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3,028,207

DRAWER AND FRAME

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FIG. 1

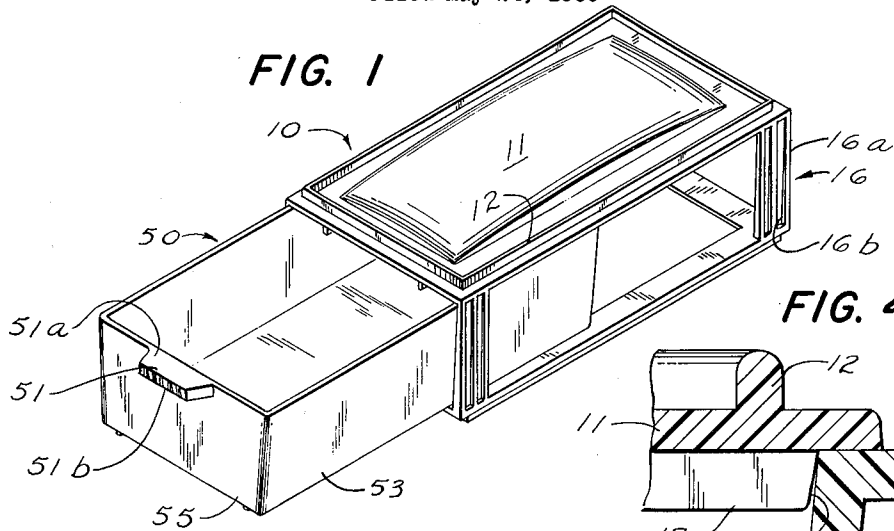


FIG. 4

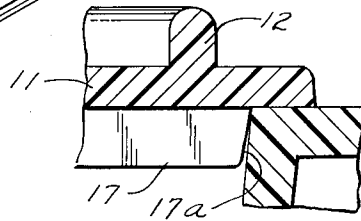


FIG. 2

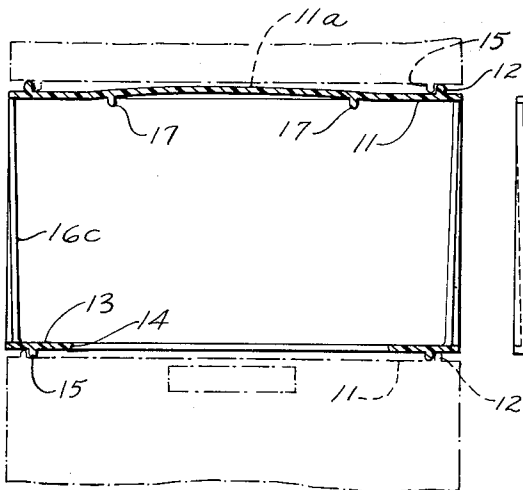
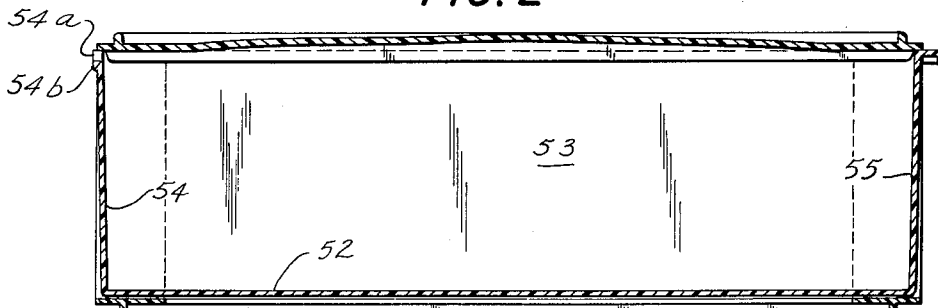


FIG. 3

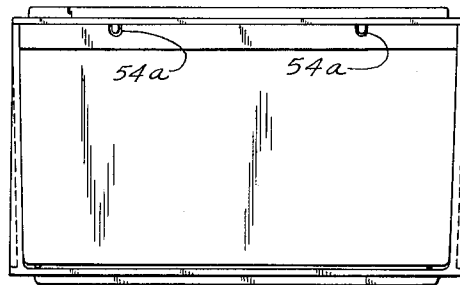


FIG. 5

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1

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DRAWER AND FRAME

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1 Claim. (Cl. 312-111)

This invention relates to an improved container of the type having a frame and a removable drawer insert for said frame.

An important object of this invention is to provide a container of this type in which the frame may be molded in unitary form from plastic material.

