No. 847,972. PATENTED MAR. 19, 1907.

F. RUDOLPHI.

SHEET METAL DISPLAY CAN.

APPLICATION FILED SEPT. 24, 1906.

Fig 1

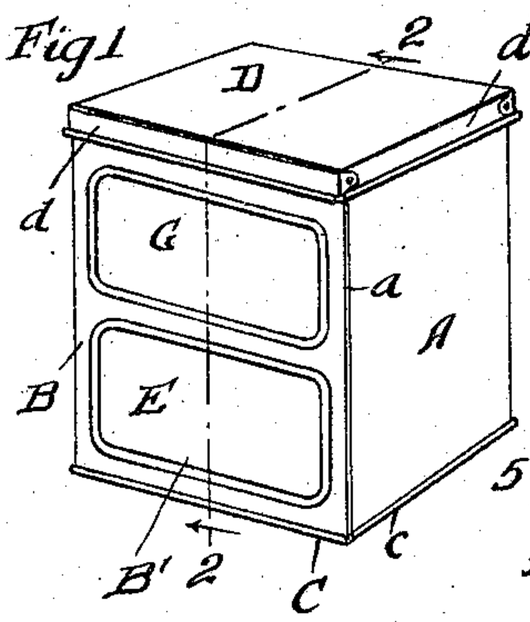


Fig. 3

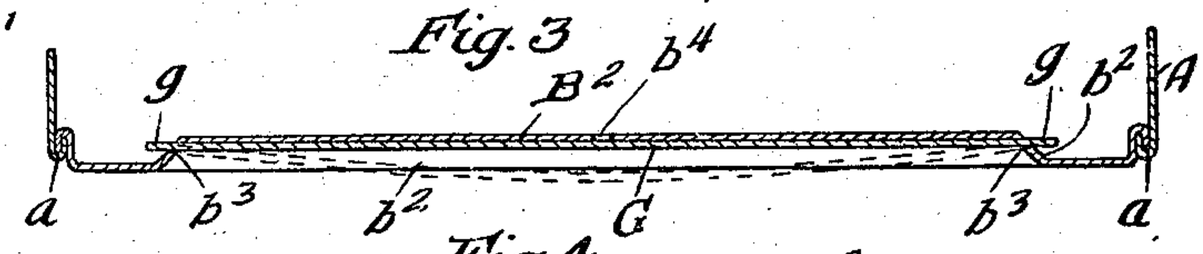


Fig. 4

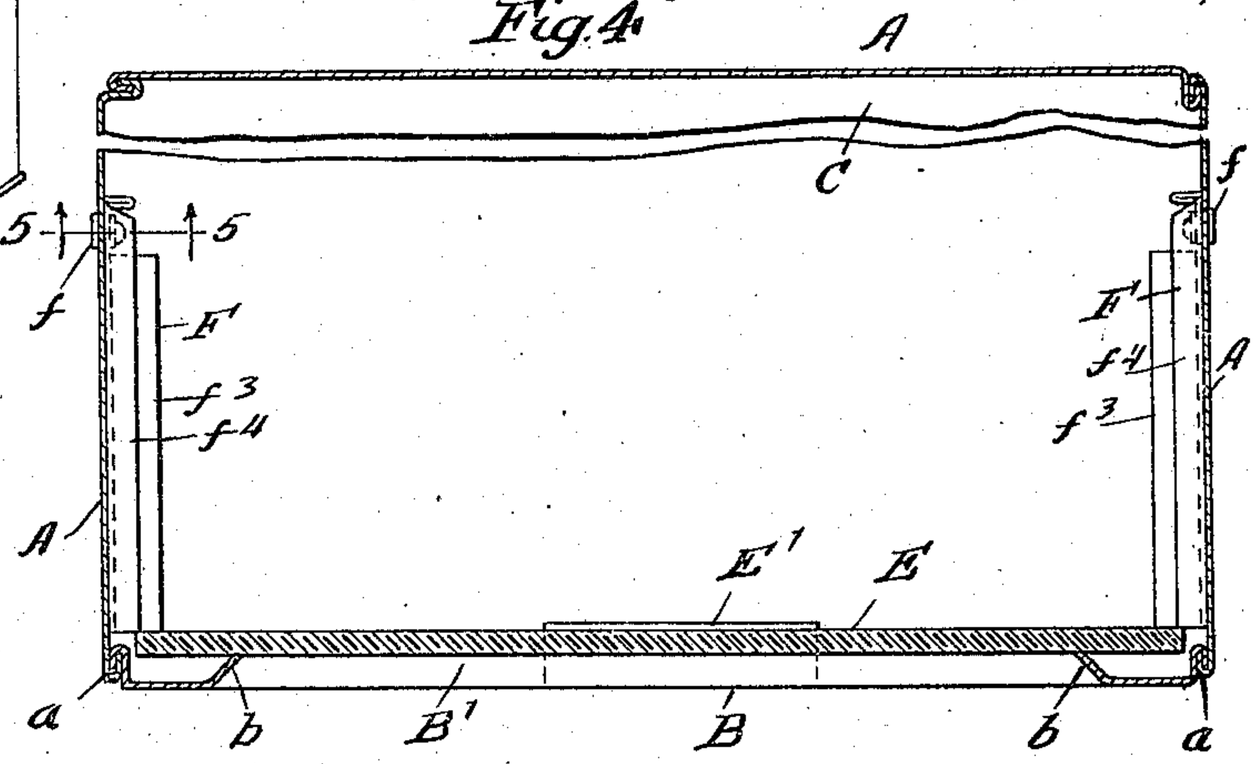


Fig 2

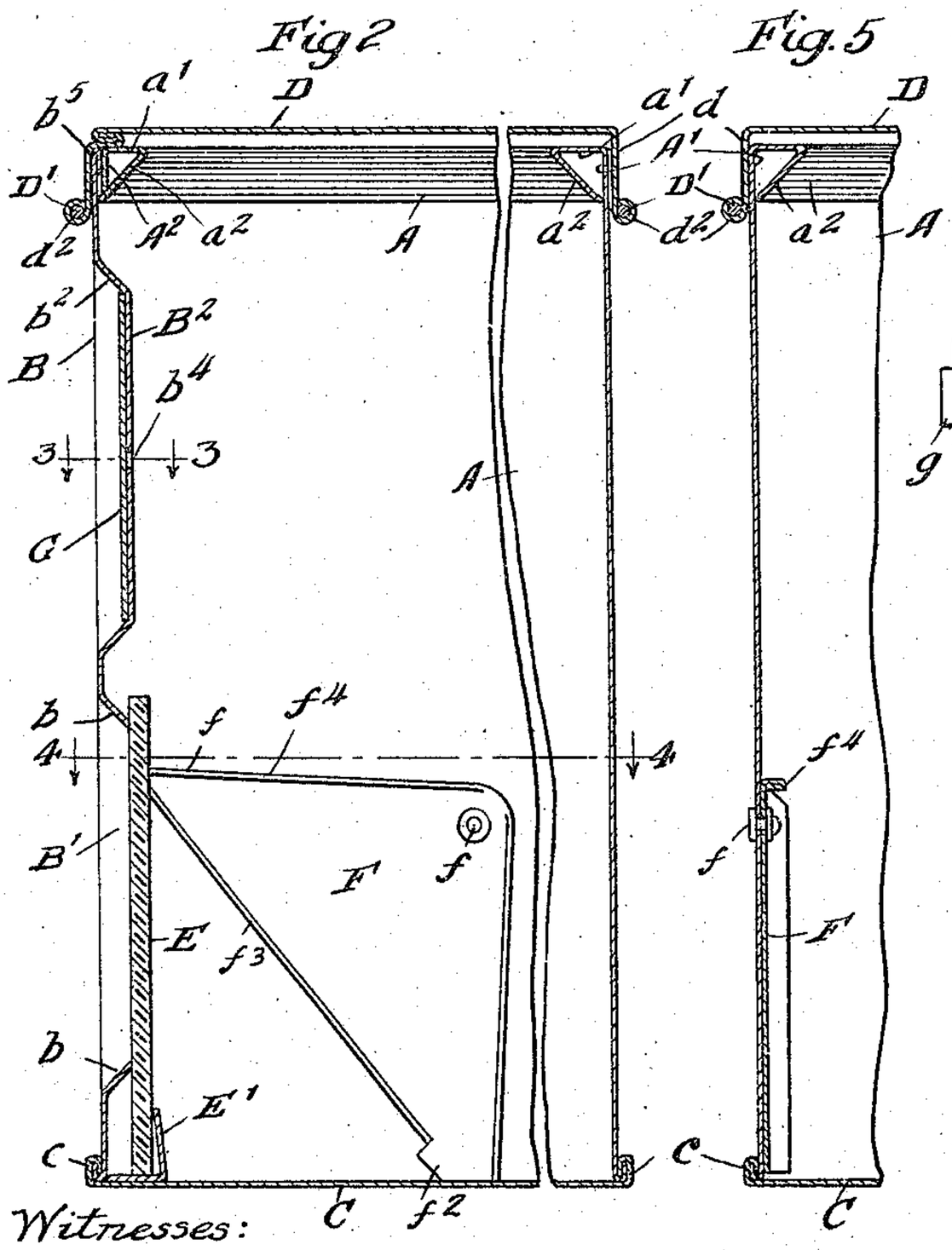


Fig. 5

Fig. 6

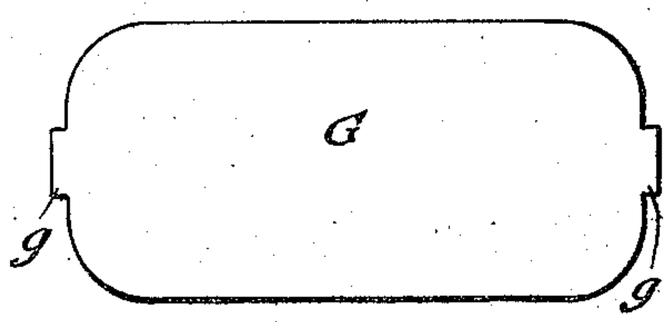
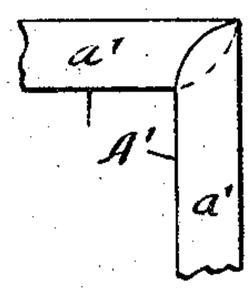


Fig. 7



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UNITED STATES PATENT OFFICE.

FRANK RUDOLPHI, OF CHICAGO, ILLINOIS, ASSIGNOR TO AMERICAN CAN COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

SHEET-METAL DISPLAY-CAN.

No. 847,972. Specification of Letters Patent. Patented March 19, 1907.

Original application filed August 7, 1905, Serial No. 272,958. Divided and this application filed September 24, 1906. Serial No. 335,957.

To all whom it may concern:

Be it known that I, FRANK RUDOLPHI, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Sheet-Metal Display-Cans, of which the following is a specification.

My invention relates to improvements in sheet-metal display cans or boxes for containing, shipping, storing, and displaying for sale crackers, bakery goods, and other like articles.

My invention consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described, and more particularly specified in the claims.

