

(No Model.)

G. H. REMINGTON.
KEY FOR STEM WINDING WATCHES.

No. 434,050.

Patented Aug. 12, 1890.

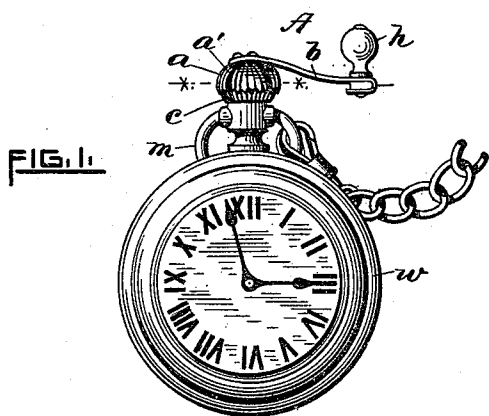
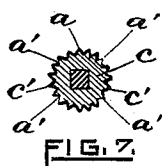
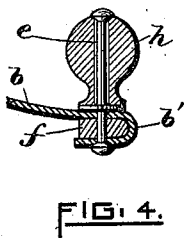
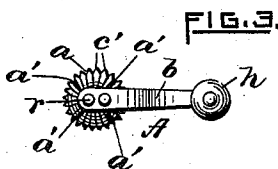
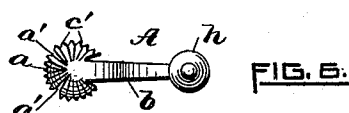
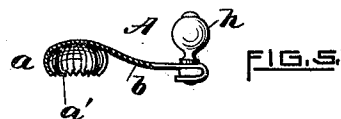
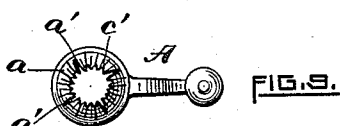


FIG. 8.

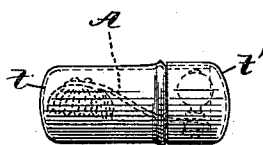


FIG. 10.

WITNESSES.

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KEY FOR STEM-WINDING WATCHES.

SPECIFICATION forming part of Letters Patent No. 434,050, dated August 12, 1890.

Application filed October 23, 1888. Serial No. 288,924. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. REMINGTON, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Watch Keys or Winders; 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 of reference marked thereon, which form a part of this specification.

My invention relates to watches of the keyless or stem-winding type; and it consists, essentially, of a head or holder portion arranged to receive and engage the crown of the watch and a handle secured to said holder.

Usually heretofore watches of the class referred to have been unprovided with auxiliary means for quickly winding them, such omission being more especially apparent when the mainspring is of extreme length and arranged within the watch contiguous to the rim, as in the well-known "Waterbury" and other watches of analogous construction. The greatest objection to watches of this kind is, I believe, due mainly to the fact that so much time is consumed in winding them, the result being that an unwarranted prejudice exists regarding their general usefulness and accuracy.

The object of my present invention is to provide means for facilitating the winding of watches of the class just referred to. To that end I employ a key or winder adapted to engage the corrugations of the watch "crown," the winder having a handle portion connected therewith.

By means of my invention a watch can be quickly and easily wound by first turning the watch-bow to one side, then applying the winder to the crown and turning the winder in a continuous direction until the winding is effected. The winder is then detached, its proportion being such that it may be conveniently carried in the pocket without inconvenience, all as will be more fully hereinafter set forth and claimed.

In the accompanying sheet of drawings,

Figure 1 represents a perspective view of the winder as applied to a watch as in use. Fig. 2 is a side view. Fig. 3 is a plan view. Fig. 4 is a partial longitudinal sectional view taken through the center of the handle portion. Fig. 5 is a side view of the winder having a slightly modified form. Fig. 6 is a plan view. Fig. 7 is a horizontal sectional view taken through the crown and winder on line *xx* of Fig. 1. Fig. 8 is a side view, in partial section, of the winder as formed from a blank. Fig. 9 is a plan view, and Fig. 10 is a perspective view, of a metallic tubular case adapted to retain the winder.

Again referring to the drawings, A designates my invention or winder as a whole, constructed, arranged, and adapted to frictionally engage the corrugations of a watch-crown *c* of a keyless or stem-winding watch *w*. (See Fig. 1.)

a indicates the head portion of the winder, the same being made, preferably, of thin sheet spring metal, as steel, brass, German silver, &c. The head *a* is cup-shaped, and has a series of ridges or corrugations *c'* formed in its surface adapted to engage the corrugations of the watch-crown. In some of the figures it will be observed that the surface of the main portion of the head is divided into sections by radiating cuts or slits *a'*. By reason of this arrangement the head is more readily sprung over the crown.

b designates an arm or handle portion of proper length secured to the head *a* by rivets *r* or other suitable means. In Figs. 5, 6, 8, and 9, however, the handle is indicated as being integral with the head, the whole being formed from a metallic blank. The free end of the arm *b* is provided with a handle *h*, thereby forming a crank-arm. The handle portion *h* may be loosely mounted on a stud *e*, rigidly secured to the outer end of the arm, the latter being extended and bent backwardly, as at *b'*, and provided with an interposed piece *f'*, through which the shouldered stud is passed and riveted, as clearly shown in Fig. 4.

As hereinbefore stated, the winder above described is more especially adapted to be used with watches having extremely long mainsprings, some one hundred and fifty revolutions of the crown *c* being required to com-

plete the winding. It will be remembered that in watches of this class the crown can be revolved only in one direction. Therefore a person winding the watch in the usual manner imparts an intermittent rotary movement to the crown from the fact that the fingers are released from the crown at the end of each half-turn. By the use of my invention the complete winding may be accomplished in one-third to one-half the time formerly consumed in the operation.

The following is a description of the manner of applying and operating the watch-winder: The watch *w* with the bow *m* swung downwardly is first held in the hand, as usual, thereby leaving the crown free. The head *a* of the winder is next sprung down over the crown and into engagement with the corrugations, as shown in Fig. 1. The handle *h* is then seized between the thumb and forefinger of the other hand and revolved as rapidly as desirable in the direction for winding. Now when the resistance of the watch-spring exceeds the tension of the slotted head *a*, (at about the instant of complete winding,) the latter will automatically open or yield sufficiently to disengage itself from the ribs of the crown, thereby at the same time preventing the watch from being overwound. The winder may now be removed and placed within the case *t* and the cover *t'* replaced, as in Fig. 10, and the whole be conveniently carried in a pocket of the vest.

It is obvious that the form and arrange-

ment of the parts constituting my watch-winder may be modified without departing from the spirit of the invention. If desired, the slits *a'* may be dispensed with, although I prefer to have the head *a* somewhat yielding, in order to insure a better frictional contact with the crown.

I claim as my invention—

1. As a new article of manufacture, the winder hereinbefore described for keyless watches, consisting of a corrugated head portion arranged to engage a watch-crown, and a crank-shaped handle portion attached to said head portion.

2. The winder, substantially as hereinbefore described, having a corrugated head portion arranged to be sprung over and engage the corrugations of a watch-crown, and a crank-shaped handle attached to said head.

3. The winder hereinbefore described, having a corrugated head portion provided with an arm extending therefrom, and a handle *h*, mounted to turn freely on a pin secured to the free end of said arm.

4. The hereinbefore-described watch-winder, having the head portion formed of spring metal and having said head provided with a series of slits or cuts, for the purpose specified.

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

GEO. H. REMINGTON.

Witnesses:

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HERBERT F. TOURTELLOT.