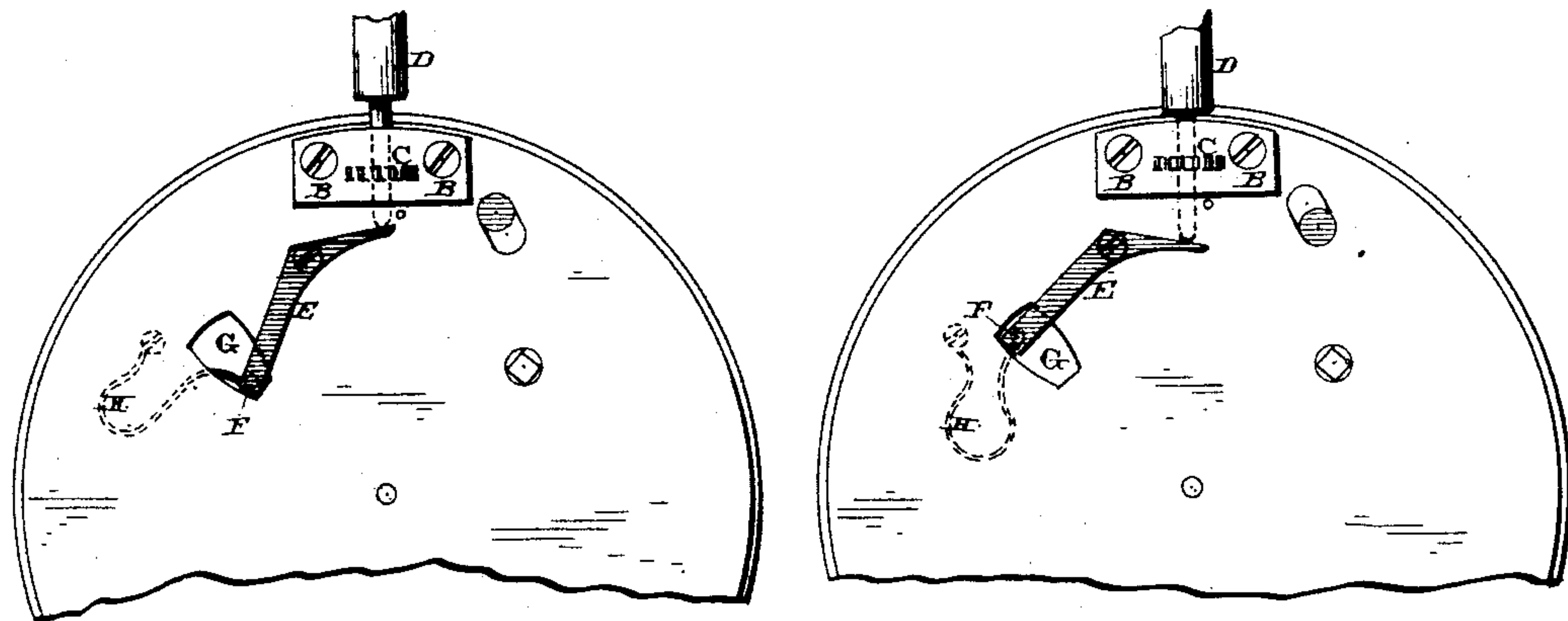
