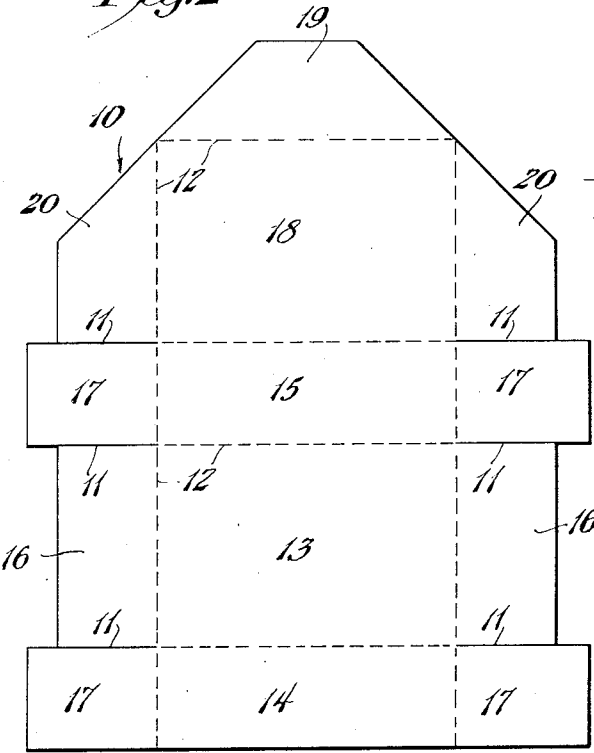


Fig. 3

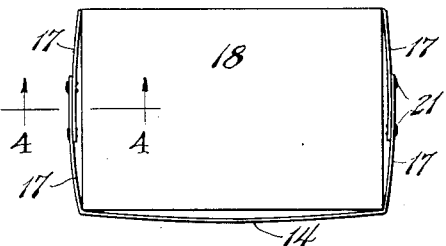
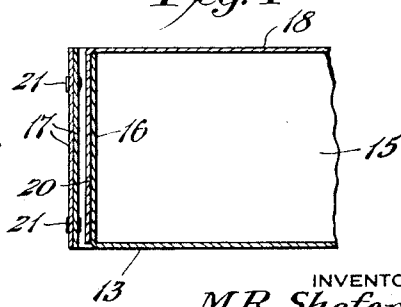


Fig. 4



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UNITED STATES PATENT OFFICE

1,938,501

BOX

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Application January 14, 1932. Serial No. 586,630

1 Claim. (Cl. 229—33)

This invention relates to boxes, especially to those made of fiber board and the like and among other objects, aims to provide an improved box so constructed as to withstand rough handling with-

being cut off to facilitate the closing of the lid.

It will be clear that when the box is closed, end flaps 20 make the end walls of triple thickness throughout, with quadruple thickness where the flaps 17 overlap each other. Furthermore, the front cover flap 19 makes the front wall one of double thickness. As the cover flap 19 and end flaps 20 are of about the same width as the height of the box, when said flaps are turned in to hold the cover down (Fig. 3), they provide strong legs for supporting the cover against compressive stresses, thus doubling the capacity of the box to resist crushing. When the box is open, as in Fig. 1, a fine display surface is provided by the cover and its three flaps 19, 20.

In order to make the interior of the box sanitary and at the same time give it a pleasing appearance, the inner face of the material is first given a relatively thin coating of sizing material, such as glue 22 (see Fig. 5) which fills the pores. A thicker coating of paraffin 23 is then applied over the sizing. Thus the paraffin does not sink into the pores of the material but stays on top of the glue as a glossy whitish coating. In the ordinary paraffining process, the paraffin is usually applied directly to the fiber board giving it a very dark appearance as the paraffin sinks into the pores. The paraffin coating kills all bacteria and tends to inhibit the growth of bacteria, and contributes to a high degree of cleanliness and sanitation, especially if the box is used as a container for foods. Obviously, when so used, the foods need not be wrapped in expensive waxed paper, as the box is sealed before shipping by means of flexible tape or metal strapping (not shown).

From the above description it will be seen that an improved box has been provided which is not only strong and durable but sanitary and pleasing in appearance, because of the gloss of the whitish paraffin coating. While it can be used for many purposes, it is especially desirable as a container for crackers, fruit, hard candies, etc. The described box is also well adapted for perishable foods, such as meats and vegetables, which must be refrigerated: the paraffin "skin" which is applied to the box preventing the fibre board from getting soggy when the box is placed into damp refrigerated rooms or ice boxes, also when it is taken from a dry, cold refrigerated room and exposed to warm, humid air, which would cause "sweat" or "dew" to form on the outer surface of the box. Particularly if the box is to be exposed to refrigeration, it will be desirable to coat all the inside and outside surfaces with paraffin, in accordance with the described process.

In the accompanying drawing showing the preferred embodiment of the invention,

Fig. 1 is a perspective view of the improved box with the lid open;

Fig. 2 is a plan view of the blank from which the box is made;

Fig. 3 is a top plan view on a smaller scale showing the box in closed position;

Fig. 4 is an enlarged section taken on line 4—4 of Fig. 3; and

Fig. 5 is a greatly enlarged sectional view taken on the line 5—5 of Fig. 1.

Referring particularly to the drawing, the improved box is there shown as being formed preferably from a single piece of fiber board or the like which is first cut and scored, so that, if desired, it may be shipped flat, and later is bent into box formation. The blank 10 shown in Fig. 2 is cut out to the proper contour and incised on lines 11 and scored as indicated by dotted lines 12 to provide a bottom 13, front and rear walls 14 and 15, end walls 16, and laps 17, top or lid 18 and front and end flaps 19 and 20.

When setting up the box, the walls 14 and 15 and end walls 16 are bent upwardly at right angles to the bottom and the end flaps 17 are then bent inwardly at right angles to the walls 14 and 15. The end flaps 17 are secured together by fastening means 21. The flaps 19 and 20 may then be bent inwardly at right angles to the top 18 and the lid then folded down to close the box, the scored line between the top and the wall 15 acting as a hinge.

Referring to Figs. 1 and 3, it will be noted that when the box is set up, the connected end flaps 17 and also front wall 14 are arched outwardly to provide a resiliency which will protect the box from injury. It will be seen that if either the front wall or the ends of the box are struck a blow during handling they will give without breaking, whereas if they were straight the fiber board would probably break. Thus the contents of the box may be protected against injury and possible contamination by dirt, which would sift in through any hole knocked in the fiber board. The flaps 20 are inserted in the spaces between the end laps 17 and the ends 16, as shown in Fig. 4, the adjacent corners of the flaps 19 and 20

Obviously, the present invention is not restricted to the particular embodiment thereof herein shown and described.

What I claim is:—

- 5 A box formed entirely from a single sheet of corrugated fiber board comprising a bottom; front, rear and end walls integral with the bottom and bent upwardly therefrom; the end walls being substantially vertical and plane; end flaps
10 integral with and bent inwardly from the front

and rear walls and secured together, said end flaps when secured together being arched outwardly and outside of the end walls; said front wall being arched outwardly; a top integral with the rear wall; and marginal top end and front flaps integral with the top, said end flaps being insertible between the plane end walls and the outwardly arched end flaps.

MARC R. SHOFER. 85

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20	95
25	100
30	105
35	110
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55	130
60	135
65	140
70	145
75	150