

H. W. MATALENE.
STEM WINDING WATCH.
APPLICATION FILED JUNE 3, 1909.

1,044,554.

Patented Nov. 19, 1912.

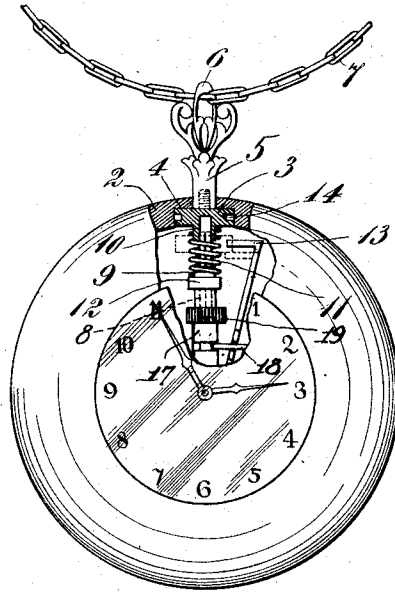


FIG. 1.

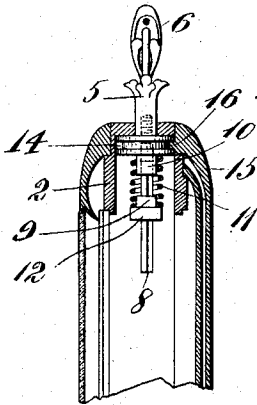


FIG. 2.

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UNITED STATES PATENT OFFICE.

HENRY W. MATALENE, OF NEW YORK, N. Y.

STEM-WINDING WATCH.

1,044,554.

Specification of Letters Patent.

Patented Nov. 19, 1912.

Application filed June 3, 1909. Serial No. 499,882.

To all whom it may concern:

Be it known that I, HENRY W. MATALENE, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Stem-Winding Watches, of which the following is a specification.

This invention is intended to provide an arrangement by means of which a watch movement of the usual pin-setting type, or of any type in which an inward movement of a setting pin or the like is required to place the parts in setting relation, may be wound and set in the same manner as a stem winding and setting watch, that is to say, by the manipulation of a single external part, and resides in certain features of construction and arrangement hereinafter described and claimed.

A watch embodying my invention is illustrated in the accompanying drawing, in which—

Figure 1 is a front elevation, with the upper portion of the watch case partly broken away; and Fig. 2 is a transverse section through the upper portion of the watch.

Referring to the drawing, 2 indicates the center of a watch case, which may be of any usual construction except as hereinafter described, and 3 is a cylindrical winding terminal mounted to rotate in a recess 4 formed in the center 2. Said terminal may also be moved inward from its outermost position shown in the drawing. In the present instance I have shown the winding terminal 3 as provided with means for suspending the watch directly therefrom, said means consisting of a head 5 rigidly secured to the top of the terminal 3 and adapted to rotate in a peripheral perforation in the center 2 through which it passes, the outer end of said head 5 being provided with an eye 6 adapted to receive a suspending chain 7 or the like. This arrangement for suspending the watch directly from the winding terminal is not an essential part of my present invention, but forms the subject matter, broadly speaking, of U. S. Letters Patent No. 918,757, granted to me on the 20th day of April, 1909, and any other arrangement for rotating the terminal 3 and for pushing it inward as hereinafter described may be employed instead of the parts 5 and 6, if desired.

The winding stem of the watch movement

is represented at 8 and is square in cross section at its upper and lower ends, while between said ends it is provided with a flanged hub 9. The lower end of the stem 8 is adapted to fit into the usual recess commonly provided in stem-winding watch movements for its reception, and the upper end of said stem passes freely into a similar recess extending upward into the terminal 3 from the under side of a projection 10 formed on the bottom of said terminal, the latter recess being deep enough to permit a downward movement of the terminal 3 upon the upper portion of the stem 8. A spiral spring 11, surrounding the hub 9 and projection 10 and located between the flange 12 on said hub and the under side of the terminal 3, serves to force said terminal outward after it has been pushed inward and tends to hold it in its outermost position.

13 represents a setting pin such as is commonly employed in pin-setting watch movements, but in the present instance the outer end of said pin, instead of being located beneath the usual operating pin carried by the rim portion of the watch case, is located in the path of inward movement of the terminal 3, this being accomplished by extending the outer end of said pin 13 laterally toward the winding stem 8, if necessary, so that it normally lies a short distance below the under side of said terminal 3. This pin 13 when forced inward throws the watch movement into setting relation in the usual manner, the parts of the setting mechanism shown in the drawing being of well known construction and comprising a clutch 17 mounted to slide longitudinally on the winding stem but turning therewith, and a spring 18 which is engaged by the sliding pin 13 and has its free end located in an annular groove on the clutch 17, so that when the parts 13, 17 and 18 are in their normal position, in which the clutch 17 is held by the spring 18 in engagement with the winding pinion 19, the watch may be wound in the usual manner by rotating the head 5, but when said head is pushed inward the terminal 3 engages the other end of the pin 13 and forces it inward and thereby causes the clutch 17 to slide downward on the winding stem until the lower end of said clutch meshes with the usual setting wheel (not shown), whereupon the winding pinion 19 is freed from its engagement with the clutch 17 and the watch may be set by rotat-

ing the head 5. After this has been done the terminal 3 if released will be forced outward into its normal position by the spring 11 and the pin 13 will also be forced outward by the spring 18, thus restoring the parts to winding position.

