# United States Patent

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[54] **MOLDED DRAWER**
**7 Claims, 4 Drawing Figs.**


[52] **U.S. Cl.** ..... **312/330**
[51] **Int. Cl.** ..... **A47b 88/00**
[50] **Field of Search** ..... 312/330, 273, 204, 333, 335, 338, 349, 350, 392; 220/4



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**ABSTRACT:** A molded or vacuum-formed stackable plastic drawer partially rimmed and with a perpendicular front face, the rear rim having guide members that are central of the rim and the drawer bottom having central guide members and transversely spaced lock lugs to prevent removal of the drawer from its frame inadvertently. The perpendicular front face of the drawer accepts decorative handles or panels.

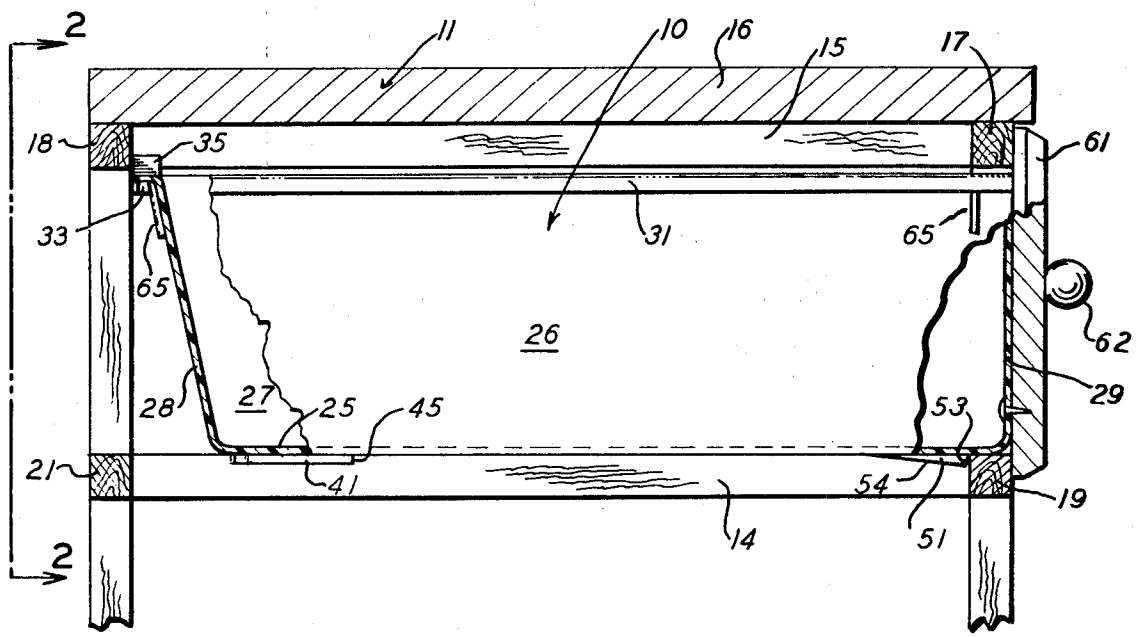



FIG. 1.

