

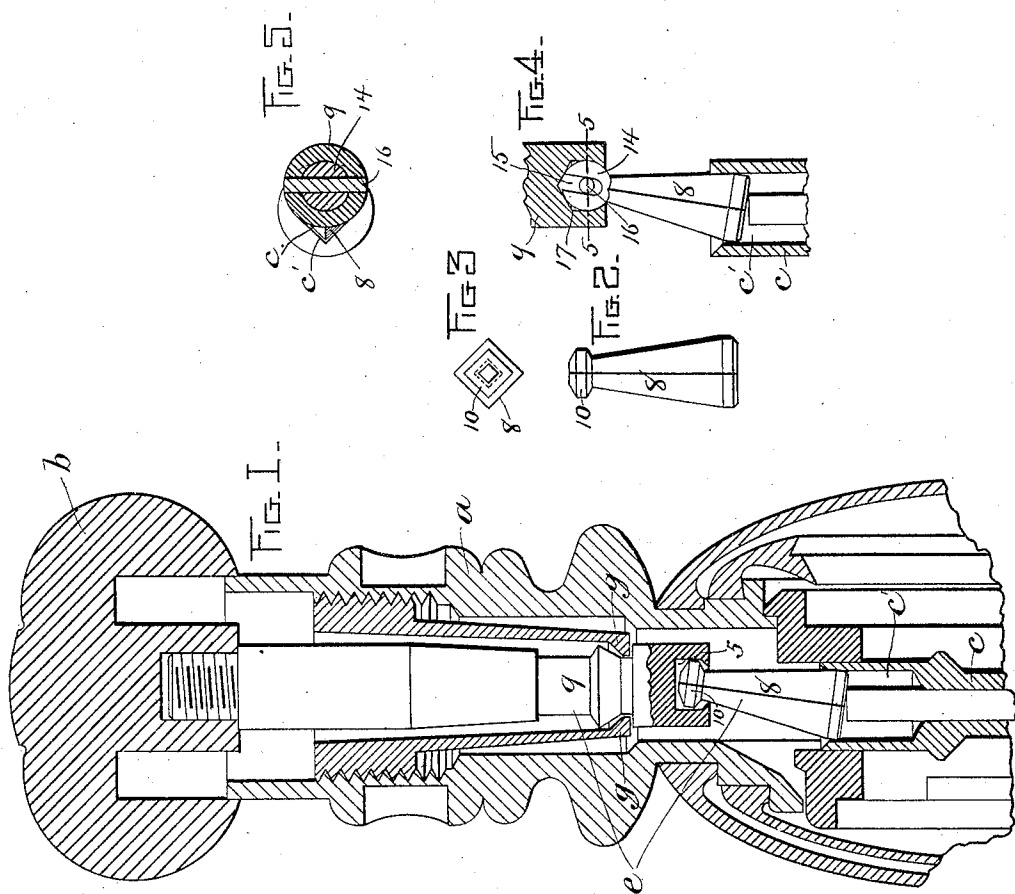
(No Model.)

O. OHLSON.

WINDING BAR FOR STEM WINDING WATCHES.

No. 575,728.

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Witnesses:

A. D. Harrison.

A. S. Adams.

Inventor:

Olaf Ohlson

by Knight, Brown & Quincy

Attys

UNITED STATES PATENT OFFICE.

OLOF OHLSON, OF WALTHAM, MASSACHUSETTS.

WINDING-BAR FOR STEM-WINDING WATCHES.

SPECIFICATION forming part of Letters Patent No. 575,728, dated January 26, 1897.

Application filed March 14, 1896. Serial No. 583,169. (No model.)

To all whom it may concern:

Be it known that I, OLOF OHLSON, of Waltham, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Winding-Bars for Stem-Winding Watches, of which the following is a specification.

This invention has relation to watches of the class wherein the winding devices and the hands-setting devices may be alternately operated through the crown, thereby dispensing with the employment of a detached key.

In watches of this character as heretofore constructed the socketed winding arbor or pinion of the watch-movement, which receives motion from the winding-bar and imparts it to the mainspring-barrel or to the hands through the usual intermediate mechanism, has always been in alinement with the axis of the winding-bar and with the axial center of the pendant. To secure proper symmetry of the case, the pendant should be located centrally; otherwise the case will present a one-sided appearance. The fact that the nature of the winding mechanism of the movement will not, in some instances, permit the location of the winding-pinion in the exact center of the thickness of the movement compels the thickening of the case to an extent which is necessary only to secure symmetry of form, a considerable part of the thickness being superfluous, excepting for this purpose.

The object of my invention is to enable the movement to be cased closely and to permit a symmetrical form of case without superfluous thickness thereof, or, in other words, to permit the employment of a relatively thin case having a symmetrical relationship with the case-pendant and the crown, although it be necessary to locate the winding-arbor nearer one side of the case than the other side.

