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B. M. GERBER

3,412,421

HANDLES

Filed May 5, 1966

FIG- 1

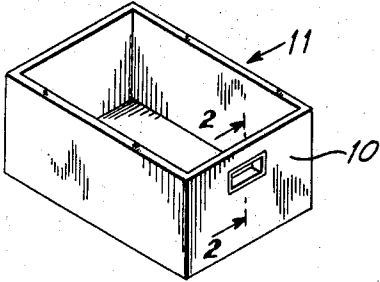


FIG- 3

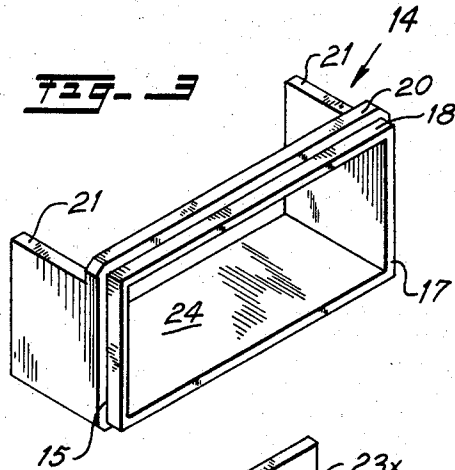


FIG- 2

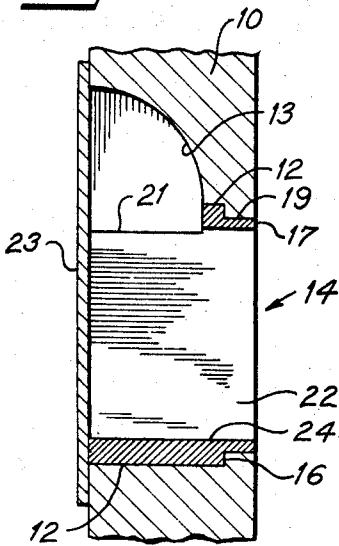


FIG- 4

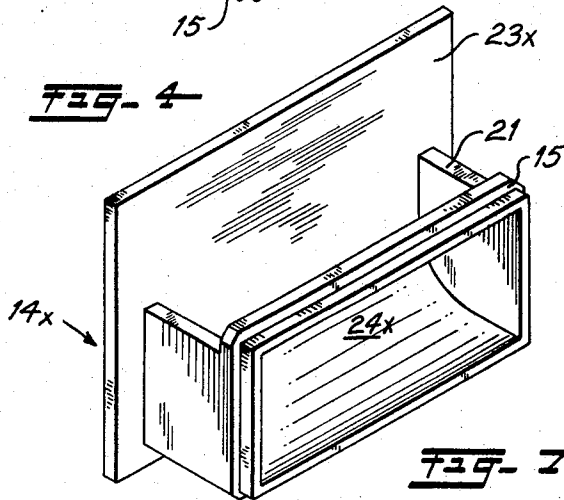


FIG- 7

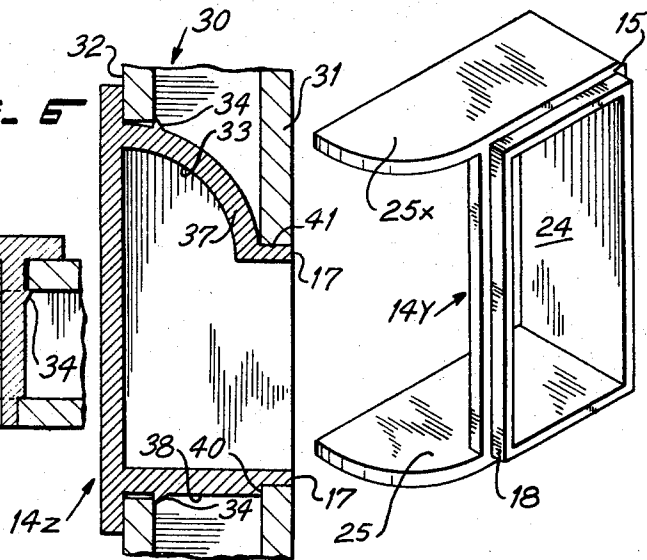


FIG- 5

FIG- 6

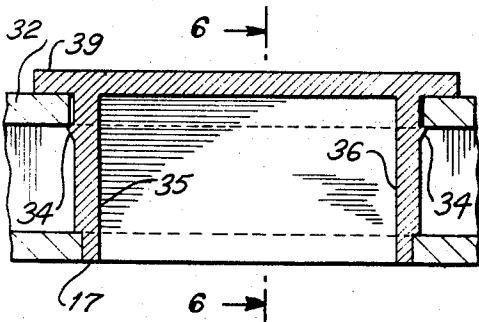


FIG- 6

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3,412,421
HANDLES

Bernard M. Gerber, 80 Hamilton Drive,
Roslyn, N.Y. 11576

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1 Claim. (Cl. 16-124)

ABSTRACT OF THE DISCLOSURE

This invention relates to rearwardly mounted handles for furniture use and for sliding doors. The handles are inserted into an aperture until a peripheral recessed ledge or wall thereon suitably engages a co-acting portion located in the drawer or door.

This invention relates to drawer handles for furniture and doors and more particularly to handles that are fully disposed within the furniture or door.

It is an object of this invention to provide a novel furniture handle as an article of manufacture.

It is another object to provide a handle that is fully disposed within the furniture wall to present a flush front wall.

It is another object to provide a handle also useable for room doors on wood or sheet metal doors.

It is another object to provide a handle easy to install and to be able to maintain a constant relationship between the face of the handle and the face of the drawer front.

These and other objects of this invention will become apparent upon reading the following descriptive disclosure of several embodiments thereof shown in the accompanying drawing in which:

FIG. 1 is a perspective view of a furniture drawer showing the handle fully disposed in a suitable aperture in the front face thereof so as to present a smooth front fall,

FIG. 2 is a section view taken on line 2-2 of FIG. 2 and showing a back plate secured to furniture drawer,

