(No Model.)

H. VENT.

STEM WINDING DEVICE FOR WATCHES.

No. 318,329. Patented May 19, 1885.

Fig. 1.

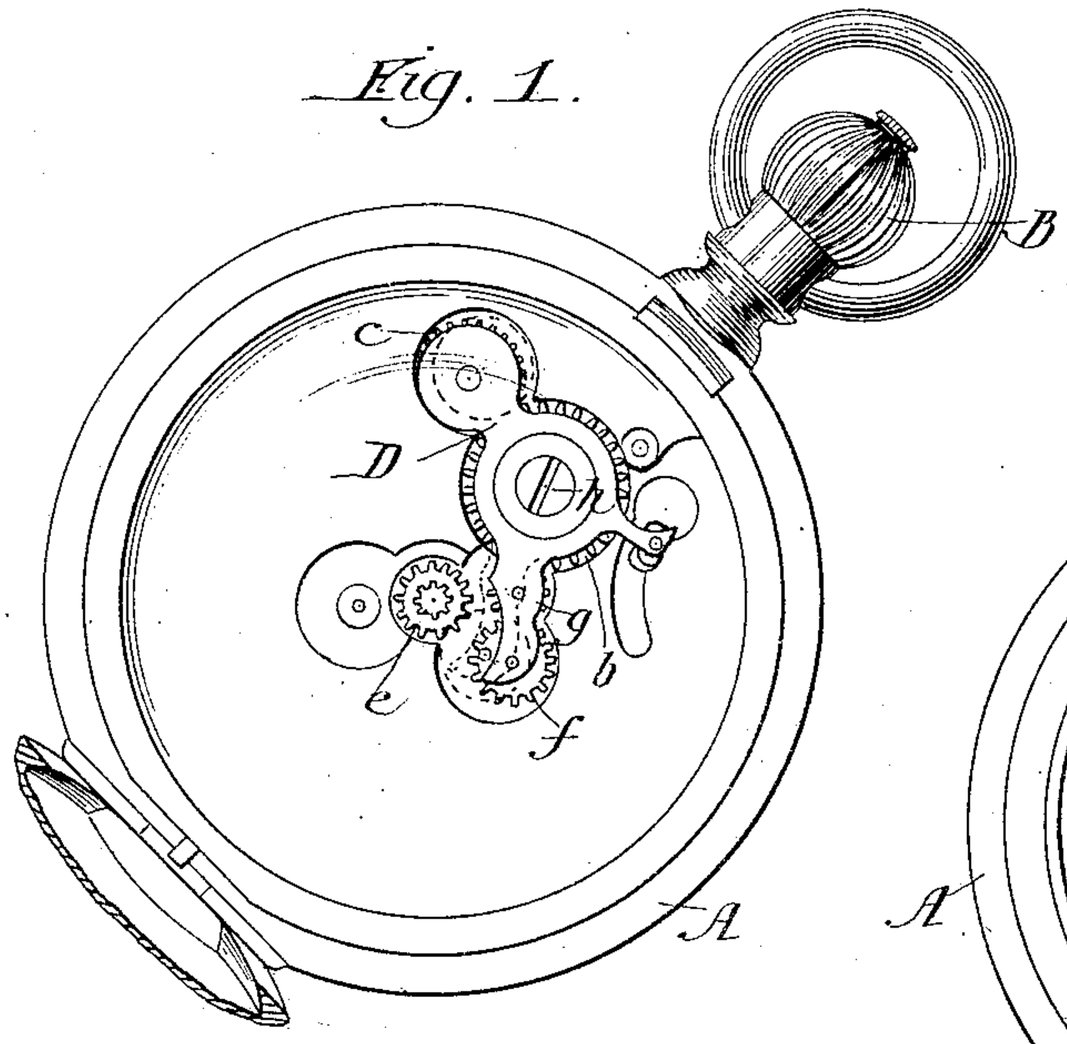


Fig. 2.

