(Model.) 2 Sheets—Sheet 1.

C. KISTLER.

STEM WINDING AND SETTING WATCH.

No. 344,838. Patented July 6, 1886.

Fig. 1.

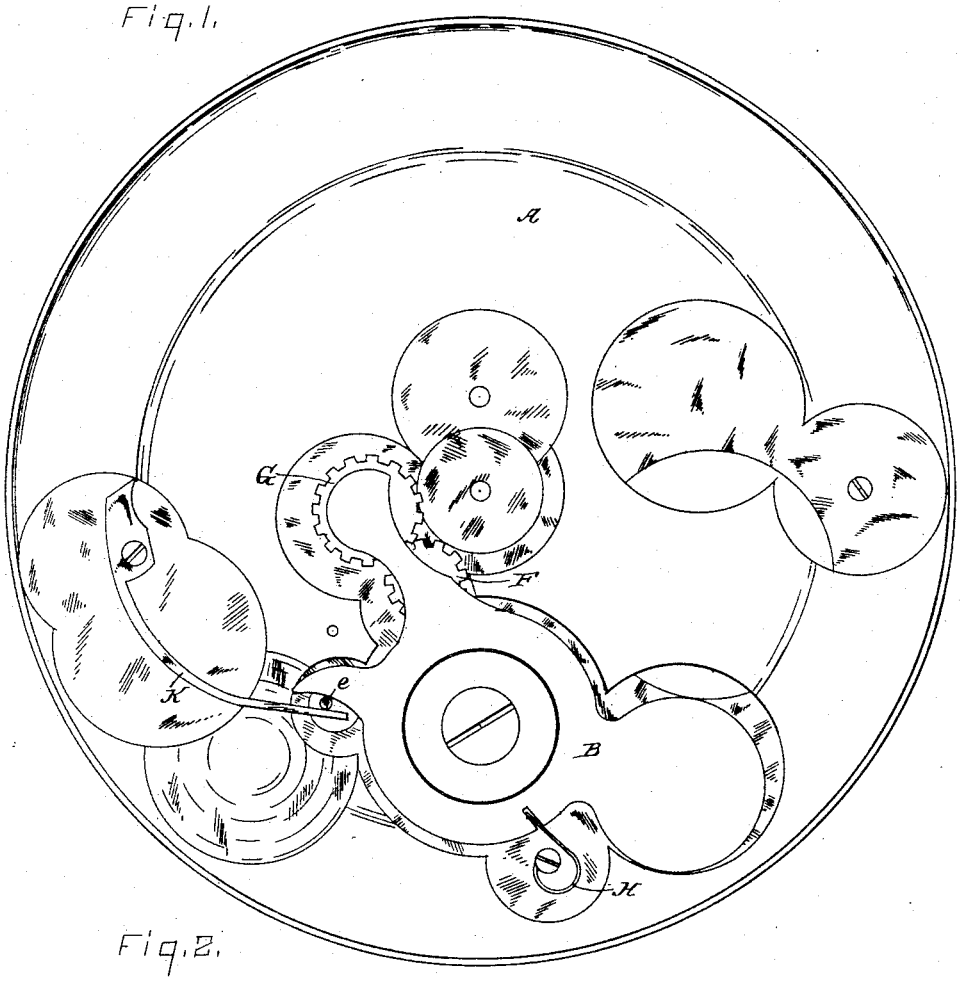
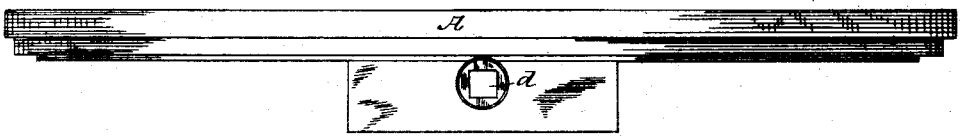


Fig. 2.



WITNESSES—

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Charles H. Roberts.

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per Manahan & Ward
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(Model.) 2 Sheets—Sheet 2.

C. KISTLER.

STEM WINDING AND SETTING WATCH.

No. 344,838. Patented July 6, 1886.

Fig. 3.