FIG. 3 is a perspective view of one form of handle,

FIG. 4 is a perspective view of a modified form of FIG. 3 showing a curved inside wall surface,

FIG. 5 is a section view of a handle modified for insertion in a steel panel door,

FIG. 6 is a section view taken on line 6-6 of FIG. 5, and

FIG. 7 is a modification of the furniture handle shown in FIG. 3, modified for use in panel doors.

Turning to the drawing, a front drawer wall 10 of a drawer 11 from a dresser is provided with a rectangular aperture 12 having a top curved quadrant channel 13 to receive the finger tips of a person.

The handle 14 (FIG. 3) is of rectangular configuration to receive a plurality of fingers of a hand and is provided with a recessed peripheral front wall 15. As shown in FIG. 2, the rectangular aperture in the drawer wall 10 is provided with a peripheral wall 16 which is substantially identical in configuration with handle wall 15.

The distance of the recessed wall 15 from the front rectangular face wall 17 is the width of the peripheral wall 18.

As can be seen from FIG. 2, the drawer aperture 12, is provided with a peripheral wall 19 substantial identical in width to handle wall 18.

In other words, in the preferred form of the handle shown in FIGS. 1 to 2 inclusive, the wooden wall 10 is provided with a set back aperture wall 16 at a pre-determined distance from the front face of the drawer wall 10 so that face wall 17 of the handle is flush with the front surface of the drawer front wall 10 (FIG. 2). If desired the distance 18 can be increased to obtain a desir-

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able protrusion of the handle beyond the plane of the furniture drawer or door.

The rectangular handle 14 (FIG. 3) is provided with a narrow top wall 20 which engages the aperture 12 of the drawer wall 10 adjacent the curved quadrant wall 13 of the drawer. Thus the top of the handle is open a width equal to the opposed top ledges 21 to permit the operator's finger tips to enter into the quadrant cavity and engage its curved wall.