In assembling the parts above described the terminal 3 is inserted into its recess from the interior of the watch case and the head 5 is then attached thereto from the outside of the case, the overlying portion of the center 2 providing a stop to limit the outward movement of said terminal and confining it in its recess. The lower end of the winding stem 8 is then inserted into its recess in the watch movement, with the spring 11 in place upon it, and the upper end of said stem is then inserted into its recess in the terminal 3, the watch movement being finally positioned and secured in the watch case in the usual manner.

It will be observed that outward movement of the winding terminal 3 beyond its normal position is rendered impossible by the overlying portion of the center 2, and said terminal may be positively locked against accidental inward movement, if desired, by means substantially such as are shown and described in my prior patent above referred to, or in any other suitable manner. In the construction illustrated in Fig. 2, this is accomplished by providing the terminal 3 with an annular groove 14 and forming on the back cover 15 a rib 16 adapted to project into said groove when the cover 15 is closed, whereby the terminal 3 is left free to be rotated under all conditions but is prevented from being moved inward unless said cover 15 is first opened. In case the watch is suspended from its winding terminal, however, said terminal is not likely to be moved inward accidentally, and in such case the spring 11 may be relied on for holding the terminal in its uppermost or winding position, if made strong enough for this purpose.

It will be seen that my invention makes it possible to secure the practical advantages of a stem winding and setting watch without employing therefor a stem winding and setting watch movement, which is relatively expensive as compared with a pin-setting watch movement of the usual construction, and I do not limit myself to the particular construction and arrangement of parts herein illustrated and described for accomplishing this result, since the same may be considerably varied without departing from my invention.

I claim as my invention:

1. In a stem-winding watch, the combination with a watch movement comprising a winding stem, a spring-actuated setting pin extending beyond the periphery of the movement, and means operated by an in-

ward movement of the setting pin for throwing the parts of the watch movement into setting relation, of a case containing said movement and having a rotatable winding terminal mounted to move inward and outward therein, said terminal being provided on its under side with a recess in which the outer end of the winding stem of the watch movement is located, a spring normally holding said terminal in its outermost position, and an operating head carried by and moving with said terminal, the outer end of said setting pin being located in the path of inward movement of the terminal.

2. In a stem-winding watch, the combination with a watch movement comprising a winding stem, a spring-actuated setting pin extending beyond the periphery of the movement, and means operated by an inward movement of the setting pin for throwing the parts of the watch movement into setting relation, of a case containing said movement and having a rotatable winding terminal mounted to move inward and outward therein, said terminal being provided on its under side with a recess in which the outer end of the winding stem of the watch movement is located, a spring normally holding said terminal in its outermost position, an operating head carried by and moving with said terminal, and means for locking said terminal against inward movement and releasing the same when desired, the outer end of the setting pin being located in the path of inward movement of the terminal.

3. In a stem-winding watch, the combination with a watch movement comprising a winding stem, a spring-actuated setting pin extending beyond the periphery of the movement, and means operated by an inward movement of the setting pin for throwing the parts of the watch movement into setting relation, of a case containing said movement and having a rotatable winding terminal mounted to move inward and outward therein, said terminal being provided with a recess in which the outer end of the winding stem of the watch movement is located, and with an annular groove, a spring normally holding said terminal in its outermost position, a locking device adapted to enter the groove in said terminal when the parts are in winding relation, and an operating head carried by and moving with said terminal, the outer end of the setting pin being located in the path of inward movement of the terminal.

4. In a stem-winding watch, the combination with a watch movement comprising a winding stem, a spring-actuated setting pin extending beyond the periphery of the movement, and means operated by an inward movement of the setting pin for throwing the parts of the watch movement into setting relation, of a case containing said

movement and having a rotatable winding
terminal mounted to move inward and out-
ward therein, said terminal being provided
on its under side with a recess in which the
5 outer end of the winding stem of the watch
movement is located, a spring normally
holding said terminal in its outermost posi-
tion, an operating head carried by and mov-
ing with said terminal, and means on said
10 operating head for suspending the watch

therefrom, the outer end of the setting pin
being located in the path of inward move-
ment of the terminal.

In testimony whereof, I have hereunto
subscribed my name this 29th day of May, 15
1909.

HENRY W. MATALENE.

Witnesses:

GEORGE W. SCHNEIDER,
ARTHUR S. HILLYER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents
Washington, D. C."