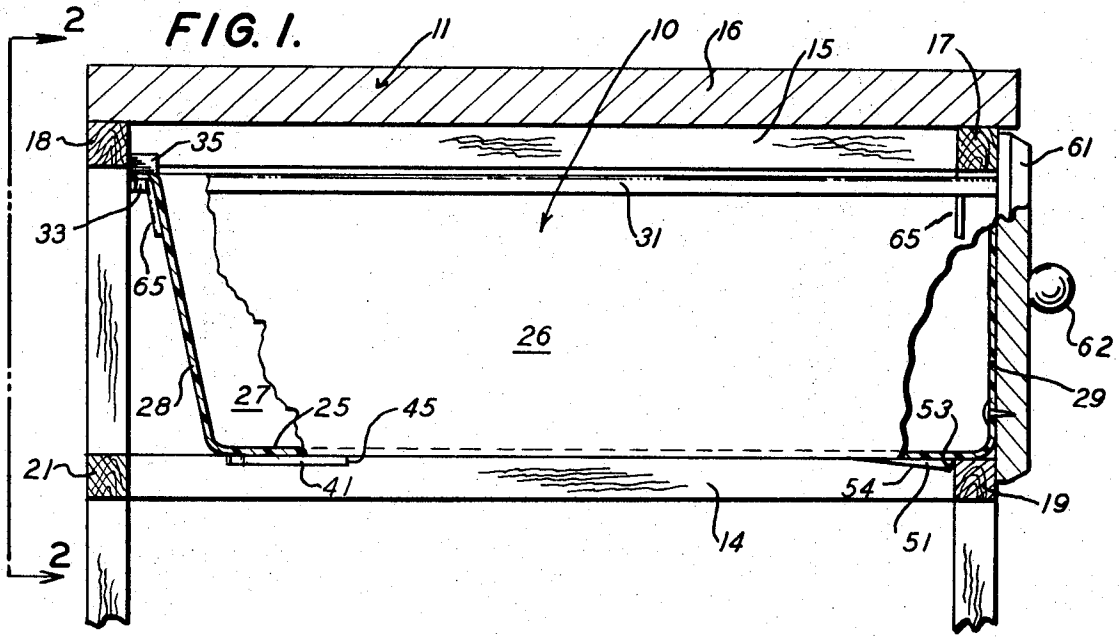
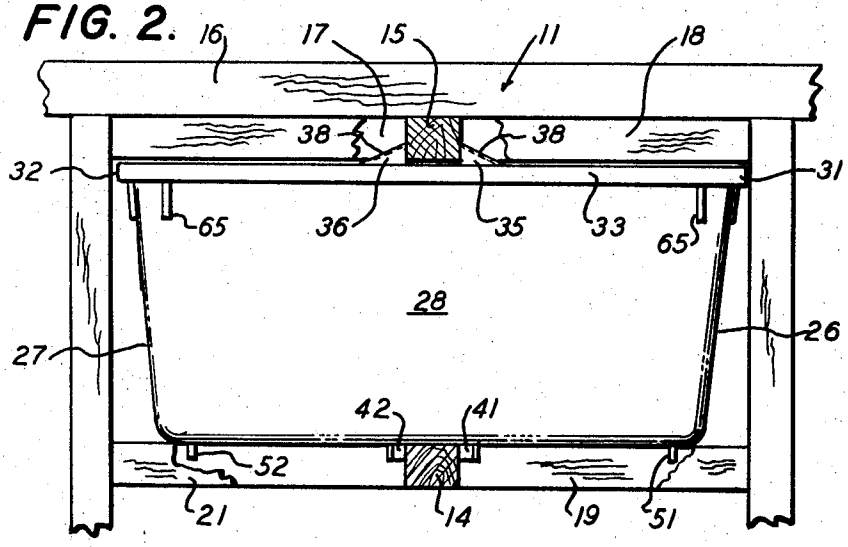
