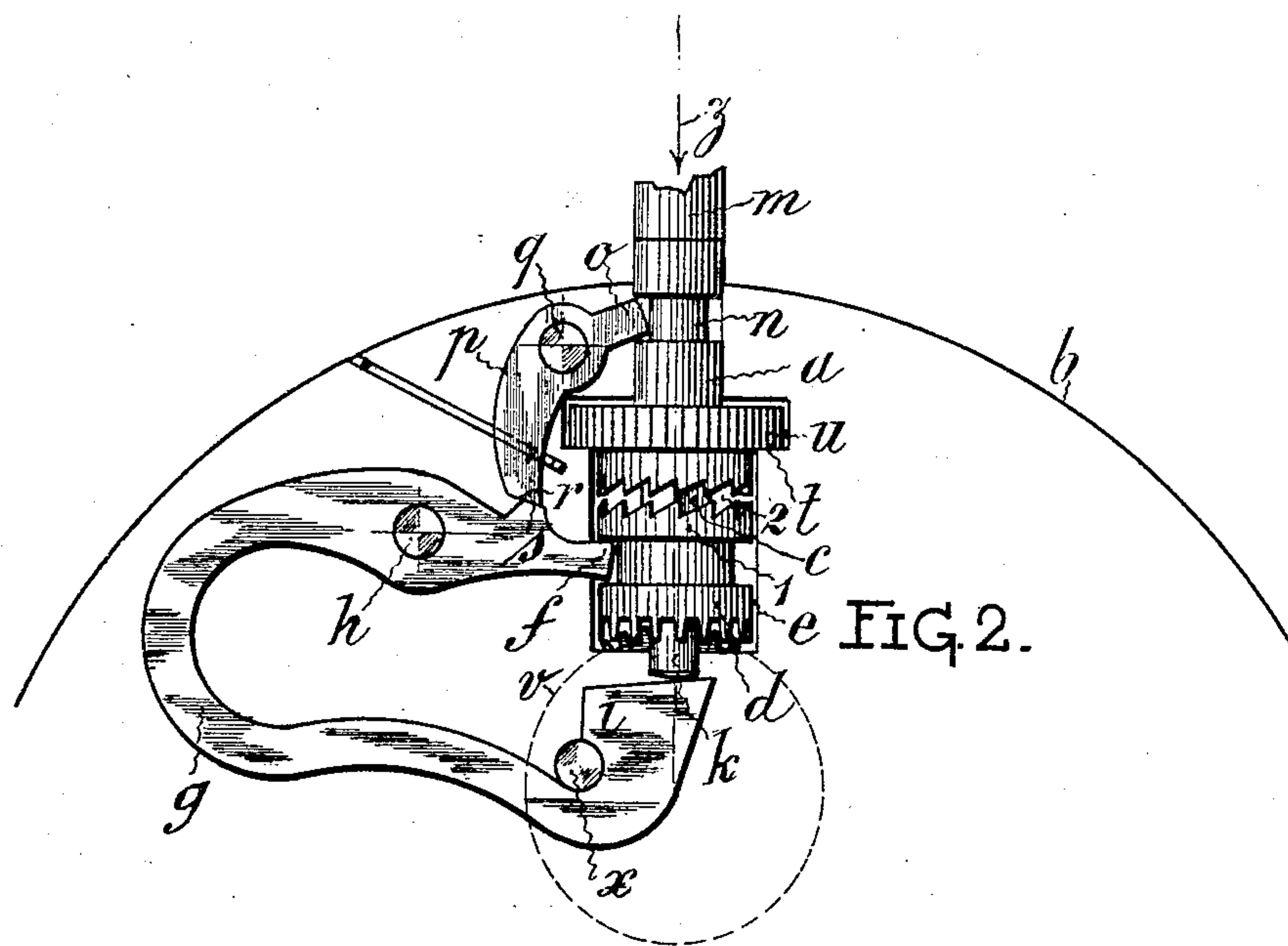
