

April 12, 1938.

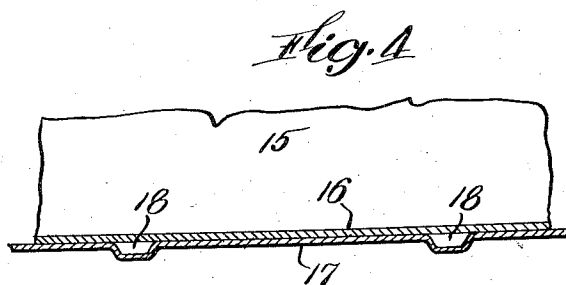
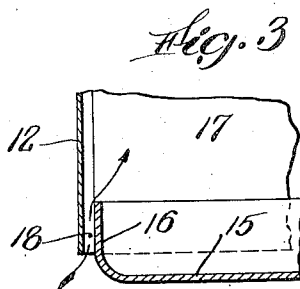
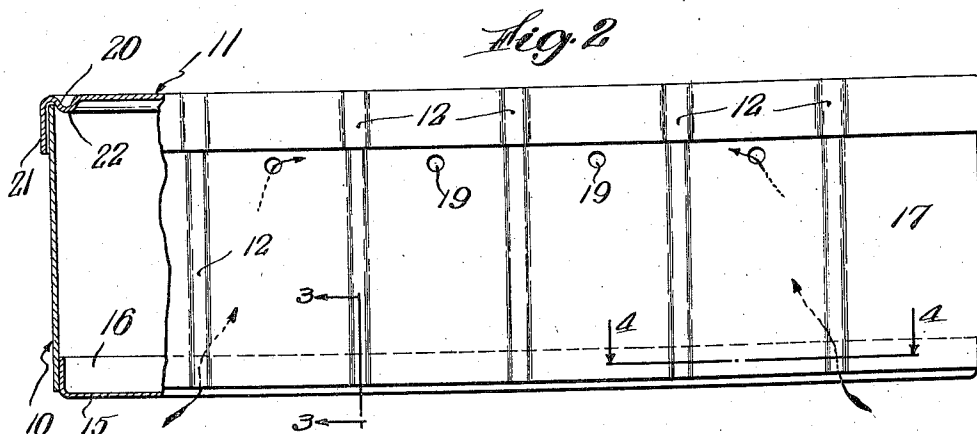
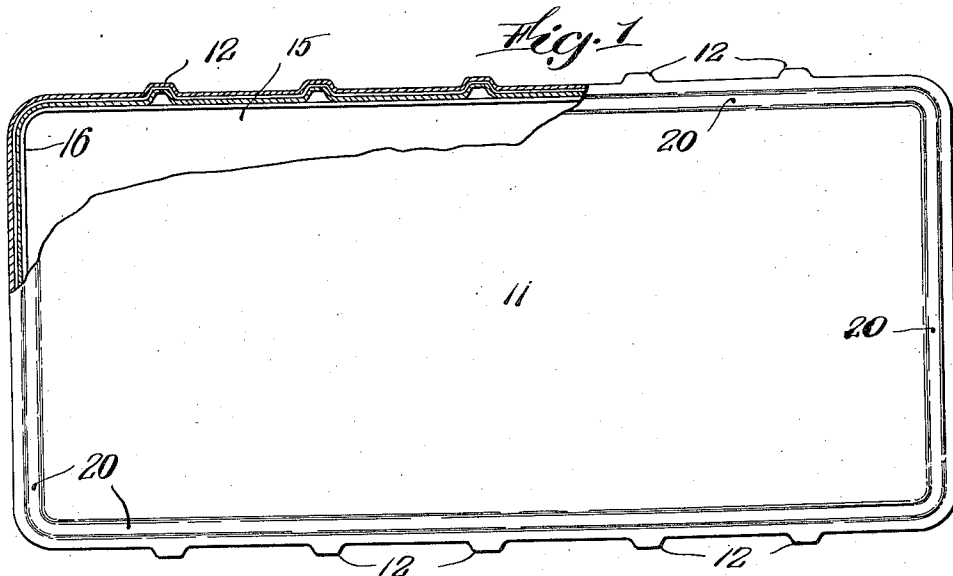
W. J. DE WITT

