

(No Model.)

J. J. WOOD.

WINDING STEM FOR WATCHES.

No. 303,096.

Patented Aug. 5, 1884.

Fig. 1.

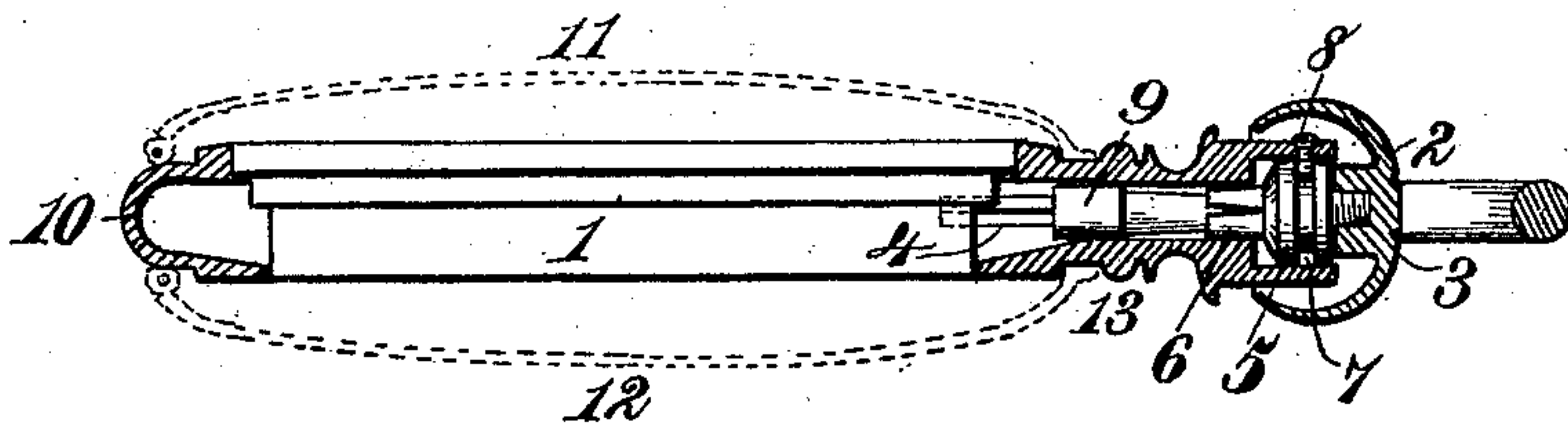


Fig. 2.

