Jan. 18, 1949. R. D. ADAMS 2,459,301

TILTABLE BIN

Filed May 26, 1945

Fig. 1.

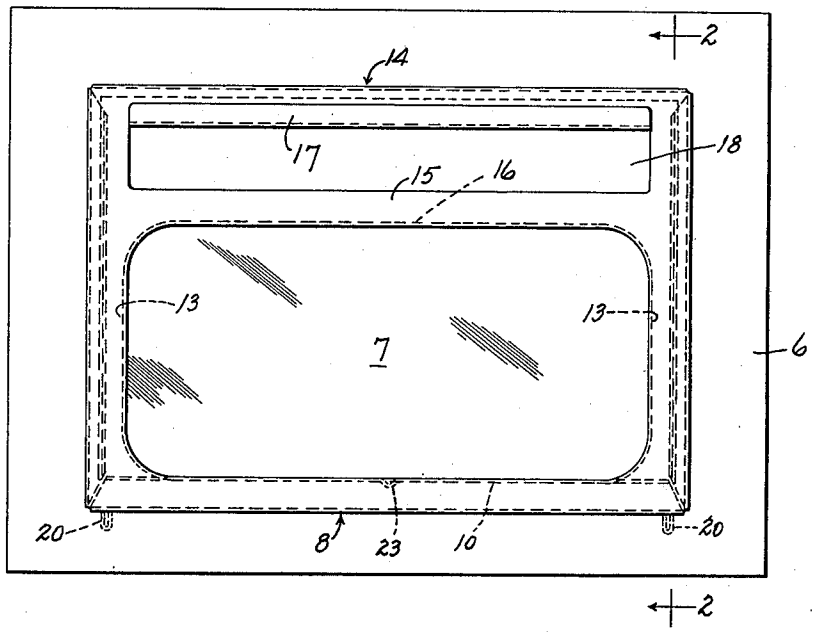


Fig. 2.

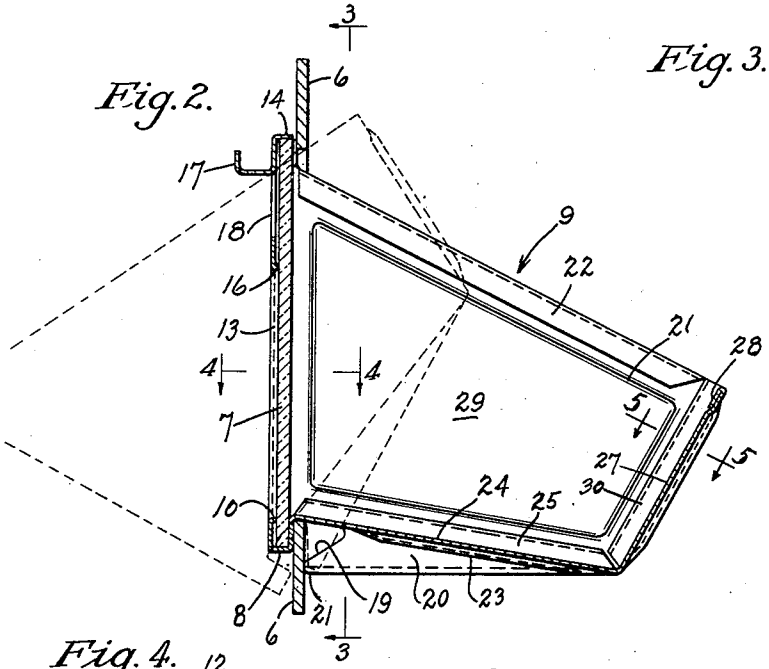


Fig. 3.

