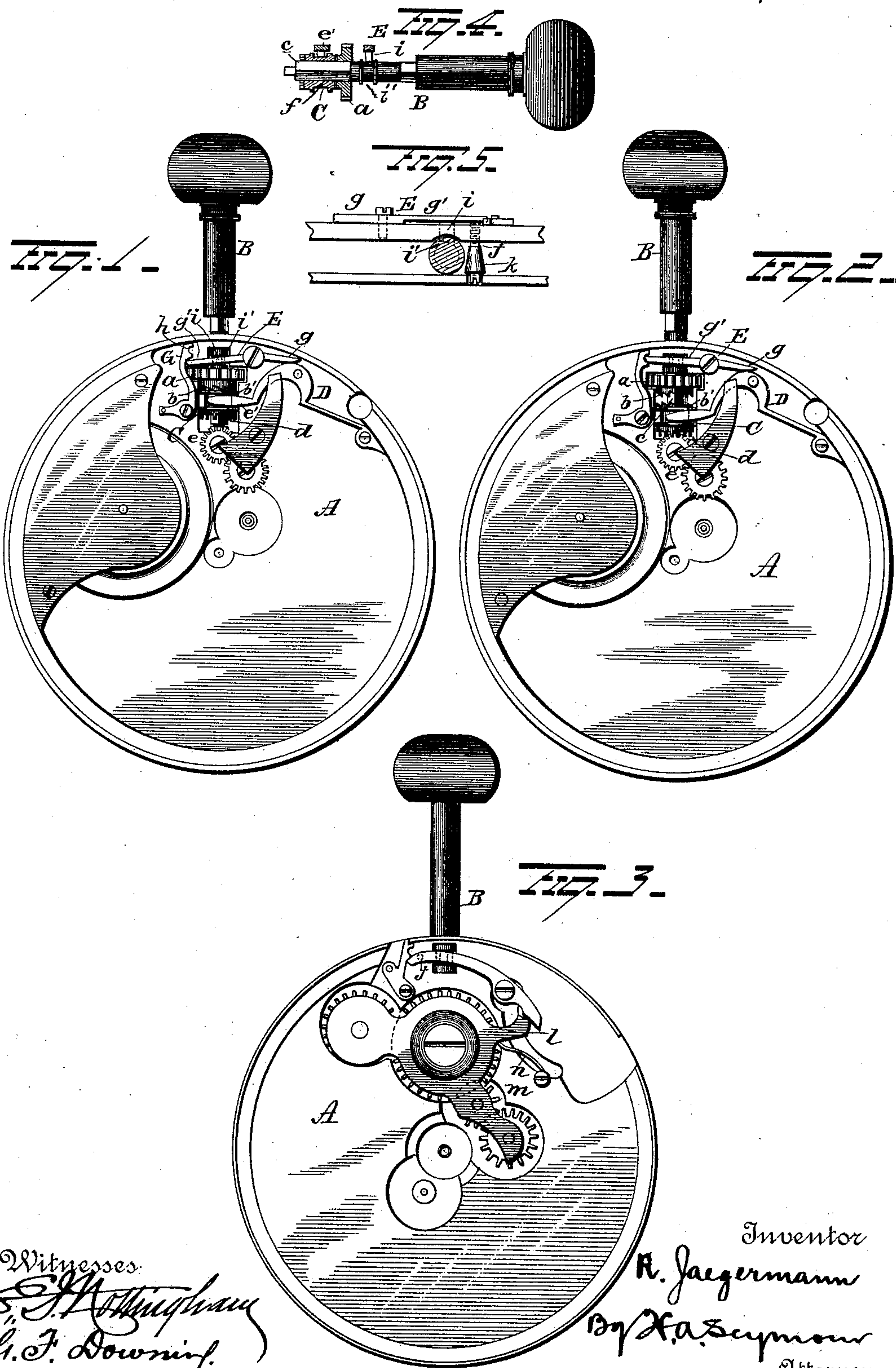


(No Model.)

R. JAEGERMANN.
STEM WINDING WATCH.

No. 466,935.

Patented Jan. 12, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

RUDOLPH JAEGERMANN, OF ST. LOUIS, MISSOURI.

STEM-WINDING WATCH.

SPECIFICATION forming part of Letters Patent No. 466,935, dated January 12, 1892.

Application filed May 7, 1891. Serial No. 391,932. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH JAEGERMANN, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Stem-Winding 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.

My invention relates to an improvement in watches, and more particularly to means for winding and setting the same by means of the stem or pendant, the object of the invention being to provide simple and efficient means whereby the watch-spring may be wound and the hands set solely by the manipulation of the stem or pendant.