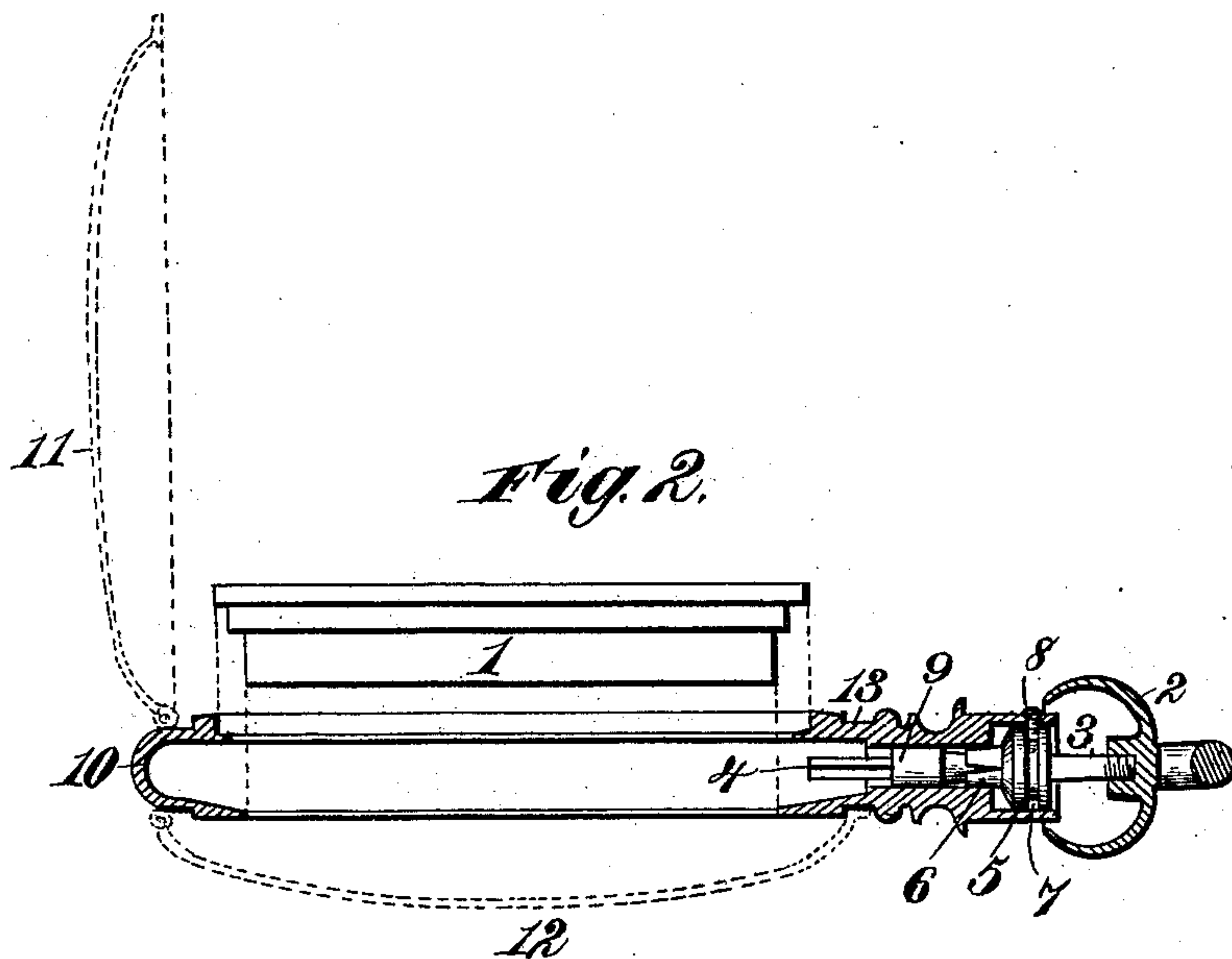
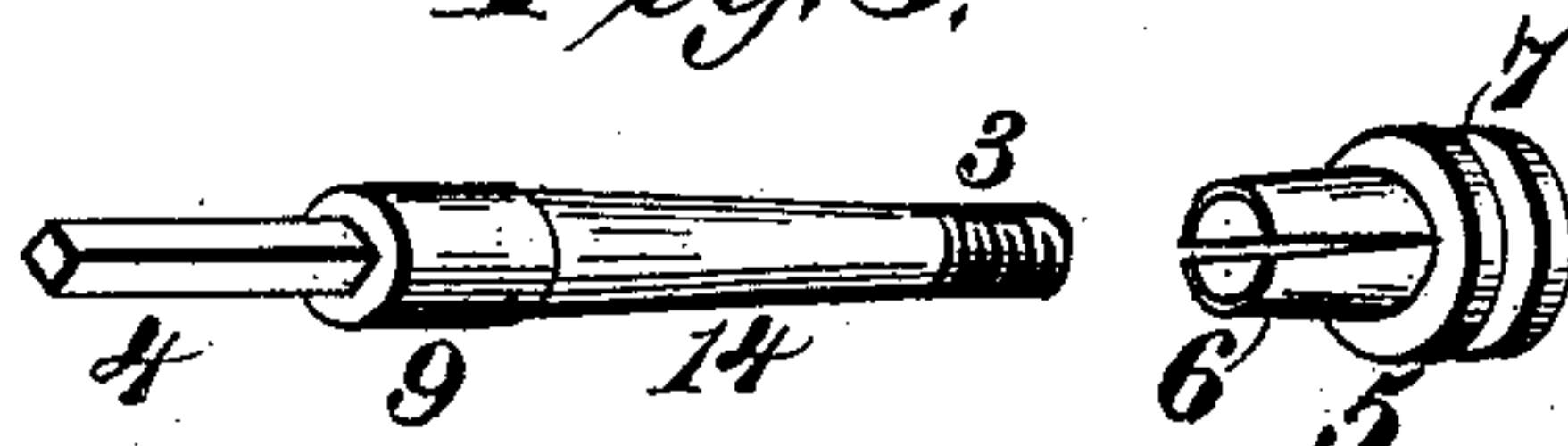


Fig. 3.



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WINDING-STEM FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 303,096, dated August 5, 1884.

Application filed March 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES JOHNSON WOOD, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Watches, of which the following is a specification.

In stem winding and setting watches or in stem-winding watches as ordinarily constructed the removal of the works from the case for cleaning or repairs is attended with many objectionable features. For instance, the stem which connects the crown-piece with the gearing for winding up or setting must be removed entirely from the pendant, inasmuch as it projects through the pendant and into the works. The screw by which the stem is held in the pendant is exceedingly small and difficult of manipulation, and its removal to permit the withdrawal of the stem or its replacing to hold the stem is a tedious and delicate operation. Removed, it is liable to loss. If not lost, from the delicacy of its threads a few usings of it ordinarily destroy its practical efficiency.

