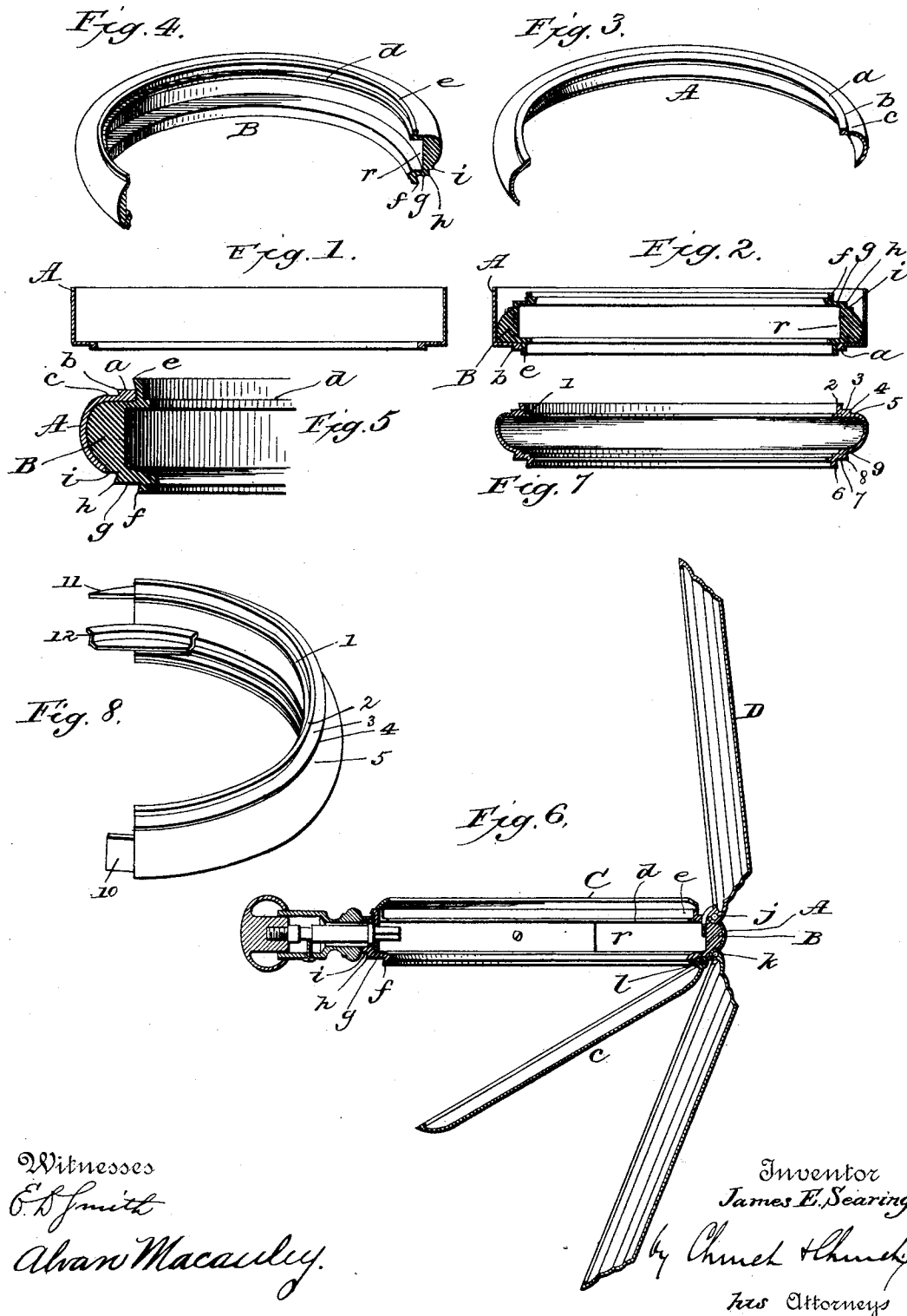


(No Model.)

J. E. SEARING.
WATCH CASE.

No. 463,289.

Patented Nov. 17, 1891.



UNITED STATES PATENT OFFICE.

JAMES E. SEARING, OF MOUNT VERNON, NEW YORK.

WATCH-CASE.

SPECIFICATION forming part of Letters Patent No. 463,289, dated November 17, 1891.

Application filed April 8, 1891. Serial No. 388,074. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. SEARING, of Mount Vernon, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Watch-Cases; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the numerals and letters of reference marked thereon.

Most persons desire to carry a watch which has a gold case, and the constant effort of the manufacturer is to provide such a case at a cost within the means of the ordinary purchaser. To do this the stock employed must be thin and light, and unless great care is exercised in opening and closing these light cases there is liability of their being crushed or bent out of shape, this being particularly true of the center of the case. Moreover, the lightness of the center requires that bearings or stays be applied thereto by soldering or otherwise to support the attachment of the pendant, cap, and lid-hinges.

Now it is the design of the invention to provide a watch-case in which all the parts exposed to view in the ordinary use of the watch shall be of gold of a thickness equal to that ordinarily employed in watches of this class, and yet in which the parts, especially the center, shall be so supported and stayed as to prevent them from being bent or crushed in the opening and closing of the lids, or otherwise, as well as to withstand the warping effect of the soldering and firing operations.