A further object is to construct the devices in such manner that the stem or pendant may be readily inserted or removed without the necessity of removing the dial.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of one form of watch-movement having my improvements applied thereto, showing the devices in position for winding. Fig. 2 is a similar view with the devices in position for setting the hands. Fig. 3 is a view showing my invention as applied to another form of watch-movement. Figs. 4 and 5 are views of certain details.

A represents the plate, which carries the works of the watch, and B the stem or pendant. Loosely mounted on the stem or pendant B is a pinion *a*, adapted to mesh with the winding mechanism. One face of the pinion *a* is provided with click-teeth *b*, adapted to mesh with similar teeth *b'*, made on one end of a sleeve C, mounted to slide on the square portion *c* of the stem or pendant B. The other end of the sleeve C is provided with gear-teeth *d*, adapted to mesh (when desired to set the hands) with a pinion *e*, through the medium of which motion may be imparted to the hands to set them. A spring D is attached to the plate A and is made with an arm *e'*, adapted to enter a groove *f* in the sleeve C and cause the click-teeth *b'* to mesh

with the click-teeth *b*, and thus when the pendant is rotated positively the gear or pinion will be rotated and, meshing with the winding mechanism, cause the spring to be wound. Pivotaly connected to the plate A at a point in proximity to the pendant B is a lever E, the shorter arm *g* of which is adapted to engage the spring *e* and the free end of the longer arm *g'*, adapted to engage a spring catch or lock G at the other side of the pendant. The spring catch or lock is secured to the plate A and is provided at its upper end with a notch *h*, adapted to receive the free end of the longer arm *g'* of the lever E and hold it in one position, said lever being held in the other position by engagement with the spring-lock under the notched portion. At a point between its ends the longer arm *g'* of the lever E is provided with a pin or projection *i*, adapted to enter a groove *i'* in the pendant. From this construction it will be seen that when the pendant is pulled outwardly the lever E will be turned on its fulcrum and the shorter arm *g* thereof made to force the spring D down, said spring D in turn forcing down the sleeve C until the gear-teeth thereof are in mesh with the gear or pinion which meshes with the pinions connected with the hands. The parts will be maintained in these positions by the engagement of the lever E with the notch of the catch G. With the parts in these positions a rotation of the pendant will set the hands. When the setting of the hands shall have been accomplished, the pendant will be again pushed in, the longer arm or the lever E being thereby lowered, the shorter arm raised to release the spring D, and the click-teeth of the sleeve C permitted to mesh with the click-teeth of the pinion *a*, whereby the winding mechanism will be again thrown in mesh with the pendant.

In order to provide means whereby the pendant may be readily removed or inserted in place without the necessity of removing the dial of the watch, a screw *j* is passed through the plate or plates which carry the works, said screw being adapted to engage the long arm of the lever E and force the pin or projection out of the groove of the pendant. This screw will be enlarged, as at *k*, between the plates which carry the works, so that when said screw is screwed in one direction as far

as possible the pin or projection of the lever E will be in engagement with the pendant, and when said screw is screwed as far as possible in the other direction said pin or projection will be forced out of the groove of the pendant, and thus permit said pendant to be removed.

My improvements are applicable to movements of watches of description other than that above described. For instance, they may be adapted to the form of movement shown in Fig. 3, in which case the short arm of the lever E will be made to engage the plate *l*, which carries pinions *m*, said plate being pivotally supported so that a movement of the lever E in one direction will turn said plate and cause one of the pinions carried thereby to engage the pinion of the hands. The plate *l* is, by means of a spring *n*, normally so disposed that the pinions *m* will be inactive to rotate the hand-pinion.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is--

1. In a watch-movement, the combination, with a pendant-arbor and winding and setting mechanism, of a sleeve mounted on said pendant-arbor, means for transmitting motion from said sleeve to the winding and setting mechanism, a spring engaging the sleeve and adapted to maintain it normally in gear with the winding mechanism, a lever pivoted at one side of the pendant-arbor and projecting past said pendant-arbor, a projection on said lever

to enter the pendant-arbor, the rear arm of said lever being adapted to bear on said spring, and a spring-lever located in proximity to the free end of said pivoted lever and provided with a notch to receive the forward arm of said lever and retain it in the position to which it is shifted, substantially as set forth.

2. In a winding and setting mechanism for watches, the combination, with the pendant, the winding and setting mechanism and devices for operating said mechanisms, the plates of the watch spaced apart, and a pivoted lever connecting said devices with the pendant, of a screw passing through the plates of the watch and adapted to bear against the under side of said pivoted lever, said screw having a body portion of a length somewhat less than the width of the space between the plates of the watch, and a shoulder at each end of said body portion, said shoulders being adapted to strike the plates of the watch and thus limit the movements of the screw, whereby said screw will be prevented from being passed through the plates of the watch far enough to strain the pivoted lever or from falling out when moved in the reverse direction, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

R. JAEGERMANN.

Witnesses:

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D. G. HAMMACHER.