Another important object of this invention is to provide a container of this type having improved means, unitary with the frame, for stacking such containers in vertical succession.

Another important object of this invention is to provide a container frame for reception of a drawer insert which can be unitarily molded from plastic material, which utilizes a minimum of stock, which has only one wall without an aperture and which has simple means for retaining a drawer insert therein.

In accordance with a preferred embodiment of the invention, the frame is molded from plastic and is unitary and of generally rectangular shape. The frame has a closed top wall and a parallel bottom wall which may be centrally cut out to save stock. The two walls are held solely by connecting corner legs. Each leg extends generally vertically and longitudinally (along a side edge of the frame). Each leg is upwardly laterally tapered. The inner faces of the legs are upwardly outwardly inclined.

The drawer insert is generally rectangular and is in the form of a tray with an open top. The sides of the drawer are upwardly outwardly inclined at the same angle as the inner faces of the legs. The drawer may be unitarily molded from plastic. The drawer can be frictionally slidably extended through the front of the frame with the frame top wall then closing the open top of the drawer.

The frame top wall has a depending longitudinal guide rib which extends slidably through a slot in the drawer rear wall, extending to the top thereof. The front end of the rib can abut the drawer front wall to serve as a stop to prevent the drawer from passing through the open rear of the frame.

The frame top wall and bottom wall have complementary external, transverse rectangular flanges adjacent the respective peripheries thereof, which can be nested one within the other to permit stacking of a plurality of frames in successive vertical registration.

This construction is simple and attractive and has the particular advantage of simplicity in molding procedures and elimination of fabrication procedures. I have found that the particular shape of the legs, as described above and in more detail in the accompanying specification, is necessary for molding purposes. A frame of this type which can be molded in one piece is particularly advantageous.

Other objects and advantages of this invention will become apparent from the following description, in conjunction with the annexed drawing, in which a preferred embodiment of the invention is disclosed.

In the drawings,

FIG. 1 is a perspective view of an improved container in accordance with this invention, showing the drawer partially closed;

FIG. 2 is a vertical longitudinal section of the container, showing the drawer closed;

FIG. 3 is a vertical cross-section of the container, show-

2

ing in phantom view other containers in stacked relationship;

FIG. 4 is a fragmentary detail of FIG. 2, drawn to enlarged scale; and

FIG. 5 is a rear elevational view of the container.

Upon reference to the drawings in detail, it will be noted that the improved container in accordance with this invention comprises a frame 10 and a drawer 50. These members are generally rectangular. As an important feature of the invention, with the possible exception of the optional drawer pull 51, each of the parts 10 and 50 can be molded integrally. In the following description, the components of parts 10 and 50 will be assumed to be integral, unless otherwise stated (as in the case of pull 51).

Frame 10 has a planar, rectangular, top wall 11 which is optionally longitudinally elongated in the front to rear direction. Said wall 11 is formed on its upper surface with a circumferentially extending rib or flange 12 located slightly inwardly of the outer periphery thereof. Optionally and preferably, this flange 12 is rectangular and has longitudinal portions which are parallel to the side edges of wall 11 and lateral portions which are parallel to the front and rear edges of wall 11. Optionally, wall 11 has a rectangular, upwardly convex central portion 11a.

Frame 10 has a bottom wall 13 which opposes and is parallel to wall 11. Wall 13 is similar to wall 11, except that optionally and preferably, wall 13 is provided with a large rectangular central cut-out 14 to eliminate stock and save weight and material. Preferably, the upper wall 11 is not cut out because it is intended to overlie and close the open top of drawer 50.

Said wall 13 has a depending rectangular rib or flange 15 of the same shape as flange 12. In other words, said flange 15 extends circumferentially around and somewhat inwardly of the periphery of wall 13 and has longitudinal portions adjacent the side edges of wall 13 and lateral portions adjacent the front and end edges of wall 13. The dimensions of the inner space bounded by flange 12 are slightly greater than the dimensions of the inner space bounded by flange 15, so that two frames 11 may be stacked in vertical registration with flange 15 of the upper frame nestingly received within flange 12 of the lower frame. This is clearly shown in FIG. 3, in which the lower flange 15 of the container shown in full lines is nestingly received within the upper flange 12 of the container shown in phantom below the full line container and rests upon the top wall 11 thereof. Similarly, in FIG. 3 the upper flange 12 of the full line container nestingly receives the lower flange 15 of the uppermost container shown in phantom, with said phantom flange 15 resting upon top wall 11.

