

G. P. REED & H. B. DAY.

Combined Watch-Key and Screw-Driver.

No. 138,528.

Patented May 6, 1873.

Fig. 1.

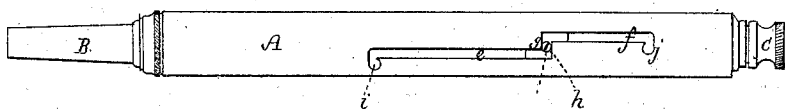


Fig. 2.



Fig. 3.

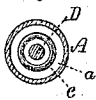


Fig. 4.



Witnesses.
H. Saunders
H. C. Boardman.

G. P. Reed & H. B. Day
Attys.

UNITED STATES PATENT OFFICE.

GEORGE P. REED AND HENRY B. DAY, OF MALDEN, MASSACHUSETTS.

IMPROVEMENT IN COMBINED WATCH-KEYS AND SCREW-DRIVERS.

Specification forming part of Letters Patent No. **135,528**, dated May 6, 1873; application filed November 16, 1872.

To all whom it may concern:

Be it known that we, GEORGE P. REED and HENRY B. DAY, both of Malden, in the county of Middlesex and State of Massachusetts, have invented a new and useful Instrument for Watch Winding and Regulating Purposes, of which the following is a specification:

The drawing accompanying this specification represents, in Figure 1, a plan, in Fig. 2, a longitudinal section, and in Fig. 3, a transverse section, of our invention; Fig. 4 being a view of the sliding combined screw-driver and tooth-pick as detached from the tubular case or holder.

In this drawing, A represents a tubular holder or case, one end of which terminates in a watch-key, B, the opposite end being filled by a tubular cap-plate, C, both the bore of the key and of the cap-plate being continuations of the bore of the tube or case A, but of much smaller diameter. Within the bore or chamber *a* of the case A we dispose a rod or plunger, D, one end of which terminates in a screw-driver, E, and the other in a tooth-pick or some other useful implement or object, F, the center or intervening portion *b* of the plunger being sufficiently enlarged to about fill the bore of the case A, the said screw-driver passing into the bore of the key and the pick into that of the cap C. We employ in connection with the plunger D, and surrounding it, two coiled or other suitable springs, one, viz., *c*, being placed between the collar *b* and the bottom of the chamber *a*, and the other, *d*, between the said collar and the cap C, the distension of either spring serving to return the plunger to its normal position entirely within the case should it be protruded therefrom, and the spring contracted in one or the other direction. When it is desired to use the screw-driver E or pick F it is necessary to provide some means of holding it in place as it protrudes through the case in one or the other direction. To effect this object we create in the tube or case A two longitudinal slots, *e f*, which meet and communicate with each other, but are slightly out of alignment in order to produce an intermediate notch or stop, *g*, which determines the normal position

of the plunger D, owing to the use of a screw or stud, *h*, which extends through the slot, and is screwed into the collar *b*, as shown in Figs. 1 and 2 of the drawing. The outer end of each slot terminates in a shallow notch, *i* or *j*, into which the screw *h* enters when the plunger is pushed to its furthest extent in one or the other direction, thus holding the plunger securely in such position against the stress of the spring *c* or *d*, according to whether the screw-driver or the pick is advanced beyond the end of the case A in readiness for use.

Pushing the plunger D in one direction, and advancing the end of the screw-driver or pick beyond the end of the case, presents such screw-driver or pick in the proper position for use; and if the screw be entered within the adjacent notch *i* or *j*, as the case may be, the instrument will be held in such position. Upon removing the screw from the notch the spring instantly returns the plunger to its normal position.

The herein-described implement, though it may be useful for various purposes, is intended especially for use in watches carrying a "micrometer," so-called, or a device for adjusting the regulators of watches for which Letters Patent of United States, numbered 61,867, were issued to one of us, viz., REED, on the 5th day of February, 1867. In this instance the movements of the regulator are controlled by a screw having a slotted head, by which to turn it; and as the purpose of this invention is to enable any person to readily adjust their own watch, and as it is very inconvenient to carry about an implement by which to turn such screw, we have devised the herein-described instrument, which is designed to accompany watches carrying the said micrometer, in order that the screw-driver, being inseparable from the watch-key, may always be at hand when wanted.

Owing to the arrangement of the plunger D within the case A we are enabled to combine with the screw-driver some other instrument, which we do by adding a tooth-pick or some other object of use.

In lieu of the two slots *e* and *f* one straight slot may be employed, as the springs *c* and *d*

will maintain the plunger or rod D in its proper position midway, or thereabout, between the two ends of the case A.

Claim.

A combined watch-key, screw-driver, and tooth-pick, formed by the combination of the case A, key B, plunger D carrying at one end the screw-driver and at the other end the tooth-

pick, and springs *c* and *d*, the plunger carrying a stud, *h*, arranged to move in slots in the case A, and the whole being constructed and arranged for operation as set forth.

GEO. P. REED.
HENRY B. DAY.

Witnesses:

FRED. CURTIS,
W. E. BOARDMAN.