

Jan. 11, 1927.

1,614,276

J. BULOVA

WATCH

Filed Sept. 8 1925

Fig. 1.

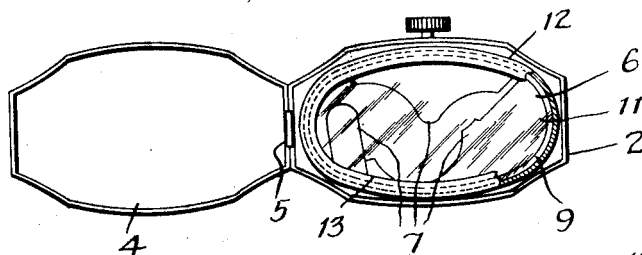


Fig. 2.

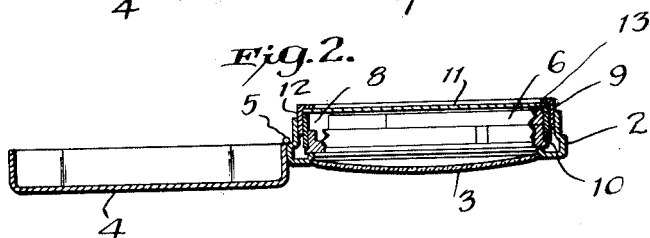
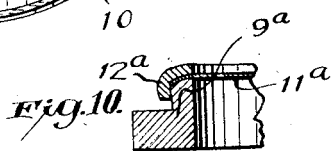
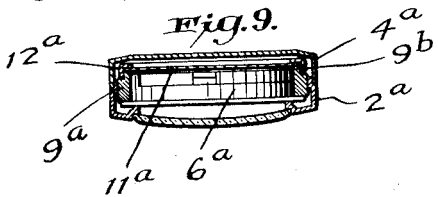
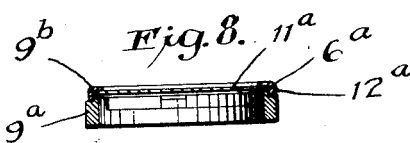
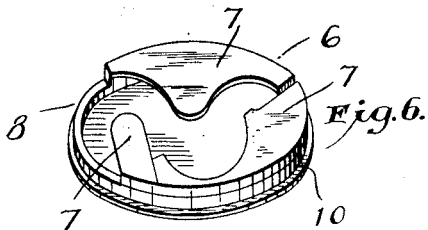
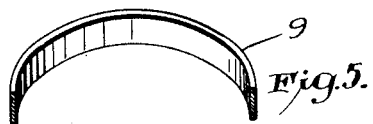
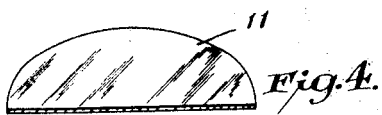
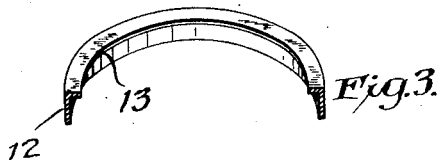
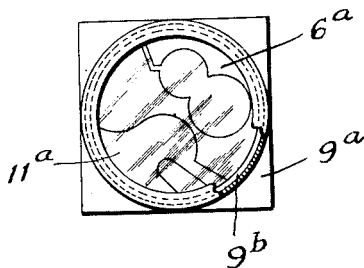


Fig. 7.



INVENTOR
Joseph Bulova
BY
J. H. Bulova
ATTORNEY

UNITED STATES PATENT OFFICE.

JOSEPH BULOVA, OF NEW YORK, N. Y.

WATCH.

Application filed September 8, 1925. Serial No. 54,906.

The invention relates to watches and watchcases, more particularly wrist-watches, and has special reference to watches wherein the whole back of the movement or works is covered by a thin flat sheet of celluloid or the like non-breaking, flexible, transparent material, to guard the works and permit inspection.

The back of the movement comprises a number of bridges partly occupying the area, the remainder of the area of the back including open spaces. Where such a sheet is held by a flange against the works or movement, the portions of the edge of the sheet over these open spaces are free and are likely to sag so as to create an entrance. Under such circumstances, the transparent cover, while a substantial protection, is not a perfect dust, or moisture, guard; furthermore, the thin flexible sheet material is subject to buckling. The object of this invention is to overcome these drawbacks, in a simple, strong, facile and inexpensive construction, which affords maximum protection, and which need not add to the thickness or size of these small watches. The invention will now be described by reference to two embodiments wherein the sheet is supported against a continuous rim independently of the movement, and will be more particularly pointed out in the claims.

