May 21, 1957 H. DINSTMAN 2,792,684

CRYSTAL AND BEZEL ASSEMBLY

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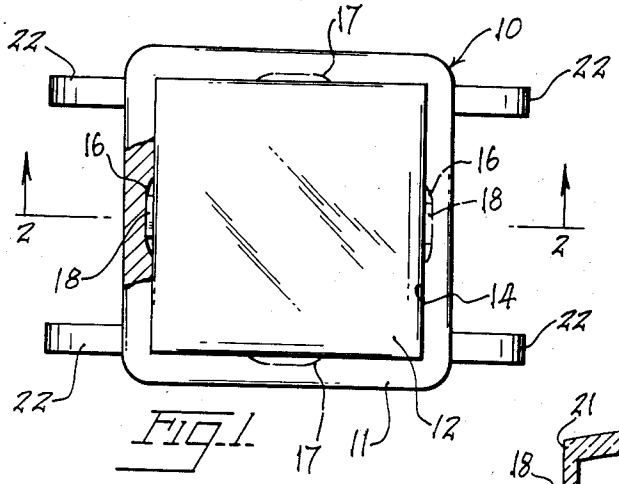


FIG. 1

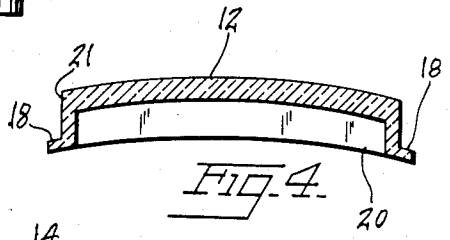


FIG. 4

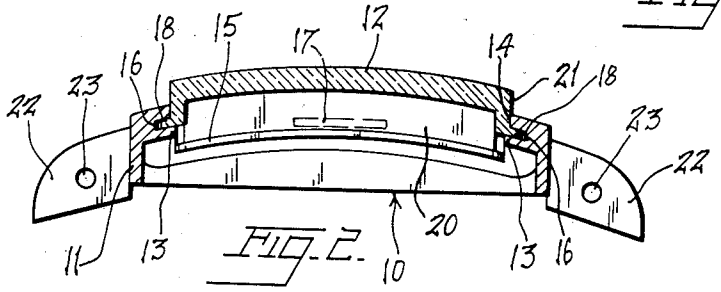


FIG. 2

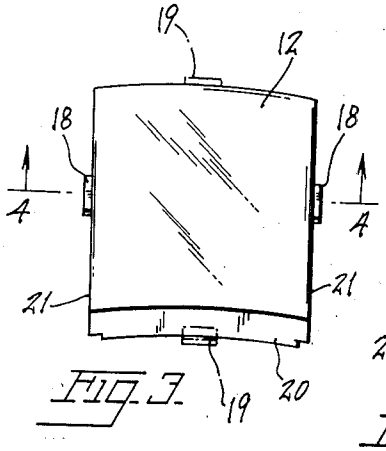


FIG. 3

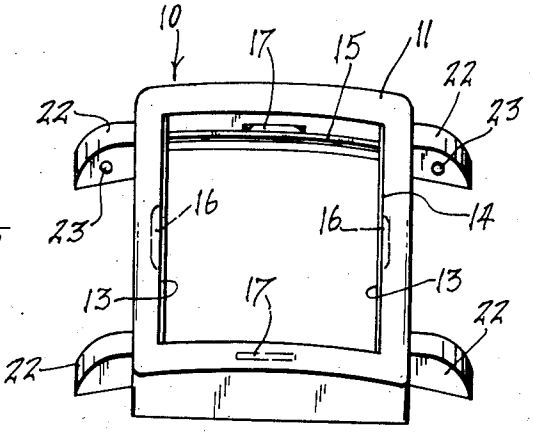


FIG. 5

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CRYSTAL AND BEZEL ASSEMBLY

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This invention relates to an improved crystal and watch bezel.

The invention concerns a means for mounting a transparent flexible plastic crystal in a watch bezel in an easy and effective manner.