2,113,683

BOX

Filed April 28, 1937

2 Sheets-Sheet 1



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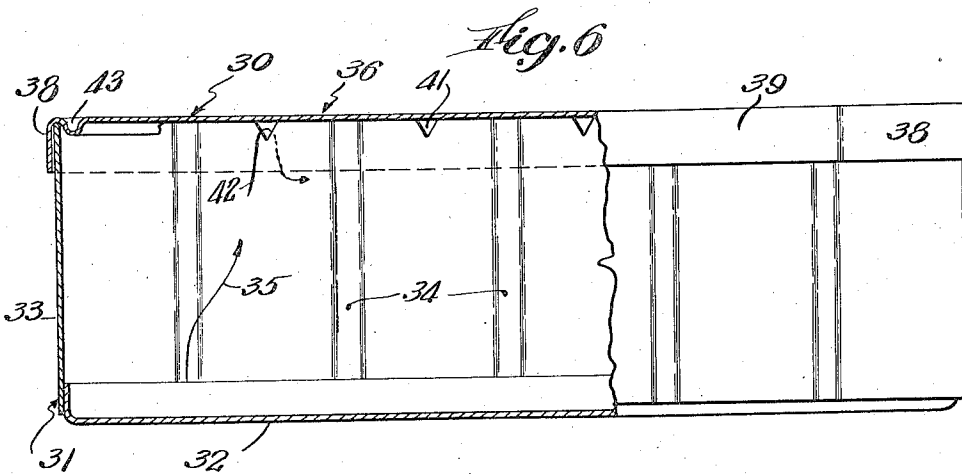
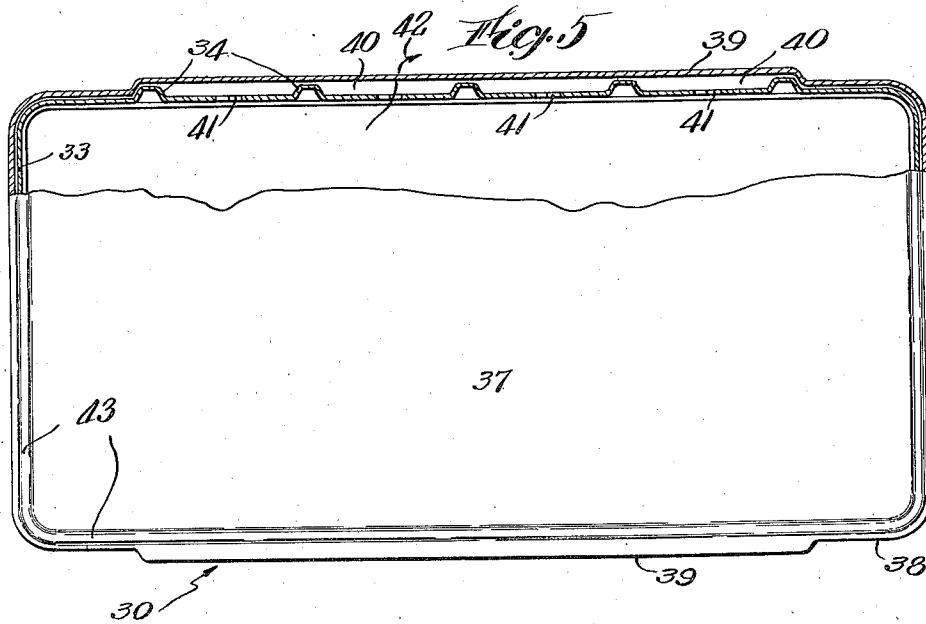
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2,113,683

BOX

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,113,683

BOX

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Application April 28, 1937, Serial No. 139,363

4 Claims. (Cl. 229-43)

This invention relates to an improvement in boxes, and more particularly in boxes made of celluloid or other transparent readily formable material.

5 The primary object of this invention is to provide means for stiffening the walls of the base and cover by corrugating side walls thereof, and if desired further stiffening the cover by forming corrugations therein, such corrugations
10 serving to support the side walls of the base from collapsing.

A further object of this invention is to provide means for ventilating the interior of the box and thus maintaining the contents of the
15 box in proper condition.

These and other objects of the invention will appear from a consideration of the following description and of the drawings which form a part thereof, and in which

20 Fig. 1 is a plan view of a box embodying one form of the invention, a part thereof being broken away;

Fig. 2 is a side elevation of the box shown in Fig. 1 also having parts thereof broken away;

25 Figs. 3 and 4 are enlarged sectional views taken along the lines 3-3 and 4-4 in Fig. 2; and

Figs. 5 and 6 are views similar to Figs. 1 and 2 of a box embodying another form of the invention.

30 While boxes of celluloid or similar material have been used for various purposes, they have been found objectionable due to the lack of rigidity in the side walls thereof, the tendency of the side walls of the base member to collapse inwardly and, when the base and cover fit closely, the lack of ventilation and the consequent injury to perishable contents of the box.

35 A box of this general type is shown in my co-pending application Serial No. 87,617, filed June 27, 1936, wherein the side walls of the base and cover are provided with corrugations which register when the box is closed. A box made in accordance with the present invention provides
40 in addition corrugations in the cover member which prevent collapse of the side walls of the base, and means for ventilating the interior of the box by passages in the base for the entry and egress of air.

45 The box embodying this invention and illustrated in Figs. 1 to 4 of the drawings comprises a base 10 and a cover 11. In the side walls of the base and the side walls of the cover are provided vertical corrugations 12 so located that when the box is closed the corrugations in the
50 base register with the corrugations in the cover.