The handle 14 is preferably made from metal extrusions, for example aluminum but plastic extrusions also operable. Where extruded rectangular tubes are used, the handle is cut a width 22 equal to the width of the door wall 10 (FIG. 2) and is provided with a recessed ledge 15 by suitable removal of metal or material and it is further provided with an open top by cutting off a plate of material from the top wall to provide a pair of ledges 21.

In the use of the tubular handle 14 in a drawer wall, a back plate 23 of metal or plastic is secured over the rear opening of the handle by use of conventional means such as wood screws and the like. By this means the handle 14 is locked in place by the back plate. The back plate 23 may be recessed in the back wall to obtain a flush or planar condition thereon.

As shown in the modification of FIG. 4, the handle 14X may be made of cast metal or plastic so that the back plate 23X is integral with the handle 14X. In the modification of FIG. 4, the bottom wall 24 of the handle of FIG. 3, is provided with a slope 24X which merges with the back plate 23X thereby preventing any possible injury to fingernails while inserting the fingers into the handle.

The handle shown in FIG. 7 is a modification of the handle of FIG. 3 to permit the handle to be used in sliding or hinged panel doors in the vertical position shown in FIG. 7 without seeing any of the rough wood of the door aperture. To accomplish this result one or two quadrant flaps 25 and 25X are made integral with the end walls of the handle. Clearly, since the eye level of a handle in a normal door would permit seeing the quadrant cavity wood only of the bottom wall, one flap 25 integral with the handle will suffice. The molding of a handle 14X having two flaps 25 and 25X permits the handle to be used with versatility at either edge or side of a sliding or hinged door.

Turning next to the handle 14Z of FIGS. 5 and 6, there is shown a modification for snap-fit into a pair of spaced-apart walls of a steel panel door 30.

The door 30 is provided with a front sheet metal wall 31 and a rear sheet metal wall 32. The handle 14Z is molded of metal or plastic as an integral cavity containing handle having a cavity provided with a finger receiving quadrant portion 33. The handle 14Z is provided with a front face wall 17 to mate in flush relationship to the front wall 31. Preferably handle 14Z is provided with a plurality of locking barbs 34 on the outside of the side walls 35 and 36 so as to engage the inner surface of the rear sheet metal wall 32 of the door 30. Optionally the top curved or dome wall 37 and the bottom wall 36 may be provided with barbs 34 to effect a peripheral locking of the handle 14Z to the rear sheet metal panel 32. The back up plate 39 of the handle 14Z is integral to the other parts thereof and flat faces on the preferably pyramidal barbs 34 are so spaced from the inside surface of rear panel 32 as to effect a firm engagement when pushed into place.

Preferably the bottom wall 38 is provided with a recessed ledge 40 to firmly engage the front wall 31. Also the dome wall 37 terminates with a top flat wall 41 so that the front sheet metal wall 31 fits firmly against the dome wall 37.

Other means or conventional screws and the like may be

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used to secure handle 14Z. Also if desired the handles may be made to deliberately protrude beyond the front wall surface. Still other modifications are possible in view of the disclosure herein but all such obvious modifications are deemed to be within the scope of the invention.

I claim:

1. A molded substantially rectangular handle adapted for snap lock mounting to a dual walled apertured door having a small rectangular aperture in the front wall in linear relationship to a larger aperture in the rear wall, said handle having a rectangle finger receiving opening with an extension peripheral ledge adapted to produce a flush relationship with the front wall of a dual walled sheet metal door, said handle having a top quadrant dome wall in suitable space relationship to said opening and adapted to receive the fingers of an operator, a bottom wall, means on said top wall and said bottom wall for engaging the inner surface of the front wall of said dual walled sheet metal door, a rear wall peripherally extend-

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ing about said large aperture for overlapping engagement with the rear wall, of said dual walled sheet metal door, said handle having a plurality of spaced apart barbs in suitable space relationship to said rear wall of said handle to effect a snap locking engagement to the rear wall of said door.

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BOBBY R. GAY, *Primary Examiner.*

D. L. TROUTMAN, *Assistant Examiner.*