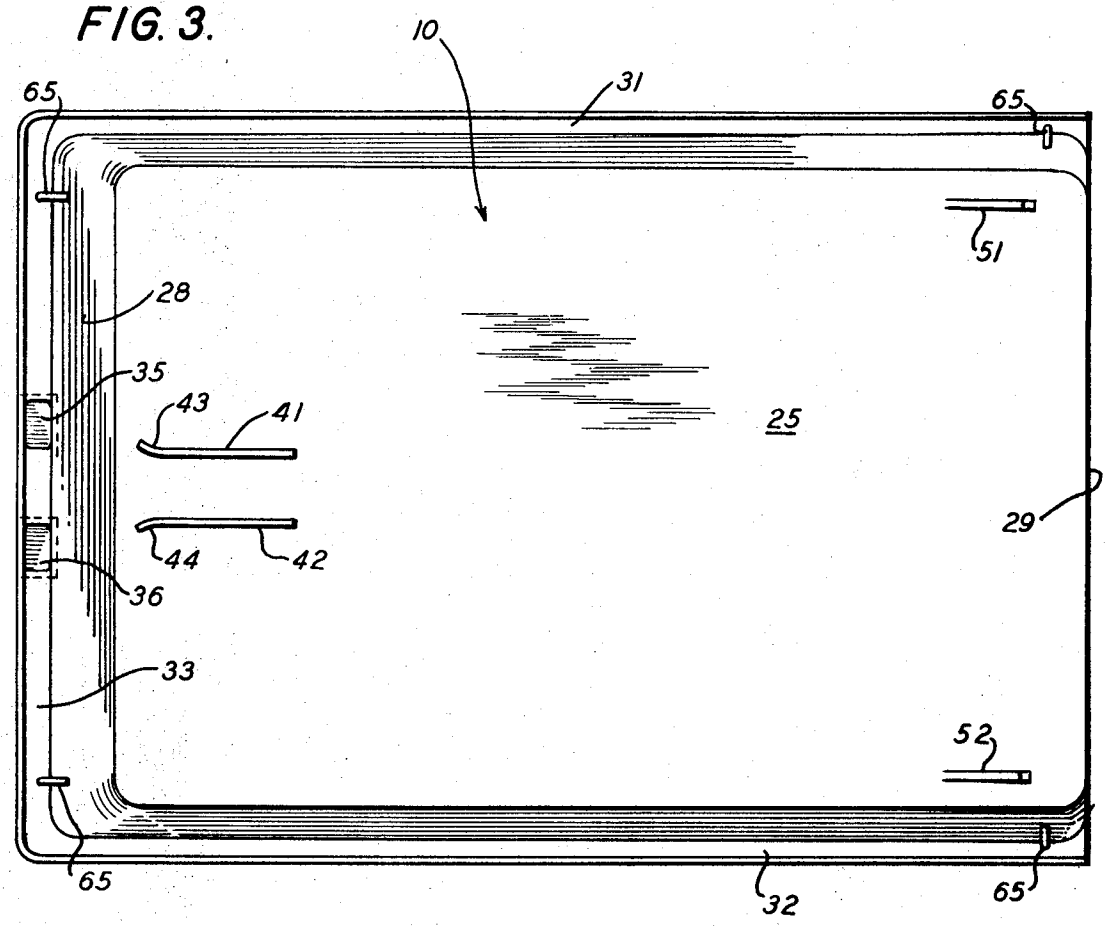