The base 10 comprises a bottom plate 15 having a continuous vertical flange 16 at its periphery and a side wall member 17 which encloses the bottom plate and is suitably secured to the flange 16. As shown particularly in Figs. 3 and 4, the corrugations 12 in the side wall member 17 do not contact with the flange 16 and the grooves formed thereby define with the flange passages 18 through which air can enter the interior of the box at all times. It will be
10 noted that the lower edge of the side wall member 17 is above the bottom of the box so that the passages 18 are not closed when the box is resting upon a table or other planar support. Air passages 19 are also formed in the side wall
15 member of the base below the lower edge of the cover. Air normally enters through the passages 18 and escapes through the passages 19, as indicated by arrows on Figs. 2 and 4.

In the top of the cover 11 are formed corrugations 20 parallel to and spaced from the side walls 21 thereof. The ribs 22 formed by the corrugations extend downward and define with the side walls a peripheral recess which receives the upper edge of the base (see Fig. 2). The
25 ribs 22 thus serve to hold the side walls of the base upright and oppose any tendency to collapse at the upper edge. The corrugations 20 are joined to form a continuous groove near the periphery of the cover, as shown in Fig. 1, and thus perform a decorative and ornamental function as well as the useful function above described.

30 The box 30 illustrated in Figs. 5 and 6 differs from that shown in Figs. 1 to 4 inclusive and described above, in the ventilating feature and the structure of the cover to carry out this feature. The base 31 comprises a flanged bottom plate 32 and a side wall member 33 enclosing and secured to the flange of the bottom plate
40 and having a plurality of vertical corrugations 34 therein. The side wall member is spaced at its lower edge from the bottom of the box, and the corrugations provide passages through which air will enter, as indicated by the arrow 35 in Fig. 6. This feature corresponds to that shown in Figs. 3 and 4 of the first embodiment.

45 The cover 36 comprises a top wall 37 and side wall member 38 having corrugations 39 which register with the corrugations 34 of the side wall of the base. The corrugations 39 have extended surfaces inclined at the ends to register with certain of the corrugations 34, as shown in Fig. 5. When the box is closed the corrugations 39 form with the side walls of the base pockets 40, 55

which are substantially divided into compartments by the corrugations 34 between those in register with the corrugation 39. In the upper edges of the base side wall member 33 between the corrugations 34 are formed notches 41 which serve as passages through which air may pass into the pockets 40 and thence to the atmosphere, as indicated by the arrows 42.

It will be noted that the air passages in this embodiment are concealed when the box is closed, and that the corrugations 39 facilitate the removal of the cover, since the lower edges thereof are spaced from the side walls of the base and can be easily engaged. In the top wall 37 are formed corrugations 43 which are similar to the corrugations 20 of the embodiment shown in Figs. 1 to 4, and perform the same operative and decorative purposes.

While two embodiments of this invention have been disclosed herein, it will be understood that the invention is not limited thereto and that other embodiments thereof may be made without departing from the spirit and scope of the invention as set forth in the following claims.

I claim:

1. A box comprising a base and a cover, both base and cover having side walls and the side walls of the cover enclosing the side walls of the base, both side walls having corrugations therein which register when the box is closed, and said base including a flanged bottom plate, to the flange of which the side walls of the base are secured, the corrugations in such side walls forming with the flange passages through which air enters the interior of the box.

2. A box comprising a base and a cover, both base and cover having side walls and the side walls of the cover enclosing the side walls of the base, both side walls having corrugations therein which register when the box is closed, and said

base including a flanged bottom plate, to the flanges of which the side walls of the base are secured, the corrugations in such side walls forming with the flange passages through which air enters the interior of the box and supplementary air passages in the side walls of the base adjacent the side walls of the cover.

3. A box comprising a base and a cover, said base including a flanged bottom plate and side walls, said side walls having corrugations therein and being secured to the flange of the bottom plate, said cover including side walls which enclose the side walls of the base and have corrugations therein which register with corrugations in the side walls of the base when the box is closed, each corrugation in the side wall of the cover registering with two corrugations in the side wall of the base and being spaced from such side wall between said two corrugations to form a pocket open at the bottom and air passages through the side walls of the base into such pocket.

4. A box comprising a base and a cover, said base including a flanged bottom plate and side walls, said side walls having corrugations therein and being secured to the flange of the bottom plate, the corrugations forming with the flange of the bottom plate air passages to the interior of the base, said cover including side walls which enclose the side walls of the base and have corrugations therein which register with corrugations in the side walls of the base when the box is closed, each corrugation in the side wall of the cover registering with two corrugations in the side wall of the base and being spaced from such side wall between said two corrugations to form a pocket open at the bottom and air passages through the side walls of the base into such pocket.

WILLIAM J. DE WITT.