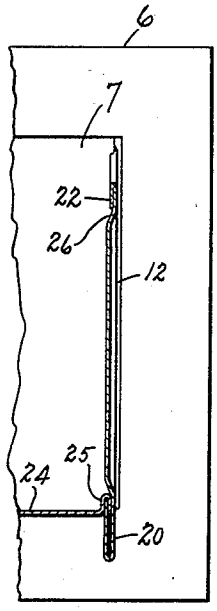
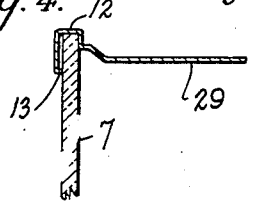


Fig. 4.



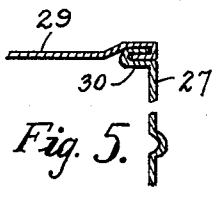


Fig. 5.

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TILTABLE BIN

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3 Claims. (Cl. 312—155)

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My invention relates to a cabinet and more particularly to a cabinet having tiltable drawer means.

An object of my invention is to provide such a cabinet in which the drawer means tends to close when it is at one side of dead center and tends to open when it is at the other side of dead center.

Still another object is to provide a cabinet having such drawer means that are so arranged that the drawers themselves prevent their escape from the cabinet unless intentionally lifted therefrom.

A further object is to provide cabinet drawer means of the character referred to which is securely held in an open position but which may be easily lifted from the cabinet, if desired.

My invention also has for its objects to provide such means that are positive in operation, convenient in use, easily installed in a working position and easily disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description. However, the drawings merely show and the following description merely describes one embodiment of the present invention, which is given by way of illustration or example only.

In the drawings, like reference characters designate similar parts in the several views.

Fig. 1 is a front elevational view of an embodiment of the foregoing objects.

Fig. 2 is a transverse section taken on the line 2—2 of Fig. 1.

Fig. 3 is a section taken on the line 3—3 of Fig. 2.

Fig. 4 is a broken section taken on the line 4—4 of Fig. 2.

Fig. 5 is a broken section on the line 5—5 of Fig. 2.

Referring more in detail to the drawings, the reference number 6 generally designates a rectangular frame which is part of the front of the cabinet (otherwise not shown).

The present bin shown in the drawings has a glass or transparent plastic front 7. The front member 7 rests in a groove 8 at the front of a bin body 9. A lip 10 at the top of the groove 8 engages the transparent front 7, in order to hold the bottom thereof securely.

The body 9 also provides side grooves 12 at opposite ends of the front member 7. These side

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grooves 12 likewise have inturned lips 13 for engaging the front plate 7. A top flange 14 is bent over the top edge of the front plate 7, after the front plate has been dropped down in the grooves 12 and 8. A cross bar 15 of the plate 7 has an inward lip 16 engaging across the plate 7 in the upper portion thereof.

Above the cross bar 15, the metal is cut on three sides and bent up to form a hand grip 17. The opening 18 left by the metal that forms the hand grip is useful as a space for an index card or other identification. The card will rest upon the inside of the lip 16.

The body of the bin may be made as desired, but an important feature of the invention is the provision of a tapered projection 19 at the front end of flanges 20 depending below the body 9 providing between the tapered edges of the projections and the bottom of the bin a space, into which the upper edge of the lower panel fits to secure the bin in position when tilted to withdrawn position. When the drawer is in closed position the frame or face 6 of the cabinet is disposed between the groove 8 and the front end or nose 21 of the flange 20. When the drawer is moved to its open position, the tapered projection 19 engages the adjacent edge of the frame 6, as disclosed by the broken lines of Fig. 2. In the open position the top of the bin engages the upper portion of the frame 6, as also shown in broken lines in Fig. 2. It will be observed that the upper edge of the bin, when closed, engages the outside of the upper panel of the cabinet and that the tapered projections 19 engage the inside of the lower panel, the upper panel and the tapered projections forming the sole support for the bin, the body of which within the cabinet is without support.