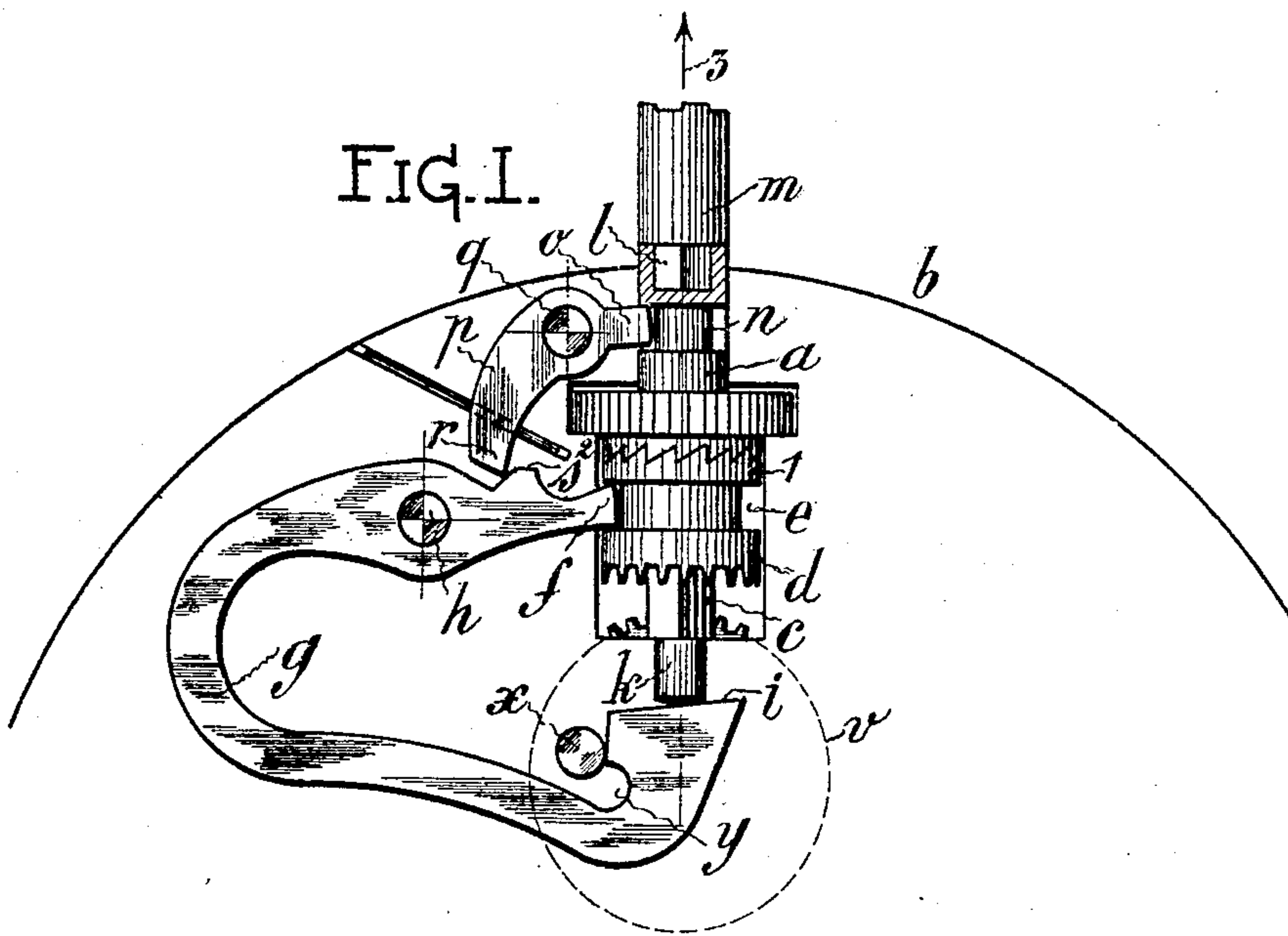


