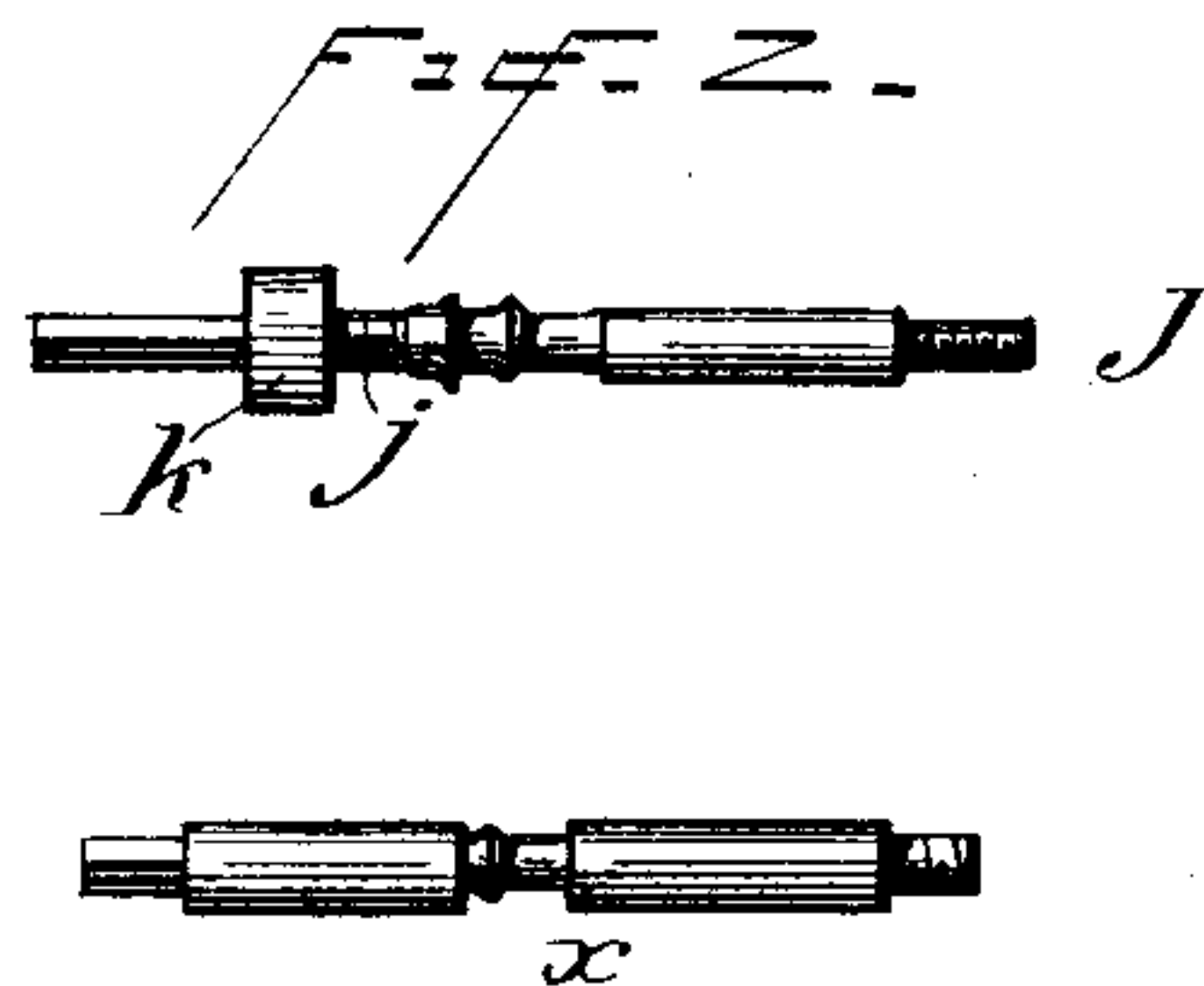