The top edges of the ends of the bin are bent over upon themselves, as shown at 22, for the sake of strength. A strengthening rib 23 is provided along the center of the bottom of the bin. The bottom 24 of the bin is crimped over a bent up portion of the flange 20, as probably best shown at 25 in Fig. 3. The ends of the bin 9 are dished inwardly, as suggested at 26, to further strengthen the bin. The rear face 27 of the bin is also bent over upon itself at the top, as shown at 28 and the ends 29 and rear face 27 are intercrimped, as best shown at 30 in Fig. 5.

The use of my bin is believed quite obvious, since it can be used for offices, home or industrial purposes of a wide variety. My bin is quickly opened to reveal the entire contents thereof and securely rests in an open position by reason of

the engagement of the tapered projection 19 with the frame 6 and by engagement of the top of the bin with the upper edge of the opening in the frame 6, all as shown in broken lines in Fig. 2. From the open position, the bin is easily swung about the lower edge of the opening in the frame 6 to the closed position shown in full lines in Fig. 2. The hand grip 17 is useful in effecting opening and closing movements of the drawer, and a proper index or identification tab may be slid into the opening 18. The transparent front, of course, reveals the contents of the drawer.

The bin, apart from the transparent front, is preferably made of sheet steel. The bin may be entirely removed, if desired, by swinging the bin to a partly open position and then lifting the bin out of the frame. It is replaced by reversing the operation.

While I have illustrated and described what I now regard as the preferred embodiment of my invention, the construction is, of course, subject to modifications without departing from the spirit and scope of my invention. I, therefore, do not wish to restrict myself to the particular form of construction illustrated and described, but desire to avail myself of all modifications that may fall within the scope of the appended claims.

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

1. In a cabinet having upper and lower panels defining an opening, the combination of a bin within said opening, having a rearwardly converging top and bottom and provided with a front plate extending above the bottom of the upper panel and below the top of the lower panel and outside of said panels, the forward top of said bin being normally free of the bottom of said upper panel and the forward bottom of said bin normally resting on said lower panel and pivoting the bin, the bottom of said bin having depending flanges provided with inclines terminating in projections spaced from the bottom of the bin and normally bearing against the rear of said lower panel, whereby the front plate of the bin is caused to engage the outside of the upper panel to support the bin within the opening in the cabinet, said bin being tiltable on said lower panel to a position without said opening, and said projections on said flanges engaging the inside of said lower panel while the converging top of the bin engages the bottom of the upper panel to hold the bin in withdrawn position.

2. In a cabinet having an opening, the combination of a bin having a rearwardly converging top and bottom and a front plate extending above and below the respective bottom and top edges of said opening, the forward portion of the top of said bin being on a plane lower than the upper edge of the opening when the bin is entirely within said opening, and the front of the bottom of said bin resting on the bottom edge of said opening, and a member on the bottom of said bin having a projection engaging the inside of said cabinet at the bottom of the opening therein and co-operating with the top of said front plate to form the sole support for the bin within the opening, said projection co-operating with the bottom of said front plate to hold the front of the bottom of the bin in pivotal engagement with the bottom edge of said opening, and said member having an inclined surface for engagement with the inner surface of the cabinet at the bottom of the opening therein to maintain the bin connected to the cabinet when tilted to withdrawn position.

3. In a cabinet having upper and lower panels defining an opening, the combination of a bin provided with sides having rearwardly converging top and bottom edges, with a bottom and with a front plate overlapping the outside of the upper and lower panels, the forward edges of the tops of the sides of said bin being normally free of the bottom edge of said upper panel, and the forward part of the bottom of said bin normally resting on said lower panels and pivoting the bin, the bottom of said bin being provided with tapering projections normally bearing against the rear of the lower panel and spaced from the portion of the plate overlapping the front of the lower panel a distance to accommodate the lower panel thereby to pivot said bin on the upper edge of said lower panel, said projections cooperating with the plate engaging the outside of the upper panel to form the sole support for, and prevent horizontal movement of, the bin, said bin being movable to open and closed position by tilting.

RALPH D. ADAMS.

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