FIG. 2.




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FIG. 3.



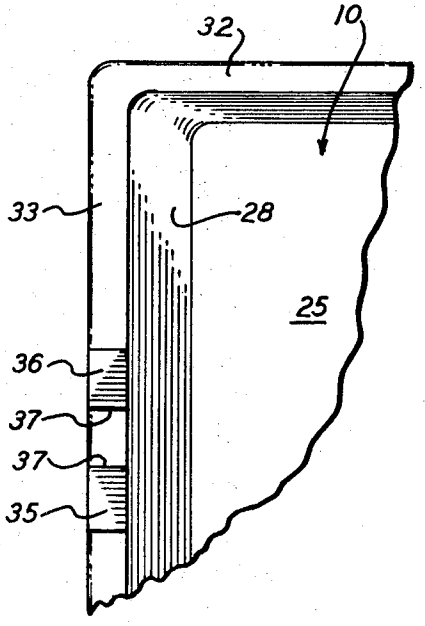




FIG. 4.

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# MOLDED DRAWER

## BACKGROUND OF THE INVENTION

The invention relates to drawers for cabinets, and more particularly to one-piece drawers adapted for use in recreational vehicles such as boats, trailers and campers wherein travel motion often causes migration of the drawers within cabinets.

One of the problems of drawers is the tendency of the drawer to move along its guide rails from closed position to an open position from which articles within the drawer can be lost. Also, cleaning of drawers made in generally rectangular configuration is often difficult because of the sharp inner corners. Centrally guided drawers have achieved wide acceptance but are normally expensive to build. The present invention overcomes these objections in a molded or vacuum-formed plastic drawer in which corners are rounded.

## SUMMARY OF THE INVENTION

The invention contemplates a drawer for a cabinet having central guide members which comprises a drawer bottom with spaced guide fins on the bottom and spaced lock lugs on the bottom. A drawer wall rises upwardly and slightly outwardly from each of the back and side edges of the bottom. A front wall rises upwardly from the front bottom edge. An outwardly extending stiffening rim surrounds each of the back and two sidewalls at the top of the drawer. Spaced guide members protrude from the back rim upwardly. A stacking lug on each wall adjacent a wall corner precludes surface-to-surface contact between adjacent drawers when stacked one within the other.

The objectives of the invention are to provide a drawer which is easily cleaned by having no seams or joints and which has rounded internal corners and which locks in place in closed or open positions. The invention has a further objective of providing a drawer which can be inexpensively molded or vacuum formed, which is rigid for its weight and which affords a flat panel to which decorative handles and facia boards may be attached.

These and other advantages of the invention are apparent from the following detailed description and drawing.

## BRIEF DESCRIPTION OF THE DRAWING

FIG. **1** is a longitudinal sectional elevation of a drawer in accordance with the invention in place in a cabinet frame;

FIG. **2** is a rear elevation of the drawer of FIG. **1** in place;

FIG. **3** is a bottom plan view of the drawer of FIG. **1**; and

FIG. **4** is a fragmentary top plan view of the back rim portion.

In FIG. **1** a drawer **10** in accordance with the invention is supported within a fragmentarily shown cabinet **11** on a longitudinal central rail **14** and guided by the lower central rail **14** and an upper central rail **15**. The cabinet may have a top **16** supported upon transverse framing members **17** and **18** between which guide rail **15** extends. Lower support and guide rail **14** extends between lower framing members **19**, **21**. Guide rail **14** is the lower guard rail for drawer **10** but is the upper guide rail for a lower adjacent drawer (not shown).

Drawer **10** is preferably molded or vacuum-formed in an integral shape. The drawer has a substantially rectangular bottom wall **25** with rounded corners, spaced sidewalls **26**, **27** and back- and front walls **28**, **29**, respectively. Backwall **28** and the sidewalls diverge outwardly as they rise from the bottom wall. Front wall **29** is substantially perpendicular to the bottom wall. Each of the back- and sidewalls terminates at its upward edge in an outwardly projecting flange or stiffening rim. The sidewalls **26**, **27** have curled rims **31**, **32**, respectively, and backwall **28** has a curled rim **33**. Rim **33** has two central guide bosses **35**, **36**, best seen in FIG. **4**. Each boss has a guide surface **37**. The surfaces are spaced apart a distance substantially equal to the transverse width of upper guide **15**. As can be seen in FIG. **2**, each boss slopes downwardly and outwardly in a ramp **38**.



Also visible in FIG. **2** are spaced guide fins **41**, **42** which center a drawer with respect to lower guide rail **14**. In FIG. **3** the fins **41**, **42** are seen to flare outwardly at their rearward ends adjacent the rear of the bottom wall to a distance greater than the transverse width of the guide rail. The flared portions **43**, **44** of the fins guide the drawer onto the bottom guide rail after the upper guide bosses have been engaged with the upper guide rail. The forward face **45** of each fin acts as a stop to retain the drawer when it is nearly fully opened, butting against lower framing member **19**.