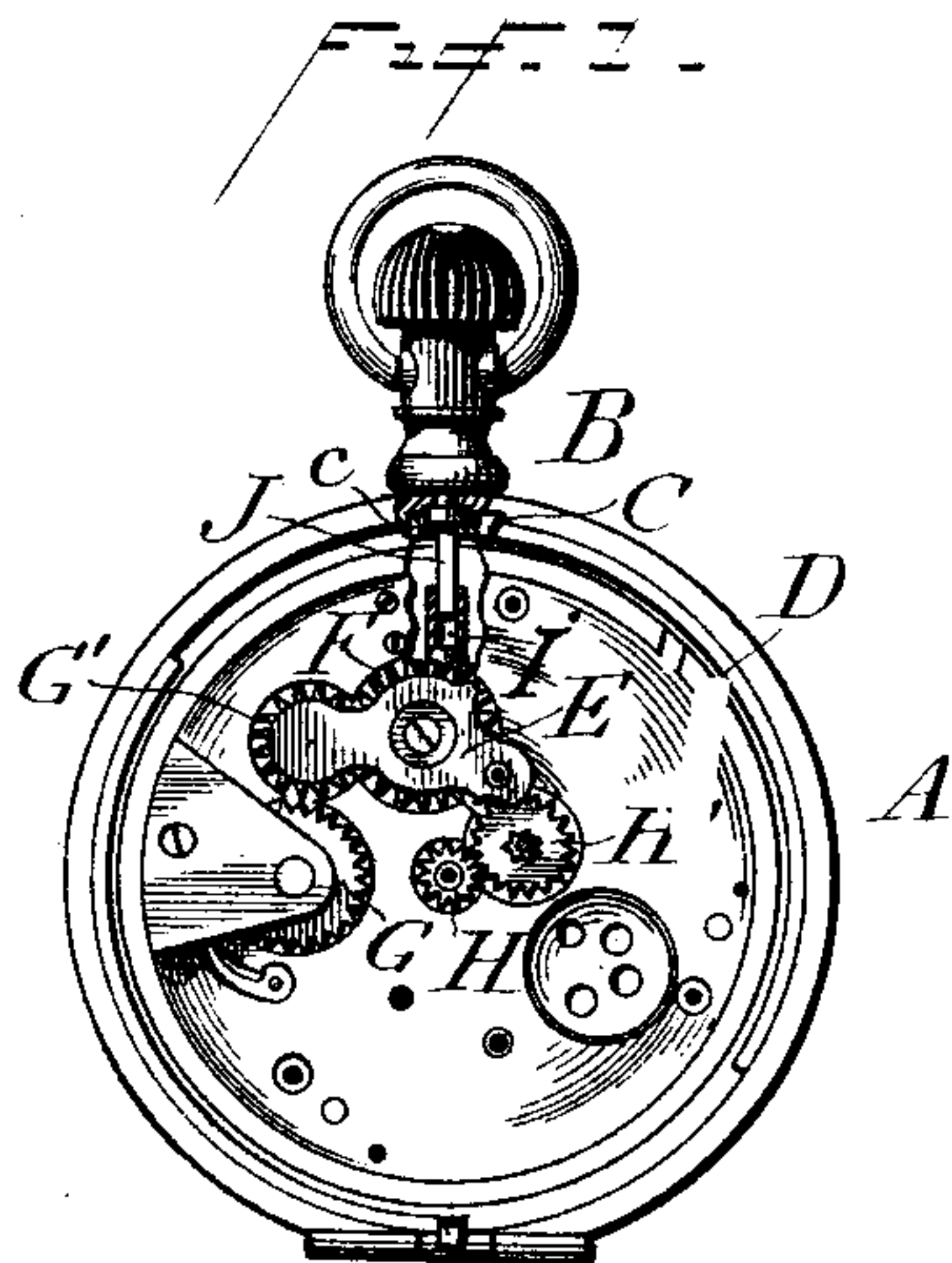