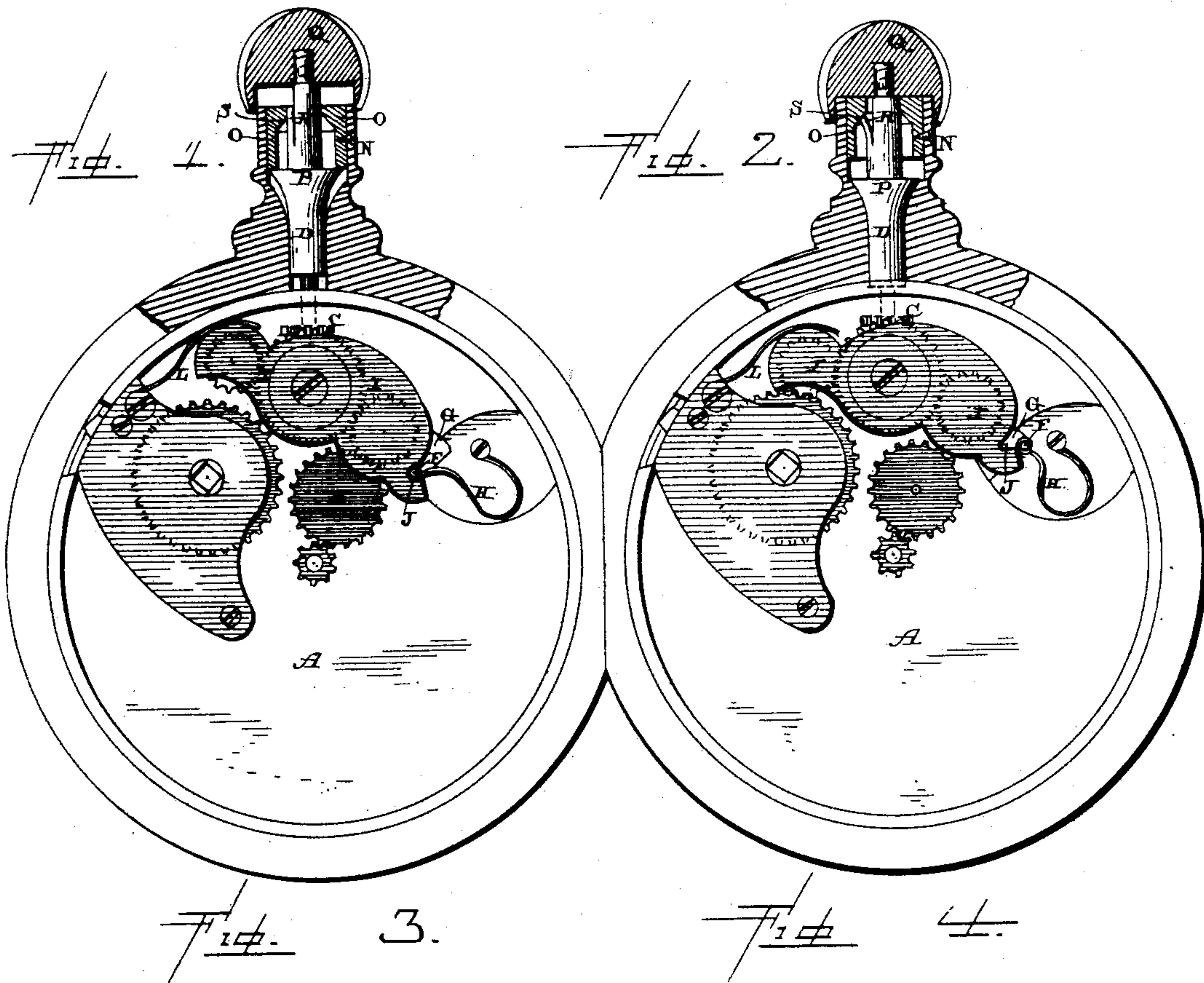