The object of my invention therefore is to provide a stem and crown and means of attachment therefor to the pendant and the winding-gear of such construction that the stem may be at will instantaneously withdrawn from engagement with the winding-gear of the movement, but without removal from the pendant, in which it still remains seated, permitting the removal of the works from the case without regard to the winding-stem and crown. In accomplishing this the winding-stem passes through the usual perforated pendant attached to the band or ring of the case, the inner end thereof being made either as a male or female coupling, to unite with a suitable male or female coupling in the winding-gear proper attached to the works. This stem is fastened to a crown of usual construction, covering normally the outer end of the pendant. At its inner end, just above the coupling, it is enlarged considerably, forming a shoulder thereat, from whence it tapers to its junction with the crown. Upon it is placed a sleeve having in its larger part a groove, in which takes the end of a screw passing through the side of the pendant

and securing together the pendant, sleeve, and winding-stem, the groove permitting the necessary rotation of the stem in winding. The other portion of this sleeve is made springy or resilient, encircling the stem. It is split and so tapered or fashioned as to grasp friction-tight upon any portion of the taper of the winding-stem. It is obvious, then, that the winding-stem may slide therein, its amount of play being limited in one direction by the crown and in the other by the shoulder which forms the boundary of the tapering or sliding portion of the stem. When, then, the stem is pushed in, it engages with the winding-gear, and is held in engagement therewith by the friction of the sleeve upon the stem. If, however, it be desired to remove the works, a positive force or pull is applied to slide the stem outward, when it is disengaged from the works and permits their removal without its own removal from the pendant, and is left in such condition that it may be instantaneously replaced in engagement with the winding-gear.

The construction thus generally described may be better understood by reference to the drawings, in which—

Figures 1 and 2 are sections of a watch-case embodying my invention, while Fig. 3 shows in detail the winding-stem and sleeve.

10 is the ring or band of a watch, by which are supported or to which are hinged the front and back caps, 11 and 12.

Within the ring or band 12 is the interior casing or framing, 1, containing the works of the movement, not herein shown, as they constitute no part of the invention. These parts may be of any usual or desired construction.

Secured to the ring or band 10 is the perforated pendant 13, through which passes the winding-stem 3, having its inner end, 4, fashioned into either a male or female coupling, as may be needed, and passing into the works represented by 1, for engagement with the winding-gear thereto attached. Its outer end is secured to the usual crown, 2.

Above the coupling 4 of the stem 3 a shoulder, 9, is formed therein, from which the stem tapers very slightly to its outer end. Upon this tapering portion of the stem is placed the

sleeve 5, in whose larger portion is formed a groove, 7, while its remaining portion is made as a split, springy, or resilient sleeve 6, as shown in Fig. 3, of such size as to tightly grasp any part of the taper 14 of 3. This sleeve being placed upon 3, they are both placed in the pendant 13, through the sides of which passes a screw or pin, 8, whose inner end takes in the groove 7 of the sleeve 5, preventing its withdrawal from the pendant, and consequently, also, the withdrawal of the stem 2. It is evident, however, that the stem 3 has a capacity for sliding within the sleeve, limited in one direction by the shoulder 9 and in the other by the crown 2.

When the parts are in the position shown in Fig. 1, with the works in place, the crown is pushed in, carrying the stem to its limit of movement in one direction, the coupling 4 passing into the frame 1, and works engaging with the winding-gear, the resilience of the part 6 of the sleeve acting as a friction-clutch to hold the parts in such relative position to each other. If, now, for any cause, it be desired to remove the works, the crown and attached stem are pulled outward to their limit of motion, as shown in Fig. 2, where the stem is freed from engagement with 1 and its contained works, when they may be removed irrespective of the stem, while at the same time the stem is not removed from the case, but remains in position for immediate re-engagement with the winding-gear when the works are replaced.

Having thus described my invention, what I claim is—

1. In a stem-winding mechanism for watches, the combination of a sliding and rotating stem and a sleeve seated within the pendant and formed with a grooved enlarged or shouldered portion for retaining it within the pendant, and with a portion made springy or resilient for clutching the stem and holding it in any desired position, substantially as described.

2. In a stem-winding mechanism for watches, the combination of a pendant, a winding-stem passing therethrough, a friction-sleeve within the pendant, having a grooved enlarged or shouldered head, a pin passing through the side of the pendant and taking therein, for securing the friction-sleeve within the pendant, whereby the stem may be held by the sleeve in or out of engagement with the winding-gear of a movement, substantially as described.

3. In a stem-winding attachment for watches, the combination of the winding-stem, having a shoulder at its inner end and tapering thence to its outer end, a crown-piece attached thereto, and a friction-sleeve thereon, having a groove in which takes a pin or screw passing through the pendant, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES JOHNSON WOOD.

Witnesses:

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