

(No Model.)

F. MINK.
WATCHCASE PENDANT.

No. 505,474.

Patented Sept. 26, 1893.

Fig. 1

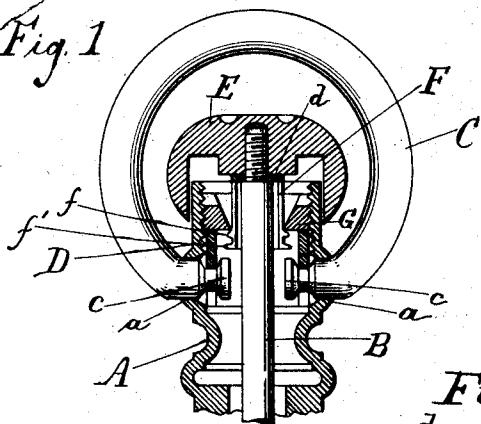


Fig. 2

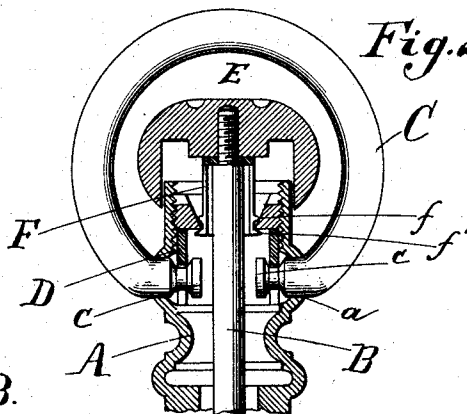


Fig. 3

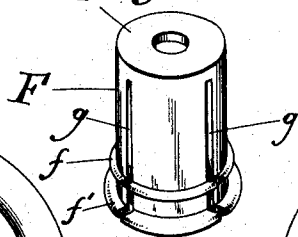


Fig. 4

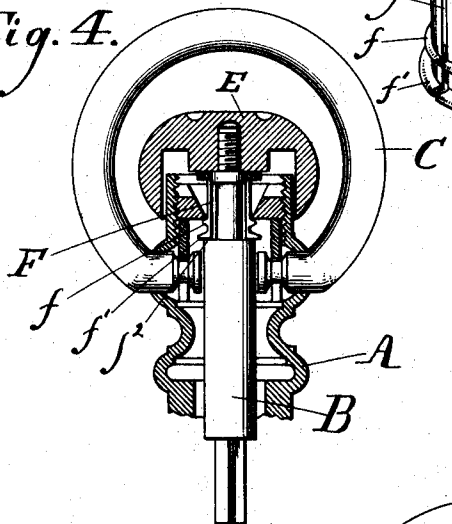


Fig. 5

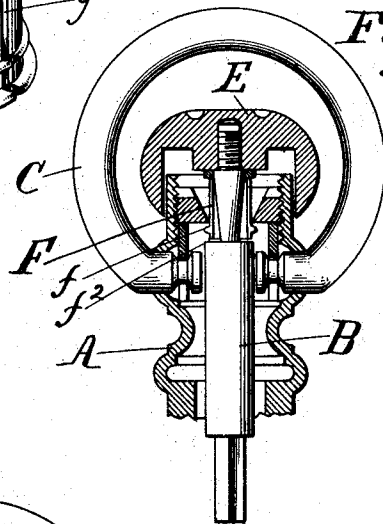
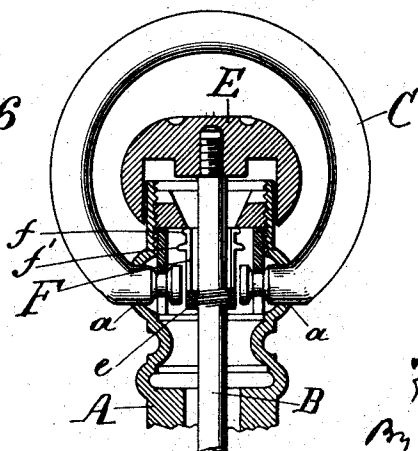


Fig 6



WITNESSES:

Harry Denny
A. H. Dutton,

INVENTOR:

Fritz Mink
By *[Signature]*

UNITED STATES PATENT OFFICE.

FRITZ MINK, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
KEYSTONE WATCH CASE COMPANY, OF SAME PLACE.

WATCHCASE-PENDANT.

SPECIFICATION forming part of Letters Patent No. 505,474, dated September 26, 1893.

Application filed January 18, 1893. Serial No. 458,788. (No model.)

To all whom it may concern:

Be it known that I, FRITZ MINK, of the city and county of Philadelphia and State of Pennsylvania, have invented an Improvement in Watchcase-Pendants, of which the following is a specification.

My invention relates to watch case pendants, and consists of certain improvements which are fully set forth in the following specification and are shown in the accompanying drawings which form a part thereof.

The object of my invention is to provide a convenient device for controlling the stem of any pendant set watch case.

It is my object to provide the stem of such a watch case with a controlling spring to permit the longitudinal movement of the stem and to properly limit such movements.

It is my object to make such a construction as simple as possible.

In carrying out my invention I employ a spring having a snap projection, a stop carried by the longitudinally movable stem, and a projection located upon the interior of the pendant in the path of the snap projection upon the spring, so as to permit the snap projection of the spring to snap over the projection on the interior of the pendant, when the stem is moved longitudinally to make connection with the hand-setting mechanism and limiting the movement of the stem by striking the stop carried by the stem after sufficient movement has been made.

