Feb. 1, 1944. R. A. MILLER 2,340,483

TRAY

Filed March 19, 1942

Fig. 1.

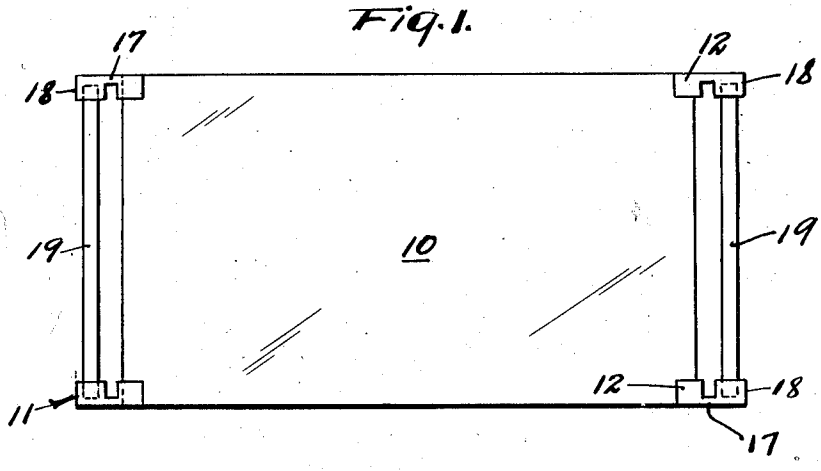


Fig. 2.

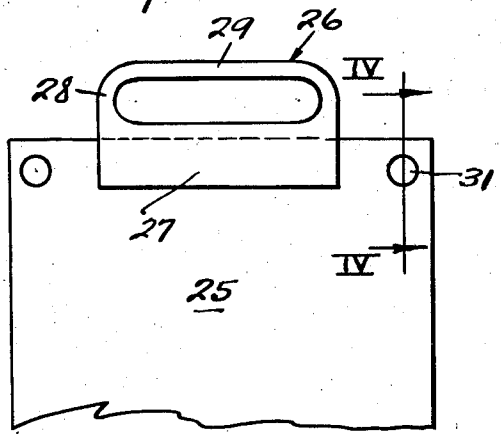


Fig. 3.

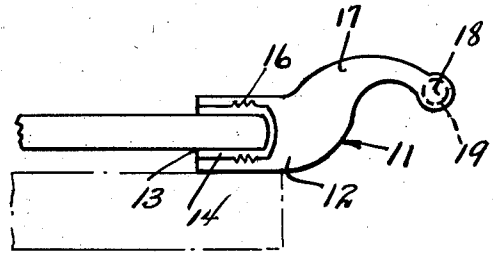
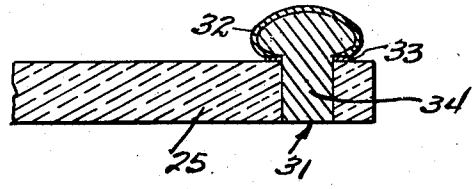


Fig. 4.



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TRAY

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Application March 19, 1942, Serial No. 435,385

1 Claim. (Cl. 65—53)

The present invention relates to trays of the type employed for serving foods and refreshments and it has particular relation to the provision of a tray comprising a single panel of plate glass to which suitable handles are attached.

One object of the invention is to provide a simple, convenient, attractive and economical method of securing the handles to a tray of the foregoing type.

A second object of the invention is to provide a simple and attractive tray structure of novel design.

These and other objects of the invention will be apparent from consideration of the following specification and claim.

In accordance with the provisions of the present invention it is proposed to construct serving trays of single panels or plates of glass and to provide handles structures including slotted or shoe-like portions adapted to fit over the edges of the glass and to receive packings of an easily fusible alloy, such as Rose's metal, which, upon cooling, expands between the inner surfaces of the slot and the surfaces of the glass securely to hold the parts in position.

For a better understanding of the invention reference may now be had to the accompanying drawing in which

Fig. 1 is a plan view of a tray constructed in accordance with the provisions of the invention;

Fig. 2 is a fragmentary plan view of a second tray construction embodying the principles of the invention;

Fig. 3 is a fragmentary side elevational view of the construction shown in Fig. 1;

Fig. 4 is a fragmentary sectional view taken substantially upon the line IV—IV of Fig. 2.

In the drawing like numerals refer to like parts throughout.