(No Model.)

S. A. DURGIN.  
STEM WINDING WATCH.

No. 388,648.

Patented Aug. 28, 1888.



WITNESSES -  
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# UNITED STATES PATENT OFFICE.

SILAS A. DURGIN, OF SHELDON, DAKOTA TERRITORY.

## STEM-WINDING WATCH.

SPECIFICATION forming part of Letters Patent No. 388,648, dated August 28, 1888.

Application filed May 12, 1888. Serial No. 273,674. (No model.)

*To all whom it may concern:*

Be it known that I, SILAS A. DURGIN, a citizen of the United States, residing at Sheldon, in the county of Ransom and Territory of Dakota, have invented certain new and useful Improvements in Watches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in watches, and more particularly to double-case or hunting-case watches of the stem-winding class. In all such watches, so far as I am aware, it has hitherto been considered impracticable to throw the setting mechanism into gear without the employment of a special and independent setting-lever which projects beyond the rim near the pendant. The winding is done with the winding-bar in the pendant, and means are provided for releasing the case-spring; but to perform the three movements of winding, setting, and case-opening from a single stem without special mechanism connected thereto has not to my knowledge been attempted.

My invention consists, first, in performing these three movements from a single stem without extra connections, and also in a peculiar construction of the winding-bar by which these results are accomplished.

In the drawings, Figure 1 represents so much of the winding and setting mechanism of a hunting-case watch as is necessary to fully show my improvements. Fig. 2 is a view of my improved winding-bar.

A represents a watch-case center, and B the pendant, both of ordinary construction. C is the case-snap, forming the extremity of the spring D, and having a hole, *c*, to admit the winding-bar. E represents the yoke; F, the crown-wheel; G and G', the winding-wheels, and H H' the setting-wheels. I is the winding-pinion gearing into the crown-wheel F. These parts themselves are well known in use and form no part of my invention.

J is the winding-bar adapted to fit within the pendant and having its end threaded, as usual, to receive the winding-crown. It is squared at its other end to fit the winding-

pinion I, in which it slides, and this squared end passes through the hole *c* in the snap-spring C. Upon the winding-bar and extending to the winding-square is a short threaded portion, *j*, upon which is fitted a correspondingly-threaded shoulder, *k*. This shoulder bears upon the snap-spring, as shown, and forces the latter inward when the winding-bar is depressed to open the case. The shoulder is thus adjustable upon the winding-bar to fit different case-centers, and when properly adjusted is secured rigidly in any suitable way. It will be noticed, also, that the winding-square is elongated to nearly twice its ordinary length, as shown in Fig. 2, where *x* represents a bar of the ordinary construction.

The ordinary movements of the mechanism for winding and setting are well understood by those skilled in the art. In all hunting-case watches, however, it is customary to use an extra setting-lever, which throws the winding-wheel in the yoke out of gear with the main winding-wheel, and throws the setting-tram into gear, so that the winding-bar accomplishes only the two operations of opening the case and winding the watch. In my present device, however, the three movements are all performed by the winding-bar. Normally the winding-wheels are in gear and the watch is wound in the usual manner. Pressure inward upon the pendant-crown releases the snap, and the case-spring throws the case open. Now, the increased length of the winding-square enables me to draw the winding-bar back far enough to permit the yoke-spring to throw the winding-wheels out of gear and the setting-tram into gear without disconnecting the square from the winding-pinion, and the hands may be set by turning the winding-crown in either direction. Thus all the movements are performed by a single stem and without the intervention of levers, springs, or any other connections to the setting mechanism, such as are ordinarily employed.

What I claim is—

1. In a watch, a winding-bar having an adjustable collar for releasing the snap-spring, substantially as described.

2. A winding-bar for watches having a partially-threaded stem, in combination with a

threaded collar upon such stem adapted to bear upon the snap-spring, substantially as and for the purpose set forth.

3. In combination with a hunting-case watch  
5 having stem winding and setting mechanism, a winding-bar having a collar for operating to release the case-snap, and connected to the yoke and winding-pinion, whereby the winding and setting mechanism and the case-releas-

ing spring are operated directly by said bar 10 without setting-levers, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

SILAS A. DURGIN.

Witnesses:

ROBT. J. MITCHELL,  
ED. PIERCE.