

E. C. FITCH.

Improvement in Stem-Winding and Setting Watches.

No. 127,753.

Patented June 11, 1872.

Fig 1.

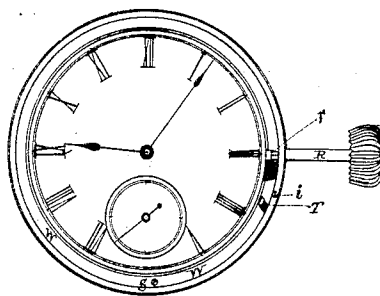


Fig 2.

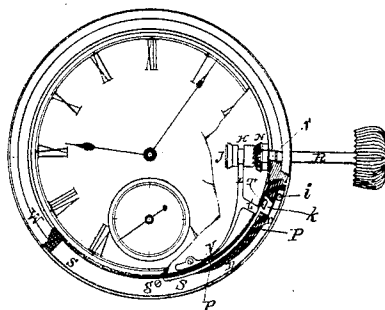


Fig 3

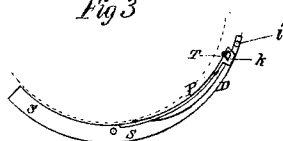


Fig 5.

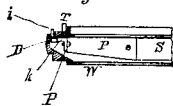
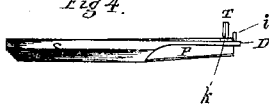


Fig 4.



Witnesses.

Edw. A. Brannell Inventor.

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UNITED STATES PATENT OFFICE.

EZRA C. FITCH, OF NEW YORK, N. Y., ASSIGNOR TO ROBBINS & APPLETON,
OF SAME PLACE.

IMPROVEMENT IN STEM WINDING AND SETTING WATCHES.

Specification forming part of Letters Patent No. 127,753, dated June 11, 1872.

SPECIFICATION.

I, EZRA C. FITCH, of the city, county, and State of New York, have invented a new and useful Improvement in Stem Winding and Setting Watches, of which the following is a specification, referring to the accompanying drawing making part of the same, in which—

Figure 1 is a face view of a stem winding and setting watch movement in the "case-center" arranged with my improvement. Fig. 2 is a like view of the same with a portion of the dial removed to give a view of the working parts. Fig. 3 is a top view, and Fig. 4 is a side view, of my improved mechanism detached from the case. Fig. 5 is a cross-section of the "case-center," showing the arrangement of the improved device within it.

Similar letters indicate corresponding parts in all the figures.

My invention relates to the combination and arrangement of a shifting and locking mechanism with the case of a stem winding and setting watch, for the purpose of shifting and reshifting the winding and setting mechanism of the movement in the case; the object being to make the shifting and locking mechanism a complete and permanent fixture of the case, and capable of operating the shifting mechanism of the different movements that may be inserted therein, so that the case and the movement shall be interchangeable.

In the drawing, W is the case-center, in which the watch movement is inserted and held in the usual way, and R is the stem-key which rotates the clutch H on the stem *r*, for winding and setting the movement. This clutch slides on the stem *r* by the action of the spring-clutch lever L, the spring V of which holds the clutch constantly in connection with the winding-gear N, for regularly winding the movement, and, by pressing the arm L' of said lever, the clutch is shifted from the winding-gear into connection with the setting-gear J, for setting the movement, and is reshifted to the winding-gear by the action of the spring V when the arm L' is released, so that the shifting and reshifting

function of the mechanism is performed by pressing the lever-arm against the action of a spring, and by the reaction of the spring when the lever-arm is released from the pressure; and in other well-known mechanism for the purpose it has been found most convenient and practicable to perform the same function by a similar means and mode of operation.

The improved shifting and locking mechanism which I have invented is especially designed to operate the spring-clutch lever, or a similar device for performing the same function. This mechanism consists of a spring-presser, P, having a catch, *k*, and a detent or locking-spring, D, on a curved shank, S, which is inclosed within the case-center W, as shown in Fig. 2. The free end of the presser P is provided with a thumb-piece, T, by which it is pressed inward. The end of the lever-arm L' is in contact with the inner surface of the presser and moves with it to perform the shifting function, and when shifted the catch *k* is caught and the presser held by the detent-spring D in position for setting the movement, as shown in Figs. 2 and 5; and, after setting, by depressing the detent-spring D the catch is released to reshift the mechanism for winding the movement by the reaction of the presser-spring, and the catch *k* shuts over and holds the detent-spring in its depressed position, as shown in Figs. 3 and 4, ready to lock the presser when next pressed into position for setting the movement.

The free end of the detent-spring is provided with a push-pin, *i*, which protrudes through the case-center W in a position to be depressed by the face-cover in shutting it, by which means the detent-spring D is depressed, the presser unlocked and released, and the mechanism of the movement reshifted for the regular winding by the stem in the usual way.

I am aware that a spring-presser operated by a push-pin in the case is a well-known device for shifting the winding and setting mechanism; also that a shifting and locking mechanism has heretofore been combined with a special shifting mechanism of a particular kind of movement. But the former is without a locking device to hold it in position, and the latter is applicable only to the special

shifting mechanism with which it is combined, and cannot be practically applied to any other movement, nor combined with the case in the manner and for the accomplishment of the object herein contemplated.

I claim—

The combination of the presser P, the catch

W, and the detent D with the watch-case, substantially as described, for the purpose specified.

E. C. FITCH.

Witnesses:

R. S. HAYWARD,
H. O. BAILEY.