As previously mentioned, one problem with sliding drawers is their tendency in moving vehicles to jar from their closed position. In order to counteract this opening motion the drawer of the invention has lock lugs **51**, **52** depending from the drawer bottom wall near the juncture of the bottom wall with the front wall. Each lock lug is triangular with an engaging face **53** adapted to seat against the inner surface of framing member **19** or its like element within a cabinet. The bottom face **54** of each lock lug tapers to a juncture with the bottom wall such that the drawer may be pushed closed with little effort since the drawer would ride on the sloping lug bottom surface up over framing member **19** and drop into locked position, as shown in FIG. **1**.

In order to introduce the drawer into the cabinet, which is conventional in construction, the front of the drawer is lifted slightly to depress the rear guide bosses sufficiently to enter the drawer opening and engage with guide rail **15**. At the same time the rearward edges of rims **31**, **32** are placed into the drawer opening. The rear of the drawer is then lifted sufficiently for guide fins **41**, **42** to pass bottom framing member **19** and engage about bottom guide rail **14**. The drawer is then continually pushed toward a rearward position until the lock lugs **51**, **52** encounter frame member **19**. An additional inward thrust surmounts member **19** and the drawer falls into locked position, lugs behind member **19**.

It is presently contemplated that the drawers in accordance with the invention be injection molded from high-impact polystyrene. Other materials of the strength and finish characteristics of polystyrene may be used. The material depends in part on the drawer size, as well as upon the method of fabrication. Molded polystyrene is well suited to drawers presently used in the industry, which are principally 5 inches deep, 17½ inches long and from 10½ inches to 20 inches wide.

While decorative panels may be affixed directly to front wall **29** of the drawer, it is preferable from the standpoint of appearance for a facia board **61** to be pinned or otherwise attached to the front face. Facia board **61** may match the rest of the material of the cabinet and have affixed thereto a handle **62**. The treatment of the exterior of the front wall is capable of great variation and does not form a part of this invention aside from the ability of the front wall to accept the wide variety of trim members as desired.

The upward-downward divergence of the sidewalls and backwall of the drawer makes it possible to stack one drawer within another. However, the surface-to-surface engagement of all of the drawer surfaces would tend to lock the stacked drawers one to another. The drawer of the invention therefore has upper stacking lugs, such as the lugs **65**, depending from the rim adjacent each corner of the drawer. After adjacent drawers have been placed one within the other to a certain depth the stacking lugs contact the drawer surfaces and prevent surface-to-surface contact which would inhibit withdrawal of the drawer from its neighbor.

By utilizing the unitary drawer economies can be anticipated in fabrication, storage and shipment. The drawer is substantially seamless and is therefore easily cleaned. Many of the plastics from which the drawer can be made are washable in warm or hot water such that the drawer lends itself to sanitation. The rim itself may vary depending on the strength of the material used. A flat rim or a tubular rim may be utilized if such strength is necessary.

I claim:

1. A stackable drawer for a cabinet having central guide members and comprising a drawer bottom, spaced guide fins on the bottom, spaced lock lugs on the bottom, a drawer wall rising upwardly and slightly outwardly from each back and side edge of the bottom, a front wall rising upwardly from the front bottom edge, an outwardly extending rim on each of the back- and two sidewalls, and spaced guide bosses protruding from the back rim, each of said guide fins, lock lugs and guide bosses extending in the direction of drawer movement less than half the extent of the two sidewalls.

2. Apparatus in accordance with claim 1 wherein the front wall rises upwardly from the front bottom edge perpendicular to the bottom wall.



3. Apparatus in accordance with claim 1 wherein the drawer further comprises a stacking lug on each wall adjacent a wall corner.

4. Apparatus in accordance with claim 3 wherein the drawer defined therein is integral.

5. Apparatus in accordance with claim 4 further comprising a front wall rising perpendicularly upwardly from the front bottom edge of the drawer.

6. Apparatus in accordance with claim 1 in which each lock lug has a bottom surface tapering upwardly to the bottom wall away from the front of the drawer.

7. Apparatus in accordance with claim 1 in which each guide fin has a stop face adapted to arrest the drawer on removal.