E. WOLF.
MECHANISM FOR WINDING AND SETTING WATCHES.
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966,149.

Patented Aug. 2, 1910.



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UNITED STATES PATENT OFFICE.

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MECHANISM FOR WINDING AND SETTING WATCHES.

966,149.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EMILE WOLF, watch manufacturer, citizen of Switzerland, residing at La Chaux-de-Fonds, Canton of Neuchâtel, Switzerland, have invented a new and useful Mechanism for Winding and Setting Watches; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to winding and setting mechanism for watches and the like.

In the accompanying drawing which illustrates the invention, Figure 1 is a plan partly in section showing the members of the mechanism in winding position. Fig. 2 is a plan showing the members of the mechanism in setting position.

The mechanism shown comprises a winding stem *a* adapted to be displaced longitudinally in a plate *b*, and on the square part *c* of which is adapted to slide the sliding pinion *d* in the groove *e*, of which is adapted to engage the end *f* of a detent spring *g* pivoted at *h* and terminating at its other end opposite to *f* in a heel *i* adapted to bear continuously on the lower end *k* of the stem *a*; the latter at its upper extremity has a square opening in which is entered the square end *l* of the stem *m* arranged in the pendant. Beneath its square opening the stem *a* is provided with a groove *n* in which engages the finger *o* of a pawl *p* pivoted at *q* and terminating at the other end in a beak *r*, against which may abut the projection *s* on the detent spring near the end *f* of the latter. The winding pinion *t* runs idly on a shoulder *u* on the stem *a* as usual in mechanisms of this nature.

The detent spring is formed in such manner that its two ends tend continuously to approach one another and thus occupy the position shown in Fig. 2, the end *f* holding the sliding pinion *d* out of contact with the winding pinion *t* but causing this sliding pinion to engage with the intermediate wheel *v* of the motion work for setting. The mechanism is blocked in this position, thanks to the nose which is engaged by the projection *s*.

For the purpose of winding, it is sufficient to exert upon the stem *m* a pressure in the direction of the arrow *z* (Fig. 2). The end *k* of the stem *a* acting on the heel *i* of

the detent spring separates the two extremities of the latter, at the same time that the pawl *p* disengages the projection *s* of this detent-spring, and this puts the sliding pinion *d* out of engagement with the idler *v*, and into contact, by the ratchet teeth 1 of this pinion, with the ratchet teeth 2 of the winding pinion *t*. In fact, when the heel *i* is forced downward by the end *k* of the stem *a*, the foot *x* compels the said heel to separate from the extremity of the detent spring (Fig. 1), so that there is produced a couple, which, as soon as the nose *r* leaves the projection *s*, brings the sliding-pinion into the winding position (Fig. 1).

For the purpose of setting, one will exert upon the stem *m* a pull in the direction of the arrow 3 (Fig. 1), whence it follows that the winding stem *a*, having become free, is pressed from below upward under the action of the heel *i*, which, in virtue of its previous separation, retakes its initial position (Fig. 2). The upward movement of the stem *a* forces the pawl *p* to turn on its fulcrum *q*, so that the nose *r*, acting against the projection *s*, causes the detent-spring to turn on its fulcrum *h* and this by its end *f* brings the sliding pinion *d* into the setting position.

Having thus fully described and illustrated my invention, what I claim, is:

In a watch winding and setting mechanism, a pendant, a winding stem movable longitudinally thereon, a pinion sliding on the winding stem, a winding pinion running idly on the winding stem, grooves in the winding stem and sliding pinion, a pivoted detent-spring abutting with its one arm against the end of the winding stem and engaging with its other arm the groove of the sliding pinion, a projection on the shorter arm of the detent spring, in combination with a pivoted pawl engaging at one end the groove in the winding stem and contacting with its other end the projection on the spring.

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

EMILE WOLF.

Witnesses:

ARNOLD ESCOFFEY,
JEAN SCHEIBENSTOCK.