(No Model.)

O. F. STEDMAN.
STEM WINDING AND SETTING WATCH.

No. 403,787.

Patented May 21 1889.



WITNESSES.

A. J. Gardner
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Inventor.

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per
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UNITED STATES PATENT OFFICE.

OSCAR F. STEDMAN, OF RAVENNA, OHIO.

STEM WINDING AND SETTING WATCH.

SPECIFICATION forming part of Letters Patent No. 403,787, dated May 21, 1889.

Application filed April 12, 1888. Serial No. 270,445. (No model.)

To all whom it may concern:

Be it known that I, OSCAR F. STEDMAN, of Ravenna, in the county of Portage and State of Ohio, have invented certain new and useful Improvements in Stem Winding and Setting Watches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in stem winding and setting watches; and it consists in the combination of the endwise-moving winding-stem provided with a spring and a stop-flange with a sleeve which is placed in and secured to the pendant, and which is enlarged at its lower portion, so that the spring will engage with the upper end and hold the stem in position when forced inward for the purpose of operating the winding mechanism, all of which will be more fully described hereinafter.

The object of my invention is to use in connection with an endwise-moving winding-stem a single lever which will both move the yoke into position for setting the hands and lock it in that position, and to form upon or attach to the endwise-moving stem a spring which, by frictional contact with the sleeve in the pendant, will hold the winding-stem in position when forced inward.

Figures 1 and 2 are side elevations of a watch embodying my invention, the parts being shown in different positions. Figs. 3 and 4 are similar views taken from the opposite side of the pillar-plate, and also show the parts in different positions.

A represents the pillar-plate, to one edge of which is secured the frame B, in which the winding-pinion C is placed in the usual manner, and through which the inner angular end of the winding-stem D moves back and forth. Pivoted upon this pillar-plate is the lever E, with the shorter arm of which the inner end of the winding-stem D comes in contact when the stem is forced inward for the purpose of winding the watch, and which lever E has a projection, F, formed at or near the end of its longer arm. This projection F passes through

the slot G, formed in the pillar-plate, and has secured to it upon the opposite side of the pillar-plate from the lever the spring H, which always returns the lever to position when left free to move. While the winding-stem is forced inward this lever E has its projection F forced back out of contact with the yoke I; but when the winding-stem is drawn outward for the purpose of setting the watch the spring H forces the lever E to partially turn upon its pivot and bring the projection F in contact with the end of the yoke I to force it in position for setting the hands and locking it. This yoke I, carrying the intermediate winding and setting wheels in the usual manner, is provided with a notch or recess, J, near one end, and in which the projection F on the lever E is made to catch when the yoke is to be locked in position for setting the hands. When the lever E is moved into that position where the projection F is not in contact with the yoke, then the spring L, which is weaker than the one H, at once moves the yoke, so as to bring the winding-wheels into position for winding the watch. When the projection F is forced back out of the notch J, it is also forced back out of contact with the end of the yoke, so as to allow the yoke to have a free vibratory motion while the watch is being wound. The spring H, being more powerful than the one L, overcomes its action, and as soon as the winding-stem is drawn outward the spring H instantly forces the yoke into position for setting the hands. When the winding-stem is forced inward, the action of the spring H is overcome, and then the spring L is left free to act upon the yoke to force it into position for winding the watch.

Inside of the pendant N is rigidly secured the sleeve O, which is made larger at its inner than its outer end, and through which sleeve passes the winding-stem D. Upon this winding-stem is formed the stop or flange P, which, when the winding-stem is drawn upward by its crown Q, strikes against the inner end of the sleeve and prevents any further movement in that direction. Secured to or formed as a part of this stem D are one or more springs, R, which project outward either in a line with the stem or at any suitable angle thereto. When the stem is pushed inward and the

outer end of the spring strikes against the inclined shoulder S inside of the sleeve, the spring is compressed against the side of the stem and moves endwise into the smaller opening through the sleeve. This spring by its frictional contact with the sleeve holds the stem in position, so that it will not be accidentally moved while the hands are being set. These springs exert enough resistance against the outward movement of the stem to prevent it from being moved except when a pull is exerted upon it, and when this pull is exerted the spring or springs are forced by the inclined shoulder S toward the side of the stem, so that they can enter the upper portion of the sleeve.

The spring R is here shown for the purpose of locking the winding-stem in position; but I

do not limit myself to this particular construction, because any other construction which may be preferred for locking the winding-stem may be used.

Having thus described my invention, I claim—

The combination of the endwise-moving winding-stem provided with a stop, P, and a spring or springs with the sleeve which is secured inside of the pendant and has an inclined shoulder at its outer end, substantially as set forth.

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

O. F. STEDMAN.

Witnesses:

EDM. P. ELLIS,
L. F. GARDNER.