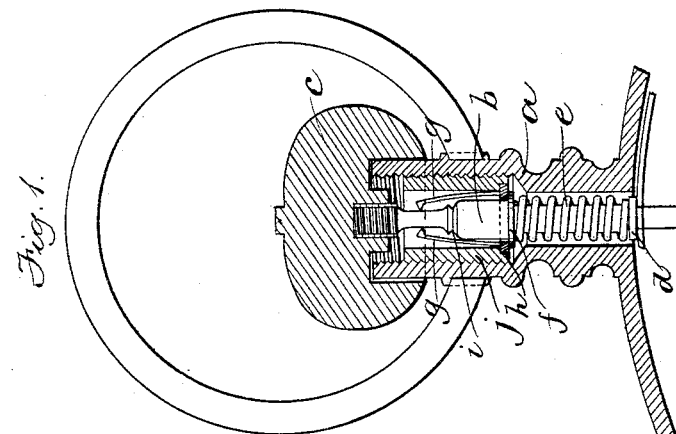
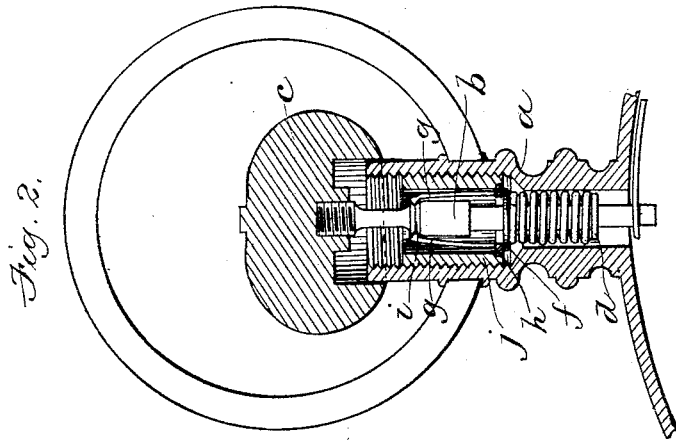
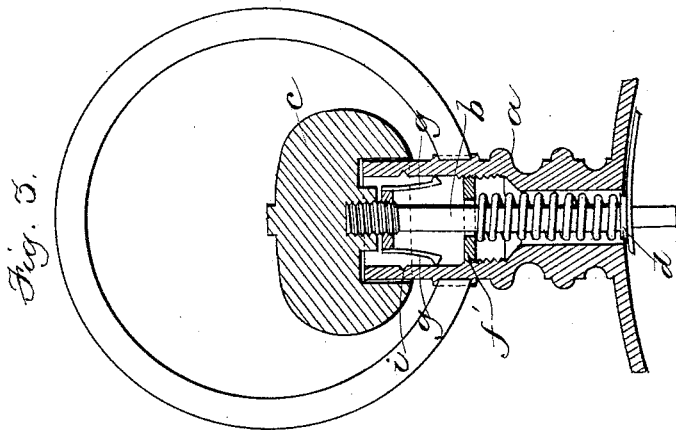


(No Model.)

D. H. CHURCH.
WATCH CASE PENDANT.

No. 347,994.

Patented Aug. 24, 1886.



Witnesses.
H. Brown.
Jas. E. O'Connor

Inventor
S. H. Church
by Night & Brown
Atty.

UNITED STATES PATENT OFFICE.

DUANE H. CHURCH, OF NEWTON, MASSACHUSETTS.

WATCH-CASE PENDANT.

SPECIFICATION forming part of Letters Patent No. 347,994, dated August 24, 1886.

Application filed July 6, 1885. Renewed April 12, 1886. Serial No. 192,651. (No model.)

To all whom it may concern:

Be it known that I, DUANE H. CHURCH, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Watch-Case Pendants, of which the following is a specification.

This invention relates to pendant winding and setting watches, and has for its object to provide improved means for holding the longitudinally-movable winding-bar in different positions—that is to say, either projected into the case to operate the winding-pinion of the movement contained therein, or withdrawn from the movement-containing space of the case to such an extent as to enable it to operate the hand-setting mechanism, as in Letters Patent granted to me July 3, 1883.

