(Model.)

C. F. MORRILL.

WATCH CASE.

No. 369,871. Patented Sept. 13, 1887.

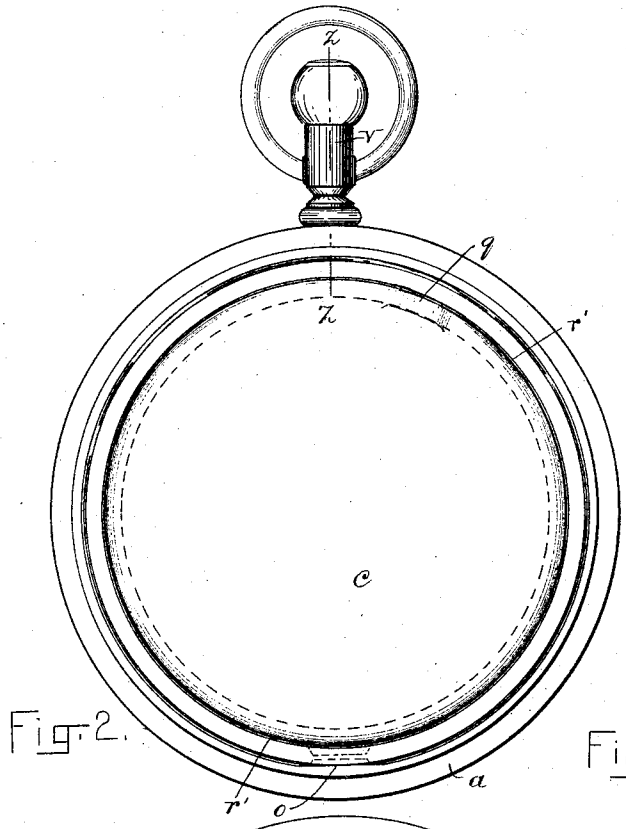


Fig. 2.

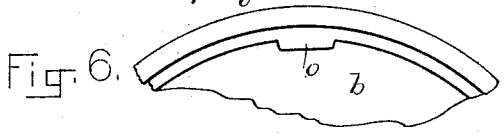


Fig. 6.

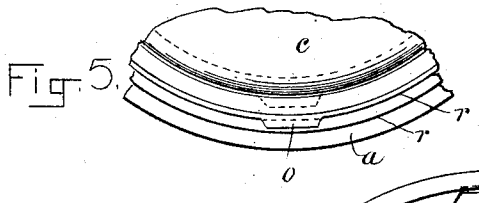


Fig. 5.

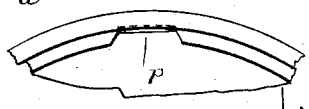


Fig. 8.

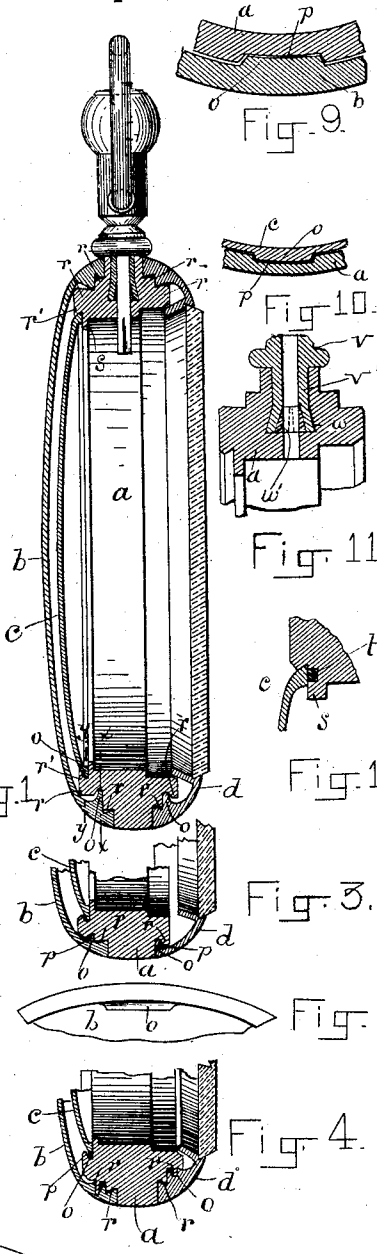


Fig. 1.