To these ends my invention consists in combining with a center composed of gold stock of the usual thickness a re-enforcing ring of baser metal, which accurately fits within and is secured to the said gold center and is formed, where it projects on one side of the gold center, with the flats and risers for the cap and back lid, and is formed where it projects on the opposite side of the gold center with a riser or snap for the glass bezel and with a movement seat, and which ring, by the support which it offers to the gold center, obviates the necessity of attaching to the latter special bearings for the front and back lids and pendant.

It also consists in certain other details

and combinations, hereinafter described and claimed.

Referring to the accompanying drawings, 51 Figure 1 represents a sectional view of the blank from which the gold center is formed. Fig. 2 is a similar view showing the re-enforcing ring and the blank center before the latter is swaged down over it. Fig. 3 is a perspective view of a section of the gold center; 6c Fig. 4, a similar view of the gold center and re-enforcing ring combined. Fig. 5 is an enlarged sectional view of the combined center and re-enforcing ring. Fig. 6 is a sectional view of a complete watch-case embodying my invention. Fig. 7 is a sectional view of the ordinary form of watch-case center upon which my invention is an improvement; and 65 Fig. 8 is a perspective view of a portion of the center illustrated in Fig. 7, it being designed to show particularly the supplemental bearings or stays applied to the center for the support of the pendant and hinges. 70

Similar numerals and letters of reference in the several figures indicate the same parts. 75

In the ordinary form of solid gold center (shown in Figs. 7 and 8) the movement seat 1, the riser or snap 2 for the bezel, the flat 3 for the bezel, and the riser and flats 4 5 for the front lid are all formed integral with the center on the front side thereof, while the riser and flat 6 7 for the cap and the riser, and flat 8 9 for the back lid are formed integral with the center on the opposite or back 85 side. The bearing for the pendant, consisting of a separate piece of gold stock soldered to the inside of the center, is shown at 10 in Fig. 8, and the bearings for the hinges, consisting of other pieces of gold stock soldered to the inside of the center, are shown at 11 and 12 in said Fig. 8. 90

My improved construction can be best contrasted with this old form of construction by a comparison of Fig. 5 with Fig. 7. My gold 95 center is represented by the letter A. Its front edge is provided with the flat *a* for the glass bezel, (see C, Fig. 6,) and with the riser *b* and flat *c* for the front lid D, Fig. 6, but at its back edge has neither riser nor flat, 100 as shown. The re-enforcing ring is represented by the letter B. It is applied to the gold center by being first inserted within the center blank, as shown in Fig. 2, and then

having the front edge of the blank swaged down upon it as shown in Fig. 5. It will be observed that this re-enforcing ring is convex on its periphery, and by accurately fitting the gold center A affords a firm and continuous support for the latter from edge to edge. It is recessed on its inner circumference, as at *r*, to receive the case-springs. Upon the front of the ring are formed the movement seat *d* and the riser *e* for the glass bezel, while upon its back projecting portion are formed the riser *f* and flat *g* for the cap and the riser *h* and flat *i* for the back lid. Instead of applying supplemental bearings, like 11 and 12 in Fig. 8, for bracing the gold center at the point where the lids are hinged, as in the old construction, I hinge the front and back lids directly to the gold center, as shown at *j* and *k* in Fig. 6, the ring B affording sufficient support to the gold center to permit of this being done, and I hinge the cap *c* at *l* directly to the riser *f*, as shown in said Fig. 6. It will be noted that all the risers or snaps, except the one *b* for the front lid, are formed upon the projections of the re-enforcing ring B. Since the front lid is not held closed by hugging the riser *b* in the finished watch-case, but by the catch-spring of the watch, it is obviously not necessary to form this riser on the ring B.

Not only does my invention afford a much stiffer case, but the center is enabled to be made narrower with a resulting saving of precious metal. At the same time all the parts of the case ordinarily exposed to view are of gold. The re-enforcing ring being made of baser metal can be made thick enough to receive and support in the recess

formed in its inner side sheet-metal case-springs secured by screws passed through them and into the ring radially, thus economizing both in the construction and fitting of the springs. I preferably make the re-enforcing ring of nickel, and a cap made also of nickel I find finishes well with it. Of course a gold cap may be employed, if preferred.

Having thus described my invention, what I claim as new is—

1. In a watch-case, the combination, with the ring of relatively base metal having the riser for the crystal bezel on one side, the convex exterior and the two risers for the back covers on the other side, of the center of relatively thin precious metal having the riser for the front lid on one side, said center being formed around the convex exterior of the ring with its edge on the rear side in proximity to the first riser and in position to be covered by the outer back cover, substantially as described.

2. In a watch-case, the combination, with the ring of relatively base metal having the risers and flats on one side and the back cover co-operating therewith, of the precious-metal center having one edge lying in proximity to the outer riser on the ring and having the riser formed on its opposite edge, of the front cover co-operating with said riser, whereby the base metal is entirely concealed during the ordinary use of the watch, while the strain from the back covers is removed from the precious-metal center, substantially as described.

JAMES E. SEARING.

Witnesses:

ALVAN MACAULEY,
MELVILLE CHURCH.