In the accompanying drawing, forming a part of this specification, Figure 1 is a perspective view of a display-can embodying my invention. Fig. 2 is a section on line 2 2 of Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is a section on line 4 4 of Fig. 2. Fig. 5 is a section on line 5 5 of Fig. 4, and Fig. 6 is a detail view of the spring sign-plate. Fig. 7 is a detail top or plan view of one corner of the can-body.

In the drawing, A represents the three sheet-metal upright side plates, and B the sheet-brass or burnishable-metal front plate forming the body of the can; C, the bottom plate, and D the hinged cover. The bottom plate C is secured by external folded seams *c* to the lower edges of the sides A and B. At the upright corners of the body the sheet-metal sides A and front side B are united by internal folded seams *a*. The upright side plates A of the body have at their upper ends horizontal right-angle flanges *a'*, preferably about one-half inch in width, and angle-flanges a^2, the lower edges of which meet and are soldered to the vertical sides A, thus forming hollow triangular stiffening bars or braces A' at the upper end of the body at three sides thereof, and at its remaining or front side a similar hollow triangular stiffening and strengthening bar A^2, having a corresponding horizontal flange *a'* and angle-flange a^2, is provided. At the corners of the body the meeting horizontal flanges *a'* and the meeting angle-flanges a^2 of the hollow strengthening bars or braces A' A^2 overlap each other and are securely soldered together, thus forming a continuous hollow strengthening bar or brace all around the upper end of the body.

The sheet-brass front plate B of the body has a display-opening B' in its lower portion surrounded by an inturned angle-flange *b* and closed by a removable glass plate E, held in place at its lower edge by a fixed guide E' and at its upper portion by pivoted plate-holders F, preferably of sheet metal and of triangular shape and hinged to the upright sides A A of the can by rivets *f*, preferably located but slightly below a horizontal line extending through the contacting end *f'* of the holder F against the glass plate E. The hinged glass-holders F have feet f^2, which bear against the bottom plate of the can and serve as stops to limit the turning movement of the pivotal holders. The sheet-metal glass-plate holders F are furnished each with right-angle flanges f^3 on their inclined side to cause the same to properly engage the glass plate E near the end thereof, and which also serve to strengthen and stiffen the sheet-metal holders. At their upright and horizontal edges the holders F have folded right-angle flanges f^4, which serve to stiffen and brace the glass-holders.