In the accompanying drawings forming part thereof:

Fig. 1 is a rear view of a watch embodying the invention, the back of the case being open;

Fig. 2 is a longitudinal section, with the movement mainly in elevation;

Figs. 3, 4 and 5 are sectional perspective views, and Fig. 6 is a perspective view, of forms of retainer member, transparent sheet, supporting member, and movement, respectively, similar to those seen in Figs. 1 and 2, showing the parts in separate relation;

Fig. 7 is a rear view of another embodiment without the case, a portion of the retainer ring being broken away and in section;

Fig. 8 is transverse section through Fig. 7;

Fig. 9 is a similar view including the case.

Fig. 10 is a fragmentary section on a larger scale illustrating in more detail the manner of holding the transparent sheet in this form of the invention.

In Figs. 1 and 2 the form of watchcase illustrated is one comprising a body or front member 2 carrying the crystal 3, and a back member 4, the members 2 and 4 being hinged together at 5. However the particular form of case may be varied. The movement 6 has a number of bridges 7, between which, at the circumference, there is a wide gap 8.

In the particular form of embodiment of the invention represented in Figs. 1-6, the movement fits into, and is surrounded by, a thin inner metal band 9. This band rests against a circumferential ledge or shoulder 10 near the front of the movement and is of such width that, at the back, it is flush with, or substantially the same height as, part of the back of the movement.

A sheet of material 11, such as transparent celluloid, or other flexible, transparent, non-breakable material, rests at its edge portions against the continuous rim formed by the rear edge of the band 9; and over the band 9 is closely frictionally slipped a thin retainer band 12. The sheet 11 is thus gripped all the way around between the edge of the band 9 and the flange or inward overhang 13 of the band 12, the two members acting to support and hold the sheet entirely independently of the movement 6. In assembling this construction, the sheet 11 is laid in the band 12, the band 9 is then introduced into the band 12 and the two are squeezed upon the flexible and somewhat compressible celluloid.

In Figs. 7-10, the member 9^a surrounding the movement 6^a is in the nature of a center or block to conform to the interior of a square case 2^a, 4^a, that is to say, a case of different form from the movement. A low circular rim, 9^b, slightly undercut, is turned or otherwise formed on the back of this filler around the movement-receiving recess, and onto this rim is snapped a retainer ring 12^a, between which and the rim the sheet 11^a is clamped. In this form the flexible transparent shield constitutes a part of the center, and with the block forms a tight chamber for the movement.

From the foregoing it is believed that a clear understanding of the invention will be had. I do not limit myself to the embodiments of the invention illustrated, as numerous other forms will suggest themselves. The advantages of this invention result from the provision of a complete protection for a watch movement of very sim-

ple character, compactly built into the inside construction of a watch in such manner that the size of even very small watches is not increased, the protection effectually excluding dust, which can not find an entrance around the shield, as well as affording a guard against tampering by the user, and being self-guarding against all injury to the works that might result from breakage of the shield itself, and also permitting inspection when the back of the case is opened. The shield is securely held independently both of the movement and of the back of the case, the shield remaining fixed in respect to the movement when the back of the case is opened.

What I claim as new is:

1. In a watch, a case, a movement in the case, a member surrounding and circumferentially enclosing the movement and closely fitting the same, said member abutting the ledge near the front of the movement and extending to the rear face of the movement, said member presenting an outwardly facing, continuous seat substantially flush with the back of the movement, a flexible transparent shield overlying and supported on said seat and covering the entire back of the movement, and means within the case

overlying and engaging said shield, for retaining said shield on said seat throughout its periphery, to provide a dust proof inclosure for the movement, said shield being removable to give access to said movement without separating the movement and the member supporting the shield.

2. In a watch, a case, a movement in the case, a member surrounding and circumferentially enclosing the movement and closely fitting the same, said member abutting the ledge near the front of the movement and extending to the rear face of the movement, said member presenting an outwardly facing, continuous seat substantially flush with the back of the movement, a flexible transparent shield overlying and supported on said seat and covering the entire back of the movement, and a ring within the case and detachably engaging the said member, which ring is provided with a flange which overlies and engages said shield, for retaining said shield on the said seat throughout its periphery, to provide a dust-proof enclosure for the movement, said shield being removable to give access to said movement without separating the movement and the member supporting the shield.

JOSEPH BULOVA.