The construction as shown in Fig. 1 embodies a simple, massive panel or plate 10 of glass, which preferably is tempered by conventional methods, e. g., by heating the glass plate, after it has been suitably ground and polished and cut to shape, just approximately to the softening temperature, and then suddenly chilling it with blasts of cold air. A plate so treated is very much stronger than conventional plate of annealed glass, and indeed approximates the strength of cast iron. It can also be sprung to a much greater degree than an annealed plate without breakage and will resist sudden shocks from heat and cold without breakage. In event that it should be ruptured at any point, it shatters completely and substantially instantaneously into small diced fragments, which are comparatively harmless and will, for example, not cut the foot of the bearer in event that they fall thereupon.

The plates may be of any convenient thickness, e. g., ¼ inch and they may be clear, translucent or opaque, as may be desired. They may also be enameled with colors or sand blasted to provide appropriate designs. In event that sand blasting is employed the pattern should be only superficial, otherwise shattering of the plate may result.

A suitable handle structure for this tray includes side elements 11, one of which is shown in detail in Fig. 3. The elements as shown embody a shoe or channel-like portion 12 having a slot 13 adapted to fit over a corner portion of the plate 10. The slot preferably is packed with an easily fusible alloy, such as Rose's metal 14, which can readily be poured into the fitting and which when it cools, tends to expand, thus firmly and permanently gripping the edge of the plate. If desired, the surface of the glass covered by the portion 12 may be roughened or striated to a slight degree, in order to enhance the bond between the glass surface and the metal. The inner surfaces of the member 12 may also be roughened or serrated as indicated at 16, to enhance the security of the bond between the fusible metal and the surface of the fitting.

Slightly upwardly curving arms 17 are formed integrally with or otherwise attached to the members 12 and at their outer extremities may be provided with sockets 18 designed to receive the ends of cross-bars or handle bars 19. These bars may be of metal, such as stainless steel, chrome plated brass, aluminum, or the like. They may also be of glass or transparent plastic, such as methyl methacrylate. The use of ebony, colored plastics and the like is also contemplated.

As shown, the bottom surface of the portions 12 of the handle members provide convenient feet or pads upon which the trays are adapted to rest.

The constructions illustrated in the Figs. 2 and 4 embody a glass plate 25, similar to the plate 10, and have handle elements 26 which, in elevational outline, substantially correspond to the handle construction 11, shown in Fig. 3. The construction includes a single body portion 27, similar in section to the body portions 12, a pair of arm portions 28 and a handle or gripping portion 29, which may be formed integrally with or otherwise secured to extremities of the arms 28. This construction is mounted with Rose's

metal or other fusible metal in the same manner as the handle structure shown in Fig. 1.

In order to prevent the tray from tipping, suitable feet or pads 31 are provided at the corners thereof. One of these elements is shown in detail in Fig. 4. It may comprise a shell-like portion 32 of a metal, such as steel, brass, aluminum or the like and preferably having a smooth, rounded dome-like outer surface. This element may rest upon a washer 33 formed of heat-resistant plastic, asbestos fiber suitably cemented together or any other convenient material. The glass plate 25 is provided with an opening 34 communicating with the interior of the shell 32. Space within the shell and the opening 34 is filled with fusible Rose's metal or the like. In order to form and to attach the feet to the plate the shells 32 are disposed in position upon any convenient support and the plate 25 with the washers 33 cemented in position is superposed thereupon in such manner that the interior of the shells and the openings register with respect to each other. The shells and the openings are then poured full of Rose's metal, which, upon solidification, provides a rivet that securely anchors the shells.

The constructions shown obviously are highly simple and provide trays of glass panels embodying a minimum of metal. The trays are strong, heat-resistant and perfectly resistant to foods, beverages and the like, which may be spilled thereupon and will also resist the action of lighted cigarettes or cigars, which may be accidentally brought into contact with the surface. The trays, if soiled, are so smooth that washing is a very simple operation.

The constructions herein shown and described are to be considered merely as exemplary. It will be apparent to those skilled in the art that numerous modifications may be made therein without departure from the spirit of the invention or the scope of the appended claim.

What I claim is:

A serving tray embodying a single plane panel of tempered glass and having channel-like elements disposed upon two opposed edges, the space between the inner surfaces of the elements and the contiguous surfaces of the panel being filled with an easily fusible alloy adapted to expand upon cooling, securely to grip the surface of the panel, said channel-like elements further being provided with handles.

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