Fig. 9.

Fig. 10.

Fig. 11.

Fig. 12.

Fig. 3.

Fig. 7.

Fig. 4.

WITNESSES:
C. S. Goodinge
A. D. Harrison.

INVENTOR:
C. F. Morrill
by Wright Brown & Quinby
Attys.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES F. MORRILL, OF BOSTON, MASSACHUSETTS.

WATCH-CASE.

SPECIFICATION forming part of Letters Patent No. 369,871, dated September 13, 1887.

Application filed January 17, 1887. Serial No 224,566. (Model.)

To all whom it may concern:

Be it known that I, CHARLES F. MORRILL, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Watch-Cases, of which the following is a specification.

My invention relates to watch-cases in which the parts of the case that are engaged with and held by the case-center—such as the back, the inner cap within the back, and the bezel—are separable from the case-center, in contradistinction to cases in which parts are hinged or jointed to the case-center, the separable parts being provided with snap-edges which are snapped onto shoulders or risers on the case-center.

The object of my invention is to provide a simple and inexpensive construction, whereby the separable parts, when secured by snap-edges and risers formed, respectively, on said parts and on the case-center, are prevented from turning or rotating on the case-center as effectively as by a hinge-connection therewith and at much less expense.

The invention also has for its object to provide effective and economical means for securing the pendant to a watch-case center.

To these ends the invention consists in the several improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a transverse section of a watch-case embodying my invention. Fig. 2 represents a rear view of the same, with the back (shown in Fig. 1) removed, exposing the inner cap. Figs. 3 and 4 represent sections of a portion of the case, showing different modifications. Fig. 5 represents a side view of the portion shown in Fig. 4, the back of the case being removed. Fig. 6 represents a view of the inner side of the portion of the back of the case shown in Fig. 3. Figs. 7 and 8 represent views similar to Fig. 6, showing modifications. Figs. 9 and 10 represent, respectively, sections on lines *x x* and *y y*, Fig. 1. Fig. 11 represents a section on line *z z*, Fig. 2. Fig. 12 represents a sectional view of another modification.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents the case-center, provided with risers *r*. *b* represents the back; *c*, the inner cap, and *d* the bezel, said parts having snap-edges adapted to snap onto the risers of the case-center. Instead of hinging or jointing the parts *b c d* to the case-center, as usual in cases in which said parts are constructed to snap onto risers on the case-center, I interlock said parts with the case-center by means of projections *o* and recesses *p*. The projections may be formed on the back, cap, and bezel, and the recesses in the edges of the risers on the case-center, or vice versa.

In Figs. 1 and 3 I have shown the projections formed on the back, cap, and bezel, and the recesses in the edges of the risers on the case-center, while in Fig. 4 I have shown the projections on the edges of the risers of the case-center and the recesses in the back and bezel. In Fig. 5 I have shown the same construction as in Fig. 4, the back *b* being removed. By thus interlocking the separable parts with the case-center, I prevent said parts from turning on the risers onto which they are snapped and determine their position on the case-center, which is important as regards engraving and ornamenting the parts with due regard to their fixed position. I thus insure uniformity of position of said parts quite as effectively as by a hinge or joint connection, the projections being formed to fit the recesses quite closely and have little or no endwise motion therein, as shown in Figs. 9 and 10.

In applying either of the separable parts to the case-center, the projection is inserted in the corresponding recess, and then the snap-edge of the separable part is snapped onto the corresponding riser, the interlocked projection and recess acting as a substitute for a hinge both in keeping the separable part in place laterally and guiding it in its swinging movement onto the riser with which it engages.

It will be seen that the projection and recess constitute a much less expensive means of holding and guiding a separable part of the case during the movement that engages said part with the case-center than a hinge-joint, and obviates to a great extent the necessity of using solder.