The respective side edges of walls 11 and 13 are connected, at the front and rear of the frame, by means of vertically elongated legs 16. Each leg 16 extends a short distance longitudinally from an end edge of the frame along the side of the frame and toward the other end edge thereof. Leg 16 is generally planar and rectangular, with the addition that it has vertical ribs 16a formed on the outer face 16b thereof. Optionally, there are three such ribs 16a, one central and one each at the respective front and rear edges of leg 16. Each leg has an inner face 16c which is substantially parallel to outer face 16b, so that the leg is generally of uniform thickness, with the exception of ribs 16a. However, said faces 16b and 16c are upwardly laterally outwardly inclined so that the distance between laterally aligned legs 16 is greater at the top of the frame than at the bottom of the frame. Ribs 16a are of downwardly increasing thickness in the lateral direction, and the outer lateral face of each rib 16a connects between the vertically aligned side edges of walls

11 and 13, these walls being of the same width. The effect of the foregoing is to define legs 16 which are of gradually upwardly decreasing thickness, and of gradually upwardly increasing lateral spacing.

As a further feature of the invention, guide ribs 17 for drawer 50 are provided on the lower face of top wall 11. These guide ribs 17 are preferably spaced equally inwardly of the side edges of top wall 11 and extend longitudinally; and each rib is preferably located approximately halfway between the longitudinal center and the respective side edge of top wall 11, and outwardly of wall portion 11a. Each said rib 17 extends substantially to the rear edge of top wall 11, but terminates slightly forwardly of the front edge of top wall 11 to provide clearance for the front wall of drawer 50. The ribs 17 are preferably of approximately uniform height throughout.

The generally rectangular drawer 50 has a bottom wall 52, side walls 53, rear wall 54 and front wall 55. Bottom wall 52 is preferably substantially rectangular. Side walls 53, rear wall 55 and front wall 54 are optionally and preferably slightly upwardly outwardly tapered, so that the top opening of drawer 50 is slightly larger than bottom wall 52. The rear wall 54 is provided with notches 54a sized and positioned for sliding reception of the respective ribs 17. Optionally, the upper portion 54b of wall 54 is of increased thickness to increase the longitudinal dimension of notch 54a for strengthening thereof.

Pull 51 may be of any appropriate shape and is optionally located at the lateral center and at the top of drawer front wall 55. Said pull 51 may be integral with wall 55 (as shown in the drawing) or may be formed separately therefrom and then secured thereto. Without limitation thereto, said pull 51 has a top wall 51a which is in the plane of the top edge of drawer 50, and has a depending flange 15b extending around the free periphery of wall 51a, and connecting with wall 55, thereby defining a bottom opening of pull 51 into which the fingers may be inserted when grasping the pull.

Drawer 50 is slidably and removably received within frame 10, with drawer bottom wall 52 slidably abutting frame bottom wall 13, and with drawer side walls 53 slidably abutting the respective side wall legs 16 of frame 10. The top edges of the drawer side and end walls slidably abut the bottom face of frame top wall 11, with ribs 17 respectively slidably received within notches 54a.

In the fully closed position of the drawer, as is clearly shown in FIG. 2 and in the detail of FIG. 4, the rear face of drawer front wall 55 abuts the front ends 17a of ribs 17, which serve as stops to limit the rearward movement of the drawer relative to the frame and prevent the drawer from passing through the open rear of the frame. In this position, the drawer front and rear walls 55 and 54 are respectively wholly received within the confines of the frame, so that the frame top wall wholly closes the drawer top opening.

While I have disclosed a preferred embodiment of the invention and have indicated various changes, omissions and additions which may be made therein, it will be apparent that various other changes, omissions and additions may be made in the invention without departing from the scope and spirit thereof.

I claim:

A container comprising a longitudinally extending frame and a removable drawer insert for said frame, said frame being of molded plastic and unitary and of generally rectangular shape and having a closed top wall and a parallel bottom wall and corner legs connecting said walls, each said leg having an inner web extending generally vertically and longitudinally and being upwardly outwardly inclined, each said leg having spaced, vertically extending ribs on the outer face of said web, said ribs being upwardly laterally tapered, the outer edges of said ribs and the side edges of said frame top and bottom walls being in respective common vertical planes, said drawer being generally rectangular and having an open top, the sides of said drawer being upwardly outwardly inclined at the same angle as said webs, said drawer being shaped and sized to be frictionally slidably extended through the front of said frame into nested position within said frame with said top wall closing the open top of said drawer.

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