The invention consists in the combination, with a watch-case and its pendant, of a longitudinally-movable winding-bar which is projected by a spring into the case, so that it is in position to operate the winding-pinion of the movement, and is held in said position by the yielding pressure of the spring, and automatic retaining devices which retain the winding-bar against the pressure of the projecting spring when said bar is drawn outwardly to operate the hands-setting mechanism, as I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a sectional view of a watch-case pendant and a portion of the case provided with my improvement, the winding-bar being projected into the movement-holding space by its spring. Fig. 2 represents a similar view showing the winding-bar retracted and held by the automatic detent. Fig. 3 represents a modification.

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

In the drawings, *a* represents the pendant, and *b* the winding-bar, the latter being formed at its inner end to engage with the winding-pinion of the movement, and provided at its outer end with the usual crown, *c*. The winding-bar is provided at a point near its inner end with a shoulder, *d*, which receives the pressure of a spring, *e*, whereby the winding-bar is pressed into the movement-holding space of the case, and held with a yielding pressure to engage with the winding-pinion

of the movement. A spiral spring is shown in this instance, this being the most convenient form of which I am aware. The inner end of the spring bears upon the shoulder *d*, while its outer end is supported by a loose washer, *f*, which encircles the winding-bar and bears against a fixed shoulder within the chamber of the pendant, so that the pressure of the spring constantly tends to force the winding-bar inwardly.

The means whereby the winding-bar may be retained in the retracted position shown in Fig. 2 may be variously modified.

In Figs. 1 and 2 I have shown two spring-arms, *g g*, each secured to a ring, *h*, affixed to the pendant, said arms bearing at their outer ends against the winding-bar. When the winding-bar is retracted or drawn outwardly to the desired extent to adapt the winding-bar to operate the hands-setting mechanism of the movement, as shown in Letters Patent above referred to, granted to me July 3, 1883, the free ends of the spring-arms *g g*, which have suitable protuberances, engage with a groove, *i*, formed in the periphery of the winding-bar, and thus lock or grasp the latter, so that the spring cannot force it inwardly until sufficient external pressure is applied to disengage the groove from the spring-arms, whereupon the spring *e* returns the winding-bar to the position shown in Fig. 1. The ring *h*, holding the spring-arms *g g*, is secured to the pendant by means of a tube, *j*, to one end of which the ring is attached, said tube being externally screw-threaded and screwed into the correspondingly-threaded inner surface of the pendant. The ring *h* thus secured constitutes the fixed support or bearing for the outer end of the spring *e*.

Fig. 3 shows a modification in which the spring-arms are attached to the winding-bar and the groove is formed in the inner surface of the pendant. In this case the outer end of the spring *e* is supported by a ring or flange, *f'*, secured directly to the pendant either by screw-threads or otherwise.

The construction shown in Figs. 1 and 2 is however preferred by me as the most practicable. Other modifications may be adopted without departing from the spirit of my invention.

It is obvious that the locking devices, by holding the winding-bar in a retracted position, permit the ready insertion and removal of the movement. My improvement may therefore be used for this purpose in watches in which the hands-setting mechanism is made operative otherwise than by drawing out the winding-bar.

I claim—

1. The combination, with a watch-case and its chambered pendant, of a longitudinally-movable winding-bar, a spring which forces the winding-bar inwardly, and thus holds it with a yielding pressure in position to operate the winding-pinion of a watch-movement contained in the case, and automatic retaining devices, substantially as described, which hold the winding-bar against the pressure of said spring when it is sufficiently retracted, as set forth.

2. The combination of the chambered in-

ternally-threaded pendant, the externally-threaded tube screwed into the pendant, the spring-arms supported by said tube, the longitudinally-movable winding-bar provided with a groove adapted to be engaged with the spring-arms, and the spring *e*, supported at its outer end by a shoulder within the pendant and bearing at its other end against a shoulder on the winding-bar, whereby a yielding inward pressure is exerted on said winding-bar which forces the inner end of the winding-bar into the case, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 24th day of June, 1885.

DUANE H. CHURCH.

Witnesses:

WM. H. WRENN,
H. C. BEHENNA.