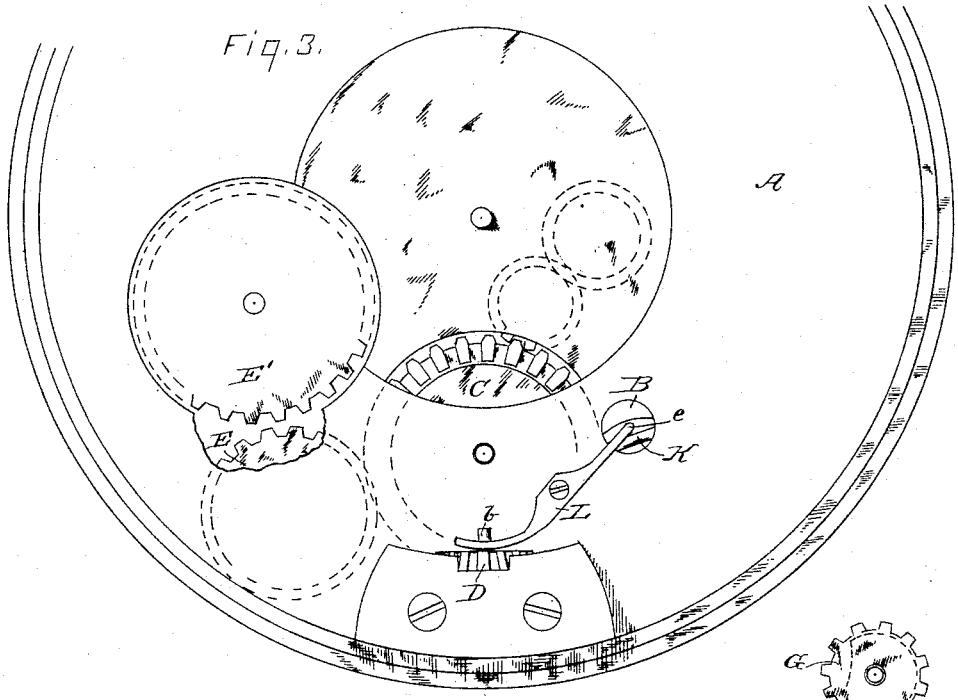


Fig. 4.

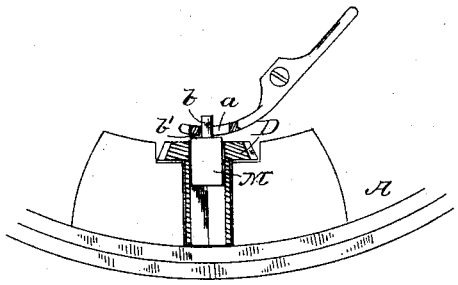
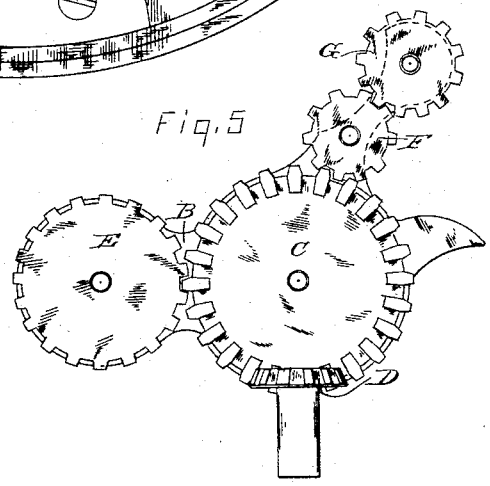


Fig. 5.



WITNESSES—

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UNITED STATES PATENT OFFICE.

CASPER KISTLER, OF STERLING, ILLINOIS.

STEM WINDING AND SETTING WATCH.

SPECIFICATION forming part of Letters Patent No. 344,838, dated July 6, 1886.

Application filed March 4, 1886. Serial No. 193,998. (Model.)

To all whom it may concern:

Be it known that I, CASPER KISTLER, a citizen of the United States, residing at Sterling, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention has reference to improvements in watches, and pertains especially to certain novel mechanism and the arrangement thereof with the view to furnish a convenient and simple mode of setting the hands of the watch from the winding-stem without further manipulation than the end movement of such stem.

As my invention is limited to my method of utilizing the winding-stem to change the hands of the watch and is applied to the usual and well-known parts of the latter, I do not deem it necessary to show or describe the watch wholly or any further than to exhibit my invention and the mode of attaching and operating it.

In the drawings, Figure 1 is the front side of the pillar-plate. Fig. 2 is a view of the edge of such plate, showing the socket *d*, for the insertion of the winding-stem. Fig. 3 is the back side of the pillar-plate A. Fig. 4 is an enlarged detail showing the slotted connection of the lever L with the intermediate winding-piece. Fig. 5 is a detail of the main wheel actuated by the winding-pinion and its connections attached to the under side of the oscillating plate B.