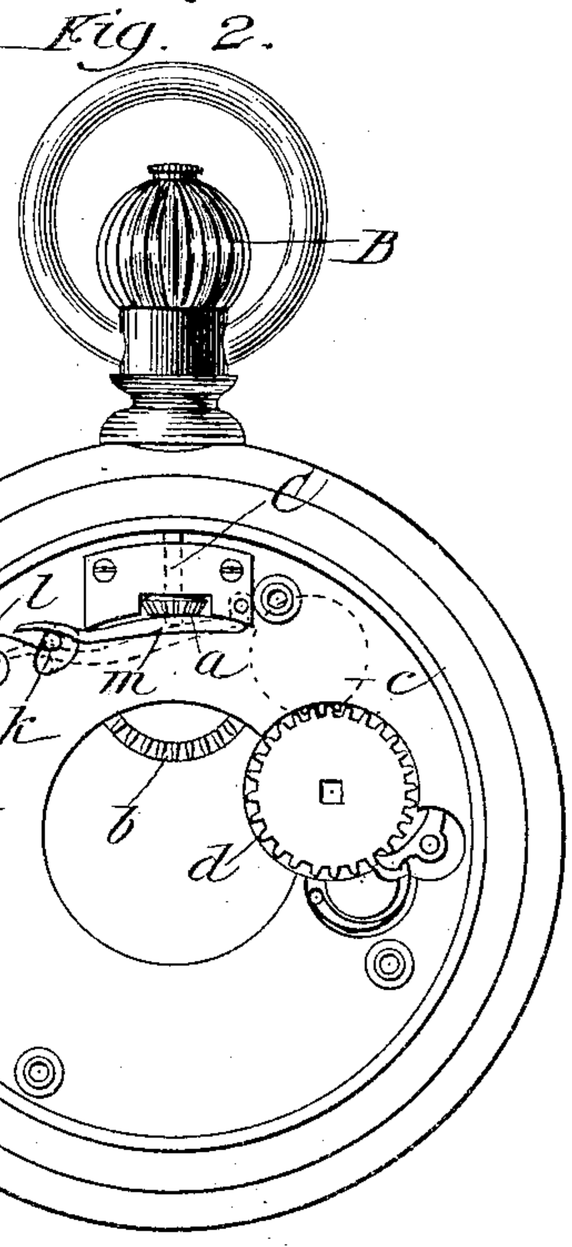


Fig. 3.

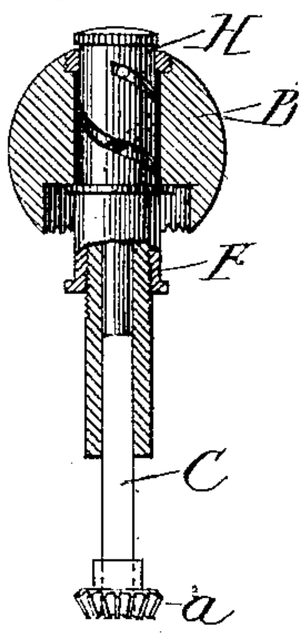


Fig. 4.

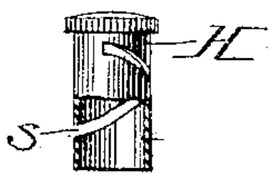


Fig. 5.

Fig. 6.

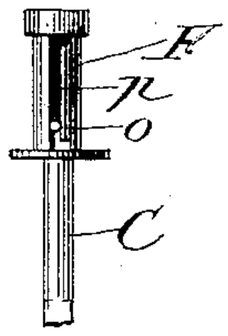


Fig. 7.

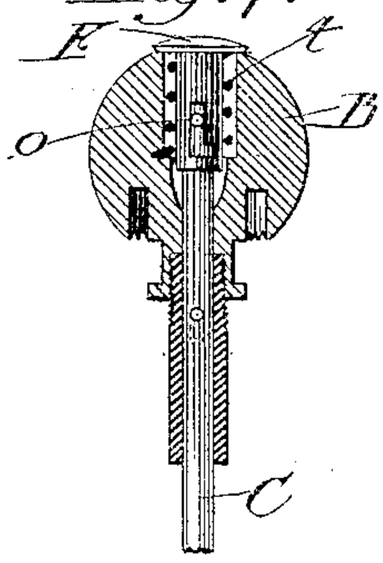
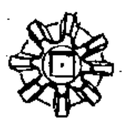


Fig. 8.



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UNITED STATES PATENT OFFICE.

HENRY VENT, OF CHICAGO, ILLINOIS.

STEM-WINDING DEVICE FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 318,329, dated May 19, 1885.

Application filed June 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY VENT, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stem-Setting Devices for Watches, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in watches, and more particularly to an improved stem-setting mechanism therefor. The object of the invention is to obtain simple, durable, and cheap means for operating the hands of a watch when desired to set the same, and by the use of which the necessity of opening the case of the watch for that purpose is avoided. To the accomplishment of the above the invention consists of the novel devices and combination of devices, as will be described and claimed.

