Oct. 6, 1936. M. H. STORCH 2,056,811

FRAME ASSEMBLY FOR MIRRORS AND THE LIKE

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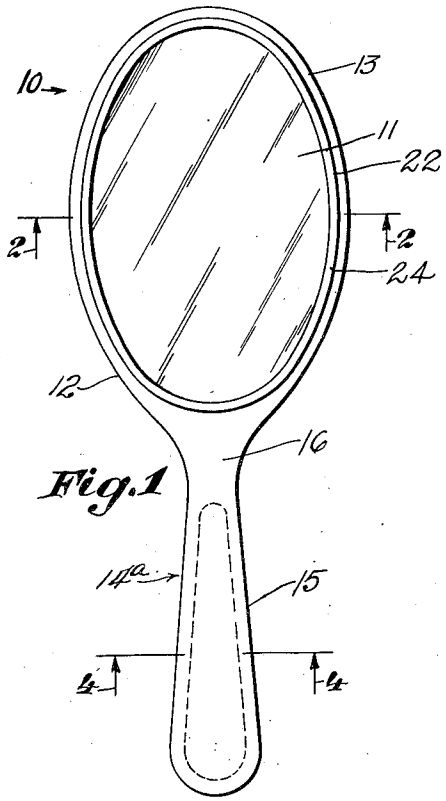


Fig. 1

Fig. 3

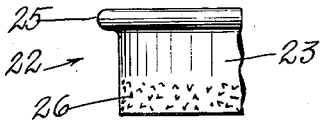
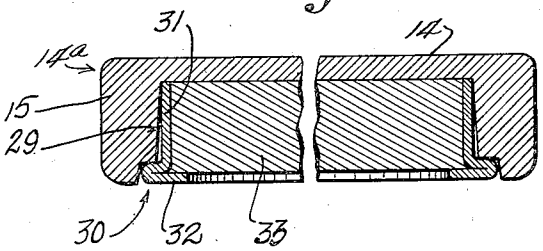


Fig. 4



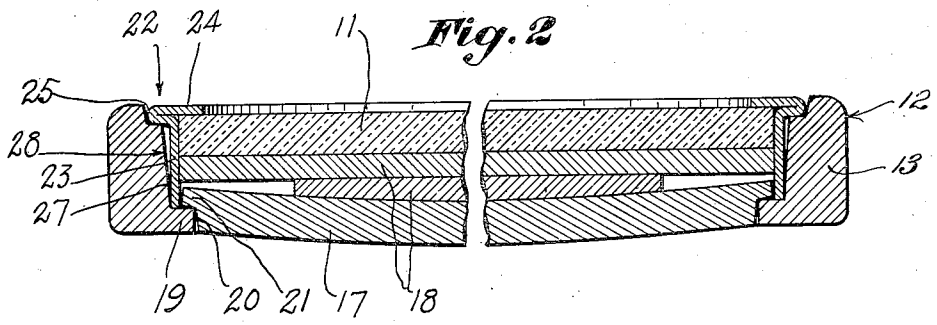


Fig. 2

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FRAME ASSEMBLY FOR MIRRORS AND THE LIKE

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7 Claims. (Cl. 88—96)

This invention relates to devices such as mirrors, brushes and the like, with particular reference to frame assemblies.

One object of the invention is to provide a device of the character described whereby an improved coordination is provided as between a precast frame and an article holding bezel and backing member, permitting rapid manufacture and simplified reliable assembling of the parts.

Another object is to provide a novel press fit bezel arranged to hold a mirror without exerting edgewise pressure thereon that might break the mirror.

Other objects and advantages of the invention will become apparent as the specification proceeds.

With the aforesaid objects in view, the invention consists in the novel combinations and arrangements of parts hereinafter described in their preferred embodiments, pointed out in the subjoined claims, and illustrated in the annexed drawing, wherein like parts are designated by the same reference characters throughout the several views.

In the drawing:

Figure 1 is a plan view of a device embodying the invention.

Fig. 2 is an enlarged fragmentary sectional view of the device taken on the line 2—2 of Fig. 1.

Fig. 3 is an enlarged fragmentary outside view of the bezel.

Fig. 4 is an enlarged fragmentary sectional view taken on line 4—4 of Fig. 1.

The advantages of the invention as here outlined are best realized when all of its features and instrumentalities are combined in one and the same structure, but, useful devices may be produced embodying less than the whole.

It will be obvious to those skilled in the art to which the invention appertains, that the same may be incorporated in several different constructions. The accompanying drawing, therefore, is submitted merely as showing the preferred exemplification of the invention.

Referring in detail to the drawing, 10 denotes a device embodying the invention, and adapted for holding any article, such as a picture or a mirror 11 or the like. The device 10 may include a rugged frame 12 constructed in a preformed manner of a suitable material such as aluminum. It is essential that the assembly of the mirror in the frame shall be cheaply effected, and shall be wholly reliable; and also that the weight of the device be kept at a minimum especially in view of the fact that the frame is a one piece casting, and hence includes a considerable quantity of metal. Accordingly, the frame 12 comprises a head portion in the nature of a band of metal 13 and a handle portion 14a which is hollowed out so as to provide a side wall 14 and edge walls 15. The head and handle portions may be interconnected by a solid neck portion 16.

A backing member 17 for the mirror 11 may consist of a light composition material, one or more sheets of cardboard 18 being interposed between the backing plate and the mirror. The plate 17 may be plane or concaved as shown. To retain the backing plate in the frame, the latter may have a marginal lip 19 at one side thereof, and the backing plate may have a marginal undercut 20 providing a lip 21 that seats on the lip 19.