It is a principal object to provide an improved mounting means for a watch crystal.

It is a further object to provide a crystal with a plurality of lateral projections for engagement in corresponding recesses in a bezel.

It is a further object to provide a simpler and more economical structure for a fancy watch bezel to secure a crystal therein.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a plan view of a watch with bezel and crystal embodying the invention, parts being shown broken away.

Fig. 2 is an enlarged sectional view taken on lines 2—2 of Fig. 1.

Fig. 3 is an oblique plan view of the crystal showing the mounting lugs.

Fig. 4 is a sectional view taken on lines 4—4 of Fig. 3.

Fig. 5 is an oblique plan view of a watchcase showing a bezel according to the invention.

In Fig. 1 the watchcase **10** has a substantially rectangular frame **11** in which is set the rectangular crystal **12**. The body of the crystal and frame may be bowed or arcuate as shown in Figs. 2, 4 and 5. A ledge **13** is provided at each side of the rectangular wall or rim **14** of the frame. The ledge **15** is on a lower level than ledge **13** at each end of the frame. Just above the ledges in the sides of wall **14** are arcuate slots or recesses **16, 17** adjacent ledges **13** and **15**, respectively. The crystal is provided with laterally disposed lugs **18** and **19** which fit into the recesses **16** and **17** respectively. The ends **20** of the crystal body are deeper or depend further from the body than the sides **21** and the lugs **19** are consequently on a lower level than lugs **18**. Recesses **17** are similarly on a lower level than recesses **16**.

The watchcase is provided with the strap supports **22** in which are recesses **23** for engagement of a suitable pintle of a watch band.

Crystal **12** will generally be formed by a suitable molding method of transparent material such as an acrylic, butyrate, urea, epoxy or other plastic. The material must

be rather hard to resist scratching, yet must be flexible to a limited extent. This flexibility is necessary because the sides **20** and **21** must flex slightly as the lugs are snapped into the recesses **16** and **17**. Once the crystal is mounted in this manner with sides **20, 21** juxtaposed to the sides of wall **14**, the crystal will not come loose under all ordinary conditions encountered in daily use of a watch of the type shown. It is not necessary that the crystal and watchcase be bowed. They may be flat if desired.

The present invention makes it unnecessary to use glue, gaskets or packing to secure the crystal in the bezel. Also the simplified lug and recess structure avoids the difficult slots and grooves heretofore used for mounting crystals in watch bezels. The present slots **16** and **17** are easily made with a rotary cutter. If desired these slots may be made with flat rather than curved inner surfaces. Also the lugs **18** and **19** may be made curved to correspond in curvature to the recesses **16** and **17**.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A watch crystal and bezel, said bezel having a rectangular frame, said frame having an inside rectangular wall with an arcuate recess in each side of said wall, said wall having two pairs of ledges located thereon, with one pair of ledges being at a lower level than the other pair of ledges, each of the arcuate recesses being placed just above one of the ledges and being centrally disposed thereon, said crystal having a rectangular body with depending sides, one pair of sides depending further from said body than the other pair, each of the depending sides having a lug protruding therefrom and engaged in a corresponding one of said recesses, with the depending sides of the crystal abutting the sides of said wall.

2. A watch crystal having a rectangular bowed body with depending sides, one pair of said sides depending further from said body than another pair of sides, each of said sides having a protruding lug thereon, said body and sides being formed of transparent, flexible, plastic material.

3. A watch bezel for a crystal, comprising a rectangular frame having a rectangular inside wall, two opposite ends of said wall being deeper than two sides of said wall, each of said sides and ends having a ledge thereon with a recess formed therein adjacent the ledge, said recess being adapted to engage a corresponding lug of said crystal.

4. A watch bezel for a crystal, comprising a bowed rectangular frame having a rectangular inside wall with a pair of sides and a pair of ends, said ends being deeper than said sides, each of said sides and ends having a ledge at the bottom thereof with an arcuate recess formed therein adjacent the ledge to engage a corresponding lug of said crystal.

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