(Model.)

G. NEWTON.

WATCH KEY.

No. 303,660. Patented Aug. 19, 1884.

Fig. 1.

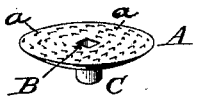


Fig. 2.

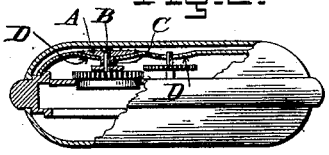
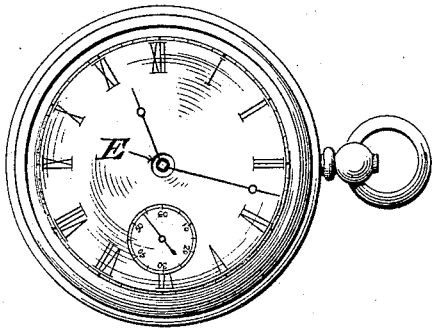


Fig. 3.



WITNESSES.

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UNITED STATES PATENT OFFICE.

GEORGE NEWTON, OF HAVANA, CUBA.

WATCH-KEY.

SPECIFICATION forming part of Letters Patent No. 303,660, dated August 19, 1884.

Application filed March 1, 1884. (Model.) Patented in Spain April 4, 1883, No. 2,822.

To all whom it may concern:

Be it known that I, GEORGE NEWTON, a citizen of the United States, residing in Havana, Cuba, have invented certain Improvements in Watch-Keys, of which the following is a specification.

My invention relates to watch-keys; and it consists in constructing the same in the form of a flat-faced disk, convex on its under face, reduced to a thin edge at its periphery, and provided with a central hole to fit the winding and the setting arbors of the watch to which it is to be applied.

The object of this invention is to produce a key which may be applied to all key-winding watches now in use and to such as are still being manufactured, and which may be left in position in the watch at all times, though capable of transfer from one arbor to the other when required.

In the accompanying drawings, Figure 1 is a perspective view of my improved key, somewhat enlarged (in the drawings as filed herewith;) Fig. 2, a sectional view of a watch-case, showing my key in position for use, the key being likewise in section; Fig. 3, a face view of the watch, showing a hole in the crystal for setting the hands—a plan adopted for such watches as set from the face.

Keys have heretofore been made in the form of a striated disk of considerable thickness at its edges, seated in a cavity having upright walls, the disk being permanently secured to the arbor of the watch; but such keys do not serve the purpose of mine, because, first, they require a special construction of the watch and its case during the process of manufacture in order to adapt it to receive the key, and because the watch cannot be subsequently adapted to receive the key except by discarding its original case and providing a new one. Other keys have been made with a hub or disk to screw upon a threaded arbor; but as arbors of watches as manufactured are never threaded, it is necessary to take the watch apart, draw the temper of the arbors, thread, and retemper them before the key can be applied, and when such change or adaptation is made the watch cannot be wound with the ordinary key, which is an important advantage of my plan.

According to my invention the key is so formed that the inner dome of any key-winding watch may be readily depressed or sunk about the winding and setting holes, to permit the disk to be seated in the depression flush with the face of said dome; and with this purpose in view, I construct the key in the form of a thin disk, A, roughened on its upper face, beveled or rounded on its under face, to reduce it to a thin edge at the periphery, and provided with a central hole, B, of any required form and size to fit the winding and setting arbors of a watch, said hole passing through the disk and through its barrel C, as shown. The disk being thus reduced at the periphery, and of but moderate thickness in the middle, requires only a very shallow seat, which is formed by so slight a depression of the inner dome, D, of the watch that the boundaries of the seat are scarcely distinguishable. This seat may therefore be made quickly and easily in the dome or inner lid of any watch, either by a few light blows with a jeweler's hammer or by a punch or die of the form required. Such a seat can easily be formed without marring or disfiguring the dome in the least, and, in fact, when made is scarcely noticeable, nothing being removed or cut away.

The disk may be roughened in any convenient manner, perforated, or made in the form of a star or other figure, to cause the thumb or finger to take a firm hold when pressed thereon and turned in the proper direction for winding. In practice, I prefer to roughen the disk by forming beards or teeth *a*, similar to those of a rasp, the beveled or inclined faces turned in the direction of winding, so that when the finger or thumb is pressed upon the disk and turned in the direction of winding the finger will take a firm hold on the disk and turn it, but that if turned backward the finger will ride over the beards or teeth, and thereby prevent the backward rotation of the disk and consequent injury of the ratchet or click.

The key being placed upon the arbor, as in Fig. 2, is ready for use, carries no dirt into the watch, because continuously retained in the watch, and is less liable to be lost than if carried loosely in the pocket.

As shown in Fig. 2, the barrel C is made short enough to prevent its resting upon the shoulder of the arbor, and hence the disk rests directly upon its seat in the dome D; hence it cannot tip or rock when turned, and consequently cannot twist or strain the arbor or wear away the angles of the squared portion.

The dome may be depressed about the setting-hole in the same manner as at the winding-hole, though as the key is returned to the winding-arbor before closing the watch-case, this is not essential.

When used with watches setting from the front the key may be applied to the arbor by passing its barrel through a central hole, E, in the crystal, as in Fig. 3.

This key is to be clearly distinguished from all others requiring special construction of the watch to permit their application, such as before mentioned.

Having thus described my invention, what I claim is—

1. The herein-described watch-key, consisting of disk A, having its under face rounded or beveled to a thin edge at the periphery, and provided with a central opening to fit upon a watch-arbor, substantially as set forth.

2. In combination with a watch having its inner dome depressed around the key-hole to form a shallow concave seat, a key consisting of a barrel perforated to fit the arbor of the watch, and a disk, convex on its under face, to fit said seat and sustain the downward pressure applied to the key when turning it by the thumb or finger.

3. The watch-key herein described and shown, consisting of disk A, of convex form on its under side, and provided with teeth or beards *a* on its upper face, and barrel C, provided with hole B, as and for the purpose set forth.

GEORGE NEWTON.

Witnesses:

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