The described improvements can be used in connection with a back, cap, and bezel, each constructed with a plurality of snap-edges, and a case-center constructed with a plurality of recesses for each of said parts, as shown in

my application for Letters Patent of the United States filed September 4, 1886, Serial No. 212,674. Figs. 1 and 4 show said construction, the back and bezel having two snap-edges each, and the case-center two risers for the back and two risers for the bezel. I prefer in such cases to form the projection *o* on the inner or second snap-edge, as shown in Figs. 1 and 6, or to form the recess *p* in said edge, as shown in Figs. 4 and 8. When the separable part has but one snap-edge, the projection *o* may be affixed to the inner surface of said part a short distance above the snap-edge.

The back *b* (shown in Figs. 3 and 7) is constructed as last described, having a single snap-edge and a projection soldered to its inner surface above said edge, while the bezel shown in Fig. 3 has a single snap-edge and a projection, *o*, formed directly on and preferably integral with said edge.

The cap *c* may have a snap-edge formed to inclose a riser on the case-center like the snap-edges on the back and bezel. I prefer, however, to reverse the arrangement of the riser and snap-edge for the cap, as shown in Figs. 1, 2, 3, 4, and 5, the cap-holding riser *r'* being an inner wall or shoulder slightly undercut next to the seat *s*, on which the cap bears, the edge of the cap being formed to spring or snap under said undercut portion. The projection *o* is formed on the outer edge of the cap and the recess *p* in the riser *r'*. The cap has a raised lip, *q*, containing in its outer face a groove constituting a thumb-nail catch projecting above the riser *r'*. By this construction I engage the cap with the case-center more tightly than by an internal snap-edge and a riser surrounded thereby. The seat *s*, on which the cap *c* bears, may have a packing, *t*, of yielding material inserted in a groove in said seat and bearing against the cap when the latter is closed, as shown in Fig. 12, thus more effectually excluding dust.

The pendant *v* is formed with a split shank, *v'*, which is inserted in a socket, *w*, in the case-center, and is expanded at its inner end within said socket by being forced onto a conical piece, *w'*, inserted in its split end. The inner end of the socket is enlarged, so that when the shank of the pendant is expanded it is interlocked with the case-center, as shown in Fig. 11. This connection of the pendant to the case-center is effected without solder and contributes materially to the economy of construction of the case, this and the previously-described improvements enabling a good and serviceable case to be made at much less expense than would be possible by ordinary methods of construction. The pendant may be screwed into a threaded socket in the case-center instead of being attached in the manner described, it being my object in either case to provide an economical method of attachment, avoiding the use of solder.

It will be observed that the case-center is made sufficiently thick to have the pendant shank-receiving socket formed in it, and may be termed a solid case-center, to distinguish it from one of shell form or internally grooved and not having sufficient thickness to enable said socket to be formed in it.

I am aware that in an internally-grooved case-center a pendant has been screwed into a block made separate from the case-center and placed in the internal groove thereof, and I do not desire, therefore, to be understood as claiming, broadly, a screw-connection between the case-center and pendant, but limit my claim in this particular to a solid case-center having a socket formed entirely in it.

I am also aware that separable parts of watch-cases have been engaged with the case-center by projections and recesses constructed to operate by a rotary motion of the separable part on the case-center; and I therefore desire to lay special stress on the following distinction between such devices and mine, viz: while such former devices require the rotation of the separable part to secure it to the case-center, my improvements entirely prevent such rotary motion, the movement of the separable part, whereby it is engaged with the case-center, being entirely a swinging one, just as it would be if the separable part were hinged or jointed to the case-center.

I claim—

1. A watch-case having detachable (or non-hinging) back, cap, and bezel engaged with the case-center by snap-edges and risers, and prevented from turning on said case-center by concealed interlocking projections and recesses, substantially as described.

2. A watch-case center having an internal riser, *r'*, provided with a recess, *p*, combined with a cap formed to snap into said riser and provided with a projection formed to enter said recess, as set forth.

3. A watch-case pendant formed with a split shank, combined with a solid case-center having a tapered socket, the split shank being spread so as to engage with said socket, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 14th day of January, 1887.

CHARLES F. MORRILL.

Witnesses:
C. F. BROWN,
A. D. HARRISON.