J. D. BREZ.

Stem-Winding Watches.

No. 165,786. Patented July 20, 1875.

Fig. 1.

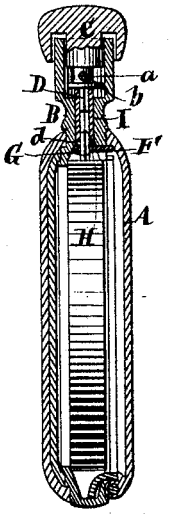


Fig. 3.

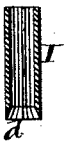
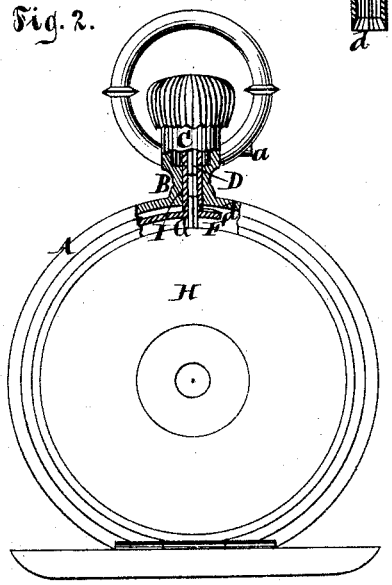


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN DANIEL BREZ, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN STEM-WINDING WATCHES.

Specification forming part of Letters Patent No. **165,786**, dated July 20, 1875; application filed June 23, 1875.

To all whom it may concern:

Be it known that I, JOHN DANIEL BREZ, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Stem-Winding Watches, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a cross-section of a watch containing my improvement. Fig. 2 is a front view thereof, partly in section. Fig. 3 is a sectional view of the coupling-piece on an enlarged scale.

Similar letters indicate corresponding parts.

My invention relates to certain improvements in stem-winding watches, and has for one of its objects to admit of removing the "movement" from the watch-case without disturbing the stem, and without separating the parts of the watch.

My invention consists in the combination of a coupling-piece with the stem, which extends from the crown-piece, and with the winding-arbor of the watch, the coupling-piece being arranged in such a manner, with respect to the winding-arbor, that the coupling-piece partakes of the movement of the crown-piece and the stem, while it imparts such movement to the winding-arbor, as hereinafter fully set forth.

In the drawing, the letter A designates a watch-case, which is provided with a pendant, B, containing the crown-piece C, from which extends the stem D. The crown-piece C is held in place by a screw, *a*, (one or more,) passing through the side of the pendant B, and catching in an annular groove, *b*, formed in the shank of the crown-piece in the usual manner, the whole being so arranged that the crown-piece is adapted to turn, in order to admit of winding up the watch, as hereinafter explained, and that the crown-piece is capable of an up-and-down movement, being made to form a pusher, and to release the spring F, that confines the front plate of the watch-case. G designates a winding-arbor, which is combined with an inner case, H, containing the works or watch-movement, the arbor G being made to project in order that it may be connected with the winding mechanism, composed of the stem D and the crown-piece. The arbor G is connected with the stem D by means of a coupling-piece, I, which is so constructed and connected to the winding-arbor G and the stem D that by turning the crown-piece C its movement is transmitted through the stem D and the coupling-piece to the winding-arbor G, and by this means the watch may be wound up. The coupling-piece I, in the present example, has the form of a barrel, which embraces loosely the stem D and the winding-arbor, but said coupling-piece may be made in any other form or shape. The lower end of the coupling-piece I rests on the case-spring F, which is provided with a suitable aperture for the passage of the arbor G, while the lower terminus of the crown-piece C abuts against the upper end of the coupling-piece, so that when the crown-piece is depressed the spring partakes of its depression through the coupling-piece I, and thus the spring is released.

When it is desired to remove the case H containing the movement from the watch-case A it is only necessary to free it from the rim of the watch-case, when the winding-arbor G may be readily disengaged from the coupling-piece, and it follows that the watch-movement may be taken out.

The coupling-piece I is held in place when the watch-movement is removed by the case-spring F, when a case-spring is used, as in hunting-watches. In watches having an open face, and in which a case-spring is not commonly used, the coupling-piece I may be held in place by other means—as, for instance, the rim of the watch-case A may form an abutment for the coupling-piece, in which case the rim is provided with an aperture of sufficient diameter to admit the stem D, but at the same time to prevent dropping out of the coupling-piece.

To replace the watch-movement in the case A, the winding-arbor G is inserted in the coupling-piece I, whereupon the watch-movement may be placed in the proper position without disturbing the crown-piece, the stem, or the pendant B.

By arranging the coupling-piece loosely with relation to the stem D it has a slight play in a lateral direction, and thus no difficulty is encountered in connecting the arbor G with it.

To further facilitate the introduction of the winding-arbor in placing the watch-movement in the case A, the lower end of the coupling-piece I is beveled within, as at *d*. The arbor G can thus be held at an angle to the coupling-piece I in the act of introducing it without danger of injuring any of the parts.

In stem-winding watches, as heretofore constructed, the crown-piece must be removed before the watch-movement can be got out of the case, the crown-piece being freed by taking out the screw which attaches it to the pendant. This defect is obviated by my invention, inasmuch as the crown-piece remains undisturbed in removing the watch-movement, while at the same time the several parts remain complete, and a firm connection of the winding parts is effected.

What I claim as new, and desire to secure by Letters Patent, is—

In a stem-winding watch, the combination of a coupling-piece, I, with the stem D extending from the crown-piece C, and with the winding-arbor G, substantially as described.

In testimony that I claim the foregoing, I have hereunto set my hand and seal this 17th day of June, 1875.

J. D. BREZ. [L. S.]

Witnesses:
W. HAUFF,
CHAS. WAHLERS.