

J. Nardin.
Stem Winder.
Nº 93,735. Patented Aug. 17, 1869.
Fig. 1.

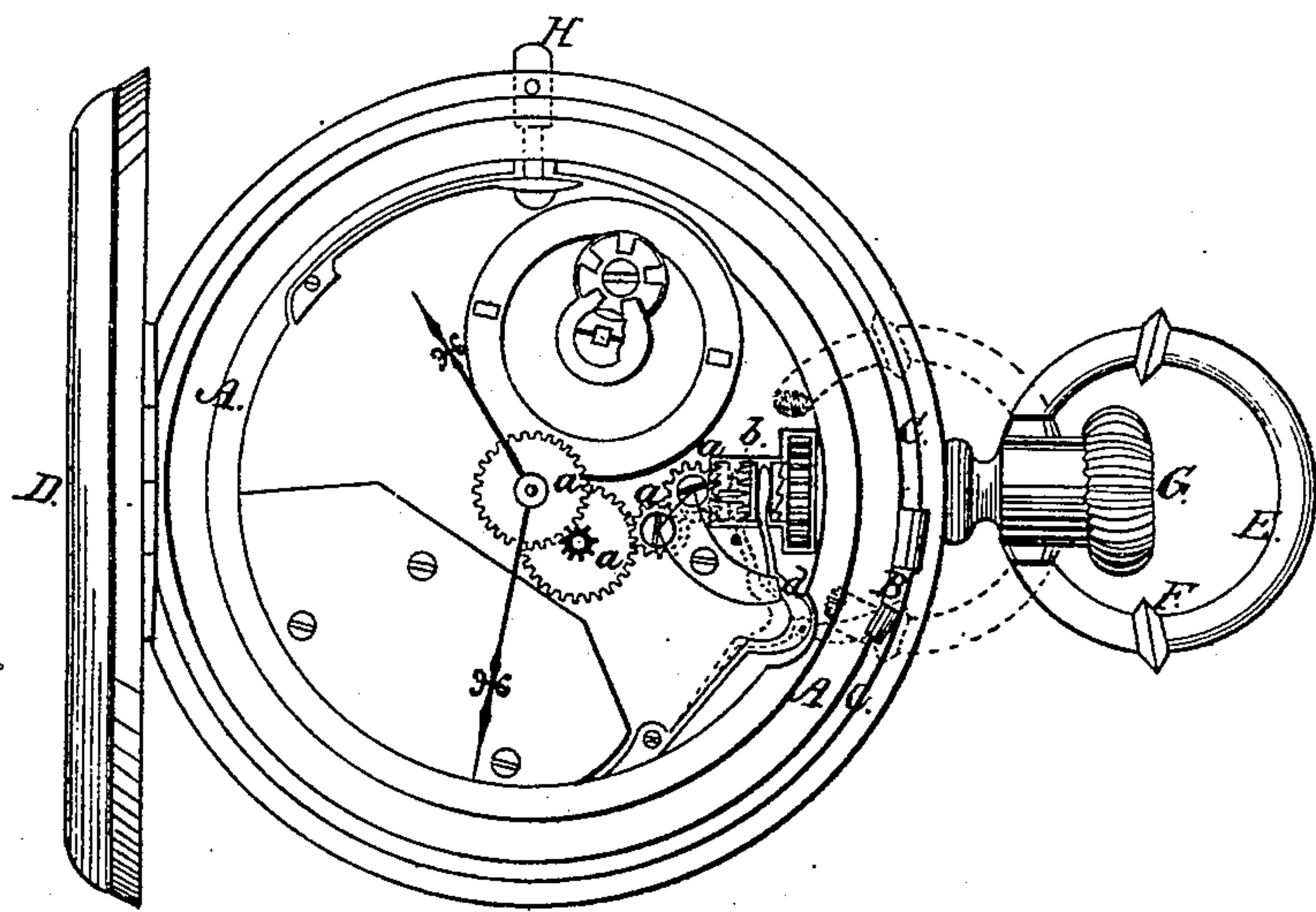
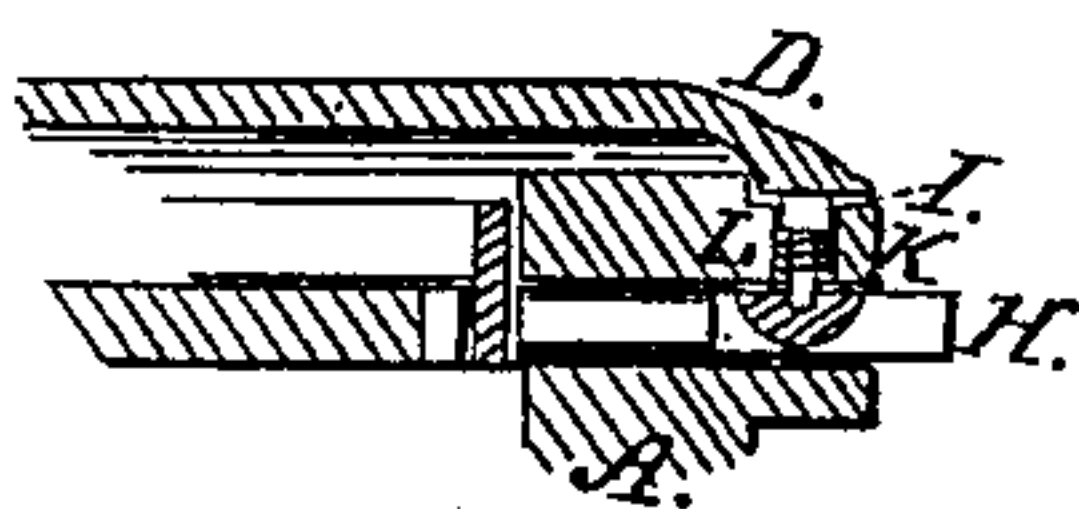