To these ends the invention consists in the improvements which I will now proceed to describe and claim.

Reference is to be had to the annexed drawings, and to the letters and figures marked thereon, forming a part of this specification, similar letters or figures indicating similar parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 shows in vertical section a portion of a watch with my invention applied thereto. Fig. 2 is a side view of one of the members of the winding-bar shown in Fig. 1. Fig. 3 is an end view of the member shown in Fig. 2. Fig. 4 illustrates another form of winding-bar in which my invention is embodied. Fig. 5 shows a section on line 5 5 of Fig. 4.

The same letters or figures of reference indicate the same parts in all the views.

In the drawings, *a* indicates the case-pendant, and *b* indicates the crown, the axis of which lies in the median plane of the case. The winding-arbor *c*, by means of which the mainspring may be wound or the hands set, is provided, as usual, with a square socket *c'* for the reception of the inner end of the winding-bar and is located with its axis at one side of the median plane of the case and out of alinement with the axial center of the pendant, the case having its movement-supporting portions arranged to secure this result. I have not shown the mechanism for communicating motion from the arbor *c* to the mainspring-barrel and to the hands, as such mechanism forms no part of this invention and may be any suitable character.

e indicates the winding-bar, the inner end of which is squared so as to fit the socket *c'*, while its outer end is threaded to receive the crown *b*.

The winding-bar is of flexible construction, so that while its outer portion occupies the axial center of the pendant its inner end is adapted to extend to one side of said axial line. I thus enable the winding-bar to engage the arbor *c*, which, as above stated, is located at one side of the axial line of the pendant and at one side of the center of the thickness of the case, permitting the employment of a relatively thin case, the pendant of which is symmetrically arranged relatively to the sides of the case.

The winding-bar may be constructed in many different ways. In Fig. 1 it is shown as composed of two members 8 and 9, the inner member 8 being square in cross-section and formed at its inner end to loosely engage the square socket *c'* in the winding-arbor, while the outer member 9 has a squared socket 5, formed to loosely engage a squared

enlargement 10 on the outer end of the member 8. The member 8 is thus adapted to be rotated by the member 9 and to rotate the winding-arbor *c*, while inclined relatively to said member, as shown in Fig. 1. The member 9 extends into the crown *b* and is or may be attached thereto in the usual manner.

In a watch-movement in which the bar *e* is longitudinally movable and the hands are set by rotation of the said bar when it is drawn outwardly any well-known or suitable provision may be made for making only the winding mechanism operative when the bar *e* is pushed inwardly and for making only the hands-setting mechanism operative when the said bar is drawn outwardly, means being also employed, such as the spring-fingers *g g*, attached to the pendant, and shoulders on the member 9, coöperating with said fingers, for yieldingly retaining the bar *e* in either position.

In Figs. 4 and 5 I show the member 8 provided at its outer end with a spherical enlargement 14, having a slot 15, which receives a pin 16, affixed to the member 9, the latter having a socket 17, in which the enlargement 14 is loosely fitted. The pin 16 causes the member 8 to rotate with the member 9 and coöperates with the slot in permitting the member 8 to stand in the inclined position shown in Fig. 4.

It is obvious that the bar may be formed in various other ways without departing from the spirit and scope of my invention.

It is important when the winding-bar operates both the winding and the hands-setting mechanism that the inner member 8 have a provision not only for a rotative engagement with the winding-arbor, but also for an endwise movement therein, so that said member 8 may be moved freely in and

out while standing at an angle with the axis of the winding-arbor. This provision is made by tapering the member 8 between its winding-arbor-engaging end and the flexible connection between it and the member 9, the taper being such that one side of the member 8 is substantially parallel with the axis of the winding-arbor when the parts are operatively connected, as shown in Figs. 1 and 4.

I claim—

1. The combination of a watch-movement, a watchcase having provision for supporting the movement with the axis of its winding pinion or arbor out of alinement with the center of the case-pendant, and a winding-bar comprising an outer member rotatively connected with the pendant, an inner member engaged at its inner end with the winding pinion or arbor, and a flexible connection between said members whereby the inner member is enabled to stand at an angle with the outer member and with the winding pinion or arbor.

2. A watchcase having a winding-bar comprising an outer member rotatively engaged with the case-pendant, a winding pinion or arbor engaging inner member, and a flexible or jointed connection between said members, the said inner member having provision for rotative engagement with and endwise movement in a winding pinion or arbor the axis of which is out of alinement with the said outer member.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 15th day of February, A. D. 1896.

OLOF OHLSON.

Witnesses:

CHAS. F. SMITH,
BEATRICE E. MOSHER.