A is the pillar-plate, on the front side of which is pivotally seated the oscillating plate B.

C is the main wheel, having its center of rotation under the center of oscillation of the plate B, and engaged and actuated in the usual way by the winding-pinion D. One arm of the oscillating plate B carries the intermediate winding-wheel, E, which intermittently engages and actuates the usual ratchet-wheel, E', on the axis of and under the mainspring-barrel, the wheel E being itself rotated by the main wheel C. The other arm of the plate B carries the setting-wheels F and G, the wheel F being rotated by the wheel C and communicating such rotation to the wheel G, which latter engages and rotates the minute-wheel, and from thence the hour-wheel in the usual mode to move or adjust the hands.

Instead of the two wheels F and G, one wheel engaging at one side with the wheel C and at the other side with the minute-wheel, may be employed.

H is the ordinary spring, seated on the plate A outside the plate B, and pressing inward on the latter between its center of oscillation and the winding-wheel E, and in the normal condition of the watch keeping the wheel E in engagement with the ratchet-wheel E' and the wheel G out of engagement with the minute-wheel.

K is a spring, original with me, seated on the plate A, outside of the plate B, and pressing mediately inward on the latter at the opposite side of its center of oscillation from the spring H. The spring K operates directly in opposition to the spring H, and, being stronger, if the action of the former were not intermitted, as hereinafter described, the spring K would hold the wheel G in engagement with the minute-wheel.

L is a short lever, pivoted near its center to the rear side of the pillar-plate A, and having its outer end provided with the slot *a*, through which is projected the inner end, *b*, of the intermediate winding-piece, M, seated loosely in the inner end of the winding-pinion D. The intermediate winding-piece, M, is contracted at its inner end to form the central post, *b*, and annular shoulder *b'*. The winding-piece M is adapted to be pushed inward by the winding-stem (not shown) seated in the socket *d*, and when thus pushed inward the other or inner end of the lever L is forced outward. The inner end of the lever L is provided with a short transverse post, *e*, which projects through the plate A and is interposed between the spring K and plate B. The outward movement of the post *e* counteracts the pressure of the spring K against the plate B, and allows the spring H to throw the wheel G out of engagement with the minute-wheel

and the wheel E into engagement with the ratchet-wheel E'. When the winding-stem is slightly withdrawn, the spring K being allowed to exert its pressure on the plate B, through the medium of the post *e*, and, being stronger than the spring H, causes the wheel G to engage the minute-wheel and the wheel E to disengage the ratchet E'. Therefore, when the winding-stem is pushed in the mechanism is in position for winding the watch, and when such stem is pulled slightly out the mechanism is in position to set the hands.

The advantage of my invention is in providing certain simple and durable means of setting the hands with the winding-stem without requiring any external hole other than the usual socket, *d*, in which the inner end of the winding-stem rests.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. The combination of the plate B, provided with wheels E and G, the main wheel C, springs K and H, lever L, and the intermediate winding-piece, M, the wheels E and G being adapted, respectively, to engage the ratchet E' and minute-wheel, substantially as shown, and for the purpose specified.

2. The combination of the winding-pinion D, the main wheel C, the plate B, wheels E and G, springs H and K, lever L, adapted to act against the spring K, intermediate winding-piece, M, and the winding-stem, substantially as shown, and for the purpose described.

3. The combination of the plate B, provided with the wheel G, the spring K, lever L, adapted to act against the spring K, intermediate winding-piece, M, seated in the winding-pinion D and adapted to be pushed inward by the winding-stem, and spring H, whereby the inward pressure of such winding-stem causes the wheel G to disengage the minute-wheel, substantially as shown, and for the purpose specified.

4. The lever L, provided with the post *e*, and seated on the plate A, and adapted to be oscillated by the winding-stem through the medium of the intermediate winding-piece, M, and thereby release the pressure of the spring K, substantially as shown, and for the purpose named.

5. In combination with the plate B and springs H and K, adapted to oscillate such plate in different directions, the lever L, adapted to relieve the pressure of the spring K, and means for oscillating such lever, substantially as shown, and for the purpose described.

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

CASPER KISTLER.

Witnesses:
WALTER N. HASKELL,
JOHN G. MANAHAN.