Fig. 2.



Witnesses,
Geo. W. Mabey
John Brooks

Inventor,
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per Munroe
atty.

United States Patent Office.

JAMES NARDIN, OF LOOLE, SWITZERLAND, ASSIGNOR TO V. T. MAGNIN, GUÉDIN,
AND COMPANY, OF NEW YORK.

Letters Patent No. 93,735. dated August 17, 1869.

IMPROVEMENT IN STEM-WINDING WATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES NARDIN, of Locle, in Switzerland, have invented a new and useful Improvement in Stem-Winding Watches; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in stem-winding watches, and watches having stopping-devices for the second-hands, having for its object to arrange the slides by which the winding-devices are changed to gear with the hands, and the stopping is effected, for better protection against being moved by the accidental contact of the said slides against anything, when the watch is in the pocket or otherwise.

The invention also comprises an improved mode of operating the slide of the winding-apparatus, to gear the winding-stem with the hands, for turning them.

Figure 1 represents a face view, with the dial removed, of a stem-winding and stop watch, with the gear applied to the hands for turning them, for setting by the stem, some parts being shown in red.

Figure 2 represents a sectional detail.

Similar letters of reference indicate corresponding parts.

Stem-winding watches are now commonly arranged for adjusting the hands by the winding-stem, the toothed wheel thereon being arranged to slide out of gear with the winding-gears, and into gear with wheels gearing with the hands, a spring, moved by a slide, projecting through the case, to be pressed by the thumb to effect the said change, the spring restoring the connection with the winding-gear when the thumb is removed.

This thumb-piece, projecting outside of the case, is liable to be inadvertently moved, and to catch in the clothing, &c. Pins, projecting from the cover, have been used to take into holes in these sides, to lock them, but this arrangement is objectionable.

I propose, instead of having this slide B project through the case, to arrange it so as to project only through the bezel A, which holds the glass, and above or into the wall C of the case, where it is equally or nearly as accessible for pressing into gear with the hands as when projecting outside, and where it is protected from accidental contact with anything to move it, by the cover D, when closed.

I have also so arranged this slide or thumb-piece, relatively to the bow E and one of the collars F, thereon, commonly used to prevent the entanglement of the vest-chain with the milled head G of the winding-stem, that when the bow is turned over, in the position shown in red, the collar F will press upon the

slide B, and force it inward, to effect the gearing with the hand-turning wheels.

a a a represent these wheels, and

b represents the sliding wheel, on the shaft of the winding-stem, which is moved into the position shown in red, to gear with the hand-turning wheels *a*.

d represents a spring-arm, to which the slide B is connected, and by which the wheel *d* is moved back and forth.

This arrangement of spring-arm *d* and gear-wheels is such as commonly used, and I do not claim it.

H represents the slide for moving the stop-devices for the seconds. The present mode of preventing this from being moved is also by the use of a pin, permanently connected to and projecting from the cover D, and taking into a hole in the case, and engaging the said slide H when the cover D is closed.

This arrangement is objectionable, as the pin is liable to be bent when the cover is opened; and a greater objection is, that when the hinge of the cover wears loose, the pin is liable to strike on the face of the part *k* of the case, at the side of the hole, in shutting the cover.

I have, therefore, arranged the pin I permanently in the part *k* of the case, through which the slide H works, and have provided it with a spring, L, which may be coiled, or of other shape, to throw it up out of the hole in the slide when the cover D opens. The closing of the cover presses the pin down again, and locks the slide.

I am aware that watches are in use, provided with bows, on one end of which is formed an eccentric projection, for operating a sliding pin for compressing a spring-clutch lever, which bears a crown-wheel or pinion, into contact with the train of wheels for setting the hands, but such do not pertain to my invention.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of the slide B relatively to the bezel A, cover D, and the part K of the case, substantially as specified.

2. The arrangement of the slide B with the case and the bow E, having the collar F, substantially as specified.

3. The arrangement, with the part K of the case, the slide H, and the cover D, of the spring-pin I, substantially as specified.

The above specification of my invention signed by me, this 5th day of May, 1869.

JAMES NARDIN.

Witnesses:

CHAS. H. UPTON,
AMI MAGNIN.