G. HUNT.

Reversible Pinions for Watches.

No. 142,789. Patented September 16, 1873.

FIG I

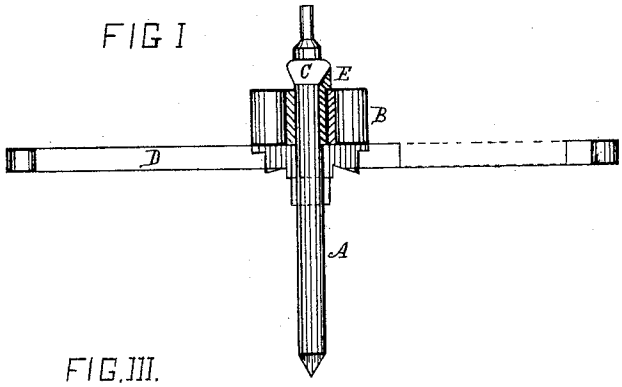


FIG. III.

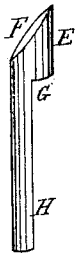


FIG. II.

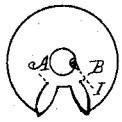
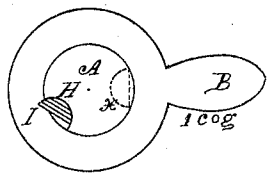


FIG. IV.



FIG. V.



Witnesses.
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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

GEORGE HUNT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN REVERSIBLE PINIONS FOR WATCHES.

Specification forming part of Letters Patent No. **142,789**, dated September 16, 1873; application filed March 21, 1873.

To all whom it may concern:

Be it known that I, GEORGE HUNT, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Reversible Center-Pinions for Watches, of which the following is a specification:

The nature of the present invention consists in the combination of the center-pinion with its staff, which are so arranged, by means of a suitably-constructed key, that the pinion will be held in a fixed position for use, but so that when a mainspring breaks or any of the winding part gives way the pinion will rotate on the staff, and prevent accident or breakage to the other parts of the watch, as the whole is hereinafter fully described and shown.

In the drawing, Figure 1 is a sectional elevation of my improvement in reversible center-pinions; Fig. 2, a broken plan view of the pinion, its staff and its pinion, with the key; Fig. 3, a perspective representation of the key detached from the other parts and drawn on an enlarged scale; Fig. 4, an inverted view of the key, also on an enlarged scale; Fig. 5, an enlarged view of Fig. 2, one cog only of the pinion being shown; but cogs are to extend round its periphery.

A represents the pinion-staff, to which the center-wheel D is attached, in the usual manner. The pinion B is fitted to the staff A, so as to rotate thereon, as hereinafter stated. A semicircular slot is cut verticallly in the periphery of the staff A, above center-wheel D, to receive the semicircular part H of a key, shown in Fig. 3. The upper end of the key is circular, and one side is cut off on a bevel, as shown at F, the notched part G bearing on the top of pinion B, as shown in Fig. 1. The bevel F is cut obliquely to the flat side of the semicircular part H, and is held in position by means of a collet, C, fastened to the top part of the staff friction-tight. The internal periphery of the pinion B is provided with a notch, I, to receive the sharp corner of the semicircular part H of the key by means of which the pinion B is rotated. This arrangement is such that when a mainspring breaks the pinion B will rotate backward on its staff, and prevent breakage or disarrangement, the oblique bevel F allowing the key to turn, as shown by dotted lines *x*, Fig. 5.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

The pinion B, combined with the staff A, having in its periphery a concave seat for a correspondingly-shaped key, H, which is partially turned out from said seat by the notch in the interior of the pinion catching its edge, and forms a stop in one direction, while said key is forced snugly back into its seat by the tendency of the pinion to revolve in the opposite direction, thus allowing relief for the works in case of breakage of mainspring, as set forth.

GEORGE HUNT.

Witnesses:

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