In the drawings: Figure 1 is a vertical sectional view of a watch case pendant embodying my invention. Fig. 2 is a similar view showing the stem drawn upward to connect with the hand-setting mechanism of the watch movement. Fig. 3 is a perspective view of the stem controlling spring. Figs. 4, 5 and 6 are vertical sectional views of watch case pendants illustrating modifications of my invention.

A is the pendant of the watch case which may be of any convenient shape and construction.

B is the stem which has the usual vertical movement of the stem of pendant setting watches to enable it to be connected with the winding arbor or hand setting mechanism of the movement.

C is the bow. In the drawings I have illus-

trated the bow with its ends fastened within the pendant by a well known form of "non-pull-out" device. The bow is provided with heads *c* upon its ends which are inserted through apertures *a* in the sides of the pendant A.

D is a slotted locking collar or plate which is inserted within the pendant fitting over the ends of the bow. This, however, forms no part of my invention.

E is the crown of the stem.

F is the stem controlling spring. I prefer to construct this spring of a tubular shape having longitudinal slots *g* in its sides to permit the spring action. The spring is provided with a snap projection *f* located upon its outer surface.

G is a projection carried by the pendant A upon the interior and located in the path of the projection *f* upon the outer surface of the spring. The spring F is carried by the stem in any convenient manner so that it will be moved vertically with the longitudinal movements of the stem. I prefer to construct the projection G in the form of a small nut which may be screwed into the interior of the pendant in the proper position, as such a construction readily permits adjustment. I have shown the nut enlarged at its upper portion so as to permit the spring projection *f* to snap past the edge of the nut. The nut may be screwed into the pendant so as to bear upon the tubular locking piece B to hold it in place. It also permits the adjustment of the tubular locking piece to take up wear.

To limit the longitudinal movement of the stem B, so that it may not be drawn out too far, I employ a stop carried by the stem so as to move with it and so located that it will strike the projection upon the interior of the pendant after the projection *f* of the spring F has passed the projection G. In Figs. 1, 2, 3, 4 and 6 I have shown this stop in the form of a projection *f'* upon the outer surface of the spring F below the projection *f*, the projection *f'* being larger than the projection *f*. In Fig. 5 I have shown the stop as an enlargement or shoulder *f''* upon the body of the stem itself. It will be seen that the spring F bearing against the projection G

will normally hold the stem in position but will permit the stem to be pulled upward longitudinally so as to connect with the hand setting mechanism. During this movement the snap projection *f* will pass the projection G, and the stop projection *f'* will strike projection G and arrest further movement.

In Fig. 1 I have shown the parts in the positions which they occupy before the stem has been pulled upward to make connection with the hand setting mechanism; and in Fig. 2 I have shown the parts in the positions which they will occupy when the stem has been pulled vertically to make the connection.

It is immaterial to the invention in what particular way the spring is carried by the stem. In Figs. 1 and 2 I have shown a construction in which the tubular spring F is provided with a flange or collar *d* at the top by means of which it is clamped between the crown and shoulder on the top of the stem. In Figs. 4 and 5 I have shown a construction in which the spring is loosely supported between the crown and a shoulder *f*² upon the stem. In Fig. 6 I have shown a construction in which the spring is screwed upon the stem as shown at *e*. It will be seen that it is immaterial to the invention whether the stop projection is carried by the spring, as in the construction shown in Figs. 1, 2, 3, 4 and 6, or is carried directly upon the stem as indicated at *f*² in Fig. 5. In every case the projection is carried by the stem so that it moves with it, and strikes the projection G to arrest the further longitudinal movement of the stem after the snap projection *f* has passed the projection G.

While I prefer the details of construction that have been shown I do not limit myself to them, as they may be modified without departing from the invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the pendant of a watch case, of a stem movable longitudinally therein, a spring projection carried by the stem, a projection carried by the pendant upon its interior and located in the path of the spring when it is moved with the stem, and a stop independent of the spring projection carried with the stem so as to move with it and limit the upward longitudinal movement of the stem.

2. The combination with the pendant of a watch case, of a stem movable longitudinally

therein, a spring projection carried by the stem, a projection carried by the pendant upon its interior and located in the path of the spring projection when it is moved with the stem, and a stop carried by the stem and located below the projection carried by the pendant so as to strike said projection when the spring projection has passed the pendant projection and thus limit the outward movement of the stem, substantially as shown and described.

3. The combination with the pendant of a watch case, of a stem movable longitudinally therein, a spring carried by the stem and provided with a small snap projection and a larger stop projection, and a projection carried by the pendant on the interior and located in the path of the projections of the spring, whereby the small snap projection may pass said projection of the pendant and the larger stop projection will strike it and arrest the further outward movement of the stem, substantially as shown and described.

4. The combination with the pendant of a watch case, of a stem movable longitudinally therein, a tubular spring carried by said stem provided with a small snap projection, and a larger stop projection located below the small snap projection, and a nut carried by the pendant upon the interior and located in the path of the projections on the spring, substantially as shown and described.

5. The stem controlling spring for a pendant setting watch case consisting of a split tube having two projections upon its outer surface located one above the other, one projection being larger than the other to act as a detent, substantially as shown and described.

6. The combination with the pendant of a watch case, of a stem movable longitudinally therein, a spring carried by the stem and provided with a small snap projection, a projection carried by the pendant and located in the path of the snap projection of the spring, and a stop independent of the snap projection carried by the stem so as to move with it and limit the longitudinal movement of the stem.

In testimony of which invention I have hereunto set my hand.

FRITZ MINK.

Witnesses:

ERNEST HOWARD HUNTER,
HELEN L. MOTHERWELL.