As the pivoted glass-holder F fits snugly against the upright side plates of the can, to which they are pivoted, and as they swing in vertical planes parallel to said side plates, they shut down against the glass plate and accommodate themselves to the varying thickness of the glass plate, their own weight tending to hold them closed. As the glass plates always vary more or less in thickness, the gravity action of the holders in maintaining them closed is a material advantage in affording a secure holding means for the glass plate. As the pivoted holders open and close in vertical planes, variations in their closing or swinging movement, due to varying thicknesses of the glass plate, does not produce an open space or crevice between the holders and the side plates to which they are pivoted, into which crumbs can wedge, and thus tend to open the holders, and as my glass-plate holders are pivoted to swing in the plane of the side plates to which they are pivoted knocks or blows against the sides of the can also have no tendency to open or loosen the holders, as

would be the case if the holders were hinged to the side plates to swing open at angles thereto, and in my invention also any jars or jolts upon the can simply tend to tighten the vertical swinging holders against the glass plate.

The sheet-brass front B has at its upper portion a countersink or recess B^2, surrounded by a marginal wall or angle-flange b^2 and forming a recess or seat to receive the external-fitting removable sheet-metal spring sign-plate G, which is provided with tenons $g\ g$ at its ends, that project through slots b^3 in the flanges b^2 of the countersink or sign-receiving recess B^2 in the brass front plate B. The spring sheet-metal plate G fits snugly in its recess B^2 in the front plate at both ends and at its upper and lower edges, and it is inserted in place and its tenons inserted through the slots b^3 therefor by springing, bending, or bowing the sign-plate outward, as indicated in dotted lines in Fig. 3. To facilitate the removal of the spring sheet-metal sign-plate from the brass front plate B, the latter is provided with a small hole b^4, preferably at the middle portion of the sign seat or recess B^2, through which a pencil or other small instrument may be inserted to outwardly bend or bow the flexible spring sign-plate, and thus free it from its seat and withdraw its tenons g from the slots or holding devices b^3 on the brass front plate B of the can. The brass front plate B has a fold b^5 at its upper edge to give a smooth finish thereto, and it fits snugly and against and is soldered directly to and supported by the hollow triangular strengthening-bar A^2 at the front side of the can. The thin brass plate is thus given a strong support at its upper end by the bar A^2 and a much stronger and better construction than those heretofore used, where a slot or passage-way is left between the bar A^2 and the front plate for the removal and insertion of an inside-fitting sign-plate.

The hinged cover D has right-angle integral flanges d at three of its edges and a front flange d' of a separate piece and preferably of brass to correspond to the brass front B. The lower edges of the cover-flanges $d\ d'$ have curves or coils d^2, embracing a wire D', which completely surrounds the cover and forms also the pivot of its hinge.

While I prefer to use the interengaging holding devices on the spring sign-plate and front plate which I have illustrated in the drawing and consisting of tenons on the sign-plate and lips or slots on the front plate for holding the removable externally-fitting sign-plate in its seat on the outside of the front plate and to permit the disengagement or withdrawal of these holding devices from each other by the spring or bowing movement of the flexible sheet-metal sign-plate, it will of course be understood by those skilled in the art that the form and construction of these interengaging holding devices may be greatly varied without departing from the principle of my invention.

This is a division of my original application for patent, Serial No. 272,958, filed August 7, 1905.

I claim—

1. In a display-can, the combination with a front plate having a display-opening therein, with a transparent plate closing said opening, and vertically-swinging glass-holders pivotally connected to the upright sides of the can adjacent to the front plate and swinging about their pivots in planes parallel to the upright sides of the can to which they are pivoted, substantially as specified.

2. In a display-can, the combination with a front plate having a display-opening therein, with a transparent plate closing said opening, and hinged glass-holders pivotally connected to the upright sides of the can adjacent to the front plate, and pivotal glass-holders having feet engaging the bottom plate of the can to limit the turning movement of the holders, substantially as specified.

3. In a display-can, the combination with the front plate and adjacent upright side plates, of vertically-swinging glass-plate holders pivotally connected to said adjacent side plates and provided with flanges engaging the glass plate, said glass-holders swinging about their pivots in planes parallel to said upright side plates to which they are pivoted, substantially as specified.

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