

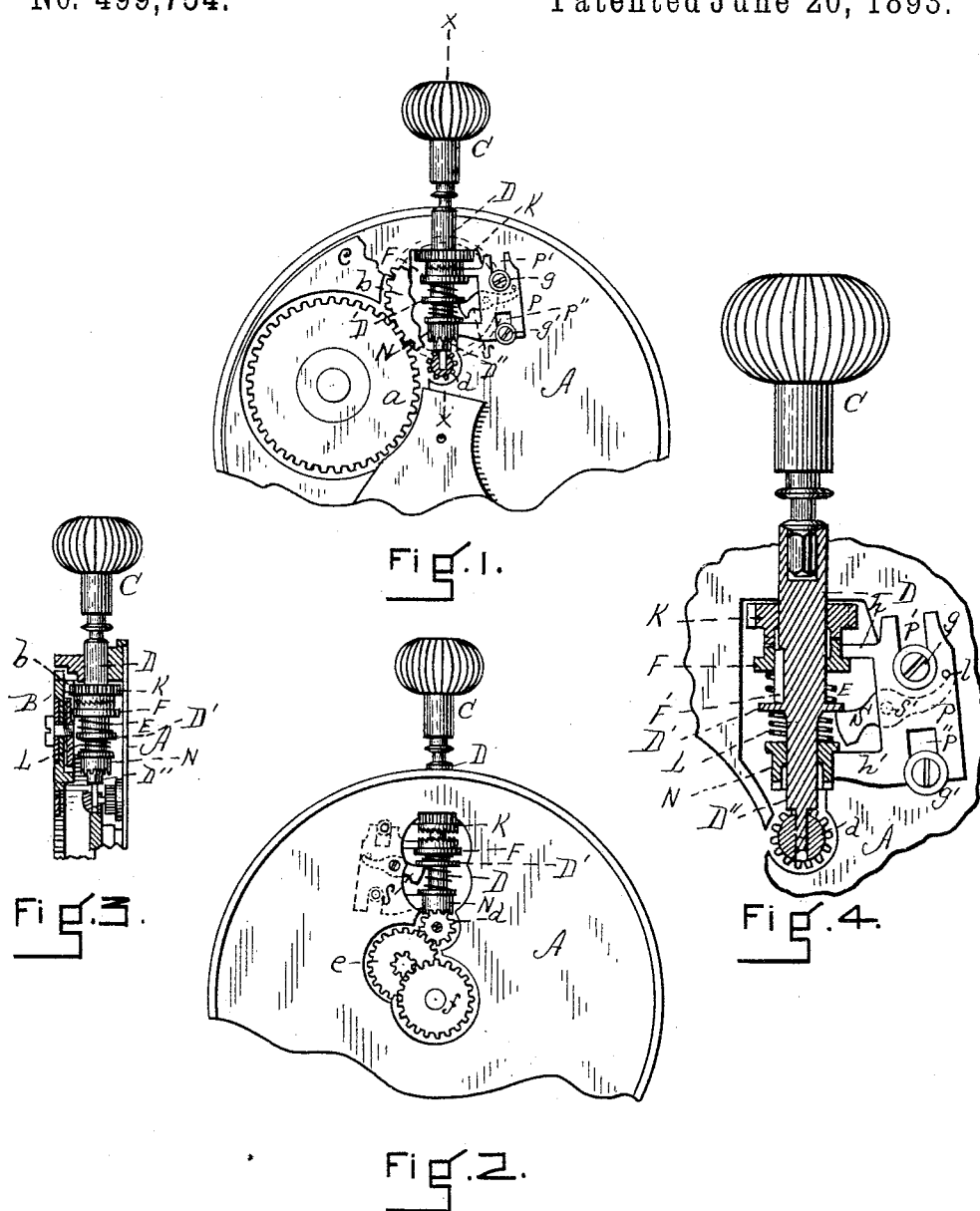
(No Model.)

J. W. RUSHTON.

STEM WINDING AND SETTING MECHANISM FOR WATCHES.

No. 499,754.

Patented June 20, 1893.



WITNESSES

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STEM WINDING AND SETTING MECHANISM FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 499,754, dated June 20, 1893.

Application filed January 19, 1893. Serial No. 458,954. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. RUSHTON, a citizen of the United States, residing at Waltham, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Pendant Setting and Winding Mechanism for Watches, of which the following is a specification.

This invention consists in a certain novel construction and arrangement of parts whereby the mechanism is improved and simplified, and a single arbor used for setting and winding.

The nature of the invention is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is an inside rear view of a portion of a watch embodying my invention, with the top plate removed. Fig. 2 is an inside front view with the dial removed. Fig. 3 is a section on line *x*, Fig. 1. Fig. 4 is an enlarged section taken at right angles to the line of the section shown in Fig. 3.

A represents the lower plate, B the top plate, *a* the ratchet wheel, or winding wheel, *b* the crown wheel, *c* the barrel bridge represented in Fig. 1 as partially broken out, C the pendant stem, and D the winding arbor, to which the pendant stem is squared or rigidly secured in any desired manner. The winding arbor is made in a single piece, and sets as well as winds. It is provided with an integral collar D' next above which lies a spiral spring E surrounding the arbor, and next above said spring is a winding clutch F sliding on the arbor by means of the key F' and whose teeth engage with the bevel winding pinion K loose on the arbor. Surrounding the arbor next below the collar D' is a spiral spring L, and next below the spring is the hand setting clutch N which slides on the arbor which is squared at D'' for the purpose of preventing it from turning. *d* is the intermediate setting wheel, *e* is the minute wheel, and *f* the hour wheel.

P is a slide slotted at P' P'' to receive the screws *g g'* which screw into the lower plate A. This slide P has two arms or projections *h* and *h'*, which, respectively, engage the winding clutch F and hand-setting clutch N. A shipping lever S is pivoted at S' to the plate A, the front end of said lever being engaged by the collar D' and the rear end engaging a pin *l* on the slide P.

The operation is as follows: When the watch is to be wound, the parts are in the positions shown in Figs. 1, 3 and 4,—that is to say, the arbor is pushed down, the collar D' carrying down the front end of the lever S and hence moving up the slide P as far as the screw *g* in the slot P' will allow, the arm *h'* lifting the hand setting clutch N against the power of the spring L out of engagement with the setting wheel *d*, and the spring E holding the winding clutch F in engagement with the winding pinion K which engages the crown wheel. When the watch is to be set, the parts are in the positions shown in Fig. 2, the arbor, having been drawn up, so that the collar D' releases the shipping lever S and allows the spring L to force the hand setting clutch N into engagement with the setting wheel *d*, and at the same time, by means of the arm *h* drawing down the slide P into the position shown in broken lines in Fig. 2, the arm *h* of said slide drawing down the winding clutch F out of engagement with the winding pinion K.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The pendant setting and winding mechanism, comprising the integral winding and setting arbor D provided with the collar D', the sliding hand-setting clutch N and spring L on the arbor between said clutch and collar, the sliding winding clutch F and spring F' on the arbor between said winding clutch and collar, and the winding pinion K, substantially as set forth.

2. The pendant setting and winding mechanism, comprising the integral winding and setting arbor D provided with the collar D', the sliding hand-setting clutch N and spring L on the arbor between said clutch and collar, the sliding winding clutch F and spring F' on the arbor between said winding clutch and collar, the winding pinion K, the slide P on the plate A and provided with the engaging arms *h h'*, and the shifting lever S intermediate with and engaging with the collar D' and the slide, substantially as described.

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Witnesses:

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