For securing the mirror and backing plate to the frame, a bezel 22 may be provided comprising an upright flange 23 and a horizontal flange 24 with an intermediate reversely bent portion 25 affording a lip adapted to overlie the adjacent edge of the frame. The bezel may be made of sheet metal, in any suitable manner.

The bezel is press fitted into the opening in the head portion 13 of the frame, and hence may have its upright flange 23 provided with external knurling or minute teeth 26 adapted to bite into the inner surface 27 of the frame, as the bezel is pressed thereinto. This action is facilitated by the relatively soft nature of the metal of the frame, and the relatively harder character of the metal of the bezel. To prevent collapse of the upright flange 23, the backing plate 17 may seat within the lower edge portion of the said flange, to internally brace the same.

Due to the provision of draft in the formation of the ring portion 13 and the backing lip 19, the surface 27 flaring upward as shown, the top portion of the bezel flange 23 is slightly spaced from the surface 27 as shown at 28 and hence that surface does not bear thereon. Consequently the frame cannot exert pressure on the mirror 11 through the bezel, and hence the possibility of breakage of the mirror is prevented.

The handle portion 14a likewise is formed with draft as shown at 29, the bezel 30 being like that at 22 and having an upright flange 31 and a horizontal flange 32. This bezel is likewise press fitted into the handle and serves to secure the light ornamental composition filler member 33. For appearances, the member 33 faces the same side of the device 10 as the plate 17.

The manner of assembling the device **10** is as follows:

The elements **11**, **17** and **18** are assembled in the bezel **22**, and then inserted as a unit into the frame, with the bezel subjected to pressure to bite into the frame and to hold by a press fit. The elements **30**, **33** may be assembled in the frame in any suitable manner. The back plate may be slightly resilient if preferred.

Hence a new structure and method has been devised for the rapid making and assembling of articles of this character.

I claim:

1. A mirror including a frame having a wall providing a continuous marginally closed opening, said frame having an inward projecting lip along said opening at one side of the frame, said wall having its inside surface flared toward the opposite side of the frame so as to afford an opening that diminishes in area toward said lip, a back plate in said opening seated on said lip, a mirror member in said opening over the back plate, a bezel of angular construction comprising a horizontal flange for overlying the mirror member and an upright flange disposed generally at right angles to the horizontal flange, said upright flange forming an acute angle with said inner surface of said wall, said upright flange having a lower portion snugly seated between said inner surface and the adjacent edge of the back plate, said upright flange having its lower portion press fitted in said opening with the upper portion of the flange relatively free of the adjacent portion of said surface so as to prevent said mirror member from being strained edgewise by the press fitting of the bezel.

2. A device including a one piece cast metal frame member providing a marginally closed opening, said frame having at one side thereof a marginal lip along said opening projecting inward thereof, opposite portions of the inner surface of the opening being at like angles with the axis of the opening so that the latter diminishes in area toward said lip, a backing element in the opening seated on said lip, a mirror plate in said opening overlying the backing element, and a sheet metal bezel comprising an inwardly directed flange marginally overlying the mirror plate and a downwardly projecting flange parallel to said axis so as to form an acute angle with said surface of the opening, and the free edge portion of said downwardly projecting flange being press fitted in said opening.

3. A device including a cast metal frame having a marginally closed opening provided with a marginal inward projecting lip at one side of the frame, a backing element in the opening seated on said lip, a glass mirror plate overlying the backing plate, a sheet metal bezel having a first flange extending over the mirror plate and a second flange extending into the opening and forming a continuous angular space between the second flange and the surface of the opening with the apex of the angle in close proximity to said lip, the free edge portion of the second flange being press fitted in said opening.

4. A device including a cast metal frame having a marginally closed opening provided with a marginal inward projecting lip at one side of the frame, a backing element in the opening seated on said lip, a glass mirror plate overlying the backing plate, a sheet metal bezel having a first flange extending over the mirror plate and a second flange extending into the opening and forming a continuous angular space between the second flange and the surface of the opening with the apex of the angle in close proximity to said lip, the free edge portion of the second flange being press fitted in said opening, and the said free edge portion of the second flange having minute irregularities adapted to bite into said surface of the opening to increase the frictional holding power of the bezel.

5. A device including a cast metal frame having a marginally closed opening provided with a marginal inward projecting lip at one side of the frame, a backing element in the opening seated on said lip, a glass mirror plate overlying the backing plate, a sheet metal bezel having a first flange extending over the mirror plate and a second flange extending into the opening and forming a continuous angular space between the second flange and the surface of the opening with the apex of the angle in close proximity to said lip, the free edge portion of the second flange being press fitted in said opening, the backing element being snugly fitted in the free edge portion of the second flange to reenforce the latter.

6. A device including a frame having an opening, and a bezel having a lip and a flange projecting from the lip and press fitted in said opening, the flange and the surface of the opening being angularly related so that the press fitting action occurs primarily at the free edge portion of said flange.

7. A device including a frame having an opening, and a bezel having a lip and a flange projecting from the lip and press fitted in said opening, the flange and the surface of the opening being angularly related so that the press fitting action occurs primarily at the free edge portion of said flange, and means disposed within said flange, in proximity to the free edge portion thereof, to outwardly reenforce the same for the press fitting action on the flange.

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