Reference will be made to the accompanying drawings, in which Figure 1 is a front view of a watch; Fig. 2, a rear view of the same with the works removed; Fig. 3, a section on an enlarged scale through the stem; Figs. 4, 5, and 6, views in detail of parts used in connection with the stem for operating the hands; Fig. 7, a section through the stem showing a modified arrangement, and Fig. 8 a front view of the gear shown in Fig. 3.

Like letters refer to like parts in each view.

In the drawings, A represents the case, which is of any suitable form and construction.

The winding mechanism is substantially the same as now in common use, consisting of fluted knob B, pendant C, gear *a*, mounted on the inner end of said pendant, gear *b*, arranged to mesh therewith and also with gear *c*, mounted upon one arm of the three-arm lever D, and the spring winding-gear *d*, all as shown in Figs. 1 and 2. Upon the hand-arbor the gear *e* is mounted, said gear being driven from gears *f g*, mounted upon a second arm of lever D, as shown, and the two latter being driven from the gear *b*, before referred to. Lever D has its pivot at *h*, and the mechanism for shifting it to disengage the winding-gear and to throw the setting-gear into train is as follows: Upon the third arm of this lever is formed a pin, *k*, which passes through an opening formed in the plate E, Fig. 2, and with the outer end of which a spring, *l*, engages to keep the lever D in its normal position, whereby the winding-gear is in train. A lever, *m*, is suitably mounted in line with pendant C and with its free end in position to operate the pin *k* when said lever is moved.

By this arrangement of parts it will be seen if pendant C is pushed inwardly it will contact with lever *m*, and through the medium of pin *k* shift lever D, disengage the winding-gearing, and throw the stem-setting gearing into train, when by turning the fluted knob B the hands can be operated.

The gear *a* referred to is provided with a collar, *n*, Fig. 3, which fits over pendant C, and while holding said gear in position allows of the pendant being forced inwardly. The pendant being squared on the end and fitting into a square opening in the gear always insures its revolution.

To effect the forcing in of pendant the following mechanism is employed: Upon the upper end of the pendant there is provided a pin, *o*, which is inserted into an L-shaped slot, *p*, of a collar, F, which is fitted over the upper end of the pendant. Pin *o* protrudes out sufficiently to enter a spiral groove, *q*, of a collar, G, adapted to fit over collar F, above referred to. At a point near the upper end of collar G there is provided a pin, *r*, adapted to enter and move in a spiral groove, *s*, of a collar, H, which is placed around collar G, and the upper end of which protrudes a short distance above the fluted knob B. The operation of these parts arranged as described will be readily understood. By pulling upon collar H the collar G is revolved and the pendant C forced inwardly through the medium of pin *o* until said pin occupies a position in the horizontal extension of slot *p*. When this operation has been performed, the pendant will have been forced inwardly sufficiently to shift lever D and engage the hand-setting gearing, when by turning fluted knob B the setting can be accomplished. By pushing upon collar H the parts are carried to their normal position again.

In Fig. 7 I have shown a modified arrangement of parts for operating pendant C. In this

case collars G H are dispensed with and the collar F carried up above the knob B. By pulling on this collar until pin *o* is on a line with the horizontal branch of slot *p*, then turning the collar until the pin enters said branch, and then pushing upon the collar the same result is accomplished.

If desired, a spring, *t*, may be placed around collar F to facilitate its being carried back to its normal position. It will be apparent that this result of pushing the pendant inwardly could be accomplished in many ways other than those described—such as providing a screw-threaded collar and pendant—all without departing from the invention, and therefore I do not wish to confine myself to the exact construction and arrangement shown.

What I claim is—

1. The combination, in a watch, of the following elements, viz: gearing for winding and setting, a lever for shifting the gearing, an adjustable pendant adapted to operate said lever, and a tube provided with an L-shaped slot, as and for the purpose set forth.

2. The combination, in a watch, of the following elements, viz: gearing for winding and setting, a lever for shifting the gearing, an adjustable pendant adapted to operate said lever, a tube provided with an L-shaped slot, and suitable collars provided with spiral grooves for forcing said tube into contact with the lever, as and for the purpose set forth.

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

HENRY VENT.

Witnesses:
M. J. CLAGETT,
PAUL ARNOLD.